

5.0 ALTERNATIVES ANALYSIS

In accordance with the California Environmental Quality Act (CEQA), an Environmental Impact Report (EIR) must include the evaluation of comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines §15126.6[a]). The EIR is to consider a reasonable range of feasible alternatives that will foster informed decision-making and public participation. The nature and scope of the alternatives analyzed is governed by the “rule of reason.” The discussion of alternatives focuses on alternatives to the project that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly (CEQA Guidelines §15126.6[b]).

This EIR also identifies any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination (CEQA Guidelines §15126.6[c]). The EIR must include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Project (CEQA Guidelines §15126.6[d]). Evaluation of a No Project Alternative is required, to allow decision-makers to compare the impacts of approving the Project with the impacts of not approving the Project. The No Project analysis must discuss existing conditions at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved (CEQA Guidelines §15126.6[e]).

This section of the Partial Recirculated Draft EIR is revised to provide text clarifications based on comments receive on the Draft and Final EIR regarding alternatives considered but discarded, the range of alternatives, and the ability of a feasible alternative to reduce significant traffic impacts. In addition, revised analysis within this section also accounts for revised air quality modeling using an updated version of the California Emissions Estimator Model (CalEEMod) (see Section 3.2, Air Quality, and Section 3.4, Greenhouse Gas Emissions), which is used to identify and describe impacts associated with Project alternatives.

5.1 PROJECT OBJECTIVES

The objectives for the Fountain Valley Crossings Specific Plan (Project) are presented in Chapter 2.0, *Project Description*, and reiterated here for reference:

- Plan Comprehensively: While recognizing largely built-out conditions, enable new public and private investment for continual growth and development for a distinct Project area with centers, street patterns, and local identity, maintaining the City’s historic leadership in proactive planning.
- Capture Value: Plan the Project area to anticipate workplace, retail and housing trends, allowing for transition over time in relation to market realities. In the long-term, allow for

office users that seek I-405 visibility and access to attract high-value employment, strengthen the City's image, and build on the presence of major workplace investments in the Project area.

- **Develop a New Activity Center:** Enable and promote new investment that supports a successful district cluster of experiential retail, dining, and entertainment activity in the district. By creating a “place to go” for district workers and the larger community, help to provide attractive retail and services.
- **Support Existing Businesses:** Upgrade the district for businesses and workers through new lunchtime and after-work retail destinations, improved pedestrian, bike and transit facilities, enhanced landscaping, and modernized infrastructure.
- **Protect Adjacent Neighborhoods:** Ensure that new development adjacent to existing residential neighborhoods is shaped in scale and character for compatibility, including improvements to the streetscape aesthetic and functional use.
- **Growth with City Assets:** Considering the district's proximity to neighboring and regional concentrations of workplace areas extending toward John Wayne Airport, major retail concentrations, hospitals, institutions, and the presence of the Santa Ana River Trail, build on the available access and visibility to grow a vital and attractive urban district. The district would support a mix of workers, customers, city residents, pedestrians, transit riders, and visitors.
- **Help Satisfy Unmet Housing Demand:** In formats and locations compatible with workplace settings, enable housing development that helps meet demand for those who prioritize close proximity to shopping, dining, entertainment, and work.
- **Improve Multi-modal Mobility:** While continuing to improve motor vehicle access and maintaining minimum community mobility standards, evolve the street network into more pedestrian, transit and bicycle friendly “Complete Streets” to better connect within the district and link it with the City's bike and transit network, the Santa Ana River Trail, and surrounding districts and neighborhoods.

5.2 SUMMARY OF POTENTIALLY SIGNIFICANT AND UNAVOIDABLE IMPACTS

Based on the analysis provided in this EIR, the Project would result in potentially significant and unavoidable impacts related transportation and circulation (refer to Section 3.11, *Transportation, Circulation, and Traffic*). This EIR identifies the following significant and unavoidable impacts:

Transportation, Circulation, and Traffic: Increased traffic generated by buildout of the proposed FVCSP would increase congestion at 11 freeway facilities, resulting in significant and unavoidable impacts. The intersection of Euclid Street & Newhope Street/Northbound I-405 Ramps would exceed thresholds in the PM peak hours. Cumulatively, under future year cumulative conditions, buildout under the FVCSP would contribute to increased traffic generated by approved projects and background traffic growth through year 2035. The intersection of MacArthur Boulevard & Harbor Boulevard would experience increases in V/C ratio that would exceed thresholds in the PM peak hours. Also under cumulative conditions, project-related traffic

from buildout of the FVCSP would cumulatively contribute to congestions at 14 freeway facilities. Operational conditions at freeway facilities in the Project area and surrounding vicinity would exceed thresholds.

5.2.1 Alternatives Selection Methodology

This EIR identifies three considered alternatives, which represent a reasonable range of alternatives that are potentially capable of avoiding or substantially lessening any significant effects of the project. The alternatives are:

1. No Project Alternative
2. No Housing Alternative
3. Intensified Office and Residential Buildout Alternative

Alternatives to the Project were screened and recommended to be retained for further analysis or eliminated as described below. The Alternatives screening process consisted of the following steps:

Step 1: Define the alternatives to allow comparative evaluation.

Step 2: Evaluate each alternative in the context of the following criteria:

- The extent to which the alternative would accomplish most of the basic goals and objectives of the Project;
- The potential feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, General Plan consistency, and consistency with other applicable plans and regulatory limitations;
- The extent to which the alternative would avoid or lessen one or more of the identified significant environmental effects of the Project; and
- The requirement of the state CEQA Guidelines to consider a “no project” alternative and to identify, under specific criteria, an “environmentally superior” alternative. Pursuant to State CEQA Guidelines section 15126.6, subdivision (e), “if the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

Step 3: Determine the suitability of the proposed alternatives for full analysis in the EIR based on Steps 1 and 2 above. Alternatives considered to be unsuitable were eliminated with appropriate justification from further consideration.

Based on the screening process, three alternatives were considered for analysis and ~~one alternative was~~ two alternatives were eliminated from further consideration (see Table 5-1). In Section 5.4, each of the selected alternatives is described and its potential environmental impacts and ability to meet basic Project objectives are compared with the Project.

Table 5-1. Summary of Alternatives Screening

Alternatives Considered and Rejected	<ul style="list-style-type: none"> • Alternative Location • <u>Reduced Housing</u>
Alternatives Analyzed in this EIR	<ul style="list-style-type: none"> • No Project Alternative • No Housing Alternative • Intensified Office and Residential Buildout Alternative

In addition, ~~one alternative was~~ two alternatives were rejected. The rejected ~~alternative is~~ alternatives are described briefly below along with the specific reasons for dismissal.

5.3 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS

As discussed above, CEQA Section 15126.6(c) requires that an EIR disclose alternatives that were considered and rejected and provide a brief explanation as to why such alternatives were not fully considered in the EIR. The following ~~alternative was~~ alternatives were considered but eliminated from further analysis by the City:

5.3.1 Rejected Alternative: Alternative Location

The Alternative Location would consider creating the downtown area in a different part of the City, guided by Project objective to provide a city center or downtown area for the City to promote a sense of place and foster increased opportunities to promote a vibrant economy. The Alternative Location could result in potentially inconsistent land use characteristics by allowing a greater amount of high volume traffic related uses at locations further from I-405. Similarly, greater distance from the I-405 corridor may not as effectively attract high-profile firms or increase retail opportunities reliant upon efficient access to the freeway. Locations elsewhere may require substantial demolition and full redevelopment of residential or business buildings, which would result in an accompaniment of more severe environmental impacts. Proximity to I-405, the Costco center, and the fully built-out nature of Fountain Valley points towards such a center at the proposed Project area. The Crossings District’s nature of industrial warehouse uses provides a unique opportunity within the City for reuse of existing buildings with a wide array of development options. Therefore, the Alternative Location Alternative was discarded as it does not meet basic Project objectives.

5.3.2 Rejected Alternative: Reduced Housing Alternative

The Reduced Housing Alternative would reduce potential future development through reduced number of residential units identified for development within the Project area. However, the reduction in the total number of residential units required to reduce significant and unavoidable traffic impacts that would occur under the Proposed Project would be substantial. Thus, while this alternative would reduce environmental impacts, such as traffic congestion, air quality, and utility demand, it could not effectively achieve Project objectives for meeting unmet housing demands

(Project Objective # 7). Specifically, Section 1.1, *Community Objectives*, of the FVCSP includes the following community objective:

“In formats and location compatible with workplace settings, enable housing development that helps meet ‘niche’ demand for senior/empty nesters, younger workers and small families looking for compact and convenient housing – who prioritize close proximity to shopping, dining, entertainment, and work. Its presence will also make successful experiential retail more likely.”

In the economic analysis of the FVCSP (Appendix B, *Summary of Market Assessment Findings*, of the FVCSP), multi-family housing is in high demand within the City, and a Reduced Housing Alternative would not meet the needs of young families or empty-nesters who seek multi-family units. Substantial demand for new multi-family housing exists in Orange County, and a number of new projects are proposed or under construction due to demand in Fountain Valley’s trade area. The reduction in the total number of residential units required to reduce significant traffic impacts under this alternative would reduce the Project and City’s ability to meet such demands. By reducing housing units, the density and by design, the affordability of units is likely to decline under this alternative as developers would opt to develop higher end units to generate economic returns on their development. Further, this alternative would not fully meet the Project objective to develop a new activity center. Housing is an important component in new mixed-use developments to drive the desired transformation of a neighborhood. Residents provide a local customer base for retail, while the retail serves as an amenity for future residents. The substantial reduction of residential uses of the FVSCP would significantly disable the Plan’s focused strategy to promote and enable “experiential retail,” the responsive approach to the community’s longstanding desire to create a downtown-like “place to go” in Fountain Valley. Similarly, it would meaningfully limit the land use opportunities (both for retail and for residential) for investors and owners wishing to locate in a vibrant mixed-use neighborhood. Therefore, the substantial reduction in the number of residential units required to reduce significant impacts identified in the EIR would be considered infeasible, as the overall viability and economic benefit of a mixed-use workplace neighborhood redevelopment project would decline due to a strong correlation between housing and retail in mixed-use development projects and such an alternative would not meet the basic objectives of the Project, or the community.

The City is also sensitive to the fact that pursuant to CEQA Guidelines section 15092(c), in a project that includes housing developments, public agencies are prohibited from reducing the proposed number of housing units as a mitigation measure if there is another feasible specific mitigation measure available that will provide a comparable level of mitigation. Additionally, Government Code section 65589.5(j) prohibits a reduction in the density of a proposed housing project that complies with the applicable general plan, zoning, and development policies in effect when the application is determined to be complete, unless the agency finds it necessary to do so to avoid adverse health or safety effects. (See also *Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 714 [agency may reject reduced density alternative as legally infeasible based on Government Code section 65589.5(j) if the required health and safety findings cannot be made].) Here, the Project is a Specific Plan, and no specific housing

development is proposed. The City is nevertheless sensitive to these statutory principles and has determined that a Reduced Density Alternative would not be feasible for all of the reasons described above.

5.4 ALTERNATIVES ANALYZED IN THIS EIR

This section summarizes the key assumptions and policy-related aspects of the three proposed alternatives to the Project that have been carried forward for analysis. Pursuant to CEQA, the alternatives were evaluated based on their ability to reduce potential project-related environmental impacts and meet basic project goals and objectives.

5.4.1 No Project Alternative

In accordance with CEQA Guidelines 15126.6(e), this EIR includes a No Project Alternative. In the context of a project involving the adoption of a long range plan such as the Project, the No Project Alternative does not mean "no future growth or land uses," but rather that permitted development under existing adopted plans and policies would occur. As such, the No Project Alternative considers the environmental impacts under conditions where the Project is not adopted, and the standards, policies, and actions of the plan are not implemented.

Under the required No Project Alternative, existing policies and development standards would continue to apply to properties in the Project area. Piecemeal development and redevelopment would occur in accordance with land use designations and provisions of the 1995 General Plan and the existing Zoning Ordinance for M1 and CP zone districts with applicable development standards and regulations. Over the long term, this alternative would maintain the existing zoning restrictions that regulate uses in the area. This alternative would favor development of office, industrial, and commercial type uses under the Manufacturing (M1) and Commercial, Administrative, Professional Office (CP) zoning without the potential for a Fountain Valley community hub or opportunities for residential development. In addition, this alternative would incrementally reduce some potential impacts of the proposed Specific Plan, such as land use compatibility and utilities. This reduction in potential redevelopment would similarly reduce the projected number of employees and residents generated by development within the Project area, associated vehicle trips, roadway noise, air pollutant and GHG emissions, as well as demand for public services and utilities. However, this alternative would not enhance the jobs-housing balance or provide the community benefits of the Project, including coordinated traffic, transit, streetscape improvements, activity centers, and employee amenities.

The No Project Alternative would maintain the existing M1 and CP zoning, which limits building height to a maximum of 4 stories (60 feet) with 50 percent FAR and 4 stories (50 feet) with 60 percent FAR respectively. Both land use zones would maintain a 20 foot setback from streets, but would not have height restrictions adjacent to residential land uses. The 491 housing units that are proposed under the Project could not be developed under the No Project Alternative (see Figure 5-1).

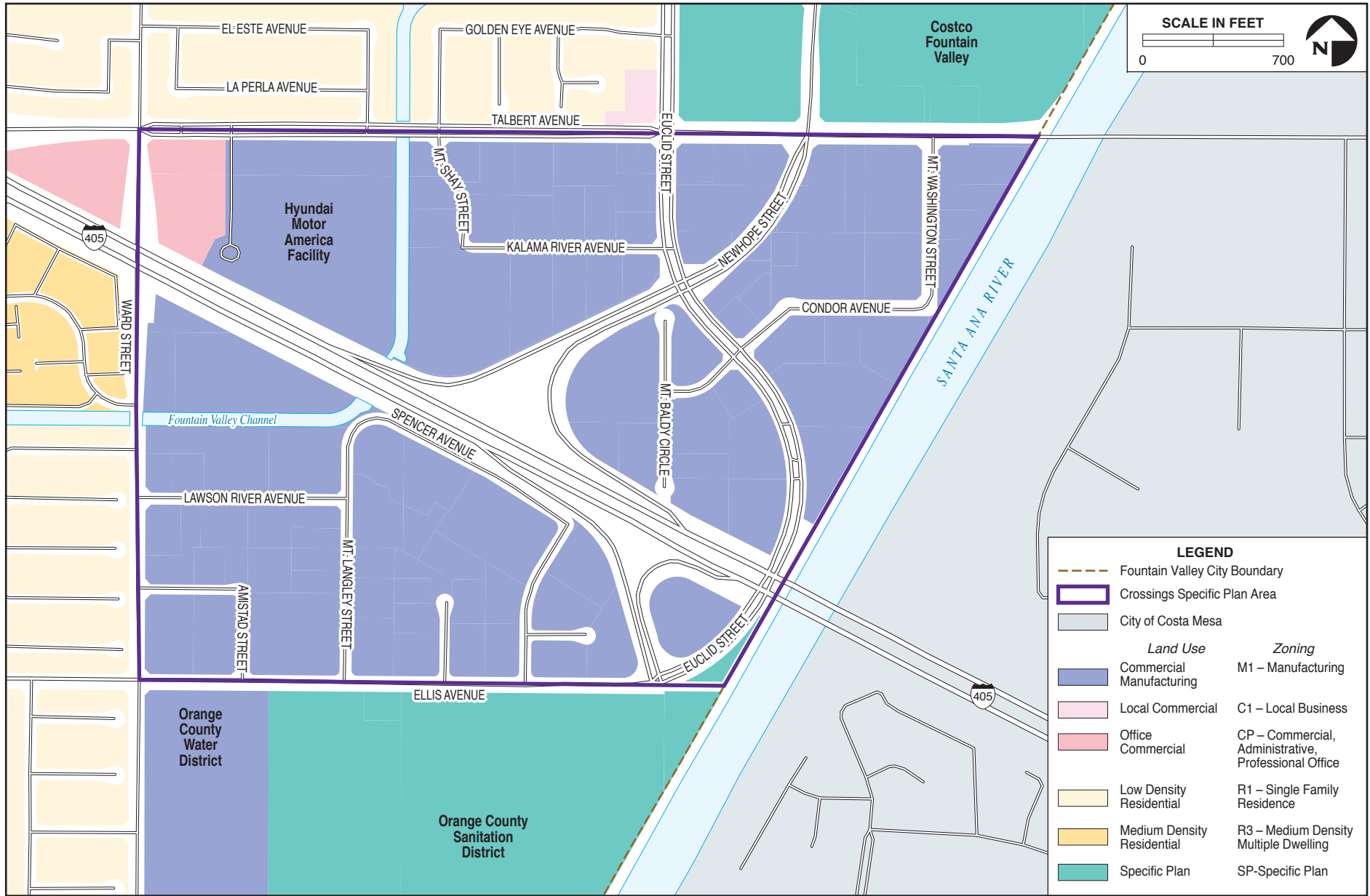
5.4.1.1 Potential Impacts to Resource Areas

Aesthetics and Visual Resources

Future development under the No Project Alternative would still generate new sources of light and glare such as outdoor lighting fixtures on buildings, signage and architectural lighting, and reflective building materials. However, new development under the No Project Alternative would be less than that anticipated to occur under the Project, incrementally reducing impacts associated with increased light and glare. Because no designated state scenic highways or scenic vistas exist within or adjacent to the Project area, the No Project Alternative would not have an adverse effect on scenic highways or scenic vistas.

Under the No Project Alternative, the amount of redevelopment would be reduced, with less potential for construction of taller buildings, reducing the overall change in existing aesthetic character of the area. However, in contrast to the Project, the No Project Alternative would not implement the Project's detailed development standards or design guidelines. Without the application of these development standards or design guidelines, new buildings in the Project area would not be required to provide higher quality architectural design, open space, and pedestrian-friendly landscaping, and higher value buildings would not be readily visible from the freeway. Along Talbert Avenue and Ward Street, buildings would not be subject to setback standards that ensure a respectful transition to neighborhoods, such as maintaining a maximum of three stories instead of four stories adjacent to Talbert Avenue, and two stories instead of four stories adjacent to Ward Avenue. While buildings under the Project may be developed conditionally to a height of six stories adjacent to I-405 within the proposed Workplace Gateway District, this zoning district also includes height limitations adjacent to residential land uses and would be primarily confined to the inner spaces of the Project area. Therefore, overall effects to the visual character of the No Project Alternative would have the potential to be slightly greater than the Project.

Overall, under the No Project Alternative, impacts to aesthetics and visual resources would be comparable to the Proposed Project and would remain *less than significant*.



No Project Alternative

FIGURE 5-1

Air Quality

Construction activities for future development occurring under the No Project Alternative would result in construction-related air pollutant emissions and have the potential to expose adjacent sensitive receptors to construction emissions. While individual projects would be small and likely not generate construction emissions that would exceed the South Coast Air Quality Management District's (SCAQMD) recommended thresholds of significance, combined emissions from multiple development projects would have the potential to exceed VOC and NO_x thresholds. Under the No Project Alternative, all projects would continue to be subject to SCAQMD's regulations. There is no substantial future development actions anticipated under this alternative, thereby resulting in a negligible amount of anticipated new construction and associated construction emissions. This alternative does not include measures to facilitate growth, and any construction or redevelopment activities would be reduced from the Project and therefore remain below SCAQMD thresholds of significance.

Under the No Project Alternative, the mix of allowable land uses under the General Plan would continue to generate operational emissions from both stationary and mobile sources, including those associated with vehicle trips and the use of natural gas and landscaping maintenance equipment. In comparison to the Project, the No Project Alternative would result in reduced trip generation, a reduced amount of building square footage, no residential uses, and associated stationary emissions, thereby resulting in a reduction of operational air emissions. However, this alternative would also not experience the benefits of trip reduction measures, coordinated streetscape improvements, or pedestrian and bicyclist connections that would help reduce mobile emissions included within the Project.

Since the existing Project area is already emitting operational air pollutant emissions from its existing land uses (see Table 3.2-3), the difference of the alternative's CalEEMod-estimated operational emissions was used to compare against the SCAQMD thresholds. Projected emissions for the Project were found to be below the established SCAQMD daily thresholds for all criteria pollutants (see Table 5-2).

Table 5-2. Long-term Operational Emissions under the No Project Alternative and the Difference in Emissions from Existing Project Area Operational Emissions

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area (lbs/day)	77.90 <u>66.55</u>	0	0.30 <u>0.31</u>	0	0	0
Energy (lbs/day)	0.83 <u>0.80</u>	7.55 <u>7.27</u>	6.34 <u>6.11</u>	0.05 <u>0.04</u>	0.57 <u>0.55</u>	0.57 <u>0.55</u>
Mobile (lbs/day)	61.14 <u>44.33</u>	108.34 <u>179.50</u>	570.77 <u>555.39</u>	2.61 <u>1.85</u>	2.94 <u>155.53</u>	53.06 <u>42.98</u>
Total (lbs/day)	139.87 <u>111.69</u>	115.89 <u>186.77</u>	577.42 <u>561.81</u>	2.66 <u>1.90</u>	192.04 <u>156.08</u>	53.63 <u>43.53</u>
Difference from Existing	-52.55 <u>-14.42</u>	-127.70 <u>-43.73</u>	-533.82 <u>-188.82</u>	0.09 <u>-0.14</u>	0.25 <u>-0.72</u>	0.03 <u>-0.68</u>
Thresholds (lbs/day) ¹	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Notes: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

¹The threshold for significance applies to the No Project Alternative's difference from existing (2016) emissions.

Similar to the Project, CO emissions experience the greatest change. CalEEMod estimates for the No Project Alternative buildout operational mobile emissions are lower than the existing Project area operational mobile emissions due to the fact that CalEEMod assumes the use of “cleaner” vehicles in the buildout year of 2035 of the Project, compared to the comparatively “dirty” vehicles in the existing year of 2016.

~~To more closely compare operational impacts of this alternative with the Project, Table 5-3 displays a comparative relationship between the No Project Alternative and the Project. All emissions under the No Project Alternative would be less than the Project. This is primarily due to the absence of proposed commercial and residential uses and development under the No Project Alternative and associated potential mobile and energy emissions. The difference between the two alternatives may also be closer due to trip reduction measures and mitigations within the FVCSP that may not be precisely represented by the model.~~

Table 5-3. Long-term Operational Emissions: Built-out No Project Alternative Operational Emissions Compared with the Built-out Mitigated Project Operational Emissions (lbs/day)

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Project Emissions Net Change from Existing Operational Emissions	-37.58	-117.53	-426.32	+0.17	+4.92	+1.98
No Project Alternative Net Change from Existing Operational Emissions	-52.55	-127.70	-533.82	-0.09	+0.25	+0.03
Comparative Reduction of the No Project Alternative	-14.97	-10.17	-107.5	-0.26	-5.17	-1.95

Notes: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets.

In addition, the No Project Alternative would not propose coordinated implementation of streetscape, pedestrian, bike path, Transportation Demand Measures, or transit improvements as set forth in the draft Specific Plan. Though such features may be implemented incrementally with future development, the Project area could continue to develop in a more auto oriented pattern, retaining a discontinuous bike path and sidewalk system, as well as the unaltered levels of transit service. Therefore, while overall emissions would be reduced due to the reduction in development, a greater emphasis on alternative forms of transportation would not occur and per capita VMT and associated per capita pollutant emissions would increase.

Overall, impacts to air quality resulting from implementation of the No Project Alternative would be less than the Project and would be *less than significant*.

Geology and Soils

Geological impacts are generally site-specific, and similar to the Project, all new development under the No Project Alternative would be required to adhere to regulations and standards in the City's Municipal Code and Building Code, which adopts California Building Code (CBC) standards by reference with local amendments. Adherence to the Municipal Code and Building Code requirements would ensure the maximum practicable protection available for all structures constructed in the Project area. Additionally, the City would require the preparation of site-specific geotechnical investigations for individual projects and the incorporation of recommendations from the site-specific geotechnical investigations (regarding site preparation, grading, backfill, and foundations) into the project design.

Overall, potential impacts related to geology and soils under the No Project Alternative would be similar to those for the Project and would remain *less than significant*.

Greenhouse Gas Emissions

Due to the inability to determine the amount of new development and construction which would occur under the No Project Alternative, it is assumed that for GHG emissions modeling, land use assumptions for the No Project Alternative (i.e., total buildout, development square footage, zoning designations, use types, etc.) would remain the same as the existing 2016 built condition (see Appendix D). As such, the No Project Alternative operational emissions closely resemble operational emissions calculated for the existing 2016 conditions, with the exception of mobile emissions.¹ In order to provide a comparative analysis of the No Project Alternative in this discussion, total unmitigated operational GHG emissions are compared to the total unmitigated operational emissions estimated under the proposed Project to provide a comparative analysis of the No Project Alternative. However, the comparative GHG analyses for the remaining alternatives compare estimated net unmitigated GHG emissions from construction and operation of each alternative based on anticipated buildout scenarios.

Any construction of new development under the No Project Alternative would result in temporary construction-related GHG emissions; however, based on the potential buildout under the No Project Alternative of ongoing uses, there would be substantially less redevelopment activities and associated construction-related GHG emissions than under the Project.

Operational GHGs would be generated from motor vehicles, natural gas consumption, solid waste handling, and electricity generation. However, under the No Project Alternative, trip generation, energy demand, and emissions from building operations would be substantially reduced compared to the unmitigated operation of the Project, due to the general absence of anticipated potential development that would occur under the No Project Alternative. Additionally, this alternative would not include FVCSP mitigation measures and land use types would remain consistent with the existing land use and zoning designations. Based on CalEEMod results for the No Project Alternative, total estimated GHG operational emissions would be further reduced from the ~~42,494.6~~ 44,443.36 MTCO₂e/year of unmitigated operational emissions anticipated to occur under the Project, to ~~40,071~~ 37,447.83 MTCO₂e/year of unmitigated operational emissions, for a net reduction of ~~-5,046.82~~ -6,995.53 MTCO₂e/year (Table 5-3). Similar to the analysis within Section 3.4, *Greenhouse Gas Emissions*, a negative value in mobile emissions primarily results due to CalEEMod's assumption of the use of "cleaner" vehicles in the buildout year of 2035 compared to vehicles in the existing year of 2016. As such, annual operational GHG emissions for the No Project Alternative are below the ~~40,000~~ 3,000 MTCO₂e/year threshold and substantially lower than Project GHG emissions.

¹ Similar to the analysis within Section 3.4, *Greenhouse Gas Emissions*, mobile emission estimates for future operational years typically result in reduced or negative mobile emission values when compared to emission estimates for the Existing Conditions. This is due to CalEEMod's underlying assumption of the use of "cleaner" vehicles in future years.

Table 5-3. Total Unmitigated GHG Emissions from Operation of the No Project Alternative

Category	Project Annual Unmitigated Operational GHG Emissions (MTCO ₂ e/year)	No Project Annual Unmitigated Operational GHG Emissions (MTCO ₂ e/year)	Difference in No Project Alternative from Project Unmitigated Operational GHG Emissions
Area	126.26 127.16	0 0.07	-126.19 -127.09
Energy	19,483.54 19,557.24	8,864 9,014.25	-10,469.26 -10,542.99
Mobile	18,417.38 18,435.08	26,296 24,696.67	6,279.29 6,261.59
Waste	776.12 1,922.79	1,628 726.61	-49.54 -1,196.18
Water	3,691.37 4,401.08	3,286 3,010.22	-681.15 -1,390.86
Total	42,494.64 44,443.36	40,074 37,447.83	-5,046.82 -6,995.53

Note: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Further, the No Project Alternative would not implement the coordinated streetscape, pedestrian, bike path, and transit improvements as set forth in the FVCSP, with the potential to create a more pedestrian oriented and sustainable community. Future operation would continue in an area that would support a discontinuous bike path and sidewalk system, as well as relatively low levels of transit service. Therefore, while overall GHG emissions would be reduced due to the reduction in development, community benefits and alternative forms of transportation would not be implemented. While additional existing policies would ensure that future development proposals in the Project area would not conflict with GHG goals, progress toward meeting such goals would be reduced.

Overall, impacts to GHG emissions under the No Project Alternative would be less than under the Project through 2035, and would remain *less than significant*.

Hazards and Hazardous Materials

Similar to the Project, future construction activities under the No Project Alternative would involve demolition, grading, and excavation that could potentially result in the accidental release of hazardous materials. Based on the age of many existing buildings within the Project area, construction workers and the public could be exposed to lead or asbestos that may be present within structures to be demolished. In compliance with all pertinent regulations for the handling of such waste including the California Department of Industrial Relations Division of Occupational Safety and Health, asbestos, lead, or other hazardous material would be removed and disposed of prior to demolition. It is expected that project-specific mitigation measures would be applied as necessary on an individual project basis to mitigate the risks of hazards to the public or the environment.

Similar to the Project, future development anticipated to occur under the No Project Alternative would use limited quantities of potentially hazardous materials consisting of typical maintenance products (e.g., paints, fuels/lubricants, cleaning solvents, adhesives, sealers,

pesticides/herbicides). These potentially hazardous materials are common in urban areas and already occur within the Project area. The limited transport, storage, and disposal of hazardous materials is subject to applicable federal, state, and local regulations to reduce the risk of accidental spills, leaks, fire, or other hazardous conditions.

Overall, impacts to hazards and hazardous materials under the No Project Alternative would be similar to those described under the Project and would remain *less than significant*.

Hydrology and Water Quality

The Project area is already largely developed with impermeable surfaces and as such, anticipated development under the No Project Alternative would not increase runoff or alter drainage patterns. Runoff would be conveyed to the same treatment facilities and storm drains as under the Project.

Similar to the Project, stormwater runoff from future development under the No Project Alternative would be managed consistent with the provisions of the National Pollutant Discharge Elimination System (NPDES) permit and development of a NPDES-compliant stormwater management program. Additionally, permits issued to control pollution (i.e. waste discharge requirements and NPDES permits) must implement Santa Ana River Basin Water Quality Control Plan requirements (i.e. water quality standards), taking into consideration beneficial uses to be protected. Each project developed under the No Project Alternative would be required by the City to prepare an erosion and sediment control plan, and for projects greater than one acre, comply with the provisions of a Construction General Stormwater Permit.

The No Project Alternative would not implement the coordinated streetscape, pedestrian, bike path, and transit improvements and associated development standards that address drainage systems to proactively implement stormwater management plans using best management practices (BMPs) such as bioswales and landscaped infiltration design elements, as set forth in the FVCSP. Therefore, community benefits and a comprehensive plan to manage stormwater flow and quality would not be implemented. While additional existing policies would ensure that future development proposals in the Project area would comply with NPDES requirements, a comprehensively designed stormwater management plan would be reduced.

Overall, with compliance with existing regulations, impacts to hydrology and water quality under the No Project Alternative through 2035 would be similar but less than the Project, but would remain *less than significant*.

Land Use and Planning

The No Project Alternative would retain existing land uses and this alternative would likely maintain the existing low-profile and industrial nature of the Project area due to the absence of investment or growth trends in the area, in addition to the absence of coordinated design standards; however, improvement of the City's jobs and housing balance would not occur given the removal of mixed-use opportunities involving housing units. Additionally, the No Project Alternative would not transition land uses as effectively as the Project given industrial and office uses would occur along the Project area's boundaries adjacent to residential neighborhoods. The No Project Alternative would not physically divide an established community as it would not introduce land uses that would physically or functionally conflict with existing land uses.



Under the No Project Alternative, the beneficial effects to the community associated with creation of a community hub area, coordinated streetscape, and attraction of high-profile development would not be fully realized.

While the Project is not technically required to carry out streetscape alterations and some aspects would be required with redevelopment, the No Project Alternative does not propose implementation of the coordinated streetscape, pedestrian, bike path and transit improvements as set forth in the FVCSP. Future development would continue in a predominantly auto oriented context with discontinuous bike paths and sidewalk systems. Further, proposed TDM Programs that would reduce per capita peak hour trip generation and Vehicle Miles Travelled (VMT) would not be implemented. Therefore, while overall emissions would be reduced due to the reduction in development, a shift to alternative forms of transportation would not occur and per capita VMT and associated per capita pollutant emissions would increase. This trend would conflict with established statewide goals for infill development, particularly that proximate to high quality transit.

Under the No Project Alternative, the current character adjacent to surrounding communities would be maintained; the Project's beneficial effects to the community such as the creation of an activity center and high-profile development area under detailed design guidelines to provide community benefits, including open space areas and communal entertainment and retail opportunities, would not be realized.

While the No Project Alternative would retain much of the existing development and streetscape character within the Project area, this alternative would not address a number of key land use goals and policies that would be implemented by the Project. The full extent of opportunities for innovative and sustainable land use designs provided by the Project would not occur in a coordinated manner nor with the intensity of beneficial community benefits or expected economic potential. Land use impacts associated with development based on existing land use patterns

under the No Project Alternative would be greater than the Project, but would remain *less than significant*.

Noise

Similar to the Project, construction activities anticipated to occur under the No Project Alternative may have the potential to generate temporary noise and groundborne vibration that could affect nearby sensitive receptors; however, no residential development would be introduced to the Project area, which would reduce the number of potential sensitive receptors. Similar to the Project, construction activities would be temporarily adverse, but adherence to the City's Municipal Code would ensure that noise levels would not cause significant impacts to sensitive receptors or damage to buildings.

Further, as the No Project Alternative would result in substantially less development and generation of increases in Average Daily Trips (ADT) compared to the Project, noise from operational sources such as motor vehicle trips, large ventilation, and air conditioning (HVAC) systems, and commercial delivery operations would be reduced. Overall, noise and vibration impacts under the No Project Alternative would be reduced compared to the Project. Because there would be reduced trip generation, operational noise impacts under this alternative would be less than the Project. The Project is not anticipated to exceed any thresholds of significance, any changes in noise levels under this alternative are also anticipated to be below the thresholds of significance. Therefore, impacts would be *less than significant*.

Population and Housing

Compared to the Project, development under the No Project Alternative would result in less population and employment growth. The Project area, while experiencing some redevelopment activities under the existing land use and zoning regulations, is not expected to substantially increase the number of employment opportunities available within the Project area. Therefore, the 2,063 jobs that are projected to result from the Project would not occur. Additionally, there would not be an increase of 491 units and an associated net increase in population by an estimated 1,444 residents. Similar to the Project, the No Project Alternative would not displace residential population as the Project area is developed primarily with industrial and commercial uses. The No Project Alternative would not be expected to exacerbate or benefit the City's jobs to housing balance of 1.5, and would therefore have less effect on jobs/housing ratio than the Project.

Overall, impacts related to population and housing through year 2035 under the No Project Alternative would be less than under the Project, and would remain *less than significant*.

Public Services

Under the No Project Alternative, the forecasted growth in the Project area and the associated demand on public services would be less than that of the Project. Therefore, continued use of the Project area under the No Project Alternative would maintain the existing demand on police and fire protection services, public schools, and parks. Impacts to public services would be reduced

compared to the Project. Further, population growth under this alternative is not expected to result in the need for additional police and fire department facilities. Individual developers within the Project area would be required to pay development fees that would assist to offset impacts to public services.

Overall, impacts to public services under the No Project Alternative would be reduced compared to the Project, and would remain *less than significant*.

Transportation, Circulation, and Traffic

Under the No Project Alternative, construction-related traffic associated with potential future projects would incrementally contribute to increased congestion and disruption of travel routes within the vicinity. While each future project's contribution would be temporary and short-term, ongoing construction would periodically affect circulation in the Project area. However, construction-related traffic would be substantially less than under the Project, and project-specific mitigation measures would be applied on a project-by-project basis to ensure that circulation on the local street network would not be adversely affected.

Under No Project conditions, the streetscape, pedestrian, bike path and transit improvements set forth in the FVCSP, with the potential to reduce per capita peak hour trip generation and reliance of automobile use would not occur. Future development would continue in the existing auto oriented context in an area that would support a discontinuous bike path and sidewalk system, as well as inefficient transit service. Therefore, while overall congestion would be reduced due to the reduction in development and eventual implementation of the I-405 Improvement Project, shifts to alternative forms of transportation would not occur and as a result per capita peak hour trip generation, VMTs, and associated congestion would be greater. Streetscape, bike path and pedestrian and transit improvements included in the Project would not be implemented, resulting in a potentially inefficient transportation system.

Therefore, while overall, impacts to transportation and circulation under the No Project Alternative would be less than under the Project, many beneficial transportation system improvements would not be carried forward. ~~However, based on existing LOS for auto oriented thresholds of significance, impacts to intersections would be less than the Project and would remain *less than significant*. Further, based on existing LOS for intersections within and near the Project area, as well as anticipated LOS under future year (2035) without Project conditions, intersections would continue to operate impacts to intersections under the No Project Alternative would remain *significant and unavoidable*.~~

Utilities and Energy Resources

Development anticipated to occur under the No Project Alternative would result in less demand upon utilities and infrastructure as development under the No Project Alternative would be less than the Project. Under the No Project Alternative, the rate of development is anticipated to stay approximately the same.

5.0 Alternatives Analysis

Over time, with new more efficient wells, increased capacity of existing booster stations, and continued efforts in reducing water waste, the City is expected to meet water demands with existing facilities and distribution systems under the No Project Alternative.

Wastewater produced by development under the No Project Alternative would meet Regional Water Quality Control Board (RWQCB) requirements through treatment at the Orange County Sanitation District (OCSD). The treatment plant uses secondary levels of treatment. With the operational capacity to treat 320 million gallons per day (mgd) of wastewater, and current treatment of approximately 115 mgd. Development under the No Project Alternative would not substantially increase the amount of wastewater transported by the sewer system, and any alterations to the Project area beneath that of the net potential buildout of the Project would not exceed the WPCP capacity. This alternative would not result in the 144,866.2 gallons per day (gpd) of net new wastewater generated under the Project. Additionally, similar to the Project, though primary throughput lines can currently accommodate all existing wastewater demand, utility line segments would be upgraded and installed on an individual project basis.

The amount of solid waste generation under the No Project Alternative would be consistent with current waste generation rates. As the City is served by solid waste disposal facilities with a current throughput of 6,800 tons per day (tpd) capable of accommodating up to 11,500 tpd, any nominal increase of waste under this alternative would be accommodated by sufficient existing capacity.

Development actions under the No Project Alternative may also incrementally increase or decrease the demand for regional electric and natural gas production and distribution facilities. These facilities are operated and maintained by utility companies that plan for anticipated growth and expand as needed to meet demand, consistent with applicable local, state, and federal regulations.

Overall, impacts to utilities under the No Project Alternative would be reduced from the Project due to less buildout, and would be *less than significant*.

Tribal Cultural Resources

Potential impacts under the No Project Alternative to tribal cultural resources would be similar to the Project since excavation for construction of projects would continue to occur. However, mitigation measures that would be implemented under the Project would not apply under this alternative and there would be the potential for mismanagement of resources in the event of an inadvertent discovery. Although there is a low probability that intact and undiscovered resources would be uncovered during future construction, in the event that tribal cultural resources are encountered, impacts to the resource have the potential to be significant. Individual discretionary developments under this alternative would require CEQA review, which would assess tribal cultural resources. Nonetheless, in the absence of mitigation identified under the proposed Project, impacts to cultural resources under this alternative would be significant and unavoidable.

5.4.1.2 Attainment of Project Objectives

Under the No Project Alternative, the Project's policies and standards targeted to develop a new Activity Center for the City, satisfying unmet housing demand, supporting existing business, and improving multi-modal mobility would not be facilitated. Additionally, the No Project Alternative would not foster the development of a new Activity Center for the City to provide a community based entertainment and retail location in close proximity to City residents and Project area employees. Therefore, this alternative would not achieve many of the Project Objectives.

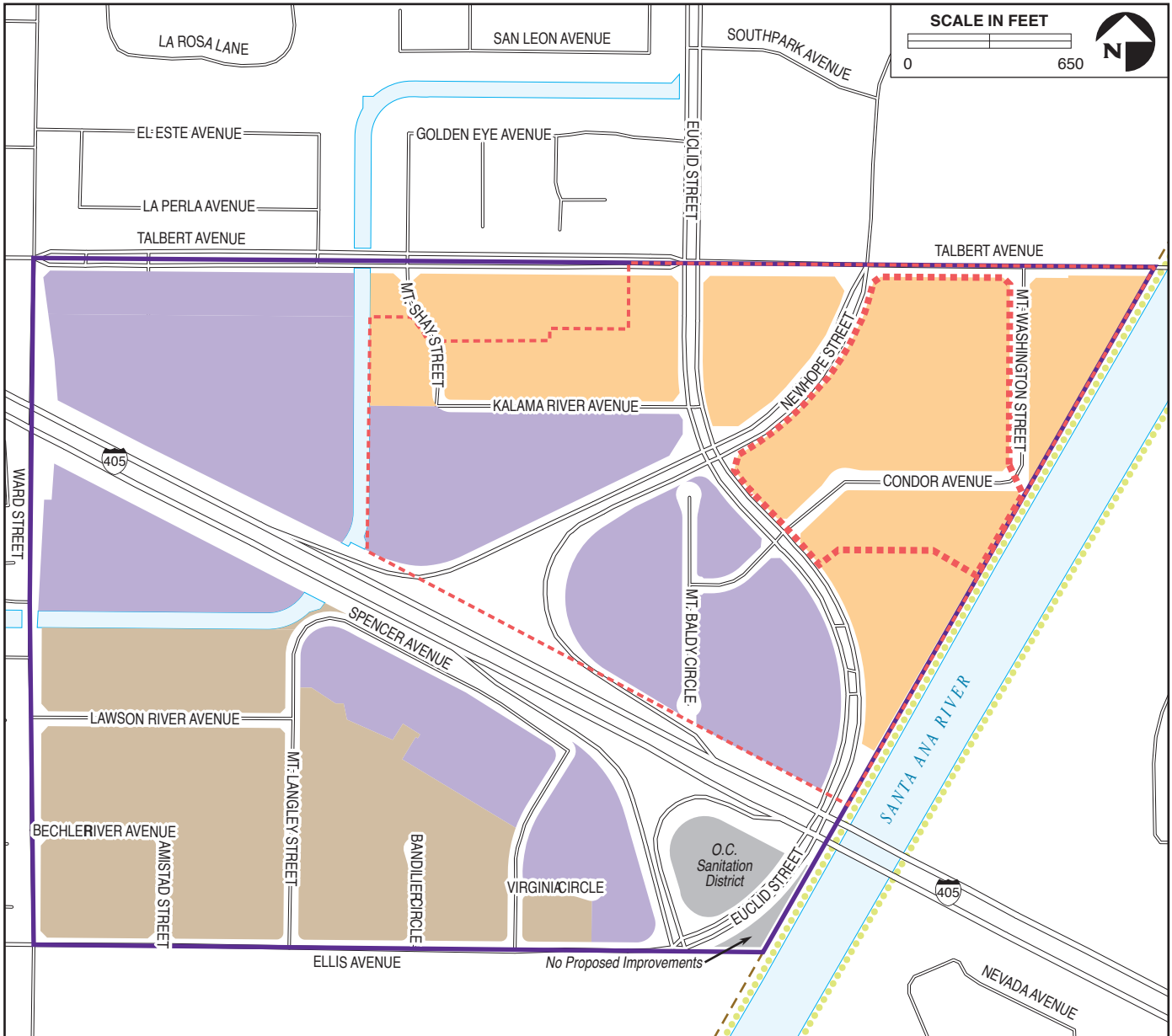
5.4.2 No Housing Alternative

The No Housing Alternative would retain all elements of the proposed Project, except for allowing residential land uses within the Project area. Specifically, this alternative would remove potential residential land uses from the Workplace Neighborhood District, as described in Section 2.4.1, *Urban Form, Land Use, and Development Standards*. This proposed Project land use district area, which also encompasses the potential future Activity Core District, encompasses approximately 49 acres and would enable approximately 491 new residential units. This alternative would continue to support entertainment and retail uses within the Activity Core District area to serve Project area employees as well as existing residents in the surrounding area.

Under this alternative, the Project would include use of development standards to prescribe the form requirements and allowed uses of development in the Project area. This Alternative would limit entertainment and retail opportunities to the Activity Core District, while retaining other areas in the Project area for office and industrial uses. Without the residential component, this alternative would incrementally reduce potential impacts from trip generation, associated emissions, and utilities demand, but would not provide assistance to the jobs-housing balance, nor provide centralized mixed-use opportunities within the Activity Core District. This alternative would retain the capability to create a high-profile corridor adjacent to I-405 and would implement managed trip generation associated with increased office and industrial-related uses (see Figure 5-2).

Table 5-4. Proposed Net Increase in Building Space under the No Housing Alternative

Land Use	Project	Project Acreage	No Housing Alternative	No Housing Alternative Acreage
Retail, Office, Industrial, and Warehouse Commercial	+258,010 sf	113 acres	+258,010 sf	162 acres
Residential Units	+491 units	49 acres	+0 units	0 acres



LEGEND

- Fountain Valley City Boundary
- Crossings Specific Plan Area
- Santa Ana River Trail

Development Areas

*Area Acres)** *Stories*

Details

	Activity Core Overlay	98	1 to 6	Mixed retail, entertainment, and community services to cater to the project area.
	Activity Core Target Area	N/A	N/A	N/A
	Mixed Industry District	41	1 to 4	Industrial mix of uses focused on upgrading existing buildings and connectivity.
	Workplace Gateway District	74	1 to 6	High value, professional office development with excellent I-405 visibility and access.
	Workplace Neighborhood District	49	1 to 4	Commercial uses to support the Project area and transition to surrounding land uses.
	Other	N/A	N/A	N/A

**Area is estimated.*

5.4.2.1 Potential Impacts to Resource Areas

Aesthetics and Visual Resources

Because no designated state scenic highways or scenic vistas exist within or adjacent to the Project area, the No Housing Alternative would not have an adverse effect on scenic highways or scenic vistas.

New industrial and commercial development under this alternative would have the ability to generate new sources of light and glare such as outdoor lighting fixtures on buildings, signage and architectural lighting, and reflective building materials, and could result in the removal of some street trees. New development under the No Housing Alternative would continue to result in multi-story office, industrial, and retail buildings that may use reflective materials and exterior lighting, thereby resulting in similar impacts to light and glare, similar to the Project.

Similar to the Project, this alternative would implement the Project's detailed development standards or design guidelines and would ensure that the design of proposed buildings would enhance the character and quality of the Project area, contributing to a high quality urban environment. Such standards, including streetscape and landscape improvements, would still occur under this alternative.

Overall, impacts to aesthetics and visual resources would be similar to the Project and impacts would remain *less than significant*.

Air Quality

Construction activities for new development occurring in the Project area would result in construction-related air pollutant emissions and have the potential to expose adjacent sensitive receptors to construction emissions. While individual projects would not be expected to generate construction emissions that would exceed the SCAQMD's recommended thresholds of significance, combined emissions from multiple development projects would have the potential to exceed VOC and NO_x thresholds. All projects would continue to be subject to SCAQMD's regulations and project mitigation measures identified in Section 3.2, *Air Quality*. Total new development under the No Housing Alternative would be similar to that estimated for the Project, absent residential development, thereby resulting in similar amounts of new construction activities and a slight reduction in associated construction emissions (Table 5-5). As unmitigated construction emissions resulting from implementation of the No Housing Alternative are well below established SCAQMD thresholds, this alternative would likely not result in an exceedance of these construction emission thresholds. As with the Project, this alternative would implement SCAQMD Rules pertaining to fugitive dust and diesel particulate matter. Implementation of recommended mitigation measures provided in Section 3.2, *Air Quality*, would be included with this alternative to further reduce adverse environmental effects.

Table 5-5. Total Projected ~~Unmitigated~~ Construction Emissions under the No Housing Alternative

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Projected No Housing Alternative Construction (Maximum Daily Emission)						
(lbs/day)	4.95 <u>38.33</u>	54.27 <u>79.60</u>	52.56 <u>71.85</u>	0.13 <u>0.30</u>	20.63 <u>18.64</u>	12.16 <u>6.7</u>
Thresholds (lbs/day)	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Notes: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Since the existing Project area is already emitting operational air pollutant emissions from its existing land uses (see Table 3.2-3 in Section 3.2, *Air Quality*), the difference between this alternative’s CalEEMod estimated operational emissions was compare with SCAQMD thresholds. Projected emissions for the Project were found to be below the established SCAQMD daily thresholds for all criteria pollutants (see Table 5-6).

Table 5-6. Long-term ~~Unmitigated~~ Operational Emissions under the No Housing Alternative and the Difference in Emissions from Existing Project Area Operational Emissions

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area (lbs/day)	82.26 <u>70.57</u>	0	0.34	0	0	0
Energy (lbs/day)	0.87 <u>0.84</u>	7.95 <u>7.64</u>	6.67 <u>6.42</u>	0.05 <u>0.05</u>	0.60 <u>0.58</u>	0.60 <u>0.58</u>
Mobile (lbs/day)	74.84 <u>25.33</u>	137.94 <u>115.10</u>	721.04 <u>274.13</u>	3.37 <u>1.33</u>	247.94 <u>156.94</u>	68.68 <u>42.40</u>
Total (lbs/day)	157.94 <u>96.74</u>	145.89 <u>122.75</u>	728.05 <u>280.89</u>	3.42 <u>1.37</u>	248.54 <u>157.52</u>	69.28 <u>42.99</u>
Difference from Existing	-34.68 <u>-29.37</u>	-97.69 <u>-107.76</u>	-383.19 <u>-469.74</u>	0.85 <u>-0.67</u>	56.72 <u>0.72</u>	15.68 <u>-1.23</u>
Thresholds (lbs/day)	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Notes: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Similar to the Project, CO emissions experienced the greatest change from existing operational emissions. CalEEMod estimates for the No Housing Alternative buildout operational mobile emissions are lower than the existing Project area operational mobile emissions due to the fact

that CalEEMod assumes the use of “cleaner” vehicles in the buildout year of 2035 of the Project, compared to the comparatively higher emission vehicles in the existing year of 2016.

To more closely compare operational impacts of this alternative with the Project, Table 5-8 displays a comparative relationship between the No Housing Alternative and the Project. All emissions, including mobile and energy emissions, under the No Housing Alternative would be less than the Project due to absence of proposed residential development but same buildout potential for retail, office, industrial, and commercial warehouse uses as the Project. Total emission reductions would be expected based on total residential trip generation estimates; even though, opportunities for trip reduction due to resident-employee opportunities would not occur.

Table 5-8. Long-term Operational Emissions: Built-out No Housing Alternative Mitigated Operational Emissions Compared with the Built-out Project Mitigated Operational Emissions (lbs/day)

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Project Emissions Net Change from Existing Operational Emissions	-37.58	-117.53	-426.32	+0.17	+4.92	+1.98
No Housing Alternative Net Change from Existing Operational Emissions	-54.43	-123.46	-493.18	+0.11	+0.86	+0.18
Comparative Reduction of the No Project Alternative	-16.85	-5.93	-66.86	-0.06	-4.06	-1.80

Notes: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets.

Similar to the Project, the No Housing Alternative proposes coordinated implementation of streetscape, pedestrian, bike path, Transportation Demand Management measures, and transit improvements as set forth in the draft FVCSP. Under the No Housing Alternative, impacts to air quality would be less than the Project as a result of the elimination of residential development. Construction and operational emissions from both stationary and mobile sources, including those associated with vehicle trips from residents and employees, and the use of natural gas and landscaping maintenance equipment would not exceed thresholds. In comparison to the Project, the No Housing Alternative would result in less peak hour trip generation, thereby resulting in an incremental reduction of mobile source air emissions, as detailed in Table 5-8. Despite the overall reduction in Project emissions, development under the No Housing Alternative would continue to have the potential to locate industrially related land uses that generate air emissions near existing sensitive land uses. However, the No Housing Alternative would carry forward the recommended and required mitigation measures identified in Section 3.2, *Air Quality*, thereby reducing residual Project impacts to a less than significant level.

Overall, under the No Housing Alternative, impacts to air quality would be less than under the Project and remain *less than significant with mitigation*.

Geology and Soils

Geological impacts are generally site-specific; all new development would be required to adhere to the most current building standards of the City's Municipal Code and Building Code, which adopts CBC standards by reference with local amendments. Adherence to the municipal code and building code requirements would ensure the maximum practicable protection available for all structures constructed in the Project area. Additionally, individual projects would prepare site-specific geotechnical investigations in accordance with City requirements and would be required to incorporate recommendations from the site-specific geotechnical investigations (regarding site preparation, grading, backfill, and foundations) into the project design.

Overall, potential impacts related to geology and soils under the No Housing Alternative would be similar to those for the Project and would remain *less than significant*.

Greenhouse Gas Emissions

The construction of new development anticipated to occur under the No Housing Alternative would result in temporary construction-related GHG emissions that would be less than under the Project due to the lack of construction of 491 residential units. Operational GHG emissions would be generated from motor vehicles, natural gas consumption, solid waste handling and electricity generation. However, under the No Housing Alternative, total unmitigated emissions from Project construction would be approximately ~~21,456~~ 50,684.09 MTCO₂e. Pursuant to SCAQMD methodology, construction-related emissions for the No Housing Alternative are amortized over an anticipated 30-year period to provide an average annual estimate of approximately ~~705~~ 1,689.47 MTCO₂e/year, less than the Project's ~~unmitigated~~ amortized construction emissions (~~963~~ 1,027.42 CO₂e/year) (Table 5-7).

As the No Housing Alternative would result in less development compared to the Project, total GHG emissions from operations are anticipated to be reduced. Based on CalEEMod results for the No Housing Alternative, total estimated GHG operational emissions would be further reduced from the net ~~9,456~~ 1,445.02 MTCO₂e/year of unmitigated operational emissions anticipated to occur under the Project, to ~~4,239~~ -7,215.0 MTCO₂e/year of ~~unmitigated~~ operational emissions, for a net reduction of ~~-8,660.02~~ -8,997.44 MTCO₂e/year (Table 5-7). Accounting for estimated amortized construction emissions of ~~705~~ 1,689.47 MTCO₂e/year, annual combined GHG emissions resulting from construction and operation of the No Housing Alternative are anticipated to be below the ~~40,000~~ 3,000 MTCO₂e/year threshold.

Table 5-7. Total Net GHG Emissions from Construction and Operation of the No Housing Alternative

Category	Project Annual Net Unmitigated GHG Emissions (MTCO ₂ e/year)	No Housing Annual Net GHG Emissions (MTCO ₂ e/year)	Difference in No Housing Alternative from Project GHG Emissions
Area	126.18 127.08	0 0	-126.18 -127.08
Energy	10,433.59 10,507.32	3,073 3,061.69	-7,371.90 -7,444.63
Mobile	-8,136.16 -8,118.46	702 -9,037.98	901.82 -849.52
Waste	-1,024.02 122.65	8 -1,039.87	-15.85 -1,162.52
Water	-45.43 755.14	456 -168.83	123.40 586.31
Total	1,445.02 3,393.74	4,239 -7,215.0	-8,660.02 -8,997.44
Amortized Construction Emissions	1,027.42 1,029.56	705 1,689.47	662.05 659.91
Total	2,472.44 4,423.30	4,944 -5,525.53	-7,997.97 -8,337.53
Significant?	Yes No	No	

Notes: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Overall, impacts to GHG emissions under the No Housing Alternative would be substantially less than under the Project, and would be *less than significant*.

Hazards and Hazardous Materials

Similar to the Project, future construction activities under the No Housing Alternative would involve demolition, grading and excavation that could potentially result in the accidental release of hazardous materials. Based on the age of many existing buildings within the Project area, construction workers and the public could be exposed to lead and asbestos that are present within structures to be demolished. Asbestos, lead, or other hazardous material would be removed and disposed of prior to demolition, in compliance with all pertinent regulations for the handling of such waste including the City's Municipal Code (Title 17) and California Department of Industrial Relations Division of Occupational Safety and Health. It is expected that individual projects occurring within in the Project area may require mitigation measures as necessary to mitigate the risks of hazards to the public or the environment.

Similar to the Project, future development anticipated to occur under the No Housing Alternative would use limited quantities of potentially hazardous materials consisting of typical maintenance products (e.g., paints, fuels/lubricants, cleaning solvents, adhesives, sealers, pesticides/herbicides). These potentially hazardous materials are common in urban areas and already occur within the Project area. The limited transport, storage, and disposal of hazardous materials is subject to applicable federal, state, and local regulations to reduce the risk of accidental spills, leaks, fire, or other hazardous conditions.

Unlike the Project, the No Housing Alternative would not include housing within the Project area; however, industrial and office areas within the Project area could be located to adjacent residential uses outside the Project area. This potential for hazards and hazardous materials to be introduced to sensitive receptors would therefore be similar to hazards and hazardous materials as the Project, warranting similar mitigations to ensure that impacts would be less than significant.

Overall, impacts to hazards and hazardous materials under the No Housing Alternative would be similar to those described under the Project and would remain *less than significant with mitigation*.

Hydrology and Water Quality

The Project area is already largely developed with impermeable surfaces and as such, anticipated development under the No Housing Alternative would not increase runoff or alter drainage patterns. Runoff would be routed to the same treatment facilities and storm drains as under the Project.

Similar to the Project, stormwater runoff from future development under the No Housing Alternative would be managed consistent with the provisions of the NPDES permit and projects would be required to develop a stormwater management program. Additionally, permits issued to control pollution (i.e. waste-discharge requirements and NPDES permits) must implement Santa Ana River Basin Water Quality Control Plan requirements (i.e. water quality standards), taking into consideration beneficial uses to be protected. Further, each project developed under the No Housing Alternative would be required by the City to prepare an erosion and sediment control plan. Projects that are greater than one acre would be required to comply with the provisions of a Construction General Stormwater Permit.

Overall, with compliance with existing regulations, impacts to hydrology and water quality under the No Housing Alternative would be similar to the Project, and would remain *less than significant*.

Land Use

The No Housing Alternative would result in changes to existing land uses that would convert 49 acres of industrial and office land uses to retail and commercial uses. Similar to the Project, this alternative would be consistent with or require allowances from the City of Fountain Valley General Plan; however, improvement of the City's jobs and housing balance would not occur given the removal of mixed use opportunities involving housing units. Additionally, the No Housing Alternative may not transition land uses as well given industrial and office uses would occur along the Project area's boundaries adjacent to residential neighborhoods. The No Housing Alternative would not physically divide an established community as it would not displace substantial residential populations or functionally conflict with adjacent land uses.

Overall, impacts to land use under the No Housing Alternative would be greater than the Project, as it would sustain existing uses in the Project area and would not implement innovative planning actions to implement mixed uses and improve transitional land uses. However, land use impacts would not exceed thresholds for significance and would remain *less than significant*.

Noise

Similar to the Project, construction activities anticipated to occur under the No Housing Alternative would have the potential to generate temporary noise and groundborne vibrations that could affect nearby sensitive receptors. However, construction activities would be temporary. Additionally, adherence to the City's Municipal Code would ensure that noise levels would not cause significant impacts to sensitive receptors or damage to buildings. Further, no residential development would be introduced to the Project area, which would reduce the number of potential sensitive receptors that could be affected by any construction or operational activities interior the Project area; however, surrounding residential neighborhoods may experience such construction and operational noises due to the replacement of residential uses in the Project area with industrial and office uses. Similar to the Project, with implementation of MM N-1, *Construction Noise Management Plan*, construction noise emissions would be mitigated to a less than significant level.

Similar to the Project, the No Housing Alternative would result in increased noise from operational sources, such as large ventilation systems, motor vehicle trips, and commercial delivery operations that would be incrementally increased due to larger amounts of commercial and retail land uses. However, unlike the Project, since no residential associated trip generation noise would occur, overall operational noise increases would be less than that of the Project as the non-residential land uses would maintain the same buildout as the Project.

Overall, noise and vibration impacts under the No Housing Alternative would be slightly reduced compared to the Project, and impacts would remain *less than significant with mitigation*.

Population and Housing

Compared to the Project, the elimination of residential uses would result in less population residing within the Project area. Job creation under this alternative is estimated to be roughly equal to that of the Project, with approximately 2,063 employees introduced to businesses within the Project area. This alternative would also not include the Project's 491 residential units, reducing the potential population within the Project area by approximately 1,444 persons.

Therefore, the number of units and residential population growth under this alternative would be less than under the Project, and the number of jobs would be increased. As such, this alternative would be detrimental to the jobs/housing ratio and would require additional housing elsewhere in the City and greater Orange County area. As no housing units would be permitted in the Project area under the No Housing Alternative, new and redeveloped office and industrial businesses would not benefit from the close proximity of a residential population. Similarly, businesses within the proposed Activity Core District may not have an immediately accessible clientele without proximate residential uses. Nevertheless, general redevelopment of the area with its associated transit improvements would improve employment and economic growth within the Project area.

Overall, impacts related to population and housing under the No Housing Alternative would be greater than those under the Project, though impacts would remain *less than significant*.

Public Services

Increases in residential populations in the Project area would not occur under the No Housing Alternative and would not increase the demand on police and fire protection services, public schools, and parks. Under this alternative, the forecasted growth in the Project area would be substantially less than that of the Project. Therefore, impacts to public services would be less than the Project. Nevertheless, entertainment and retail opportunities may increase overall population growth in the vicinity due to increased employment opportunities and visitor oriented development, and individual developers within the Project area may be required to pay development fees to offset associated impacts to public services.

Overall, impacts to public services under the No Housing Alternative would be reduced compared to the Project, but would remain *less than significant*.

Transportation and Circulation

Under the No Housing Alternative, construction-related traffic associated with potential future projects would incrementally contribute to increased congestion and disruption of travel routes within the vicinity. While each future project's contribution would be temporary and short-term, ongoing construction would periodically affect circulation in the Project area. However, mitigation measures would be applied on a project-by-project basis to ensure that circulation on the local street network would not be adversely affected.

Generally, trip generation rates for residential land uses is substantially less than for employment generating uses. Development under the No Housing Alternative would result in an estimated 2,741 PM peak hour trips, approximately 304 PM peak hour trips less than anticipated to be generated under the Project (Table 5-8). Based on the methodology for determining Project impacts in Section 3.11, *Transportation, Circulation and Traffic*, this alternative would result in slightly reduced LOS impacts as the Project as a result of the lack of associate residential trips and reduced density of development. However, development under this alternative would continue to affect the operation of local freeway facilities, particularly during the PM peak hour.

Table 5-8. Project vs. No Housing Project PM Peak Trips

Land Use ¹	ITE Code ¹	PM Peak Hour Trip Generation Rates	Project		No Housing	
			Quantity (1,000 sf)	PM Peak Trips	Quantity (1,000 sf)	PM Peak Trips
Automobile Part Sales	843	5.98	113.605	679	113.605	679
Warehousing	150	0.32	1,121.628	359	1,121.628	359
General Office Building	710	1.49	1,475.969	374	1,475.969	374
Industrial Park	130	0.86	358.834	309	358.834	309
Electronics Superstore	863	4.50	74.5	335	74.5	335
Shopping Center	820	3.37	203.262	685	203.262	685
Residential PUD	270	0.62	491 units	304	0 units	0
Total PM Peak Trips				3,045		2,741

Notes: ITE = Institute of Transportation Engineers
 sf = square feet
 PUD = Planned Unit Development

¹Land use and ITE Code based on the Project Land Use Assumptions in Appendix E.

Overall, impacts to transportation and circulation under the No Housing Alternative would be slightly less when compared to the Project; however, impacts would continue to be *significant and unavoidable*.

Utilities and Energy Resources

Development anticipated to occur under the No Housing Alternative would result in decreased demand on utilities due to the lack of residential uses proposed within the Project area. As such, utility demand would be slightly less than the Project. Compared to the Project, removing the residential water demand for 491 units from the Project area would decrease water demand by approximately 142,956 gpd. Therefore, the total water demand increase from the existing buildout would be approximately 356,899 gpd, or approximately 400 acre-feet per year (AFY). Similar to the Project, the increased demand for water would have the potential to result in the need for new or expanded water infrastructure and/or water supplies. Though redevelopment would result in a projected net increase in water demand, the MWDOC and the City anticipate their ability to meet full service demands through 2040. Implementation of MM UT-3, requiring a FVCSP Utility Financing Program would reduce this impact and ensure adequate funds are available for improvements to utility infrastructure. In addition, increasing reliance on recycled water, City mandated water efficiency requirements, water conservation measures, and implementation of higher efficiency systems would contribute to decreased water demands within the Project area.

Wastewater produced by development under the No Housing Alternative would meet RWQCB requirements through treatment at the OCS. This treatment plant uses primary and secondary

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treatment and has the ability to accommodate 320 mgd of wastewater and currently treats an average of 115 mgd. Compared to the Project, development under the No Housing Alternative would decrease water demand by approximately 105,908.7 gpd. Therefore, the total water demand increase from the existing buildout would be approximately 8,957.5 gpd, or approximately 0.008 mgd, which would be accommodated by the OCSD. Additionally, similar to the Project, utility line segments would be upgraded and installed as needed on an individual project basis. Mitigation requiring a FVCSP Utility Financing Program would reduce this impact and ensure adequate funds are available for improvements to utility infrastructure.

The amount of solid waste generation under the No Housing Alternative would be approximately 2,607.21 pounds per day (lbs/day) less than the Project. The total estimated additional solid waste generated from this alternative would be approximately 2,221.55 lbs/day, equating to approximately 1.11 tpd. As the City is served by solid waste disposal facilities with a current throughput of 6,800 tpd capable of accommodating up to 11,500 tpd, the increase of waste estimated under this alternative would be accommodated by sufficient remaining capacity.

Development actions under the No Housing Alternative may also incrementally increase or decrease the demand for regional electric and natural gas production and distribution facilities. These facilities are operated and maintained by private utility companies that plan for anticipated growth and expand as needed to meet demand, consistent with applicable local, state, and federal regulations.

Overall, impacts to utilities under the No Housing Alternative would be less than the Project, and would remain *less than significant with mitigation*.

Tribal Cultural Resources

Potential impacts to the No Housing Alternative to tribal cultural resources would be similar to the Project since excavation for construction of projects would occur in a similar manner. Mitigation measures would be implemented to reduce potentially significant impacts to inadvertent discoveries of tribal cultural resources, including pre-construction training, and in the case of an inadvertent discovery, the City selected registered professional archaeologist (RPA) and Native American Monitor would be contacted to assess the resource and the Treatment Plan would be implemented.

Overall, impacts to cultural resources under this alternative would be similar to the Project, and impacts would continue to be *less than significant with mitigation*.

5.4.2.2 Attainment of Project Objectives

Under the No Housing Alternative, Project Objectives, including development of an Activity Center for the City and a coordinated streetscape improvement plan, could be partially met. However, development of the Activity Center and its associated workplace neighborhood would not be fully implemented. Despite facilitated access to the Project area via the streetscape program and improved multi-modal accessibility for pedestrians and cyclists, entertainment or retail businesses within the Project area may not perform as well without an inhabiting residential population to

provide close customers and/or employees. Nevertheless, opportunity for redevelopment would still be possible throughout most of the Project area, and the Activity Center locations would still be supported during daytime hours by adjacent offices, associated employees, and visitors from off-site. Overall, this alternative would address many Project Objectives, but not to the extent of the Project.

5.4.3 Intensified Office and Residential Buildout Alternative

The Intensified Office and Residential Buildout Alternative would implement an urban form, land use, and circulation plan for the Project area focused on higher levels of redevelopment to include greater office and introduced residential uses. This alternative would further concentrate development within the proposed activity centers and edges of the Project area to increase the employment and economic viability of the Project area beyond that of the Project, including unconditional six story development adjacent to I-405. Under this alternative, the Project would include use of development standards to increase potential development. In total, this alternative would increase the construction development potential of the Project area by approximately 20 percent, or up to 243,226 sf beyond the Project, for a net increase of 501,236 sf from existing levels and total of 1,459,358 sf of new development or redevelopment (Table 5-9). This alternative would focus development on areas of the Project designated to support and attract high profile firms, as well as the proposed new activity core and residential areas. This alternative would also allow for a comparable increase of allowed residential development to approximately 589 residential units (Figure 5-3).

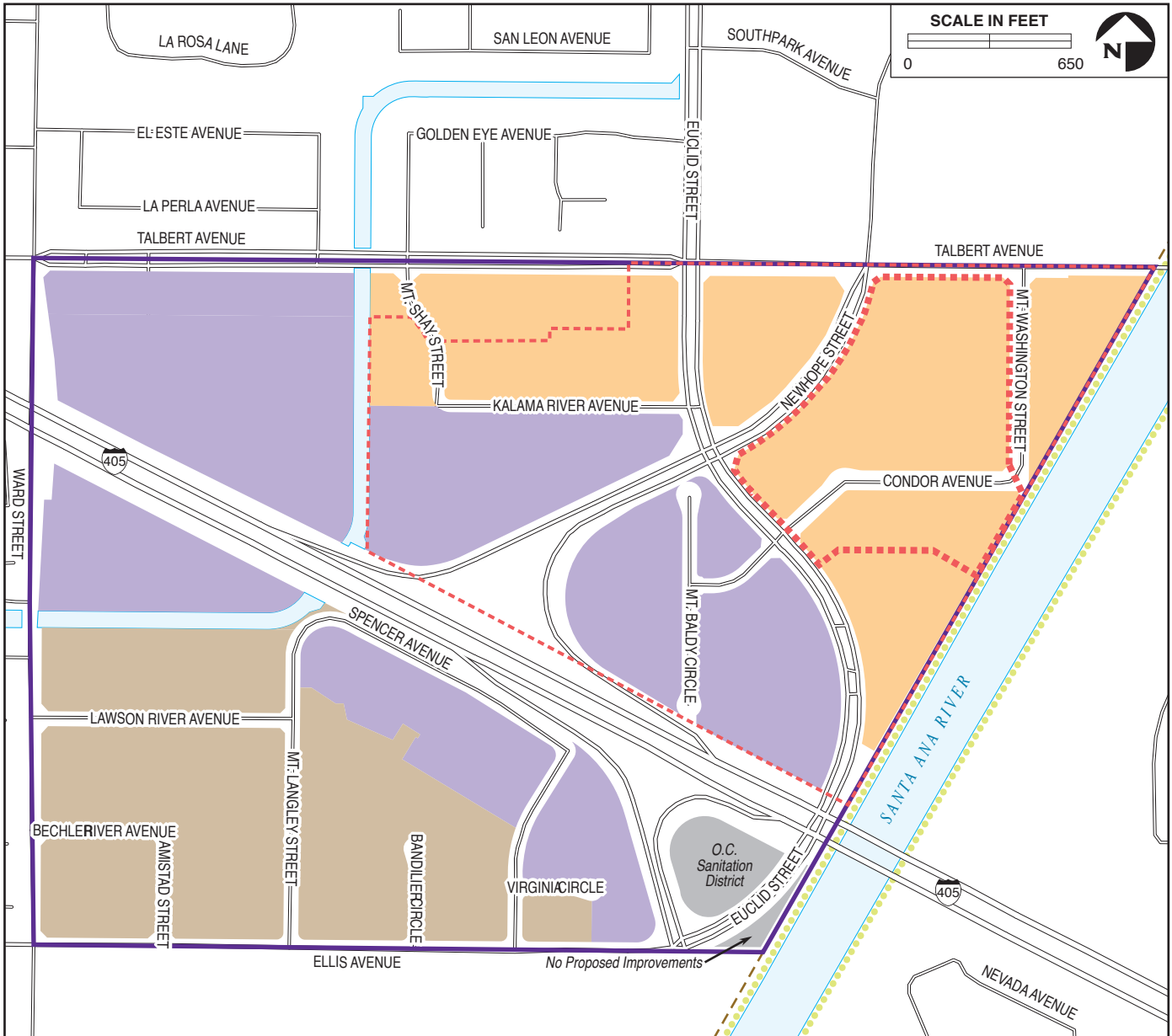
Table 5-9. Proposed Net Increase in Building Space under the Intensified Office and Residential Buildout Alternative

Land Use	Project	Intensified Office and Residential Buildout Alternative
Retail, Office, Industrial, and Warehouse Commercial	+258,010 sf	+501,236 sf
Residential Units	+491 units	+589 units

5.4.3.1 Potential Impacts to Resource Areas

Aesthetics and Visual Resources

Because no designated state scenic highways or scenic vistas exist within or adjacent to the Project area, the Intensified Office and Residential Buildout Alternative would not have an adverse effect on scenic highways or scenic vistas.



LEGEND

- Fountain Valley City Boundary
- Crossings Specific Plan Area
- Santa Ana River Trail

Development Areas

*Area Acres)** *Stories*

Details

	Activity Core Overlay	98	1 to 6	Mixed retail, entertainment, and community services to cater to the project area.
	Activity Core Target Area	N/A	N/A	N/A
	Mixed Industry District	41	1 to 4	Industrial mix of uses focused on upgrading existing buildings and connectivity.
	Workplace Gateway District	74	1 to 6 (by right)	High value, professional office development with excellent I-405 visibility and access.
	Workplace Neighborhood District	49	1 to 4	Mixed commercial and residential uses to support the Project area and transition to surrounding land uses.
	Other	N/A	N/A	N/A

**Area is estimated.*



Intensified Office and Residential Development Alternative

FIGURE 5-3

New industrial and commercial development under this alternative would have the ability to generate new sources of light and glare such as outdoor lighting fixtures on buildings, signage and architectural lighting, and reflective building materials, and could result in the removal of some street trees. New development under the Intensified Office and Residential Buildout Alternative would continue to result in multi-story office, industrial, and retail buildings that may use reflective materials and exterior lighting, thereby resulting in similar, though intensified, impacts to light and glare, and to visual resources such as the urban tree canopy. Some streetscape improvements including landscaping with street trees may lessen off-site effects; however, given the increased potential for greater massing, scale, and height, greater visibility including night lighting would occur under this alternative and would be highly visible from surrounding residential neighborhoods.

Therefore, overall impacts to aesthetics and visual resources would be *potentially significant and unavoidable*.

Air Quality

Construction activities for new development occurring in the Project area would result in construction-related air pollutant emissions and have the potential to expose adjacent sensitive receptors to construction emissions. While individual projects would be small and likely not generate construction emissions that would exceed the SCAQMD's recommended thresholds of significance, combined emissions from multiple development projects would have the potential to exceed VOC and NO_x thresholds. All projects would continue to be subject to SCAQMD's rules and regulations ~~and project mitigation measures~~ identified in Section 3.2, *Air Quality*. Total new development under the Intensified Office and Residential Buildout Alternative would be greater than that anticipated to occur under the Project, thereby resulting in a larger amount of new construction activities. Using a linear estimation of an additional 20 percent of construction activities, the slight increase in associated construction emissions may result in approximately ~~7.15~~26.11 pounds/day of VOCs (compared to ~~5.96~~21.76 pounds per day under the Project), ~~85.46~~58.66 pounds/day of CO (compared to ~~71.22~~48.88 pounds per day under the Project), and ~~0.23~~0.20 pounds per day of SO₂ (compared to ~~0.19~~0.17 pounds per day under the Project) (Table 5-10). As unmitigated construction emissions resulting from implementation of this alternative are well below established SCAQMD thresholds, this alternative would likely not result in an exceedance of these construction emission thresholds. ~~However, mitigation measures provided in Section 3.2, Air Quality, are also recommended for this alternative to further reduce adverse impacts.~~

Table 5-10. Overall Unmitigated Construction Emissions under the Intensified Office and Residential Buildout Alternative

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Overall Intensified Buildout Alternative Unmitigated Construction Emissions (Maximum Daily Emission)						
(lbs/day)	7.15 <u>26.11</u>	65.12 <u>65.50</u>	85.46 <u>58.66</u>	0.23 <u>0.20</u>	24.76 <u>13.8</u>	14.59 <u>8.00</u>
Thresholds (lbs/day)	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Note: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Since the existing Project area is already emitting operational air pollutant emissions from its existing land uses (see Table 3.2-3), the alternative’s estimated operational emissions were used to compare against the SCAQMD thresholds. Projected emissions for the Project were found to be below the established SCAQMD daily thresholds for all criteria pollutants (see Table 5-11).

Table 5-11. Long-term Unmitigated Operational Emissions under the Intensified Office and Residential Buildout Alternative and the Difference in Emissions from Existing Project Area Operational Emissions

	VOCs (ROG)	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total (lbs/day)	192.62 <u>138.11</u>	194.42 <u>165.71</u>	1,007.18 <u>403.46</u>	4.75 <u>1.78</u>	330.32 <u>197.33</u>	92.83 <u>54.66</u>
Difference from Existing	-0.20 <u>12.00</u>	-49.16 <u>-64.80</u>	-404.06 <u>-347.17</u>	2.06 <u>0.26</u>	138.53 <u>40.53</u>	39.23 <u>10.45</u>
Thresholds (lbs/day)	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Note: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Similar to the Project, CO emission reductions experienced the greatest change from existing operational emissions, though PM₁₀ emissions also is notably closer to the established threshold than the Project under this alternative. Linear estimates for the Intensified Office and Residential Buildout Alternative buildout operational mobile emissions are still lower than the existing Project area operational mobile emissions due to the fact that the original CalEEMod estimates assume the use of “cleaner” vehicles in the buildout year of 2035 of the Project, compared to the comparatively higher emission vehicles in the existing year of 2016.

Similar to the Project, the Intensified Office and Residential Buildout Alternative proposes coordinated implementation of streetscape, pedestrian, bike path, Transportation Demand

Measures, and transit improvements as set forth in the draft FVCSP. Under the Intensified Office and Residential Buildout Alternative, impacts to air quality would be greater than the Project, though both construction and operational emissions would not exceed thresholds. ~~However, recommended mitigation measure provided in Section 3.2, Air Quality would apply to the Intensified Office and Residential Buildout Alternative, and would further minimize operation-related air quality impacts.~~

Overall, under the Intensified Office and Residential Buildout Alternative, impacts to air quality would be greater than under the Project, but impacts would remain *less than significant with mitigation*.

Geology and Soils

Geological impacts are generally site-specific; and all new development would be required to adhere to the most current and stringent building standards of the City's Municipal Code and Building Code, which adopts CBC standards by reference with local amendments. Adherence to the municipal code and building code requirements would ensure the maximum practicable protection available for all structures constructed in the Project area. Additionally, individual projects would prepare site-specific geotechnical investigations in accordance with City requirements and would be required to incorporate recommendations from the site-specific geotechnical investigations (regarding site preparation, grading, backfill, and foundations) into the project design.

Overall, potential impacts related to geology and soils under the Intensified Office and Residential Buildout Alternative would be similar to those for the Project and would remain *less than significant*.

GHG Emissions

The construction of new development anticipated to occur under the Intensified Office and Residential Buildout Alternative would result in temporary construction-related GHG emissions comparable to the Project. Operational GHG emissions would be generated from motor vehicles, natural gas consumption, solid waste handling and electricity generation. However, under the Intensified Office and Residential Buildout Alternative, motor vehicle trip generation, energy demand, and emissions from building operations would be incrementally increased above that of the Project to approximately ~~34,665~~1,734.02MTCO₂e. Pursuant to SCAQMD methodology, construction-related emissions for the Intensified Office and Residential Buildout Alternative are amortized over an anticipated 30-year period to provide an average annual estimate of approximately ~~4,155~~1,232.90 MTCO₂e/year, greater than the Project's unmitigated amortized construction emissions (~~963~~1,027.42 CO₂e/year) (Table 5-12).

As the Intensified Office and Residential Buildout Alternative would result in increased development compared to the Project area, total GHG emissions from operations are anticipated to be increased. This alternative would also include FVCSP mitigation measures and land use types would remain generally consistent. Based on an applied linear increase in operational GHG

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emissions by 20 percent, total estimated GHG operational emissions under this alternative would be increased from the net ~~1,445.023,393.74~~ MTCO₂e/year of unmitigated operational emissions anticipated to occur under the Project to an estimated ~~1,734.027,319.86~~ MTCO₂e/year, for a net increase of ~~289.03,926.13~~ MTCO₂e/year under this alternative (Table 5-12). As such, annual GHG emissions resulting from construction and operation of the Intensified Office and Residential Buildout Alternative are anticipated to be ~~below~~above the ~~10,000~~3,000 MTCO₂e/year threshold. However, per capita GHG emissions for this alternative are less than SCAQMD Tier 4 GHG emissions for service population (Table 5-13). The Intensified Office and Residential Buildout Alternative would implement the same sustainability measures, GHG reduction goals, SCAQMD Rules and regulations, and mitigation measures as the Project. ~~As the mitigation measures which are applied to the Project were estimated to reduce construction and operation GHG emissions to a level well below established SCAQMD thresholds, implementation of these same mitigation measures under this alternative are similarly anticipated to reduce this alternatives GHG emissions to a level of insignificance.~~ Similar to the Project, the Intensified Office and Residential Buildout Alternative is not anticipated to conflict with any City environmental policies after implementation of all mitigation measures supplied in Section 3.4, *Greenhouse Gas Emissions*.

Overall, impacts to GHG emissions under the Intensified Office and Residential Buildout Alternative would be greater than under the Project. However, ~~estimated implementation of mitigation measures provided in Section 3.2, Air Quality~~ are anticipated to reduce GHG emissions below the SCAQMD significance threshold, and impacts ~~are considered less than significant~~ would remain *less than significant with mitigation*.

Table 5-12. Total Unmitigated GHG Emissions from Construction and Operation of the Intensified Office and Residential Buildout Alternative

Category	Project Unmitigated Annual Net GHG Emissions (MTCO ₂ e/year)	Intensified Buildout Unmitigated Annual Net GHG Emissions (MTCO ₂ e/year)	Difference in Intensified Buildout Alternative from Project Unmitigated GHG Emissions
Area	126.18 127.08	151.42 152.50	25.24 25.42
Energy	40,433.59 10,507.32	42,520.34 12,608.78	2,086.72 2,101.46
Mobile	-8,136.16 -8,118.46	-6,508.93 -6,494.77	-1,627.23 1,623.69
Waste	-1,024.02 122.65	-819.22 147.18	-204.80 24.53
Water	-45.43 755.14	54.52 906.17	9.09 151.03
Total	1,445.02 3,393.74	1,734.02 7,319.86	289.00 3,926.13
Amortized Construction Emissions	1,027.42 1,029.56	1,232.90 1,235.47	205.48 205.91
Total	2,472.44 4,423.30	2,966.92 8,555.33	494.48 4,132.04
Significant?	Yes (Unmitigated) No	Yes (Unmitigated) No	

Note: Totals may differ slightly from CalEEMod output sheets due to rounding. Refer to Appendix D for detailed CalEEMod output sheets. This table has been updated from that provided in the draft Final EIR released in April 2017 to reflect updated air pollutant modeling using the most recently updated version of CalEEMod (Version 2016.3.1), as well as implementation and compliance with SCAQMD rules and regulations.

Table 5-13. Combined Annual GHG Emissions for the Intensified Office and Residential Buildout Alternative Compared to SCAQMD Tier 4 Threshold

<u>Annual GHG Emissions by Category</u>	<u>Project Annual GHG Emissions (MTCO₂e/year)</u>	<u>Intensified Buildout Annual GHG Emissions (MTCO₂e/year)</u>
<u>Net Operational Emissions</u>	<u>3,393.74</u>	<u>7,319.86</u>
<u>Construction Emission (Amortized over 30 years)</u>	<u>1,029.56</u>	<u>1,235.47</u>
<u>Total Combined Emissions</u>	<u>4,423.30</u>	<u>8,555.33</u>
<u>Service Population (employees + residents)</u>	<u>3,507</u>	<u>4,175</u>
<u>Emissions per Service Populations (MTCO₂e/year)</u>	<u>1.26</u>	<u>2.05</u>
<u>GHG Emission Tier 4 Threshold</u>	<u>3.0</u>	<u>3.0</u>
<u>Above Threshold?</u>	<u>No</u>	<u>No</u>

Notes: The service population for the Project was calculated by considering the estimated new employment and residential population generated by buildout of the Intensified Office and Residential Buildout Alternative. See discussion of Population and Housing impacts, below

Hazards and Hazardous Materials

Construction activities are anticipated to occur under the Intensified Office and Residential Buildout Alternative, which would involve demolition, grading and excavation that could potentially result in the accidental release of hazardous materials. Based on the age of many existing buildings within the Project area, construction workers and the public could be exposed to lead and asbestos that are present within structures to be demolished. Asbestos, lead, or other hazardous material would be removed and disposed of prior to demolition, in compliance with all pertinent regulations for the handling of such waste including the City's Municipal Code (Title 20) and California Department of Industrial Relations Division of Occupational Safety and Health.

Similar to the Project, future development anticipated to occur under the Intensified Office and Residential Buildout Alternative would utilize limited quantities of potentially hazardous materials consisting of typical maintenance products (e.g., paints, fuels/lubricants, cleaning solvents, adhesives, sealers, pesticides/herbicides). These potentially hazardous materials are common in urban areas and already occur within the Project area. The limited transport, storage, and disposal of hazardous materials is subject to applicable federal, state, and local regulations to reduce the risk of accidental spills, leaks, fire, or other hazardous conditions.

Unlike the Project, the Intensified Office and Residential Buildout Alternative would include greater amounts of housing within the Project area. However, any potentially hazardous construction or operation activities within the Project area as described above would be primarily contained within industrial and office areas, though with a greater amount of units and associated potential population, the likelihood for potentially adverse impacts from hazards and hazardous materials would increase compared the Project.

Overall, impacts to hazards and hazardous materials under the Intensified Office and Residential Buildout Alternative would be slightly greater than those described under the Project, but impacts would remain *less than significant* given compliance with statutory requirements related to hazardous materials usage and waste.

Hydrology and Water Quality

The Project area is already largely developed with impermeable surfaces and as such, anticipated development under the Intensified Office and Residential Buildout Alternative would not increase runoff or alter drainage patterns. Runoff would be routed to the same treatment facilities and storm drains as under the Project.

Similar to the Project, stormwater runoff from future development under the Intensified Office and Residential Buildout Alternative would be managed consistent with the provisions of the NPDES permit, which requires that new development projects to incorporate LID measures to reduce the amount of pollutants washing off the site and to maintain pre-development surface water runoff rates. Existing regulations require that new projects implement LID and BMPs to reduce urban polluted runoff. Each project developed under the Intensified Office and Residential Buildout Alternative would be required by the City to prepare an erosion and sediment control plan, and for projects greater than one acre, comply with the provisions of a Construction General Stormwater Permit.

Overall, with compliance with existing regulations, impacts to hydrology and water quality under the Intensified Office and Residential Buildout Alternative would be similar to the Project, and would remain *less than significant*.

Land Use

The Intensified Office and Residential Buildout Alternative would retain portions of the Project area's industrial and commercial land uses, but would include development standards that would result in intensification of these uses with greater development and increased allowable residential units. The Intensified Office and Residential Buildout Alternative would not physically divide an established community. Intensified land uses under this alternative have the potential to physically or functionally conflict with adjacent residential land uses due to increases in densities that could result increased building heights, mass and scale, FARs, and/or increased compatibility issues (e.g., increases in traffic, noise, nighttime lighting, etc.). As discussed in the Aesthetics and Visual Resources analyses for this alternative, given the increased potential for greater massing, scale, and height, greater visibility including night lighting would occur under this alternative and would be highly visible from surrounding residential neighborhoods. This impact could result in potentially significant land use compatibility issues. Additionally, intensification of building within the Project area would result in an attributable increase in traffic congestion along local roadways and freeway facilities compared to the Project, as described below in Section 5.4.3.1, *Transportation and Circulation*. As such, this alternative has the potential to be inconsistent with local and regional plans and policies designed to promote regional mobility and ensure the provision of adequate transportation.

Overall, impacts to land use under the Intensified Office and Residential Buildout Alternative would be greater compared to the Project, and would potentially *significant and unavoidable*.

Noise

Similar to the Project, construction activities anticipated to occur under the Intensified Office and Residential Buildout Alternative would have the potential to generate temporary noise and groundborne vibration that could affect nearby sensitive receptors. Construction projects would occur incrementally over time as individual projects develop in various locations, with associated noise temporarily and intermittently affecting localized areas. However, similar to the Project construction activities would be temporary and adherence to the project mitigation measure MM N-1, *Construction Noise Management Plan*, and City's Municipal Code such as limited hours of construction, would ensure that noise levels would not cause significant impacts to sensitive receptors or damage to buildings.

The Intensified Office and Residential Buildout Alternative would result in greater development compared to the Project, and therefore noise from operational sources, such as motor vehicle trips, large ventilation, and air conditioning (HVAC) systems and commercial delivery operations would be increased. However, operational noise under this alternative would be within the existing range of ambient noise (e.g., I-405, City thoroughfare roads) levels within the Project area.

Overall, noise and vibration impacts under the Intensified Office and Residential Buildout Alternative would be slightly greater compared to the Project, but impacts would remain *less than significant*.

Population and Housing

Compared to the Project, increased development under the Intensified Office and Residential Buildout Alternative would result in increased population and employment growth. Anticipated employment under this alternative would increase approximately 20 percent from 2,063 jobs projected under the Project to approximately 2,476 jobs. This job growth is consistent with the General Plan and ABAG projections for the City.

Based on the existing household size of the City, this future workforce would require up to 839 housing units, which is more than the proposed units under the Project or this alternative. This alternative would increase the amount of residential units up to 589 units and would result in an associated residential population growth of approximately 1,699 persons. This alternative would further exacerbate the jobs/housing ratio in the City and would increase the housing need; however, housing needs not absorbed by the City would be met within the surrounding suburban area.

Overall, impacts related to population and housing under the Intensified Office and Residential Buildout Alternative would be greater compared to the Project, but would remain *less than significant*.

Public Services

Increases in employee/visitor populations in the Project area under the Intensified Office and Residential Buildout Alternative would increase the demand on police and fire protection services, public schools, and parks. Under the Higher Intensity Buildout Alternative, the forecasted growth in the Project area would be greater than that of the Project and associated impacts to public services would be increased. The population growth anticipated under this alternative is not expected to result in the need for additional police and fire department facilities; however, increases in population and development under this alternative would lead to an incremental increase in the number of calls and incidents within the Project area, and has the potential to incrementally increase demand on police and fire protection. Individual developers within the Project area would be required to pay development fees that would assist to offset impacts to public services.

Overall, impacts to public services under Intensified Office and Residential Buildout Alternative would be slightly greater compared to the Project, but would remain *less than significant*.

Transportation and Circulation

Greater development potential under the Higher Intensity Buildout Alternative would result in more construction-related traffic associated with potential future projects and would incrementally contribute to increased congestion and disruption of travel routes within the vicinity. While each future project's contribution would be temporary and short-term, ongoing construction would periodically affect circulation in the Project area. Mitigation measure T-1a would apply under this alternative, requiring a Construction Impact Mitigation Plan, to ensure that circulation on the local street network would not be adversely affected.

With more development potential and greater employment generation under this alternative, trip generation would be 20 to 30 percent greater than the 3,651 AM peak hour trips and 4,935 PM peak hour trips estimated to occur under the Project (see Table 5-14). Based on the methodology for determining Project intersection impacts in Section 3.11, *Transportation, Circulation, and Traffic*, this alternative would result in greater LOS impacts to at least three study intersections: 1) Talbert Avenue & Mt. Washington Street, 2) Euclid Street & Newhope Street/Northbound I-405 Ramps, 3) Ellis Avenue/Euclid Street & Southbound I-405 Ramps. Additionally, under this alternative, increased traffic generated by buildout of the proposed Specific Plan would result in increased congestion at least 11 mixed-flow freeway segments. Further, implementation of this alternative, in conjunction with I-405 Improvement projects, localized traffic congestion along roadways, intersections, and mixed-flow freeway segments would be further exacerbated.

Table 5-14. Project vs. Intensified Office and Residential Buildout Alternative Peak Hour Trips

Land Use	Project			Intensified Office and Residential Buildout Alternative		
	Development	AM Peak Hour	PM Peak Hour	Development	AM Peak Hour	PM Peak Hour
Retail, Office, Industrial, and Warehouse Commercial	+258,010 sf	3,401	4,631	+501,236 sf	4,081	5,557
Residential Units	+491 units	250	304	+589 units	300	365
Total		3,651	4,935		4,381	5,922

Source: Appendix E.

Overall, impacts to transportation and circulation under the Intensified Office and Residential Buildout Alternative would be greater than the Project, and would continue to be *significant and unavoidable*.

Utilities and Energy Resources

Development anticipated to occur under the Intensified Office and Residential Buildout Alternative would result in increased demand on utilities due to an additional approximate 501,236 sf of additional office and industrial space within the Project area, in addition to a greater amount of residential uses. As such, utility demand would be greater than the Project. Compared to the Project, introducing a heightened residential water demand for approximately 255 additional people would increase water demand by approximately 25,245 gpd. Based on a linear 20 percent increase in development, the total water demand under this alternative would be approximately 599,826 gpd, or approximately 99,971 gpd more than the Project. Similar to the Project, the increased demand for water would have the potential to result in the need for new or expanded water infrastructure and/or water supplies. Though redevelopment would result in a projected net increase in water demand, the MWDOC and the City anticipate their ability to meet full service demands through 2040. Implementation of MM UT-3, requiring a FVCSP Utility Financing Program would reduce this impact and ensure adequate funds are available for improvements to water utility infrastructure. In addition, increasing reliance on recycled water, City mandated water efficiency requirements, water conservation measures, and implementation of higher efficiency systems would contribute to decreased water demands within the Project area.

Wastewater produced by development under the Intensified Office and Residential Buildout Alternative would meet RWQCB requirements through treatment at the OCSD. This treatment plant utilizes primary and secondary treatment and has the ability to accommodate 320 mgd of wastewater and currently treats an average of 115 mgd. The total increase in water demand increase from the existing buildout would be approximately 173,839.4 gpd, or approximately 0.174 mgd, which would be accommodated by the OCSD. Compared to the Project, development under the Intensified Office and Residential Buildout Alternative would increase water demand by approximately 28,973.2 gpd. Additionally, similar to the Project, utility line segments would be

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upgraded and installed as needed on an individual project basis. Further, mitigation for the FVCSP Utility Financing Program would reduce impacts to wastewater infrastructure.

The amount of solid waste generation under the Intensified Office and Residential Buildout Alternative would be approximately 1,012 pounds per day (lbs/day) more than the Project. The total estimated additional solid waste generated from this alternative would be approximately 5,841.24 lbs/day, equating to approximately 2.92 tpd. As the City is served by solid waste disposal facilities with a current throughput of 6,800 tpd capable of accommodating up to 11,500 tpd, the increase of waste estimated under this alternative would be accommodated by sufficient remaining capacity.

Development actions under the Intensified Office and Residential Buildout Alternative may also incrementally increase or decrease the demand for regional electric and natural gas production and distribution facilities. These facilities are operated and maintained by private utility companies that plan for anticipated growth and expand as needed to meet demand, consistent with applicable local, state, and federal regulations.

Overall, impacts to utilities under the Intensified Office and Residential Buildout Alternative would be greater than the Project, but would remain *less than significant with mitigation* as increased utility demands are not expected to constrain the service capabilities of existing service systems.

Tribal Cultural Resources

Potential impacts to the Intensified Office and Residential Buildout Alternative to tribal cultural resources would be similar to the Project since excavation for construction of projects would occur in a similar manner. Mitigation measures would be implemented to reduce potentially significant impacts to inadvertent discoveries of tribal cultural resources, including pre-construction training, and in the case of an inadvertent discovery, the City selected registered professional archaeologist (RPA) and Native American Monitor would be contacted to assess the resource and the Treatment Plan would be implemented.

Overall, impacts to cultural resources under this alternative would be similar to the Project, and impacts would continue to be *less than significant with mitigation*.

5.4.3.2 Attainment of Project Objectives

The Intensified Office and Residential Buildout Alternative would attain most of the key Project Objectives through implementation of policies and development standards within the Project. These development standards and policies would be aimed at attracting high-value office development along I-405, generating employment in the Project area, strengthening and providing opportunities for small-scale businesses in existing developed locations, improving the visual characteristics of the Project area through architectural and landscaping, and developing the City Activity Center. Increased residential unit development would further facilitate growth of the Project area office building initiatives, in addition to the City center concept. However, the Project Objective to improve multi-modal accessibility and improve circulation of traffic within the district would be more difficult under this alternative due to a higher amount of buildout and associated

travel by members of the workplace and residents. Overall, this alternative would meet most of the Project Objectives.

5.4.4 Identification of the Environmentally Superior Alternative

CEQA Guidelines Section 15126.6 requires that an EIR identify the Environmentally Superior Alternative to the proposed project from among the alternatives analyzed. If the No Project Alternative is found to be environmentally superior alternative, the EIR also identifies an Environmentally Superior Alternative from among the other alternatives. Table 5-15 provides a summary comparison of the likely environmental impacts of the three alternatives with those of the Project. Per CEQA Guidelines §15126.6(d), “The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.”

None of the alternatives analyzed (other than the No Project Alternative) were found to reduce any significant and unavoidable impact to a less than significant level; furthermore, no impact classifications change between alternatives analyzed. The No Project Alternative is eliminated from consideration as the Environmentally Superior Alternative as this alternative would not meet any of the key Project Objectives. The Environmentally Superior Alternative for the Project is identified as the Project. On balance, the Project meets more key Project Objectives than the No Housing Alternatives, while it results in less impacts to the environment than the Intensified Office and Residential Buildout Alternative. Although, the Intensified Office and Industrial Buildout Alternative would also meet most of the Project Objectives, it would result in greater impacts to Air Quality, GHG Emissions, Land Use, Population and Housing, Transportation, and Utilities due to greater development densities. The Lead Agency retains the authority to identify the Environmentally Superior Alternative based on the evidence in the EIR, agency and public input, Lead Agency standards and policies, and the Lead Agency’s independent decision-making.

Table 5-15. Comparison of Alternatives to the Proposed Project

Impact	Proposed Project	No Project	No Housing	Intensified Office and Residential Buildout
Aesthetics and Visual Resources	Less than Significant	Similar and slightly greater (Less than Significant)	Similar (Less than Significant)	Greater (Significant and Unavoidable)
Air Quality	Less than Significant with Mitigation	Less (Less than Significant)	Incrementally Less (Less than Significant with Mitigation)	Incrementally Greater (Less than Significant with Mitigation)
Geology & Soils	Less than Significant	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Greenhouse Gas Emissions	Less than Significant with Mitigation	Less Similar (Less than Significant)	Incrementally Less or Similar Less (Less than Significant with Mitigation)	Incrementally Greater (Less than Significant with Mitigation)
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less (Less than Significant)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Hydrology and Water Quality	Less than Significant	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Land Use and Planning	Less than Significant with Mitigation	Incrementally Greater (Less than Significant)	Incrementally Greater (Less than Significant with Mitigation)	Greater (Significant and Unavoidable)
Noise	Less than Significant with Mitigation	Incrementally Less (Less than Significant)	Incrementally Less (Less than Significant with Mitigation)	Similar or Incrementally More (Less than Significant)
Population and Housing	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Incrementally Greater (Less than Significant)
Public Services	Less than Significant	Less (Less than Significant)	Incrementally less (Less than Significant)	Incrementally Greater (Less than Significant)
Transportation, Circulation, and Traffic	Significant and Unavoidable	Less Greater (Significant and Unavoidable)	Similar Incrementally Less (Significant and Unavoidable)	Greater (Significant and Unavoidable)
Utilities and Energy Resources	Less than Significant	Less (Less than Significant)	Less (Less than Significant)	Greater (Less than Significant)
<u>Tribal Cultural Resources</u>	<u>Less than Significant with Mitigation</u>	<u>Greater (Significant and Unavoidable)</u>	<u>Similar (Less than Significant with Mitigation)</u>	<u>Similar (Less than Significant with Mitigation)</u>
Project Objectives Met?	Yes	No	Objectives Partially Met	Most Objectives Met