# **SECTION 4: CUMULATIVE IMPACT ANALYSIS**

# 4.1 - CEQA Requirements

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an Environmental Impact Report (EIR) when a project's incremental effects are cumulatively considerable. Cumulatively considerable means that, ". . . the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those that are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), "...the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact."

## 4.2 - Cumulative Impact Setting

Table 4-1 summarizes projects in the City of Irvine that have the potential to create cumulative considerable effects in conjunction with the Project.

Exhibit 4-1 shows the location of the projects listed in Table 4-1.

**Table 4-1: Cumulative Projects** 

Name	Location	Characteristics	Status
Crean Lutheran High School	12500 Sand Canyon Ave. (i.e., SE corner Portola Pkwy & Sand Canyon Ave. in PA 9C-2), Irvine	1200 student private high school on 15-acres consisting of administrative and classroom buildings, indoor and outdoor athletic facilities, surface parking and a parking structure.	Completed (Opened November 2010)
Witherspoon TGS Office	2 and 6 Witherspoon, Irvine	Increase existing 22,525 square foot office building by 18,875-square feet.	Approved
Alderwood Residential	2 Alderwood, Irvine	Up to 48 detached single-family residential on former elementary school site.	Under review

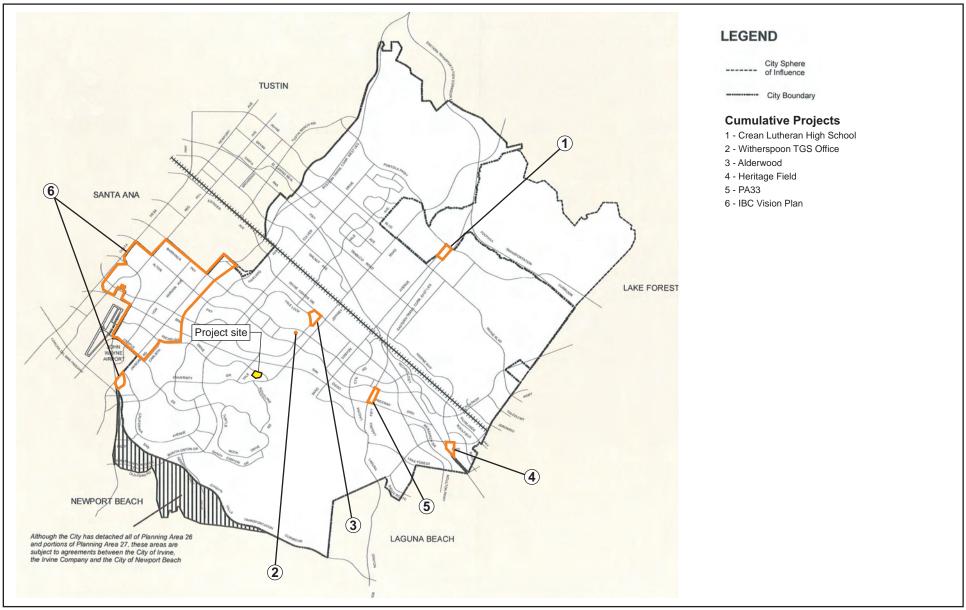
Table 4-1 (cont.): Cumulative Projects

Name	Location	Characteristics	Status	
Heritage Field (Auto Centre and 6-acre)	Heritage Fields District 2 (south of Alton Parkway and Muirlands Boulevard in Planning Area 30), Irvine	Approval of this a vesting tentative parcel map (VTPM) along with subsequent approvals of builder lots and master plans will allow for the development of up to 1,617,700 square feet of non-residential development in Planning Area 30. Heritage Fields has also submitted an application for approval of 84,300 square feet of non-residential development in Planning Area 30. The total maximum square footage is 1,701,100.	Under review	
PA 33	Generally E of SR-133, S of Alton Pkwy, W of Pacifica, and N of I-405 (PA 33), Irvine	Up to 694 apartments	Withdrawn *	
IBC Vision Plan	Generally E of SR-55, S of Barranca Pkwy, W of San Diego Creek, and N of Campus (PA 36), Irvine	15,000 dwelling unit cap (excluding density bonus units) with offsetting reduction of non- residential square footage, for units under the cap that have not yet been approved. Revise Subdivision Code to incorporate new urban park standards into the City's park dedication requirements for the IBC. Remove a 50 unit per acre density cap for determining persons per household.	Approved	

### Notes:

Source: City of Irvine.

<sup>\*</sup> This project has been withdrawn; however, this project was factored into the City's calculations for traffic ITAM data runs.



Source: City of Irvine General Plan, March 2009.



Exhibit 4-1 Cumulative Projects

## 4.3 - Cumulative Impact Analysis

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact consists of an impact, which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.
- When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, an EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR.
- An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant if the project is required to implement or fund its fair-share of a mitigation measure or measures designed to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on the principles as the basis for determining the significance of the Project cumulative contribution to various impacts.

#### 4.3.1 - Aesthetics

The geographic scope of the cumulative aesthetics analysis is the area surrounding the project site. The Project consists of developing the previous Vista Verde Elementary School site with 66 detached single-family homes. As discussed in Aesthetics Section 3.1.5, Impact AES-2, the form, size, and scale of the development is similar to the design and height of the residential uses in the vicinity of the project site. The architecture for the Project has been chosen so the development blends in with the architecture and style of both the immediate neighborhood and the University Park Planning Area as a whole. Landscaping will be provided throughout the project site. The Project design would ensure visual compatibility with the surrounding residential landscape. Mitigation is proposed requiring the screening for construction equipment during the development phase of the Project and the Project will utilize varying construction materials, textures, and colors to maintain the context of the project area and the compatibility with the surrounding residential developments. With the implementation of these design features and mitigation measures, visual impacts were found to be less than significant. Other development projects identified for cumulative impact analysis are outside of the viewshed of the Project. Therefore, the Project, in conjunction with other planned or approved projects, would not have cumulatively considerable aesthetic impacts.

#### 4.3.2 - Air Quality

The geographic scope of the cumulative air quality analysis is the South Coast Air Basin. The Project would not result in a long-term impact on the region's ability to meet State and federal air quality standards. The Project's long-term influence would also be consistent with the goals and policies of

the SCAQMD's Air Quality Management Plan (AQMP). Long-term operations of other development projects may contribute to cumulative emissions; however, the compliance of those projects with the SCAQMD's Air Quality Management Plan is anticipated to reduce cumulative impacts and in doing so would not result in cumulatively considerable air quality impacts.

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced onsite as the equipment is used, and emissions from trucks transporting materials to/from the site. Construction equipment and worker vehicle exhaust emissions related to the Project would be below the established South Coast Air Quality Management District (SCAQMD) thresholds. Excessive fugitive dust emissions created during clearing, grading, earth moving, or excavation operations will be controlled via a mitigation measure. Additionally a mitigation measure shall be implemented to reduce ROG emissions resulting from application of architectural coatings during project construction. However, because the Project's construction emissions would not exceed SCAQMD thresholds, its air emissions would be within the regional air emissions budget; therefore, impacts in this regard are not cumulatively considerable.

### 4.3.3 - Biological Resources

The geographic scope of the cumulative biological resources analysis is the Irvine area. Due to the urban/developed setting, the site does not contain riparian habitat, sensitive natural vegetation, protected wetlands, or jurisdictional waters. Although there is no evidence of any nesting raptors on the project site, landscaping on site does have the potential to provide nesting habitat for a number of migratory birds, such as California towhee, Anna's hummingbird, American crow, and bushtit. Mitigation is proposed to reduce potential impacts on species to a less than significant level. It is reasonable to assume that other future development projects would be required to mitigate for impacts on species in a manner similar to the Project. Therefore, the Project, in conjunction with other projects, would not have cumulatively considerable impacts to bird species.

The Project would not have any significant impacts on fish or wildlife movement and would not conflict with locally adopted biological policies and ordinances. Other future development projects would be required to evaluate impacts on these issues and mitigate where necessary. Therefore, the Project, in conjunction with other projects, would not have cumulatively considerable conflicts with wildlife movement or local biological ordinances and policies.

#### 4.3.4 - Greenhouse Gas Emissions

The geographic scope of the cumulative air quality analysis is the South Coast Air Basin. The Project has incorporated design features that are consistent with the California Office of the Attorney General's recommended measures to reduce Greenhouse Gas (GHG) emissions. No mitigation measures are required because the Project design features would implement applicable Attorney General recommendations, therefore, reducing GHG emissions below the 1,100 MTCO2eq/year GHG threshold. Other planned and approved projects are anticipated to comply with the Attorney

General's recommendations, and it is reasonable to assume that such projects would implement greenhouse gas emissions reduction measures. With the implementation of these measures, the Project and other planned or approved projects would not emit cumulatively considerable amounts of greenhouse gas emissions.

### 4.3.5 - Land Use and Planning

The geographic scope of the cumulative land use analysis is the Irvine area. The Project requires the adoption of a General Plan Amendment, a Zone Change, a Tentative Tract Map, a Park Plan, and a Master Plan to facilitate the development of the residential project. Other projects would be reviewed by the City under CEQA for consistency with the General Plan, and Zoning Ordinance, as well as other applicable requirements, and any significant conflicts would be mitigated or resolved through the City discretionary review and approval. Therefore, significant land use impacts would not occur. As such, the Project, in conjunction with other projects, would not have any cumulatively considerable impacts on land use.

#### 4.3.6 - Noise

The geographic scope of the cumulative noise analysis is the project vicinity, including surrounding sensitive receptors. Construction activities associated with the Project may result in substantial sources of noise at nearby receptors. Accordingly, mitigation is requires the implementation of noise abatement measures to reduce impacts to a level of less than significant. Other planned and approved projects would be required to evaluate construction noise impacts and implement mitigation, if necessary. Construction activities associated with other development projects would make a minimal cumulative contribution to ambient noise levels, because the timing of those activities would overlap minimally, if at all, with the Project. Furthermore, noise is a highly localized phenomenon; therefore, even if construction activities did overlap, no significant cumulative effect would occur because these projects are separated by miles from the Project. It is reasonable to conclude that construction noise from the Project would not combine with noise from other development projects to cause cumulatively considerable noise impacts. Regardless, because construction noise would generally be limited to daytime hours and would be short-term in duration, construction noise would not be cumulatively considerable.

The Project's construction and operational vibration levels are mitigated to a less than significant level and, therefore, would not constitute a cumulatively considerable contribution to ambient vibration levels. Because vibration is a highly localized phenomenon, there would be no possibility for cumulative vibration impacts from other projects because of their distances from the project site.

As discussed in Section 3.6, Noise, impacts associated with onsite noise sources would be less than significant and no additional mitigation is required. Other projects would be required to evaluate onsite noise sources and, if necessary or possible, mitigate for such impacts. Because onsite noise levels would not exceed 64.3 decibels (dBA), noise levels would be consistent with the City of Irvine's established noise standards of 65 dBA at exterior living areas. Thus, onsite noise levels

would not exceed any thresholds of significance, and the Project would not have a cumulatively considerable contribution to onsite noise sources.

As shown in Section 3.6, Noise, the Project would result in less than significant cumulative impacts to noise levels along local roadway segments. If applicable, other projects would be required to mitigate for cumulative noise impacts along local roadway segments. Moreover, stationary noise and transportation noise are localized phenomena, and there is very limited potential for cumulative noise impacts to occur. As such, the Project, in conjunction with other projects, would not have a cumulatively considerable, permanent increase in ambient noise levels in the project vicinity.

### 4.3.7 - Population and Housing

The geographic scope of the cumulative population and housing analysis is the Irvine area. The Project is developed with a school and would not involve the extension of sewer and water service to the project site, because service is already in place. The Project is not considered to have a significant growth-inducement impact because it is located in a predominantly developed portion of the City of Irvine. Therefore, the Project would not have a cumulatively considerable contribution. Other planned and approved projects would be required to evaluate the potential for growth inducement and, if necessary, to mitigate such impacts. As such, the Project, in conjunction with other projects, would not have a cumulatively considerable contribution to impacts on population and housing.

#### 4.3.8 - Parks and Recreation

The geographic scope of the cumulative parks and recreation analysis is the Irvine area. The Project replaces the former Vista Verde Elementary School site that includes a school playground and grass playfields. The school playground was not provided in fulfillment of any Quimby Act requirements and was not provided for/by the City of Irvine for the benefit of its residents. With the development of 66 new homes, additional residents would result in an increased use of nearby parks. To compensate for the increased use of facilities resulting from the additional population the Project will generate, a Park Plan application has been submitted to establish park dedication requirements, the amount of in lieu fees, the allocation of those fees and any additional park amenities to be provided for the residential uses. The Project does not provide onsite recreation amenities, instead, it proposes: 1) To contribute in lieu community-level park fees and, 2) If annexation into the Parkside Community Association is successful, make physical improvements/enhancements to an existing private neighborhood park, or 3) If annexation is unsuccessful, contribute in-lieu neighborhood-park fees to fulfill its parkland requirement. Other planned and approved projects would be required to pay in lieu fees or to make improvements to existing parkland, per City of Irvine requirements. As such, the Project, in conjunction with other projects, would not have a cumulatively considerable contribution to impacts on parks and recreation facilities.

### 4.3.9 - Transportation and Traffic

The scope of the cumulative transportation analysis includes the Irvine area and projects identified for interim year (2015), post-2030 conditions and post-2030 pending conditions. The Project would generate 632 daily trips. Other planned and approved projects would also add new trips to local roadways. On a cumulative basis, each of the projects would implement mitigation measures to reduce impacts. The Project would contribute trips to the following intersections: Culver Drive/Michelson Drive, Sandburg Way/Michelson Drive, Yale Avenue/Michelson Drive, Yale Avenue/University Drive, Rosa Drew Lane/Michelson Drive, Rosa Drew Lane/University Drive, and Michelson Drive/University Drive. The project traffic study demonstrates that addition of projectgenerated trips is forecast to not result in a change in the level of service at any of the study intersections or study roadway segments for the short-term (interim year 2015), buildout (Post-2030) or Post-2030 Pending forecasts. The Post-2030 Pending with and without project conditions did not raise any cumulatively significant project impacts. Refer to the Traffic Impact Analysis (Appendix G of this document) for additional information. Based on City-established thresholds of significance, the addition of project-generated trips is forecast to result in no significant impacts at the study intersections or roadways for any of the analysis scenarios; hence, no mitigation measures are required for the Project since the level of service (LOS) for any intersection operating at a deficient LOS (LOS E or worse) does not change with implementation of the Project. On a cumulative basis, projects in the Irvine area would provide mitigation for impacts which is anticipated to result in less than cumulative impacts overall. Therefore, the Project's incremental effect on intersection and roadway operations is less than cumulatively considerable.