

## **3.5 Cultural Resources Impacts**

### **3.5.1 Scope of Analysis**

The City of Anaheim, acting as Lead Agency in the review of this proposed project, directed the preparation of an Initial Study to determine the nature and scope of the analysis that would be required as part of this draft EIR's preparation. Based on the results of the preliminary environmental analysis undertaken as part of the Initial Study's preparation, the following potential impacts on cultural resources were identified as requiring analysis in this draft EIR:

- The project's potential for disturbance of archaeological resources; or,
- The potential elimination of a unique paleontological resource, site, or unique geological feature.

### **3.5.2 Environmental Setting**

#### **Overview of the Area's Cultural Setting**

The project area is in territory occupied by the Gabrielino Native American group at the time of Spanish contact in A.D. 1769. The Gabrielinos were organized into small autonomous political groups, each of which controlled a specific territory. Each territory had a principal permanent village occupied year-round and smaller seasonal camps for food gathering and processing activities. The nearest village to the project area listed in the San Gabriel Mission records was located to the north of the Santa Ana River in the Yorba Linda area.

Spanish Franciscan missionaries established missions along the coast of California beginning in 1769. San Gabriel Mission, east of Los Angeles, was the nearest mission to the project area. Native Americans were taken to the missions, converted to Christianity and were taught agriculture and European crafts. This resulted in destruction of much of the native culture. In addition, the native population had little resistance to European diseases. The native population was drastically reduced as a result of exposure to smallpox, measles, malaria, and other diseases.

The missions were secularized and closed by the Mexican government in 1832 and mission lands were granted to Mexican citizens. Some of the remaining native population became ranch hands working on the large cattle ranches that occupied the land grants. California became part of the United States in 1848 as a result of the Treaty of Guadalupe Hidalgo that ended the war with Mexico. The Orange County area remained entirely rural until the 1870s and 1880s when Santa Ana, Anaheim, and other towns began to develop with the arrival of the transcontinental railroads. The towns remained small, and agriculture was the principal economic activity in Orange County until after World War II. Rapid urbanization characterized northern Orange County during the 1950s and 1960s.

## Survey Methodology

An archival records search was performed by South Central Coastal Archaeological Information Center staff to determine whether cultural resources (prehistoric and historic archaeological sites and historic structures) have been recorded on the project parcel or in the immediate vicinity.<sup>84</sup> The records search indicated that there are twelve prehistoric archaeological sites within one-mile of the project area. There are no previously recorded historical archaeological sites or resources within a one-mile radius of the project site. The results also indicated that a portion of the property has been previously surveyed for cultural resources; however, no cultural resources were found as a result of that survey. The project area is considered sensitive for prehistoric cultural resources because twelve prehistoric sites have been recorded within one mile of the property.<sup>85</sup>

The same record search included a review of all recorded historic and prehistoric archaeological sites within a one mile radius of the project area as well as a review of all known cultural resource survey and excavation reports. In addition, an archival review of historic maps, the National Register of Historic Places, the California State Historic Resources Inventory, the California Points of Historical Interest, and the listing of California Historical Landmarks in the region was conducted.<sup>86</sup>

## Prehistoric Resources in the Area

Twelve prehistoric sites have been identified within a one mile radius of the project site though none are located within the project site boundaries.<sup>87</sup> Sixteen surveys and/or excavations have also been conducted within a one mile radius of the project area. One of these survey reports (OR752) was for the several-mile-wide corridor of the Eastern Transportation Corridor Study Project, and includes the project site within its study area boundaries. No prehistoric resources were found on the site. Six additional areas that were previously identified are located within the Orange, Black Star Canyon, Prado Dam, and Yorba Linda quadrangles and potentially within the project area.<sup>88</sup>

## Historic Resources in the Area

No historic archaeological sites have been identified within a one mile radius of the project site.

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<sup>84</sup> A copy of the search results is provided in Appendix B.

<sup>85</sup> South Central Coastal Information Center. *Records Search for Canyon Hills Manor Wedding Chapel EIR, City of Anaheim, Orange County California.* July 19, 1999.

<sup>86</sup> South Central Coastal Information Center. *Records Search for Canyon Hills Manor Wedding Chapel EIR, City of Anaheim, Orange County California.* July 19, 1999.

<sup>87</sup> The recorded sites include the following site numbers: 30-000614, 30-000818, 30-000819, 30-000945, 30-001067, 30-001244, 30-100116, 30-100117,30-100118,30-100119, 30-100120, and 30-120010

<sup>88</sup> South Central Coastal Information Center. *Records Search for Canyon Hills Manor Wedding Chapel EIR, City of Anaheim, Orange County California.* July 19, 1999.

Inspection of historic maps of the area (Anaheim 1896 and 1942) 15-minute series indicated that in 1896 there existed a loose network of unimproved roads with a sparse scattering of structures in the vicinity of the project site. The San Diego and San Bernardino Branch of the Atchison, Topeka, and Santa Fe Railroad was in place. The Santa Ana River figured prominently in the vicinity of the project area. In 1942, there were additions of improved and unimproved roads and structures. State Routes 14, 18, and 55 had also been constructed.

The California State Historic Resources Inventory lists no properties that have been evaluated for historical significance within a few blocks radius of the project area. The National Register of Historic Places lists no properties within a one mile radius of the project area. The listings of the California Historical Landmarks (1990) of the Office of Historic Preservation, California Department of Parks and Recreation, indicate that there are no California Historical Landmarks within a one mile radius of the project area. The California Points of Historical Interest (1992) identifies no historically significant properties within a one mile radius of the project area.<sup>89</sup>

The nearest historically significant resource to the proposed project site is the Ramon Peralta Adobe, located approximately 4,250 feet to the southwest near the intersection of Fairmont Drive and Santa Ana Canyon Road. The Ramon Peralta Adobe is located on land that once was part of the Rancho Santiago de Santa Ana. While not the oldest adobe in this area, it is the only remaining adobe in the Santa Ana Canyon area.

The Ramon Peralta Adobe was first constructed in 1871. After Peralta died in 1873, the adobe was vacant for extended periods and may have been damaged by vandals and a fire. In 1881, Pablo Dominguez and his wife, Felipa Yorba, moved into the adobe after undertaking considerable repair and remodeling to the structure. The family occupied the adobe off and on after 1895, but eventually moved to the north side of the river.

The Dominguez family then sold the adobe to E. Walter Pyne in 1908. Mr. Pyne then began an extensive reconstruction and preservation effort. To prevent the walls from further weathering and deteriorating, he covered the exterior surface with a thick layer of concrete and this measure is the one reason that the adobe is still in existence while the other adobes in the area are not. In 1920, with the realignment of Santa Ana Canyon Road, the adobe became the Canyon Café and gas station. An additional structure was attached to the adobe in this period to provide additional space for patrons.

In 1977, the adobe became the property of the County of Orange Environmental Management Agency. After many restoration proposals, the structure and the surrounding property were leased to C. Robert Langslet with the understanding that he would continue the adobe's restoration and subsequently operate the adobe as an historical site open to the public.

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<sup>89</sup> Ibid.

### **3.5.3 Thresholds of Significance**

According to the City of Anaheim, acting as Lead Agency, a project may be deemed to have a significant adverse impact on cultural resources if it results in any of the following:

- A substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines;
- The direct or indirect destruction of a unique paleontological resource, site, or unique geologic feature; and,
- The disturbance of any human remains, including those interred outside of formal cemeteries.

### **3.5.4 Analysis of Environmental Impacts**

#### **Archaeological Resources Impacts**

The previous section indicated that no archaeological resources are known to be present on-site, based on previous archival research. However, the project site and the surrounding area contains numerous intermittent stream channels. In addition, the highest point on the property, at an elevation of 630 AMSL is one of the highest vantage points in the immediate area. As a result, archaeological resources may be encountered in the course of land clearance and grading.

As indicated previously, the great majority of the site is covered in annual grasses, limiting the ability of archaeologists to locate surface artifacts. As a result, a thorough walk-over of the site should be completed once the grasses and shrubbery have been removed. The mitigation measures recommended herein will ensure that any resources encountered during site development will be properly salvaged, catalogued, and researched.

#### **Paleontological Resources Impacts**

The project site is located in Santa Ana Canyon. This section of Santa Ana Canyon lies within the northern part of the Peninsular Ranges physiographic province of Southern California. The Santa Ana Mountains in the project area consist primarily of Jurassic to Tertiary age (about 160 million to 2 million years ago) marine and non-marine sandstone, siltstone, conglomerate and volcanic rock. The project area is underlain by Tertiary-age sedimentary rock, with sandstone bedrock exposed in some locations. As a result, marine fossils may be encountered in the course of excavation and grading. Mitigation has been recommended as a means to reduce potentially significant adverse impacts.

## Cumulative Impacts

As indicated in Section 2.6, there are two related projects considered in this EIR. The related projects include the following:

- *Stonegate Development.* There is a proposal to construct 61 single-family residential units within a 39-acre parcel located immediately south, southwest of the proposed Canyon Hills Manor development site. A detailed archaeological and paleontological survey was completed as part of this proposal's environmental review. The survey did not find any significant resources though mitigation was recommended in the event those resources are encountered during site development.
- *Maag Ranch (Tentative Tract No. 16254).* This project will involve the construction up to 128 residential units within a 24.5-acre property. The project site is located northeast of the intersection of Imperial Highway and Santa Ana Canyon Road. The development site includes old ranch structures, which were determined not to be historically significant during project environmental review.

Fresh bedrock exposed by grading could reveal previously hidden fossils that can be collected. If any recovered fossil represents a new species or one not previously recorded in the region, it is an extremely important find, as it is a significant addition to the knowledge of regional paleontology. Mitigation has been recommended as a means to reduce potential significant adverse impacts.

### 3.5.5 Mitigation Measures

*Measure 3.5-1.* Prior to issuance of a grading permit or approval of grading plans, whichever occurs first, the property owner/developer shall identify and submit the name of a certified project paleontologist and a certified archeologist to the Public Works Development Services Division for review and approval. Once approved, the paleontologist's and archeologist's names, addresses, and telephone numbers shall be placed on the cover of the grading plans.

*Measure 3.5-2.* On-going during grading operations, should fossils be found within an area being cleared or graded, earth-disturbing activities will be diverted elsewhere until appropriate personnel has completed salvage. If construction personnel make the discovery, the grading contractor should immediately divert construction and call a certified paleontological monitor to the site. Major salvage time may be shortened by the grading contractor's assistance (e.g., removal of overburden, lifting and removing large and heavy fossils) as directed by the certified paleontological monitor.

*Measure 3.5-3.* On-going during grading operations, a certified archaeological monitor must be present during all ground clearance activity on the project site. The monitor shall survey the site once vegetation (grasses and shrubbery) has been removed.

*Measure 3.5-4.* On-going during grading operations and construction, in the event buried cultural materials are exposed, work shall be halted in the immediate vicinity of the find until a certified archeological monitor can assess the significance of the materials.

*Measure 3.5-5.* On-going during grading operations and construction, if human remains are unearthed during construction, State Health and Safety Code Section 7050.5 requires that no further disturbances shall occur until the County of Orange Coroner has made the necessary findings as to origin and disposition pursuant to CEQA Appendix K and Public Resources Code Section 5097.98.

### **3.5.6 Significant Unavoidable Impacts**

The implementation of the aforementioned mitigation measures will mitigate to an insignificant level adverse ground-disturbing impacts on paleontological, archaeological, and cultural resources in the proposed project site that may be encountered during grading. These mitigation measures will provide for the recovery of highly important fossil and cultural remains, their preservation in a recognized depository, and their availability for future study by qualified investigators.

## **3.6 Geology and Earth Impacts**

### **3.6.1 Scope of Analysis**

The City of Anaheim, acting as Lead Agency in the review of this proposed project, directed the preparation of an Initial Study to determine the nature and scope of the analysis that would be required as part of this draft EIR's preparation. Based on the results of the preliminary environmental analysis undertaken as part of the Initial Study's preparation, the following potential impacts on geology and soils were identified as requiring analysis in this draft EIR:

- The project's potential for the exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; and,
- The proposed project's potential exposure to strong seismic ground shaking; and seismic-related ground failure, including liquefaction or landslides.

### **3.6.2 Environmental Setting**

#### **Characteristics of On-site Soils**

The project site is located in Santa Ana Canyon. This section of Santa Ana Canyon lies within the northern part of the Peninsular Ranges physiographic province of Southern California. That portion of the Santa Ana Mountains near the project area consists primarily of Jurassic to Tertiary age (about 160 million to 2 million years ago) marine and non-marine sandstone, siltstone, conglomerate and volcanic rock. The project area is underlain by Tertiary-age sedimentary rock, with sandstone bedrock exposed in some locations.<sup>90</sup>

The project site is located in Planning Area B of the Anaheim General Plan. According to the General Plan Environmental Resource and Management Element, Planning Area B consists of Type III-VIII soils which are suited for general agricultural uses. The soils in the area are comprised of sandstone bedrock and older alluvium. These soils are subject to erosion in areas of concentrated runoff. Sandstone bedrock has low expansive potential, while older alluvium soils are made up of low to moderate expansive soils.<sup>91</sup>

The proposed project site's topography consists predominantly of an east-west trending ridgeline with descending slopes to the north and south. The on-site slopes generally have

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<sup>90</sup> Southern California Geotechnical. *Geotechnical Investigation of the Proposed Wedding and Banquet Facility*. January 8, 2001.

<sup>91</sup> City of Anaheim General Plan. 1984, as amended.

slope inclinations ranging from 3 to 1 to 1 to 1. The highest elevation on the site is located near the southeast property corner at the eastern end of the east-west trending ridge and is a peak with an elevation of 630 feet above mean sea level (AMSL). The lowest point on-site is located near the northwest property corner near Santa Ana Canyon Road and is at an elevation of 323 feet AMSL. The property is bounded by similar topography on the south, east, and west sides.<sup>92</sup>

The subsurface exploration conducted for this project consisted of four borings and six trenches to depths of up to 41 feet from the existing ground surface. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to a laboratory for testing.<sup>93</sup> Several of the borings and trenches encountered surficial soils comprised of topsoil, alluvium, and/or colluvium. The soils ranged from 1 to 10± feet in thickness. The thickness of the residual or surficial soils increased in the lower elevations of the site to a maximum of 10 feet. These surface deposits, where encountered, consisted of a relatively thin, less than 1-foot thick, layer of brown silty fine to medium sand with trace of some organic materials.

Topsoil materials were generally in a very loose condition and possessed moisture contents ranging from dry to damp. The alluvial soils, which were primarily observed in the lower elevations of the site, were generally comprised of light brown to brown silty fine sand, and silty fine to coarse sand. Alluvial soils were generally medium dense to dense and possessed moisture contents ranging from dry to damp. Colluvium, or slope wash, was encountered in borings undertaken in the northeastern portion of the site (Borings B-3 and B-4). At Boring No. B-3 the colluvium consisted of a 4± foot thick layer of stiff to very stiff dark brown silty clay in a damp to moist condition. At Boring B-4, the colluvium consisted of 2 feet of brown silty fine to medium sand in a loose and dry condition.<sup>94</sup>

### **Project Site Geomorphology**

Based on a review of the California Department of Mines and Geology Open File Report 79-8 LA, "*Environmental Geology of Orange County, California, 1976*" the proposed project is underlain by the Sycamore Canyon Member of the Puente formation. The Sycamore Canyon Member of the Puente formation is described in the aforementioned report as a marine, light yellow brown to light gray sandstone with sandy siltstone interbeds. Conglomerate lenses are indicated to be common within this unit as well.

Bedrock of the Puente formation was encountered in all of the exploratory borings and trenches, and this bedrock generally consisted of interbedded sandstone and siltstone. The sandstone was generally thickly to massively bedded and comprised of silty fine to medium

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<sup>92</sup> Southern California Geotechnical. *Geotechnical Investigation of the Proposed Wedding and Banquet Facility*. January 8, 2001.

<sup>93</sup> Ibid.

<sup>94</sup> Ibid.



sand with trace gravel. The siltstone portion of the bedrock was relatively thinly bedded and primarily composed of fine sandy silt. Bedrock material were observed to possess relative densities ranging from dense to very dense, and moisture contents ranging from dry to moist.<sup>95</sup>

The bedrock materials observed in the exploratory borings and trenches within the project site appear to be characteristic of the Sycamore Canyon Member of the Puente formation. Bedding orientations observed within the exploratory borings and trenches are consistent with the trends indicated on the published geologic maps. The sandstone was generally massively bedded with occasional siltstone interbeds. Some cross-bedding within the sandstone was also observed. Bedding orientations across the site were observed to be relatively uniform with a general strike bearing from north 50 degrees east to north 60 degrees east, with dips to the northwest ranging from 30 to 40 degrees. Significant discontinuities such as shear features or slide planes were not observed within any of the exploratory borings or trenches.

Free water was not encountered within the borings during drilling. In addition, the readings taken within the borings and trenches did not identify any free water. Based on these readings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to be at a depth in excess of 41 feet at the time of the subsurface exploration.

### **Seismic Characteristics**

The site does not contain active faults and is not located in a State-established Alquist-Priolo Special Studies Zone. The project site would be subject to moderate to strong ground shaking from the surrounding faults in the area that include the Whittier Fault and the El Modeno Fault. The project site is inland enough that the threat of a tsunami or seiche would be remote. No landslides have been mapped on the project site; however, a search of the State of California Division of Mines and Geology Seismic Hazard Zone Maps indicated two small areas within the project site that are mapped in the "Zone of Required Investigation for Earthquake Induced Landslides." The first is an area along the ridgeline above an elevation of 600± feet AMSL where localized areas of the existing slopes have gradients in excess of 1.5 to 1 (horizontal: vertical [h:v]). The other area is adjacent to Santa Ana Canyon Road where the original Caltrans cut slope has gradients in excess of 1.5 to 1 (h:v). The Geotechnical Investigation Report (see Appendix F) includes evaluation of slope stability for both static and pseudostatic (seismic) conditions.

The most probable major sources of a significant earthquake affecting the Anaheim area include the San Andreas fault zone, located approximately 35 miles to the northwest, and the Sierra Madre and Newport-Inglewood fault zones, located approximately 15 miles to the north and southwest, respectively. Both the San Andreas and Newport-Inglewood fault zones have been recognized for some time as being active. The 1971 San Fernando earthquake occurred on a branch of the Sierra Madre fault zone, and has resulted in the entire length of the Sierra Madre fault zone being considered potentially active. Both the San Andreas and Sierra Madre zones have been associated with surface rupturing as well as significant ground shaking effects. No

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<sup>95</sup>Leighton and Associates. Written Correspondence to Ms. Lisa Waddell from Mr. Phillip Buchiarelli. October 13, 1999.

active faults are located within the City of Anaheim. As a result, surface rupture is not anticipated to occur in the project area in the event of an earthquake from the known faults in the surrounding region. As indicated previously, the project site is not included within an Alquist-Priolo Special Studies Zone.<sup>96</sup> As a result, no surface rupture impacts are anticipated.

The United States Geological Survey's (USGS) Professional Paper 1360 indicates that the project area is considered to have a moderate potential for liquefaction due to limited groundwater data. Areas containing groundwater within 30 to 50 feet of the surface are susceptible to liquefaction hazards. The California Department of Water Resources estimates that groundwater elevations in the area are approximately 119 feet above mean sea level.<sup>97</sup> Thus, groundwater on-site is expected to be 68 feet below the ground surface and liquefaction hazards are expected to be low. As indicated in the previous section, no free groundwater was encountered in the borings and trench excavators.

No unstable earth conditions or changes in geologic substructures are anticipated to occur with the project from the excavation, grading, and paving that will be needed to construct the proposed structures. The ground motion impacts on-site are no greater than those expected for the surrounding region.<sup>98</sup> According to the City of Anaheim General Plan, the project area is not located within an area subject to a liquefaction hazard.<sup>99</sup> More recent studies have been completed by the State of California Division of Mines and Geology's (CDMG) Seismic Hazard Zones Mapping Program. According to preliminary maps completed by the CDMG, the project area is not within an area subject to potential liquefaction risk.<sup>100</sup>

### **3.6.3 Thresholds of Significance**

According to the City of Anaheim, acting as Lead Agency, a project will normally have a significant adverse impact on geology and soils if it results in any of the following:

- The exposure of people or structures to potential substantial adverse effects, including the risk of loss, or death related to fault rupture from a known earthquake fault;
- Locating the proposed project within a geologic or soils unit that is unstable, or that would become unstable as a result of the project, potentially resulting in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or,
- Locating the proposed project on an expansive soil, creating substantial risks to life or property.

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<sup>96</sup> Ibid.

<sup>97</sup> U.S. Geological Survey. *Evaluating Earthquake Hazards in the Los Angeles Region – An Earth Science Perspective*, USGS Professional Paper 1360. 1985.

<sup>98</sup> Ibid.

<sup>99</sup> Ibid.

<sup>100</sup> California Division of Mines and Geology. *Preliminary Map of Seismic Hazard Zones*. 1998

### 3.6.4 Analysis of Environmental Impacts

No active faults have been mapped through the site and none are known to exist onsite. The site is not located in a State-established Alquist-Priolo Earthquake Fault Study Zone.<sup>101</sup> However, Southern California is a seismically active region and it is likely that strong seismic shaking will be experienced in Southern California and the site during the lifetime of the improvements. Typical design and construction in accordance with current building codes and standards will limit the potential for damage resulting from seismic shaking.

Two small areas of the project site are mapped within the "Zone of Required Investigation for Earthquake Induced Landslides." The first is an area along the ridgeline above an elevation of 600± ft. AMSL where localized areas of the existing slopes have gradients in excess of 1.5 to 1 (h:v). The other is adjacent to Santa Ana Canyon Road where the cut slope has gradients in excess of 1.5 to 1 (h:v).

*Geotechnical Investigation of the Proposed Wedding and Banquet Facility*, the geotechnical report prepared for the project by Southern California Geotechnical, includes evaluation of slope stability of the site for both static and seismic conditions. The results of those analyses indicate adequate factors of safety for gross stability for both static and pseudostatic (seismic) conditions. It should also be noted that the proposed grading will remove and/or flatten the slopes in both of these areas, thereby mitigating the potential hazard.<sup>102</sup> This situation is further remedied by Mitigation Measure 3.6-5, which requires the site to be graded in conformance with the recommendations set forth in the above-mentioned geotechnical report.

The site's development will require grading to accommodate the proposed access road, the building pads, and the areas for surface parking. The proposed project may also require additional grading associated with Santa Ana Canyon Road improvements, if the City decides to widen it. At this time, however, the rough grading for the possible widening of Santa Ana Canyon Road, while included as a feature of the proposed project, is not scheduled to occur. The development of the proposed project is anticipated to take approximately 12 months to complete, with grading of the site taking approximately 6 months, and construction of the facility anticipated to require an additional 6 months.<sup>103</sup> The grading will be less with re-designation of Santa Ana Canyon Road. Grading will involve the movement of 100,000 c.y. of fill and 250,000 c.y. of cut associated with the access road, building pads, and surface parking areas.<sup>104</sup> If rough grading for the widening of Santa Ana Canyon Road occurs in the future, it

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<sup>101</sup> Leighton and Associates. Written Correspondence to Ms. Lisa Waddell from Mr. Phillip Buchiarelli. October 13, 1999

<sup>102</sup> Southern California Geotechnical. Written correspondence to Ms. Lisa Waddell from Mr. John A. Seminara, P.E. July 9, 2002.

<sup>103</sup> Danjon Engineering, Inc. Personal communications with project engineer, Mr. Jim Schreder. 2001, 2002

<sup>104</sup> Ibid.

would involve an additional 300,000 c.y. of export. The grading plan and the site section grading plan are shown in Exhibits 3-10 and 3-11.

### **Cumulative Impacts**

The impacts on geology and earth resources are site specific. Both related projects considered in this EIR will involve some grading to accommodate future development. The greatest potential for grading is associated with the proposed Stonegate development involving a proposal to construct 61 single-family residential units. The development site includes the 39-acre parcel located immediately south, of the proposed Canyon Hills Manor development site. Similar to the Canyon Hills Manor property, the Stonegate property will require a substantial amount of grading to prepare the site for future development.

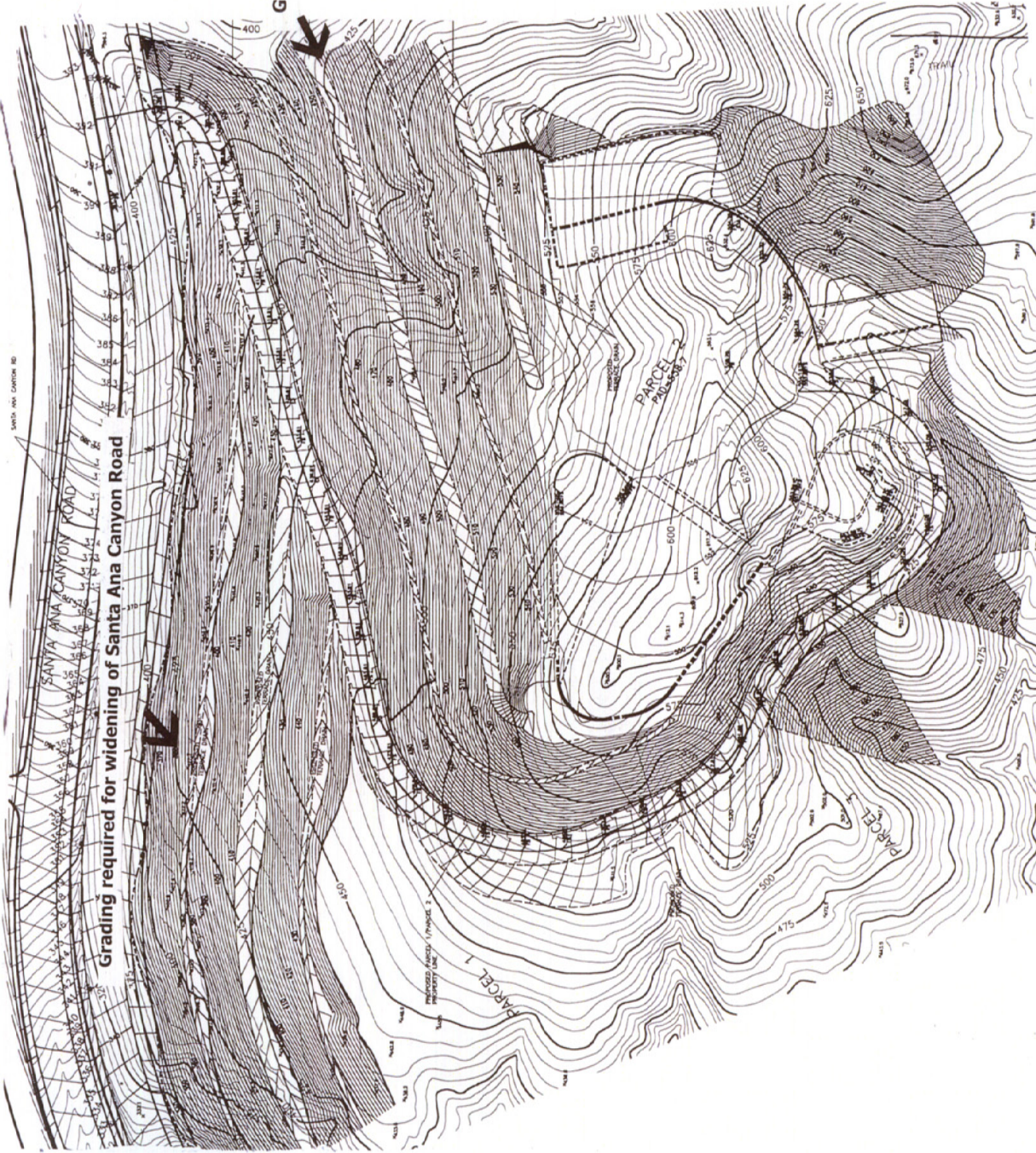
### **3.6.5 Mitigation Measures**

*Measure 3.6-1.* Prior to approval of grading plans or issuance of grading permits, whichever occurs first, grading plans shall provide for positive drainage to be provided away from slopes and structures during and after construction and for the building pads to be graded at a gradient away from the building toward an approved drainage course. Prior to issuance of a building permit, the property owner/developer shall submit detailed landscape plans to the Planning Department, Zoning and Building Divisions which show that planters located adjacent to any structure are designed so that irrigation water does not saturate the soils underlying the building footings and slabs.

*Measure 3.6-2.* Prior to final building and zoning inspections and ongoing during project operation, project site landscaping shall comply with Chapter 10.19 of the Anaheim Municipal Code regarding water efficiency. On-going during project operation, the Maximum Water Allowance set fourth in Chapter 10.19 shall not be exceeded. Further, landscape watering shall be held to a minimum; however, landscaped areas shall be maintained in a uniformly moist condition and not allowed to dry out or become saturated.

*Measure 3.6-3.* On-going during project operation, plumbing leaks shall be immediately repaired so the sub-grade soils underlying the structure do not become saturated. During extreme hot and dry periods, close observations shall be made around foundations to insure that adequate watering is being provided to keep soil from separating or pulling back from the foundation.

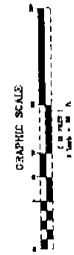
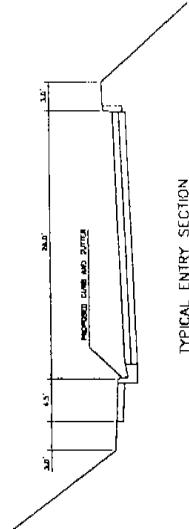
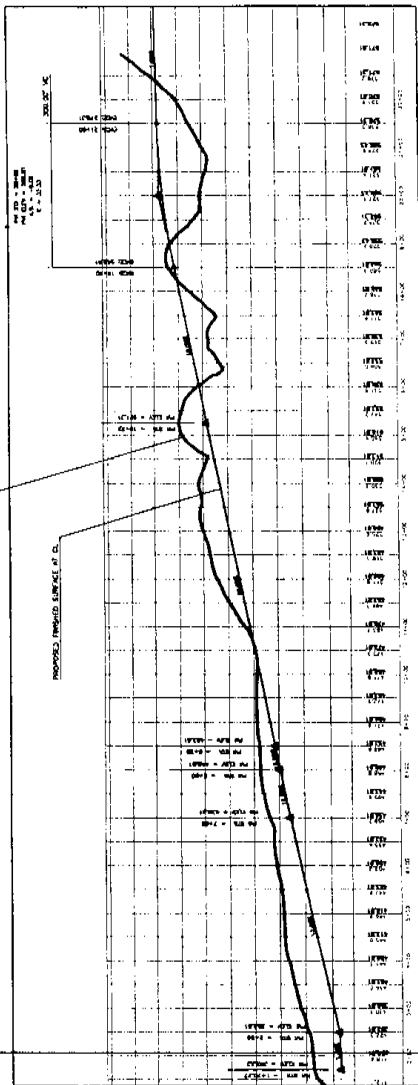
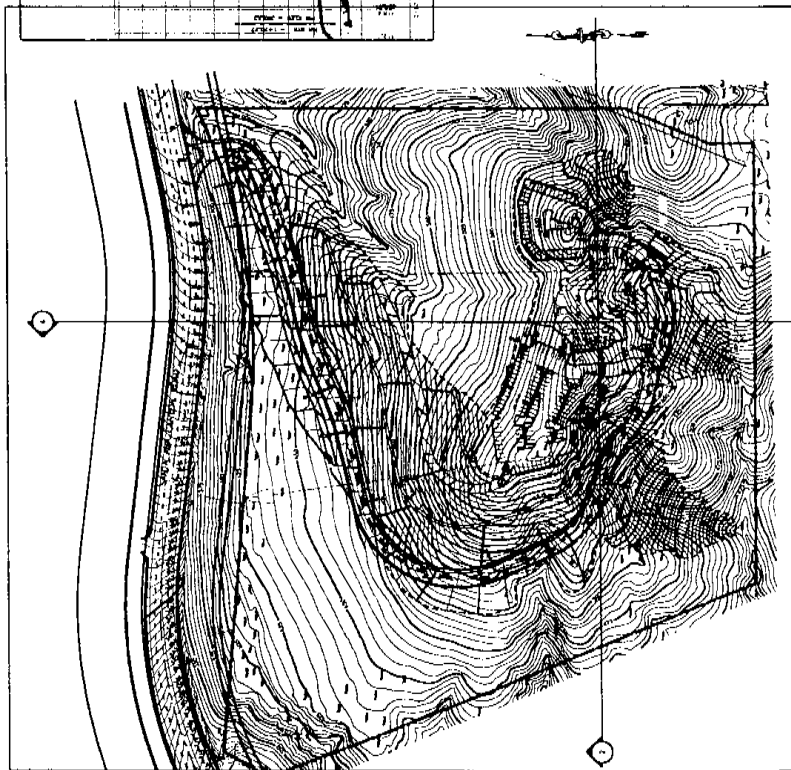
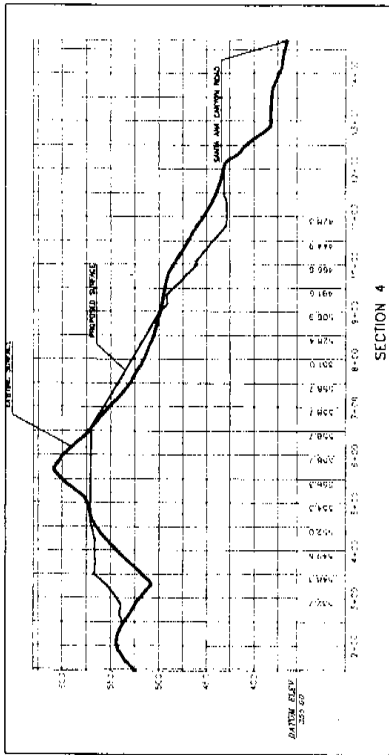
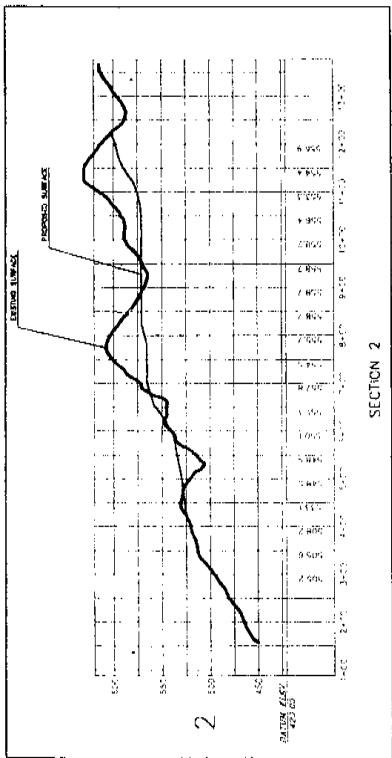
*Measure 3.6-4.* Prior to issuance of a building permit, plans shall show that gutters and downspouts will be installed to collect roof water that might otherwise infiltrate the soils adjacent to structures. The downspouts shall be drained into collector pipes that will carry the water away from the structures or other positive drainage shall be provided near the structures. Prior to final building and zoning inspections, the above-noted improvements shall be installed in conformance with the approved plans.



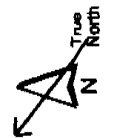
Grading required for access road



**City of Anaheim Draft EIR No. 327**  
**Exhibit 3-10 – Grading Plan**



**City of Anaheim Draft EIR No. 327**  
**Exhibit 3-11 – Site Section Grading Plan**  
 Source: DanJon Engineering, Inc., 2001



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*Measure 3.6-5.* Prior to approval of the first grading plan or issuance of the first grading or building permit, whichever occurs first, the property owner/developer shall submit a final soils and geological report to the City Engineer for review and approval. The report shall be prepared by an engineering geologist and geotechnical engineer to the satisfaction of the City Engineer and shall show compliance with the grading, excavation, and site development recommendations outlined in the geological study prepared for the project by Southern California Geotechnical (*Geotechnical Investigation of the Proposed Wedding and Banquet Facility*, January 8, 2001, Appendix F to DEIR No. 327). The report shall also comply with Title 17 of the Anaheim Municipal Code.

*Measure 3.6-6.* Prior to issuance of a grading permit, the property owner/developer shall submit an Import/Export Plan to the Public Works Department for review and approval. The plan shall include identification of offsite locations for materials exported from the project, including haul routes and options for disposal of excess materials. These options may include recycling of materials onsite, sale to a soil broker or contractor, sale to a project in the vicinity or transport to an environmentally cleared landfill, with attempts made to move it within Orange County.

*Measure 3.6-7.* Prior to the approval of the first grading plan, issuance of the first grading permit or building permit, or approval of the project Fuel Modification Plan, whichever occurs first, the property owner/developer shall submit a letter prepared by a registered civil engineer or geologist indicating that the project Fuel Modification Plan will not adversely affect the project's slope stability. The letter shall be submitted to the Public Works Department with a copy to the Planning Department, Zoning Division.

### **3.6.6 Significant Unavoidable Impacts**

The proposed project will not result in the exposure of persons to fault rupture hazards. The potential ground shaking hazards within the project site are consistent with those found within the surrounding region; and the project site does not contain any soils that represent a constraint to development. Therefore, the proposed project would not result in any significant unmitigable adverse impacts associated with earth and geology.



## **3.7 Hydrology/Water Quality and Other Service System Impacts**

### **3.7.1 Scope of Analysis**

The City of Anaheim, acting as Lead Agency in the review of the proposed Canyon Hills Manor project, directed the preparation of an Initial Study to determine the nature and scope of the analysis that would be required as part of this draft EIR's preparation. Based on the results of the preliminary environmental analysis undertaken as part of the Initial Study's preparation, the following potential impacts related to water quality, hydrology and sewers were identified as requiring analysis in this draft EIR:

- The project's potential for altering the existing drainage pattern of a site or area in a manner which would result in substantial erosion or siltation on-site or off-site, or result in flooding on-site or off-site;
- The project's potential for degrading water quality that could either impact human health or restrict the beneficial uses of the waters of the State;
- The project's potential for causing, or contributing to, a violation of any water quality standard or waste discharge requirement; and,
- The project's potential for impacting the sanitary sewer distribution facilities.

Following the closure of the 30-day NOP review period, the City determined that a sewer study is not needed for the proposed project as the proposed use will result in off-peak flows to the existing sewer system.

### **3.7.2 Environmental Setting**

#### **Groundwater/Surface Water Characteristics**

The project site lies in an area underlain by the Santa Ana River groundwater basin. The north side of Santa Ana Canyon Road is generally located within a 500-year flood hazard area as established by the Federal Emergency Management Agency (FEMA). Those areas located to the south of Santa Ana Canyon Road, including the project site, are located outside the 500-year flood hazard area.<sup>105</sup>

The Anaheim General Plan Safety Element Flood Area Map shows portions of the project site within the Prado Dam failure flood area and in an area that has a potential for minimal flooding. However, flooding on-site is not anticipated, given the site's elevation, which ranges from more

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<sup>105</sup> Federal Emergency Management Agency, *Flood Insurance Rate Map*, 1998.

than 340 feet above mean sea level (AMSL) to more than 670 feet AMSL, in relation to the Santa Ana River which is at an elevation of 300 feet AMSL.<sup>106</sup>

The project site has a number of natural drainage channels as is evident from the incised slopes of the hills that dominate the project site. However, review of topographic maps prepared by the United States Geological Survey, indicates that there are no "blue line" streams located within the site boundaries.<sup>107</sup> The nearest designated blue-line stream is located immediately west of the site. The site's topography is heavily bisected by eroded slopes associated with past erosion. In spite of the site's relatively modest size, there are 11 distinct drainage areas that have been mapped. The existing drainages radiate outward in all directions from the higher elevations found within the central portion of the property.<sup>108</sup>

### **3.7.3 Thresholds of Significance**

According to the City of Anaheim, acting as Lead Agency, a project may be deemed to have a significant adverse impact on water quality and hydrology if it results in any of the following:

- A violation of any water quality standards or waste discharge requirements;
- A substantial alteration of the existing drainage pattern of the site or area through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on-or off-site;
- A substantial alteration of the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in flooding on- or off-site;
- The creation or contribution of water runoff that would exceed the capacity of existing or planned storm water drainage systems or the generation of substantial additional sources of polluted runoff;
- The project's potential for degrading water quality that could either impact human health or restrict the beneficial uses of the waters of the State; or
- The project's potential for causing, or contributing to, a violation of any water quality standard or waste discharge requirement.

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<sup>106</sup> Anaheim, City of. General Plan Safety Element.

<sup>107</sup> United States Geological Survey. *Yorba Linda 7 1/2 Minute Quadrangle*.

<sup>108</sup> Danjon Engineering. Existing Condition Hydrology Map.

## **3.7.4 Analysis of Environmental Impacts**

### **Groundwater/Surface Water Impacts**

The development of the proposed project site will result in the increase of stormwater runoff from historic conditions and in the alteration of the existing natural dendritic drainage pattern and the covering over of a portion of the site with impervious surfaces. As indicated previously, erosion may occur during grading and excavation in the absence of mitigation. Following development, a total of 7.90 acres of land area will be covered by impervious surfaces, including 0.69 acres for buildings plus 7.21 acres for roadways and parking areas. The majority of the site, 21.0 acres, will remain as open space, either landscaped or in a natural and/or revegetated state. As a result, no significant adverse impacts are anticipated.

With the mitigation measures proposed, the proposed project would not violate any water quality standards, waste discharge requirements, nor substantially deplete groundwater supplies, or interfere substantially with groundwater recharge. It would not place housing within a 100-year flood hazard area, nor place structures within a 100-year flood hazard area which would impede or redirect flood flows. The Anaheim General Plan Flood Area Map shows portions of the project site within the Prado Dam failure flood area and in an area within a potential for minimal flooding. However, flooding on-site is not anticipated, given the site's elevation. The proposed project would not expose people or structures to significant risk of loss, injury, or death involving flooding. Increase in runoff for stormwater drainage systems or pollutant runoff would be less than significant with the mitigation measures proposed.

No substantial drainage/hydrology studies have been conducted at this stage of project development; however, they will be conducted prior to approval of the first grading plan. In general, drainage from the site flows towards the south and east. It is expected that these drainage patterns will remain the same and any drainage impacts will be mitigated in accordance with the proposed mitigation measures to the satisfaction of the Public Works Department. Drainage that currently runs off the site flows in the existing City basin, which is where all the remaining water from the site will go.

The City of Anaheim's water conservation measures will be adhered to, and described in Measure 3.7-5. The Anaheim Public Utilities Department Water, Rates, Rules, and Regulations are described in Measure 3.7-6, will be required to be adhered to by the property owner/developer.

### **Water Quality Impacts**

Future development could lead to the presence of debris, leaves, soils, oil/grease, and other pollutants within the parking areas on-site in the absence of mitigation. Under Section 402 of the Clean Water Act (CWA), all point source discharges of pollutants to waters of the United States (including lakes, rivers, wetlands, etc.) must be issued a National Pollutant Discharge Elimination System (NPDES) permit.

The General Construction NPDES Permit Program is the specific permit program that applies to construction sites which disturb more than one acre of land. NPDES permits issued for point sources must contain measures for ensuring that any discharges meet water quality-based provisions of Section 301 of the CWA as well as measures that ensure that preventative measures are in place. As a result, discharges may not contain pollutants at levels that would cause the receiving water body to fail in meeting a water quality standard set by the State of California or the EPA for that water body. In addition, discharges from construction sites must meet the technology-based requirements of Section 301 of the CWA. Discharges from construction sites must meet an acceptable level of pollution control for that type of discharge, regardless of whether that level of control is specifically needed to protect the water body to which the discharge is directed.

The analysis of water and hydrology impacts indicated that no unmitigable significant adverse impacts would result from the proposed project's construction and subsequent occupancy. However, standard conditions will be implemented as a means to further control pollutants entering the storm drain system, and are described in Section 3.7.5 Mitigation Measures.

### **Cumulative Impacts**

Both related projects considered herein will be required to adhere to the applicable NPDES permit requirements and City-related codes (AMC 10.09, 17.04) to control storm water runoff from the parking areas, other developed areas, and operational activities. Given the relatively small amount of impervious surfaces planned for the 29-acre site and the applicable NPDES requirements, the proposed project's construction and subsequent operation will not result in any significant adverse impacts in regard to water quality.

### **3.7.5 Mitigation Measures**

*Measure 3.7-1.* Prior to approval of the first grading plan or issuance of the first grading permit, whichever occurs first, the property owner/developer shall apply for all necessary National Pollution Discharge and Elimination System (NPDES) permits to the satisfaction of the Public Works Department. Prevention measures and/or the treatment of storm water flows shall be required to contain the runoff in existing drainage facilities and mitigate the associated impacts and reduce or eliminate the particulate matter or any other contaminants washed into the storm drain system in order to comply with a storm water discharge permit in accordance with NPDES and City requirements.

*Measure 3.7-2.* On-going during construction and project operations, the use of water to clean streets, paved areas, parking lots, other areas and construction vehicles and equipment and flushing the debris and sediment down the storm drains shall be prohibited as mandated by the Federal Clean Water Act.

*Measure 3.7-3.* Prior to approval of a grading plan or issuance of a grading permit, whichever occurs first, the property owner/developer shall submit a Water Quality Management Plan and an Erosion and Sediment Control Plan to the Public Works

Department for review and approval. The plans shall be prepared to the satisfaction of the Public Works Department. The property owner/developer shall also submit a Storm Water Pollution Prevention Plan for review and approval by the Water Quality Control Board, Santa Ana Region.

*Measure 3.7-4.* Prior to approval of the first grading plan or issuance of the first grading permit, whichever occurs first, the property owner/developer shall submit a drainage study to the Public Works Department for review and approval. The drainage study shall be prepared to the satisfaction of the Public Works Department and shall identify all drainage impacts of the project and set forth measures to mitigate the impacts. Mitigation may include construction of off-site drainage improvements.

*Measure 3.7-5.* Prior to issuance of a building permit, the following water conservation measures shall be shown on plans and thereafter implemented by the property owner/developer:

- Low-flow fittings, fixtures, and equipment including low flush toilets and urinals;
- Use of efficient irrigation systems such as drip irrigation systems and automatic systems that include moisture sensors;
- Use of low-flow sprinkler heads in the irrigation system; and,
- Use of water-conservation landscape plan materials, wherever feasible.

*Measure 3.7-6.* Prior to approval of water service connection plans, the property owner/developer shall comply with all applicable fees in accordance with the Anaheim Public Utilities Department Water Rates, Rules, and Regulations.

*Measure 3.7-7.* Prior to the issuance of the first building permit, the property owner/developer shall submit project plans to the Public Works Department, Street and Sanitation Division for review and approval to ensure that the plans comply with AB 939, the Solid Waste Reduction Act of 1989. Prior to final building and zoning inspections, implementation of said plan shall commence and shall remain in full effect during project operations. Waste management mitigation measures that shall be taken to reduce solid waste generation include, but are not limited to:

- Detailing the locations and design of on-site recycling facilities;
- Providing on-site recycling receptacles to encourage recycling;
- Complying with all Federal, State and City regulations for hazardous materials disposal; and,
- Participating in the City of Anaheim's "Recycle Anaheim" program or other substitute program as may be developed by the City.

### **3.7.6 Significant Unavoidable Impacts**

The proposed project will not result in the use and/or disposal of hazardous materials that would impact water quality. The proposed project will not promote the development of land uses involved in the manufacturing and/or storage of hazardous materials that would involve industrial waste-water discharges; and the proposed project will be required to comply with all pertinent requirements of the Clean Water Act. Therefore, no significant unavoidable impacts to hydrology, water quality, or water service systems were identified in this analysis.

## **3.8 Land Use and Planning Impacts**

### **3.8.1 Scope of Analysis**

The City of Anaheim, acting as Lead Agency in the review of this proposed project, directed the preparation of an Initial Study to determine the nature and scope of the analysis that would be required as part of this draft EIR's preparation. Based on the results of the preliminary environmental analysis undertaken as part of the Initial Study's preparation, the following potential impacts related to land use and planning were identified as requiring analysis in this draft EIR:

- The project's potential to conflict with applicable land use plans, policy and/or regulation (including, but not limited to the General Plan, and zoning code) adopted to regulate the orderly development of land with the purpose of avoiding or mitigating an environmental effect.

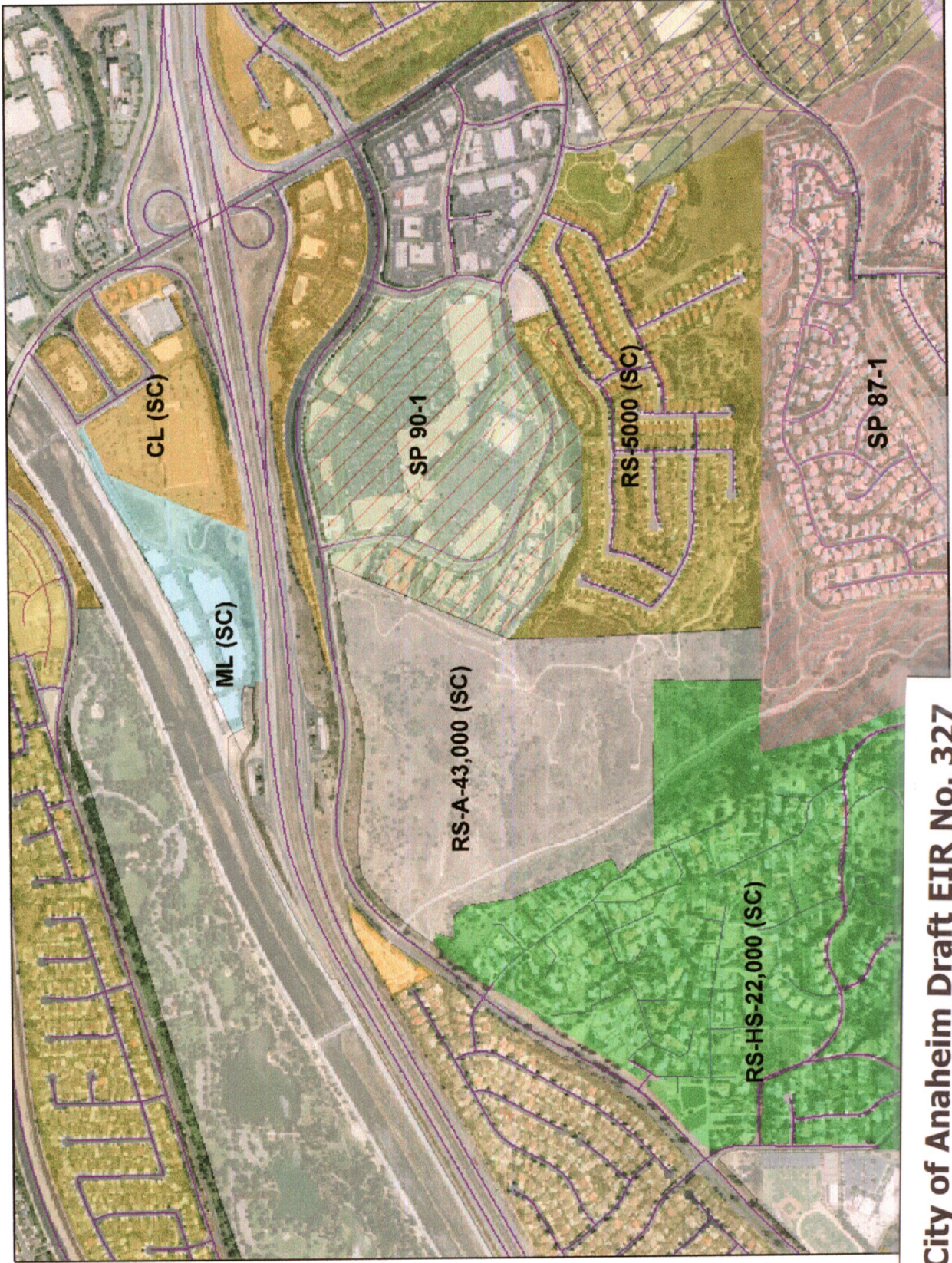
### **3.8.2 Environmental Setting**

#### **Applicable General Plan and Zoning Designations**

The City of Anaheim General Plan was adopted in 1963 and is continually updated as needed to guide growth and development of the City. It establishes long-range goals and objectives of the community and sets standards for future development and redevelopment within the City, identifies the types of land uses that are appropriate and contains policies that guide the development of land. The General Plan divides the City into two geographic planning areas, referred to as Planning Areas A and B. Planning Area A is comprised primarily of built-up urbanized area west of the Riverside Freeway (SR-91)/Costa Mesa Freeway (SR-55) interchange. Planning Area B is comprised of the area located east of this interchange. The proposed project site is located in Planning Area B.

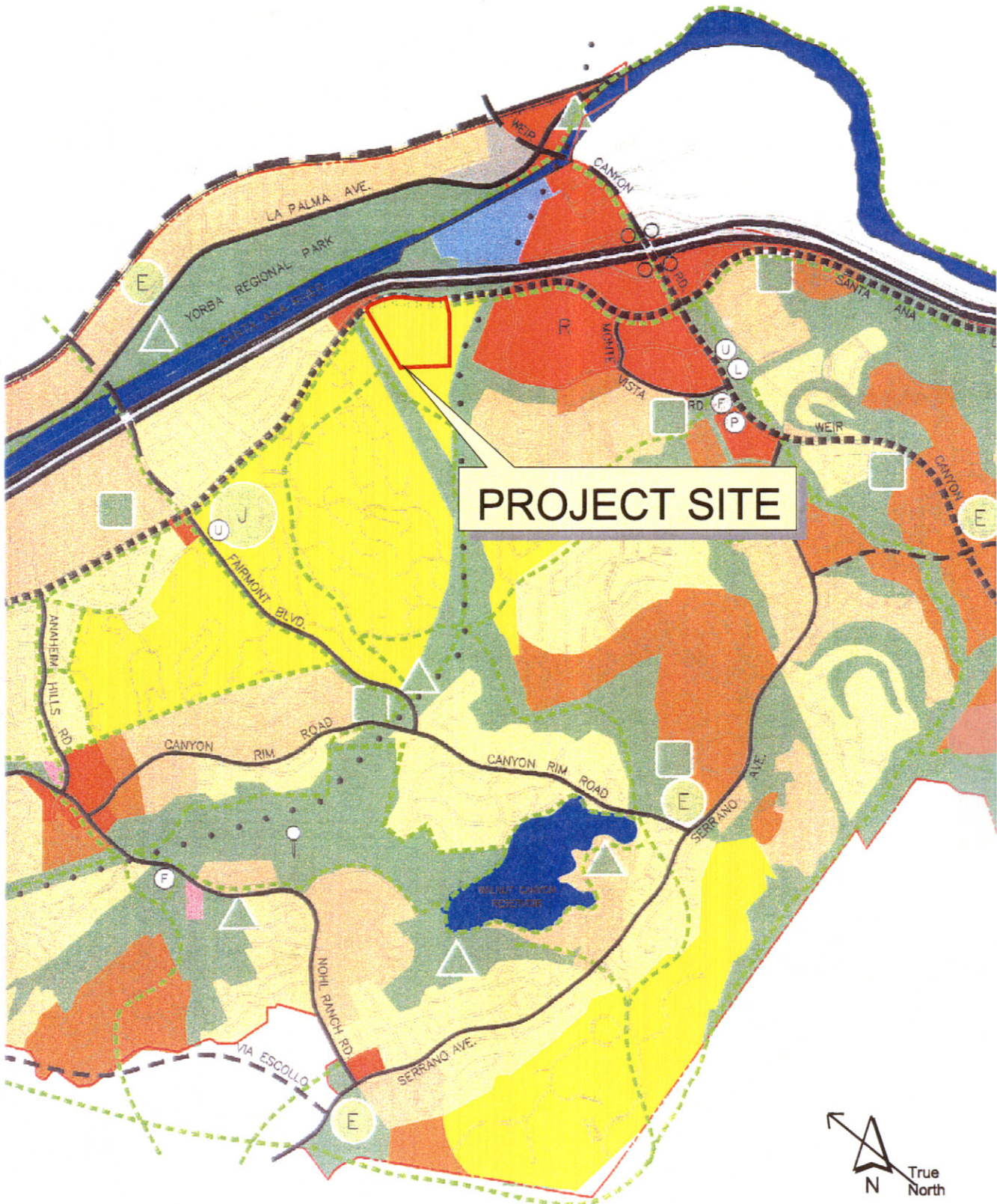
The Canyon Area General Plan adopted in 1977, and updated in 1981, with several subsequent amendments, has been incorporated into the Anaheim General Plan and covers Planning Area B. The project site is located in the vicinity of open space areas and urbanized areas containing primarily residential land uses, and a regional commercial center further to the east beyond the

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**City of Anaheim Draft EIR No. 327**  
**Exhibit 3-12 – Zoning Surrounding the Project Site**





**PROJECT SITE**

- |   |  |
|---|--|
|  Project Site            |  Medium Density     |
|  Hillside Estate Density |  General Commercial |
|  Low Density             |  Gen. Open Space    |
|  Low-Medium Density      |  |

**City of Anaheim Draft EIR No. 327  
Exhibit 3-13 – Surrounding General  
Plan Land Uses**

Edison powerline right-of-way. The following goal and policies are specific to the Canyon Area (Planning Area B) and are relevant to the site:

Goal: *Encourage the maintenance of sound and viable residential neighborhoods and housing.*

Policy: Residential areas should be separated from incompatible zoning and land uses.

Goal: *Encourage and maintain living areas which preserve the amenities of hillside living and which retain the overall low density, semi-rural, uncongested character of the Santa Ana Canyon area.*

Policy: Grading should be kept to the absolute minimum, with developments following the natural contours of the land, and prohibited in steep slope areas.

Policy: Clustering and other innovative land use techniques should be encouraged in order to preserve the natural features, while preserving overall low densities.

The project site is also governed by the Santa Ana Canyon Road Access Point Study adopted by the City Council on January 11, 1966. The intent of the Access Point Study is to control the number of access points onto Santa Ana Canyon Road as properties develop to ensure a safe and smooth flow of traffic along this Scenic Expressway. Presently, the project site does not have an approved access point onto Santa Ana Canyon Road. The proposed project includes an amendment to the Santa Ana Canyon Road Access Point Study to allow an access point to Santa Ana Canyon Road.

The proposed project site is designated for Hillside Estate Density Residential land uses by the City of Anaheim General Plan. The Hillside Estate Density Residential land use designation permits from 0 up to 1.5 dwelling units per gross acre and is typically implemented by the RS-HS-22,000 (SC) and the RS-HS-43,000 (SC) (Residential, Single-Family – Hillside – Scenic Corridor Overlay) Zones and the RS-A-43,000 (SC) (Residential/Agricultural Scenic Corridor Overlay) Zone.<sup>116</sup> The Zoning Code allows consideration of the site as a wedding chapel and banquet facility, subject to approval of a Conditional Use Permit.

The General Plan land use and zoning designations for the surrounding properties are summarized below in Table 3-11. As can be seen in Table 3-11, the areas to the west, east, and south of the project site are zoned for Residential – Hillside Estate uses, and the areas to the east and north of the site are zoned for General Commercial uses. Typical residential development within the Hillside Estate designation consists of single-family residences located on lots containing a minimum lot size 22,000 to 43,000 square feet.

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<sup>116</sup> City of Anaheim. General Plan and Zoning Maps.

<b>Table 3-11 General Plan Land Use Designations/Existing Zoning for Surrounding Properties</b>		
<b>Location</b>	<b>General Plan Designation</b>	<b>Existing Zoning</b>
West of the project site	Residential - Hillside Estate Density; General Open Space	RS-A-43,000(SC)
East of the project site	Residential - Hillside Estate Density; General Open Space	RS-A-43,000(SC)
South of project site	Residential - Hillside Estate Density	RS-HS-22,000 (SC)
North of project site across Santa Ana Canyon Road	General Commercial	CL (SC) Commercial
Source: Blodgett/Baylosis Associates, 2001.		

The Scenic Corridor Overlay Zone (SC) is intended to provide for and promote orderly growth in certain areas of the City designated as being of distinctive, scenic importance, while implementing local government agency actions for the protection, preservation and enhancement of the unique and natural scenic assets of these areas as a valuable resource to the community. The RS-HS-22,000 (SC) and RS-HS-43,000 (SC) zones are "...intended to provide for single-family low density estate development of a spacious and semirural character in hillside areas by encouraging development in keeping with the natural amenities of these areas and preserving their unique scenic resources as a community asset." The RS-HS-43,000 (SC) Zone also provides for limited agricultural uses. The RS-A-43,000 (SC) (Residential/Agricultural Scenic Corridor Overlay) zone is intended to provide for interim agricultural use of open lands until such time as these lands are converted to more urban uses (Anaheim Municipal Code 1 8.21 .010).

The City of Anaheim has determined that a Conditional Use Permit would be required to establish the wedding chapel and banquet facility in the RS-A-43,000 and such a permit would be required on any RS-A-43,000 zoned property in the City. The requirement for a CUP is based on the need to determine, site specifically, if the particular use would be suitable, given the characteristics of the site and unique nature of the surrounding neighborhood. As the proposed use is conditionally permitted in the RS-A-43,000 (SC) Zone and as said zone implements the Hillside Estate Residential designation, the proposed use is consistent with the General Plan and no General Plan Amendment is required.

**Regional Planning**

The project site is located within the planning area of the Southern California Association of Governments (SCAG), the region’s Federally-designated Metropolitan Planning Organization (MPO). SCAG prepared the Regional Comprehensive Plan and Guide (RCPG) to address issues of regional growth. The RCPG is a policy document that sets broad goals for the Southern California region, and identifies strategies for agencies at all levels of government to use in guiding decision-making. It includes input from each of the 13 subregions that make up the Southern California region (comprised of Los Angeles, Orange, San Bernardino, Riverside,

Imperial and Ventura Counties). The proposed project site is within the boundaries of the Orange County subregion, which encompasses the whole of Orange County.

Adopted RCPG policies related to land use are contained primarily in Chapter 3 of the RCPG, entitled Growth Management. The primary goal of the Growth Management Chapter policies is to address issues related to growth and land consumption by encouraging local land use actions that could ultimately lead to the development of an urban form that will minimize development costs, save natural resources and enhance the quality of life in the region.

Additional applicable RCPG policies related to land use are included in Chapter 4 of the RCPG, entitled Regional Mobility, Chapter 5 (Air Quality) and Chapter 11 (Water Quality). The Regional Mobility chapter is a summary of SCAG's 1994 Regional Mobility Element (RME). The RME is the principal transportation policy, strategy and objective statement which proposes a comprehensive strategy for achieving air quality and mobility mandates. Because the project was not identified as regionally significant by SCAG, regional impacts are not discussed under project impacts.

### **Surrounding Land Uses**

Existing development located in the vicinity of the project area includes a wide range of land uses including single-family residential, a storage facility, multi-family residential, and undeveloped open space.<sup>117</sup> The project site is surrounded by the following uses:

- The Riverside Freeway (SR-91) and a truck weigh-station are located to the north across Santa Ana Canyon Road. The freeway is located approximately 600 feet to the north of the site. The property is bordered by Santa Ana Canyon Road, a Scenic Expressway, to the north.
- A Southern California Edison (SCE) powerline right-of-way and an undeveloped parcel are located adjacent to the site on the east.
- An existing regional shopping center (Anaheim Hills Festival Center) is located further east, east of the SCE right-of-way. In addition, commercial development consisting of a hotel (Marriott Residence Inn Hotel) and a planned restaurant (Souplantation) are also located in this area. This shopping center is located approximately 3,000 feet to the east of the proposed project site.
- The Madison Square self storage facility is located along the north side of Santa Ana Canyon Road to the north of the project site.
- A senior citizens apartment complex (Fountains of Anaheim Hills) is located to the east along the west side of Festival Drive, just south of the Marriott Residence Inn.

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<sup>117</sup> Blodgett/Baylosis Associates. *Site Survey*. 2001

- The parcels located adjacent to the project site on the south and west are undeveloped and zoned for hillside residential uses.
- Beyond the undeveloped parcels mentioned above, existing single-family detached homes are located further south and west. The nearest homes are located approximately 570 feet from the proposed project site along Eucalyptus Drive.<sup>118</sup>
- Deer Canyon Preserve Park is located further south and west of the project site.

### **3.8.3 Thresholds of Significance**

According to the City of Anaheim, acting as Lead Agency, a project may be deemed to have a significant impact on land use and development if it results in any of the following:

- The disruption or division of the physical arrangement of an established community;
- A conflict with an applicable land use plan, policy, or regulation of the agency with jurisdiction over the project; or
- An incompatibility between the proposed project and the surrounding land uses.

### **3.8.4 Analysis of Environmental Impacts**

#### **A Conflict with an Applicable Land Use Plan, Policy or Regulation of the Agency with Jurisdiction over the Project**

As discussed in Section 3.8.2, the proposed wedding chapel and banquet facility is permitted in the RS-A-43,000 (SC) Zone subject to the approval of a Conditional Use Permit. Since the RS-A-43,000(SC) is an implementing zone of the Hillside Estate Density Residential Land Use designation, the proposed project is consistent with the General Plan and no General Plan Amendment is required.

The project is consistent with the following General Plan goals and policies:

Goal: *Encourage the maintenance of sound and viable residential neighborhoods and housing.*

Policy: Residential areas should be separated from incompatible zoning and land use.

Goal: *Encourage and maintain living areas which preserve the amenities of hillside living and which retain the overall low density, semi-rural, un-congested character of the Santa Ana Canyon area.*

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<sup>118</sup> Ibid.

Policy: Grading should be kept to the absolute minimum, with developments following the natural contours of the land, and prohibited in steep slope areas.

Policy: Clustering and other innovative land use techniques should be encouraged in order to preserve the natural features, while preserving overall low densities.

The project site is designated for development under the Hillside Estate Density Residential land use designation. The project site is not immediately adjacent to established residential neighborhoods and is separated from the nearest neighborhood by at least 570 feet of intervening open space.

The proposed development of the site would result in the alteration of an existing ridgeline on the site, lowering the center peak 82 feet. It would also result in the clustering of the project structures and parking areas on approximately 27 percent of the site, with the remaining 73 percent of the land area remaining in open space or in landscaped areas (see Table 3-12). With the incorporation of the proposed mitigation measures described in this DEIR and site improvements which would provide for disturbed slopes to be contour graded; the project structures and parking areas to be screened from view from established residential areas by landscape and/or existing topography; the project drainage structures to be designed to minimize their visibility through the use of earth-tone materials and landscaping; the project traffic to access the site directly from Santa Ana Canyon Road, with no access through established neighborhoods; and the project-related noise to be mitigated to a maximum of 60 dBA at the property line, all potential impacts to land use plans and policies would be reduced to a level of insignificance.

<b>Project Element</b>	<b>Area (in sq. ft. and/or acres)</b>	<b>Percent of Total Lot Area</b>
Structures	29,910 sq. ft. (0.69 acres)	2.4%
Surface Parking Areas	5.71 acres	19.8%
Roadway	1.50 acres	5.2%
Landscaping & Open Space (including 300 ft. fuel modification zone)	21.00 acres	72.6%
<b>Site Area</b>	<b>28.90 acres</b>	<b>100.0%</b>
Sources: Kristi K. Skelton Architect, AIA. <i>Site Plan</i> . 2001, 2002 James Schreder, P.E., Danjon Engineering, 2002		

## Zoning

The proposed project consists of construction of a wedding chapel and banquet facility and on-site parking. The Zoning Code allows consideration of the proposed use by a Conditional Use Permit. Table 3-12 indicates the change in land use and land coverage on-site following development. As indicated in the table, the majority of the site will remain in open space (either natural or landscaped) following development.

The wedding chapel is proposed to exceed the maximum height limit of 25 feet within the Scenic Corridor Overlay Zone. As currently proposed, approximately 10 percent of the structure would have a maximum height of 29.5 feet. The proposed facility would be constructed on the top of the hill and the portion of the building that will exceed the height limit is minor and would not obstruct the views of neighboring properties. The proposed structural height would not conflict with the intent of the hillside area goals and policies to preserve the character of the hillside area.

The proposed project is also located in the Scenic Corridor Overlay Zone. The overlay zone contains provisions for the preservation and protection of specimen trees which are defined as *"...any tree of the Eucalyptus varieties (Eucalyptus), Quercus varieties (Oak), Schinus varieties (Pepper), or Platanus varieties (Sycamore), with a trunk measuring eight (8) inches or greater in diameter, measured at a point four (4) feet above ground level."*

The objective of these tree preservation regulations is to preserve the natural beauty of the Santa Ana Canyon environment, increase the visual identity and quality of the area and protect the remaining natural amenities from premature destruction. The proposed project involves the removal of thirty (30) Coast Live Oak specimen trees. Removal of the specimen trees would be an impact since the replacement trees would take many years to reach the maturity of the existing specimens; however, with the replacement of the trees at a 2:1 ratio in conformance with the City's Zoning Code, all potential impacts due to the removal of the specimen trees would be reduced to a level of insignificance.

## The Disruption or Division of the Physical Arrangement of an Established Community

The project site is surrounded by Santa Ana Canyon Road to the north, an SCE Right-of-Way and commercial development to the east, vacant land to the south, and vacant land and Eucalyptus Drive to the west. There are no residential uses located immediately adjacent to the project site. The nearest established residential neighborhoods are located beyond 570 feet from the project site and are separated from the project site by open space areas. The proposed facility and associated parking would be screened from view from the closest neighborhoods by landscaping and/or intervening topography. Approximately 73 percent of the project site's total land area will either remain in open space or be landscaped following development. The hours of use and type of facility have the potential to generate land use compatibility impacts but this would not affect the physical arrangement of nearby residential neighborhoods. With the incorporation of the proposed mitigation measures and site improvements to screen the site, cluster the development project to 27 percent of the site and

attenuate project-related noise, the potential impacts of the project would be mitigated to a level of insignificance.

### **An Incompatibility Between the Proposed Project and the Surrounding Land Uses**

The project site is surrounded by Santa Ana Canyon Road to the north, an SCE Right-of-Way and commercial development to the east, vacant land to the south, and vacant land and Eucalyptus Drive to the west. The proposed facilities and associated parking areas are shielded from the adjacent residential neighborhoods to the southeast and west, and the Senior Apartment Complex to the east due to intervening topography. As a result, views of the proposed topographic changes will be limited. Approximately 73 percent of the site's total land area will either remain in open space or be landscaped following development. The hours of use and type of facility have the potential to generate land use compatibility impacts related to noise. However, as stated in the Noise section of the EIR, compliance with the City of Anaheim's Noise Ordinance, recommended mitigation measures, and the distance between the proposed facility and parking areas and the existing and future residential units would eliminate any potential impacts. With the incorporation of the proposed mitigation measures, all potential impacts to land use compatibility would be reduced to a level of insignificance.

### **Cumulative Impacts**

The two related projects subject to the analysis herein will involve the following land use and development impacts:

- *Stonegate Development* involves the construction of 61 single-family residential units within a 39-acre parcel located immediately south, of the proposed Canyon Hills Manor development site.
- *Maag Ranch (Tentative Tract No. 16254)* involves the construction up to 128 residential units within a 24.5 acre property. The project site is located northeast of the intersection of Imperial Highway and Santa Ana Canyon Road.

The land use impacts are site specific in that each development must be analyzed relative to its General Plan and Zoning Code conformance. The proposed Canyon Hills Manor project will not physically affect, or be affected by either of the above-related projects.

### **3.8.5 Mitigation Measures**

The analysis of land use and development impacts indicated that no significant adverse impacts on land use and development would result from the proposed project's construction and subsequent operation. As a result, no mitigation is required with respect to land use and development. However, the applicant has agreed to the following proposed mitigation measures:



*Measure 3.8-1.* Prior to final building and zoning inspections, all removed specimen trees shall be replaced at a minimum 2:1 ratio in conformance with the City of Anaheim Zoning Code requirements and the approved Specimen Tree Removal Permit.

*Measure 3.8-2.* Prior to issuance of a building permit, detailed landscaped plans shall be submitted to the Zoning Division for review and approval as to conformance with landscape plans approved in connection with the Conditional Use Permit. Said plans shall provide for the wedding chapel and banquet facilities and parking areas to be fully screened from view from adjacent properties. Said plans shall also provide for the site to be landscaped in accordance with fuel modification plans approved by the Fire Department.

*Measure 3.8-3.* Ongoing during project operation, outdoor public address systems, and outdoor live music and recorded music shall be prohibited.

### **3.8.6 Significant Unavoidable Impacts**

The project does not conflict with an applicable land use plan, policy, or regulation of the City of Anaheim, since it is an allowed use with a CUP and the waiver of the maximum structure height requirement will not result in the structure obstructing of adjacent properties. The proposed project will not result in the disruption or division of the physical arrangement of an established community and does not result in an incompatibility between the proposed project and surrounding residential and commercial uses since it is physically separated from established residential neighborhoods by intervening open space areas and screened from view from those neighborhoods by landscaping or intervening topography; approximately 73 percent of the site will remain in open space; and the project will comply with the City's noise ordinance. The proposed project is not considered to be growth-inducing in terms of land use planning; and the proposed project is not in conflict with the General Plan land use designations applicable to the surrounding parcels. Thus, no significant unavoidable adverse impacts on land use and development were identified in this analysis.

## 3.9 Noise Impacts

### 3.9.1 Scope of Analysis

The City of Anaheim, acting as Lead Agency in the review of this proposed project, directed the preparation of an Initial Study to determine the nature and scope of the analysis that would be required as part of this draft EIR's preparation. Based on the results of the preliminary environmental analysis undertaken as part of the Initial Study's preparation, the following potential noise impacts were identified as requiring analysis in this draft EIR:

- The project's potential for resulting in a temporary, periodic or permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

### 3.9.2 Environmental Setting

#### Characteristics of Sound

Noise is defined as unwanted sound. The decibel (dB) scale (a logarithmic loudness scale) is generally used to quantify sound intensity in a convenient and manageable manner. Since the human ear is not equally sensitive to all frequencies within the entire spectrum, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity (referred to as "A-weighting" and written as dBA). In accordance with published literature, the human ear can detect changes in sound levels of approximately 3 dBA under normal ambient conditions. Changes of 1 to 3 dBA are noticeable to some people under quiet conditions while changes of less than 1 dBA are only discernable by very few people under controlled, extremely quiet conditions.<sup>119</sup>

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because the area of the sound wave increases as the sound travels further from the source, less energy strikes any given point over the surface area of the wave. This phenomenon is referred to as "spreading loss." Due to spreading losses, noise attenuates (decreases) with distance. Objects that block the line-of-sight attenuate the noise source if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall will do little to attenuate the noise. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level because the wall can reflect noise back to the receptor compounding the noise.<sup>120</sup>

Time variation in noise exposure is typically expressed in terms of the average energy over time (called Leq), or alternatively, as a statistical description of the sound level that is exceeded over

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<sup>119</sup> Synectech. *Noise Analysis for the Canyon Hills Manor Property, Orange County, California*. October 1999.

<sup>120</sup> Ibid.

some fraction of a given observation period. For example, the  $L_{50}$  noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Other values typically noted during a noise survey at the  $L_{\min}$  and  $L_{\max}$ . These values represent the minimum and maximum noise levels obtained over a given period.

Because sensitive receptors (such as homes) are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment is added to quiet time noise levels in a 24-hour noise descriptor referred to as the Community Noise Equivalent Level (CNEL) or the day/night average noise level (Ldn). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 p.m. to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The Ldn descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 p.m. and 10:00 p.m. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

## Regulatory Setting

To limit population exposure to physically and/or psychologically damaging, as well as intrusive noise levels, the Federal government, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. These regulations are outlined below:

- *Occupational Health and Safety Administration (OSHA)*. The Federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA). Noise exposure of this type is dependant on work conditions and is addressed through a facility's health and safety plan. These regulations would also apply to project construction and are addressed, and mitigated, through the construction contractor's health and safety plan.
- *U.S. Department of Housing and Urban Development (HUD)*. The U.S. Department of Housing and Urban Development (HUD) has set a goal of 65 dBA Ldn as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted within the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provide 20 dBA of attenuation with the windows closed. Based on this premise, the interior Ldn should not exceed 45 dBA.
- *California Department of Health Services (DHS) Office of Noise Control*. The California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels and their effects on various land uses. As a result, the DHS has established four categories for judging the severity of noise intrusion on specified land uses. Noise in the normally acceptable category is generally acceptable with no mitigation necessary. Noise in the conditionally acceptable category may require some mitigation as established through a noise study. The normally unacceptable category

would require substantial mitigation while the clearly unacceptable category is probably not mitigable to a level of less than significant.

- *Title 24 of the California Administrative Code.* Applicable interior standards for new multi-family dwellings are governed by Title 24 of the California Administrative Code. These standards require that acoustical studies be performed prior to construction in areas that exceed 60 dBA Ldn. Such studies are required to establish measures that will limit interior noise to no more than 45 dBA Ldn and this level has been applied to many communities in California.
- *City of Anaheim General Plan.* The project site is located within the City of Anaheim and is subject to the Anaheim General Plan and noise ordinance incorporated therein. In accordance with the City's General Plan Noise Element (August, 1978), the City has adopted the State of California standards. Furthermore, the Noise Element indicates that exterior noise levels at residential locations should not exceed a CNEL of 65 dB while interior levels shall not exceed an annual average CNEL of 45 dB in any habitable room.
- *City of Anaheim Municipal Code, Chapter 6.70.* Stationary sources of noise are governed under the local *Municipal Code*, Chapter 6.70, including Sound Pressure Levels. This section also indicates that no person shall create any sound radiated for extended periods from any premises which produces a sound pressure level at any point on a property line "in excess of sixty decibels." Section 6.72.010 of the Municipal Code allows for the regulation of amplified sound. Specifically, Section 6.72.020.010 states that "In all residential zones and within 200 feet thereof, no sound amplifying equipment shall be installed, operated or used for commercial purposes at any time." Beyond 200 feet from residential area, Section 6.72.020.030 limits the use of sound amplifying equipment for commercial purposes between the hours of 8:00 a.m. and 9:00 p.m. However, Section 6.72.030.0202 exempts "Radios, televisions, phonographs, tape recorders and players, musical instrument amplifiers and similar devices when used and heard only by occupants of the premises in which the devices are located." Finally, Section 6.72.030.0203 exempts horns or other warning devices on vehicles when used for traffic safety.

## **Ambient Noise Environment**

To determine proximate ambient noise levels, Synectecology conducted a field study on September 29, 1999 within the project area.<sup>121</sup> Noise monitoring included four 15 minute noise measurements in immediate proximity of the project site. The measurement locations and

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<sup>121</sup> Noise monitoring was conducted using a Bruel & Kjaer Model 2230 Type 1 Precision Integrating Sound Level Meter. The unit meets the American National Standards Institute Standard S 1.4-1983 for Type 1, International Electrotechnical Commission Standard 651 - 1979 for Type 1, and International Electrotechnical Commission Standard 651 - 1979 for Type 1 sound level meters. The unit was field calibrated at 10:58 a.m. using a Quest Technologies QC-10 calibrator immediately prior to the first reading. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The calibration unit meets the requirements of the American National Standards Institute Standard S 1.4-1984 and the International Electrotechnical Commission Standard 942: 1988 for Class 1 equipment.

results of the measurements are summarized in Table 3-13. As indicated in the table, average noise levels ranged between Leq 44.7 to Leq 56.1.

<b>Table 3-13 Noise Measurement Results</b>		
<b>Location</b>	<b>Description of Noise Sources</b>	<b>Noise Levels</b>
<b>Location 1.</b> This reading was taken in front of the dwelling located at 7730 Autry Drive located at the eastern terminus of the road.	This dwelling is the closest residential unit located to the west of the site. A 15 minute reading was obtained from 11:00 a.m. The dominant source of ambient noise was from traffic on the Riverside Freeway, however, aircraft noise was also notable. Additionally, a breeze was blowing and the rustling of leaves in the trees added to the overall noise profile.	Leq 55.3 Lmin. 50.4 Lmax 61.1
<b>Location 2.</b> This reading was taken on the paved emergency access road which lies directly west of the project site. The meter was located approximately 500 feet south of Santa Ana Canyon Road.	The self storage facility is located immediately north of this emergency road. A 15 minute reading was taken from 11:36 a.m. Again, the dominant noise source was from the local freeway, however, in this location freeway noise was effectively blocked by the canyon walls. Aircraft flyovers also contributed to the ambient noise.	Leq 44.7 Lmin 38.3 Lmax 63.6
<b>Location 3.</b> This reading was taken at the northern end of the cul-de-sac on Raspberry Lane to the north of the project site. The meter was placed overlooking the canyon between the residences located at 203 and 206.	The 15 minute reading began at 12:08 p.m. During this time a car door slam was observed in the driveway at 203 Raspberry Lane approximately 30 feet from the meter. Additionally, a large truck pulled up to the house for a delivery. As with the prior readings, the freeway and aircraft provided the dominant noise sources.	Leq 49.5 Lmin 46.1 Lmax 61.0
<b>Location 4.</b> This reading was taken at the western end of the graded lot located along the west side of Festival Drive. This placed the meter immediately east of the utility easement.	A 15 minute reading was obtained from 12:47 p.m. The dominant noise sources were the freeway and aircraft over flights including a helicopter flyover.	Leq 56.1 Lmin 51.4 Lmax 68.0
Source: Synectecology. 2001, 2002		

Synectecology also returned to the project area to obtain readings during the evening periods. A second field study was performed on Friday night, March 8, 2002. This was after peak hour traffic on Santa Ana Canyon Road, which is not relevant to the project operation hours. Noise monitoring was performed using a Quest Technologies Model 2900 Type 2 Integrating/ logging Sound Level Meter. The unit meets the ANSI Standard S1.4-1983 for Type 2, IEC Standard 651 - 1979 for Type 2, and IEC Standard 651 - 1979 for Type 2 sound level meters. The unit was calibrated at 10:05 p.m. using a Quest Technologies QC-10 calibrator immediately prior to the first set of readings. The calibration was then rechecked at 11:23 p.m. after the last reading and no meter drift was noted. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The unit meets the requirements of ANSI Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment. The study included three noise readings. The Leq, Lmin, Lmax, L<sub>02</sub>, L<sub>08</sub>, L<sub>25</sub>, and L<sub>50</sub> values were recorded. As discussed above, the Leq value is representative of the equivalent noise level or logarithmic average noise level obtained over the measurement period. The Lmin and Lmax represent the minimum and maximum root-mean-square noise levels

obtained over a period of 1 second. The  $L_{02}$ ,  $L_{08}$ ,  $L_{25}$ , and  $L_{50}$  represent the values that are exceeded 1, 5, 15, and 30 minutes per hour if the readings were extrapolated out to an hour's duration. The readings are included in Table 3-14.

- *Night-time Reading No. 1 (SR-1).* This reading was taken in front of the dwelling located at 7730 Autry Drive (in the same approximate location as NR-1 from the 1999 field study, which was in front of the dwelling located at 7730 Autry Drive at the eastern terminus of the road). Again, this dwelling represents the closest residential unit located to the west of the site. A 15-minute reading was obtained from 10:10 p.m. The dominant source of ambient noise was from traffic on the Riverside Freeway which was clearly visible to the northwest and northeast. Winds were calm.<sup>122</sup>
- *Night-time Reading No. 2 (SR-2).* This reading was obtained approximately 20 feet north of the dwelling lying to the south of 7730 Autry Drive and about 100 feet south of SR-91. In this location the view of the freeway is largely obscured by the terrain though the freeway was still readily audible. The reading was obtained from 10:30 to 10:48 p.m. Again, the freeway was the dominant source of noise, but dogs barking also added to the noise level, producing the noted  $L_{max}$  value.
- *Night-time Reading No. 3 (SR-3).* This reading was taken along the southeast portion of the cul-de-sac along Danielle Circle. This placed the meter almost directly south of the project location. The meter was placed overlooking the canyon to the northeast. The 15-minute reading began at 11:05 p.m. As with the prior readings, the freeway was still audible and provided the dominant noise sources.

Monitoring Location	Leq (dBA)	$L_{02}$ (dBA)	$L_{08}$ (dBA)	$L_{25}$ (dBA)	$L_{50}$ (dBA)	Lmin (dBA)	Lmax (dBA)
SR-1	61.5	64.6	63.7	62.4	60.9	57.3	65.8
SR-2	61.0	67.3	64.4	61.6	59.6	52.0	70.8
SR-3	48.0	53.4	50.0	48.2	46.9	43.0	61.1

The Leq represents the equivalent sound level and is the numeric value of a constant level that over the given period of time transmits the same amount of acoustic energy as the actual time-varying sound level. The  $L_{02}$ ,  $L_{08}$ ,  $L_{25}$  and  $L_{50}$  are the levels that are exceeded 2, 8, 25, and 50 percent of the time, respectively. Alternatively, these values represent the noise level that would be exceeded for 1, 5, 15, and 30 minutes during a 1-hour period if the reading was extrapolated out to 1-hour's duration. The Lmin and Lmax represent the minimum and maximum root-mean-square noise levels obtained over a period of 1 second.

<sup>122</sup> It is interesting to note that this and the following reading, both obtained well after 10:00 p.m., were considerably louder than the noise level measured in the same location at 11:00 a.m. (i.e., NR-1). While this may possibly be attributed in part to a greater traffic volume (either due to temporal differences or over 2 years of ambient growth), it is more probably due to the increased vehicle speeds during the night. To increase (or reduce) traffic noise by 3 dBA requires a doubling (or halving) of the number of vehicles. However, this same change in noise may also be attributed to a 5 to 10 mph speed differential. As more vehicles crowd onto a road, their speeds, and resultant noise level, decrease as the road reaches capacity. At night as traffic relaxes, speeds and noise levels increase until the point where vehicles travel no faster and traffic continues to decrease. This is in all probability the situation that was noted to occur during the noise measurements.

## Traffic-Generated Noise Modeling

To determine the existing CNEL noise levels along Santa Ana Canyon Road, existing traffic volumes were modeled using the FHWA Highway Noise Prediction Model (CALVENO Version). The model calculates the Leq noise level for a particular reference set of variables and makes a series of adjustments for site-specific traffic volumes and mixes, time of day, distances, and speeds. In calculating CNEL noise levels for the referenced roadway, the average daily traffic (ADT) volume was based on data provided in the traffic analysis. The CNEL was determined based on the following assumptions and using the following methodology:

- The morning rush hour typically extends from 6:00 a.m. to 9:00 a.m., and the traffic volume for this period is estimated at 11.59 percent of the average daily traffic (ADT) volume.
- The evening rush hour lasts from 4:00 to 7:00 p.m. and the volume for this period was estimated at 31.11 percent of the ADT.
- Night-time traffic was estimated at 5.23 percent of the total ADT traffic and is divided between the hours of 10:00 p.m. and 6:00 a.m.
- In the calculation of a CNEL value, evening traffic (7:00 to 10:00 p.m.) was given a 5 dBA penalty, and for nighttime traffic (10:00 p.m. to 6:00 a.m.), a 10 dBA penalty was added to its predicted value.
- Traffic noise level was modeled at a distance of 50 feet from the centerline of Santa Ana Canyon Road.

The ratio of automobiles, medium trucks, and heavy trucks used in this computation are as prescribed by the County of Orange and include 97.42 percent automobiles, 1.84 percent medium trucks, and 0.74 percent heavy trucks. Based on an estimated average speed of 35 mph, the FHWA model projects a CNEL of 68 dBA as measured at a distance of 50 feet from the centerline of Santa Ana Canyon Road. The 65 and 60 dBA CNELs fall at distances 79 and 171 feet, respectively. Note that the actual distances to these contours could be considerably less than predicted where intervening structures or terrain break the line-of-sight to the roadway.<sup>123</sup>

### 3.9.3 Thresholds of Significance

According to the City of Anaheim, acting as Lead Agency, a project may be deemed to have a significant impact on the environment if it results in any of the following:

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<sup>123</sup> Synectechology. *Noise Study for the Construction and Operation of the Canyon Hills Manor Banquet Facility to be Located in the City of Anaheim, California.* April 2002.

- The exposure of persons to, or the generation of, noise levels in excess of standards established in the Anaheim General Plan, noise ordinance, or applicable standards of other agencies;
- The exposure of people to, or the generation of, excessive ground-borne noise levels;
- A substantial permanent increase in night-time ambient noise levels in the vicinity of the project above levels existing without the project; and,
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

### **3.9.4 Analysis of Environmental Impacts**

#### **Short-Term Construction Noise**

Noise levels associated with construction activities will be higher than the ambient noise levels in the project area today, but would subside once construction of the proposed project is completed. Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there could be a relatively high single event noise exposure potential with passing trucks (a maximum noise level of 86 dBA at 50 feet), the increase in noise would be less than one dBA when averaged over a 24-hour period, and would, therefore, have a less than significant impact on any noise receptors located along the truck routes.<sup>124</sup>

The second type of impact is related to noise generated by heavy equipment operations and local residents could be subject to elevated noise levels due to the operation of this construction equipment. Construction activities, however, will be carried out in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase.

The grading and site preparation phase tends to create the highest noise levels, because the noisiest construction equipment is found in the earthmoving equipment category. This category includes excavating machinery (back fillers, bulldozers, draglines, front loaders, etc.) and earthmoving and compacting equipment (compactors, scrapers, graders, etc.). Typical operating cycles may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Noise levels at 50 feet from earthmoving equipment range from 73 to 96 dBA while Leq noise levels range up to about 89 dBA. The noise associated with later construction of structures is somewhat reduced from these values, and the physical presence of the structure, as well as acoustic shielding afforded by any equipment set-back from the

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<sup>124</sup> Ibid.



ridgeline, may break up line-of-sight noise propagation further reducing these levels. Typical noise levels associated with various types of construction activities are noted in Table 3-15.

<b>Type of Equipment</b>	<b>Range of Sound Levels Measured (dBA at 50 feet)</b>	<b>Suggested Sound Levels for Analysis (dBA at 50 feet)</b>
Pile Drivers, 12,000-18,000 ft-lb/blow	81-96	93
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	68-80	77
Dozers	85-90	88
Tractor	77-82	80
Front-End Loaders	86-90	88
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-86	86
Trucks	81-87	86

Source: Noise Control for Buildings and Manufacturing Plants, BBN 1987.

Composite construction noise is best characterized by Bolt, Beranek, and Newman (USEPA, December 31, 1971). In this study, the noisiest phases of construction for commercial development are presented as 89 dBA while residential developments are presented as 88 dBA Leq, both as measured at a distance of 50 feet from the construction effort. These values take into account both the number of equipment pieces being used and the spacing of the heavy equipment used in the construction effort. In later phases during building erection, noise levels are typically reduced from these values and the physical structures further break up line-of-sight noise. However, as a worst-case scenario, the 89 dBA value is used for the construction effort.<sup>125</sup>

Existing single-family residential units are located to the east and west of the project site, at the east end of both Autry Drive and Dorothy Way. The distance to these units were found to be over 700 feet from the nearest construction (i.e., the westernmost access road cut). Based on spreading losses, noise levels could be on the order of 66 dBA at these locations. Homes

<sup>125</sup> Ibid.

located to the south along Danielle Circle are located in excess of 2,000 feet from the project site. Based on a clear line-of-sight, construction noise is estimated at less than 57 dBA Leq. However, most (if not all) of these homes are precluded by views of the site by an intervening ridge top located to the south of the project site and construction noise would be further reduced. Homes located along Raspberry Lane are in excess of 1,500 feet from the site and are blocked from view of the site by the intervening ridgeline that includes the Southern California Edison (SCE) right-of-way. Similarly, homes along Owens Drive are precluded from views of the site by the ridgeline and those homes located along Eucalyptus Drive. While land designated for residential development abuts the project site to the east, west and south, no homes are currently situated in these areas. As such, any potential for impact on these adjoining, undeveloped properties is not significant.<sup>126</sup>

The City recognizes that the control of construction noise is difficult at best and provides exemption for this type of noise. Any required site construction would be subject to Section 6.70.010 of the City of Anaheim Municipal Code and regulated between the hours of 7:00 a.m. and 7:00 p.m. As such, no construction activities will be permitted outside of these hours, thus reducing potential impacts to less than significant project construction-related noise levels. However, construction noise does represent a potential nuisance value to local residents that may be home during the day. To further reduce construction noise, the following mitigation measures shall be included and followed ongoing during grading and construction:

- All construction equipment shall be properly maintained and tuned to minimize noise emissions;
- All equipment shall be fitted with properly operating mufflers and air intake silencers no less efficient than those originally installed;
- All stationary noise sources (e.g., generators and compressors) shall be located as far from the existing residents as is feasible; and,
- Construction shall be restricted to between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, including Saturday. No construction shall occur at any time on Sunday or a federal holiday. These days and hours shall also apply to any servicing of equipment and to the delivery of materials to or from the site.

Implementation of these measures as well as adherence to the City's Code requirements will help to ensure that any impacts remain less than significant.

### **Long-Term Noise Impacts from Mobile (Traffic-related) Sources**

The development of a new project often results in an increase in local traffic thereby raising mobile-source noise. In accordance with the traffic report, the proposed project is estimated to result in the production of a total of about 500 average daily trips (ADT) from a peak-event day.

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<sup>126</sup> Ibid.

This volume of vehicles was then added to the approximately 24,000 ADT existing along Santa Ana Canyon Road. While the traffic analysis assigns these trips to the evening hour, for the purposes of noise calculations, a worst-case scenario adds the entirety of this traffic to the night period where a 10-dBA penalty is added. Furthermore, because this analysis looks at the project's contribution to the existing noise as a worst-case scenario, it does not include the cumulative traffic associated with other projected projects so that the project has a greater percentage of the whole. Finally, all of this traffic was assumed to enter and leave the site from the same direction along Santa Ana Canyon Road. The analysis represents a worst-case scenario in that it distributes all the traffic along the lightest-traveled major route, and its noise contribution is less than 1 dBA, which is inaudible. The project's noise contribution to SR-91 freeway traffic noise would be less than measurable.

Based on this scenario, the 500 trips for the project were added during the night to the existing ADT for a total of 24,500 ADT. This raised the CNEL value by less than 1 dBA. This increase would not be audible and does not constitute a significant impact. Because of offsite distribution patterns, more distal access routes would include even fewer project-generated vehicles and any noise increase along these routes would also be inaudible.<sup>127</sup>

Another potential source of vehicle traffic noise is that from the operation of the SR-91 and specifically, the grading of a hilltop. The project would reduce the 625-foot high peak to 560 feet above mean sea level (AMSL). The concern is that the removal and resculpture of this hilltop could then create a line-of-sight for existing residents to the freeway. The only residents that may potentially be affected by topping the peak would be those to the southwest along Eucalyptus Drive and its tributaries. (As discussed below, however, these residents would, in fact, not be affected.) The senior apartments located to the east and accessed from Festival Drive do not lie in the noise shadow from the removed peak and would not be affected by the grading of the hilltop. Furthermore, homes to the southeast along Bauer Road, Raspberry Lane, etc. are protected from northwest freeway noise by the intervening ridgeline located to the east of the project that includes the SCE right-of-way and precludes view of the project area.

Based on the U.S. Department of the Interior Orange Quadrangle map (Photo revised 1981) as well as large-scale topographic maps of the project site and adjoining area, the homes that are located along the southern portion of Eucalyptus Drive would be the only residents susceptible to increased freeway noise through removal of the hilltop. These residents have a base elevation of approximately 400 to 500 feet AMSL. The project would retain a pad elevation of 560 feet. As such, no residents that currently have an obstructed view of the freeway would lose this obstruction due to project implementation.

Furthermore, the Quadrangle map shows that those residents that do lie to the south at the higher elevations, such as along Danielle Circle, are shielded by a second ridge top that is also in excess of 600 feet AMSL. Finally, those residents to the south that *may* have views in the direction of the site look to the north or northeast. Even if the entirety of the hill that is included in the project were removed, these residents still would not have a view of the SR-91 Freeway which runs through a cut in the direction of any view from the south or southwest of

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<sup>127</sup> Ibid.

the project site. As such, removal of the hilltop and the grading of the proposed site would not create a line-of-sight to the freeway for existing residents and no measurable increase in freeway noise would be expected with project implementation.<sup>128</sup>

### **Long-Term Noise Impacts from Stationary Sources**

While some noise is associated with the use of heating, air conditioning, and ventilation equipment, these sources are regulated under the Uniform Building Code and are commonplace in both commercial and residential areas. The stationary-source noise concerns focus on the use of sound-amplifying equipment used within the facility for dance and public address in reception activities, or from parking lot activities such as the slamming of doors and the starting of car engines.

### **Interior Use of Sound Amplifying Equipment**

The human ear can distinguish simultaneous noise from two sources to about a 20-dBA differential. Beyond this 20-dBA differential, the quieter of the two sources would not be notable. As such, exterior noise due to the interior use of the public address (PA) system (which was barely audible) could be on the order of 40 to 45 dBA as measured at a distance of 50 feet from the structure. Because the nearest existing residence is located in excess of 1,000 feet<sup>129</sup> from the proposed structure, any noise from the interior use of the PA system would be extremely minimal (less than 20 dBA) at the residence. This noise would not be audible, especially in comparison with that measured at the nearest residence to the project site on the night of March 8, 2002 (i.e., 61 dBA Leq) and is less than significant. Due to even greater distances, the noise at any other local residences would be further reduced and will not be audible, especially in light of the noise generated by the freeway. While winds could increase this noise at downwind receptors, any increase would be less than 3 dBA and the resultant values would still be inaudible at any existing residence.<sup>130</sup>

Another potential impact is on the properties that adjoin the site to the south and west. While no residences are currently located in these areas, they are zoned for residential development and there is the potential for impact at some time in the future. The nearest property line to the south is located in excess of 350 feet from the structure while that to the west is over 650 feet. If exterior noise due to the interior use of a PA system is again estimated at 45 dBA as measured at a distance of 50 feet, the sound levels at the southern and western property lines are calculated at 28 dBA and 23 dBA, respectively, and would not exceed the City standard of 60 dBA. Even if winds were to increase these values by 3 dBA, the resultant values would still be well under the City's standard and less than the ambient levels measured in the field studies.

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<sup>128</sup> Ibid.

<sup>129</sup> The document is consistent in its calculations. Different distances refer to different distances to the receptors, including from property boundaries, site construction activities, and patio use.

<sup>130</sup> Synectechonology. *Noise Study for the Construction and Operation of the Canyon Hills Manor Banquet Facility to be Located in the City of Anaheim, California*. April 2002.

As such, any noise impact from interior facility operations would not be significant, even with other project-generated noise.<sup>131</sup>

A study was conducted to monitor the noise associated with the interior use of sound amplifying equipment at two of the applicant's similar Garden Room facilities in the Cities of Garden Grove and La Habra.<sup>132</sup> The results of this monitoring are discussed in Table 3-16. The obtained noise measurements from both of the existing facilities illustrate that any projected exterior noise from interior activities is extremely minimal. Because of extraneous noise sources that were not associated with the use of these facilities, there is no way to determine how much (or how little) noise is actually contributed by their use. However, the measurements do demonstrate that exterior noise from the proposed facility would be less than the 54.8 dBA noted at the La Habra facility, which was inclusive of traffic noise as well as that from an adjacent automotive repair facility.<sup>133</sup>

Location	Description of Noise Sources	Noise Levels
<b>Location 1.</b> This reading was obtained at the Garden Room facility located at 12777 Knott Avenue in the City of Garden Grove.	The reading was obtained to document the noise produced by the indoor use of the public address (PA) system used during a wedding reception. The meter was placed at a distance of 10 feet from the patio which has an approximate 6-foot high glass enclosure (which the proposed facility will also have). This placed the meter approximately 35 feet from the facility wall and windows. During this reading the disc jockey (DJ) was playing "chit chat" music (i.e., relatively low key background music) as well as dance music. The noise of the PA was totally inaudible outside of the facility unless one was to press their ear up against the door.	The major sources of noise were traffic along Knott Avenue located approximately 85 to 90 feet to the east, and the Garden Grove Freeway, located about 500 to 600 feet to the south. A one-hour reading was obtained from 4:58 p.m. The Leq was noted as 61.8 dBA, with Lmin and Lmax values of 55.5 and 71.5 dBA, respectively.
<b>Location 2.</b> This reading was obtained in the same location as location 1 except that the party had started.	Exterior noise from interior activities was still inaudible except during peak noise events such as applause and cheers or when the exterior doors were opened for patio access. However, even these types of noise were inaudible at a distance of 50 feet from the rear wall.	A 15 minute reading was obtained from 5:59 p.m. The Leq was noted as 62.0 dBA with Lmin and Lmax values of 56.4 and 75.0 dBA, respectively. Again, the ambient noise was due to local traffic.
<b>Location 3.</b> This reading was obtained in the same location as locations 2 and 3 and was used to verify location 2 readings.	In addition to the mentioned road noise, background sirens were twice noted during the measurement. Additionally, an automobile started its engine in the parking lot approximately 100 feet from the monitored location. A 15 minute reading was obtained from 6:15 p.m.	The Leq was noted as 62.2 dBA with Lmin and Lmax values of 56.0 and 71.9 dBA, respectively.

<sup>131</sup> Ibid.

<sup>132</sup> Ibid.

<sup>133</sup> Ibid.

<b>Table 3-16 Measurement of Operational Noises Levels at Existing Similar Facilities*</b>		
<b>Location</b>	<b>Description of Noise Sources</b>	<b>Noise Levels</b>
<b>Location 4.</b> This reading was obtained to document wedding reception noise at the Garden Room facility located at 801 North Beach Boulevard in the City of La Habra. This facility, like that in Garden Grove, uses double pane windows (as will the proposed facility).	The meter was placed at a distance of about 15 feet from the facility windows outside of the reception room. From this point, interior music was barely audible and the dominant noise sources included traffic on Beach Boulevard to the east and Whittier Boulevard to the north. Additionally, a compressor associated with the adjoining automobile repair shop was notable in the background. Finally, the noise from bodywork on an automobile located about 50 feet from the meter was noted.	A 15 minute reading was obtained from 7:15 p.m. The Leq was noted as 54.8 dBA with Lmin and Lmax values of 45.7 and 75.0 dBA, respectively.
<b>Location 5.</b> This reading was obtained in the same location as location 4.	Exterior noise from interior activities was still inaudible except during peak noise events and during "loud" music in which case this noise was barely audible and traffic noise still dominated the reading.	A 15 minute reading was obtained from 7:40 p.m. The Leq was noted as 54.8 dBA with Lmin and Lmax values of 47.1 and 68.3 dBA, respectively.
<p>* The differences in location between the applicant's other facilities and the proposed project site are not sufficient to make an audible difference in noise levels.                      Source: Synectchnology. <i>Noise Study for the Construction and Operation of the Canyon Hills Manor Banquet Facility to be Located in the City of Anaheim, California.</i> April 2002.</p>		

**Exterior Use of Patio**

Relative to the exterior use of the patios at the proposed facility during the evening and at night, an attempt was made to measure patio noise at the Garden Grove Garden Room on February 23, 2002. The patio is open, but separated from the parking area by Plexiglas partitions (similar to the Garden Room at La Habra and to the proposed project). During the course of the evening, people would intermittently wander onto the patio. These were usually small groups of 5 to 10, but as many as 15 to 20 people were observed on the patio simultaneously at times. At 50 feet, the noise from people on the patio was inaudible over road noise from Knott Boulevard. The 15-minute reading was obtained from 9:05 p.m. Monitoring equipment is as described for the Garden Room measurements and the meter was field calibrated at 8:30 p.m. prior to the reading. The meter was placed approximately 170 feet west of the curblineline and 50 feet from the patio area. Even with the vehicles on Knott Boulevard, an Leq of 57.2 dBA was recorded. The Lmax and Lmin were 65.8 and 51.8 dBA, respectively.<sup>134</sup>

The proximity of the road makes it difficult to determine the noise from people using the patio. However, face-to-face conversation is typically noted at 65 dBA at a distance of 5 feet. If it is assumed that 30 people were to use the patio simultaneously with 15 talking at any one time, the composite Leq is calculated at less than 77 dBA as measured at a distance of 5 feet. The nearest existing residential use is over 1,000 feet from the patio area and at this distance, noise would be reduced to 31 dBA Leq. Even with wind effects, the resultant level is inaudible and far less than the Leq values measured the night of March 8, 2002 at the residential units located at

<sup>134</sup> Ibid.

the east end of Autry Drive. (In actuality, it would be uncommon for people to use the patio during high wind conditions.) At over 2,000 feet, homes to the south, near the end of Eucalyptus Drive as well as those along Danielle Circle, could realize noise levels of less than 25 dBA Leq. Again, this value is well under the 48 dBA Leq value measured on the night of March 8, 2002 and would be inaudible. Additionally, the intervening ridgeline would further reduce any exterior patio noise.<sup>135</sup>

Finally, relative to adjoining parcels that are zoned for residential uses, but currently have no receptors (i.e., Stonegate Development), the most proximate site border is located to the south and is in excess of 350 feet from the structure. At this distance, patio noise would be reduced by about 36 dBA and the resultant value is estimated at no more than 41 dBA Leq. This value is well under the City's 60-dBA noise standard and also less than the ambient noise levels. Actually, the patios face toward the northeast and northwest and the properties to the south are shielded from any noise by the physical presence of the structure, which would serve as an effective sound wall. The nearest property line to the west is located approximately 650 feet from the patio area. This location does have a line-of-sight to the northwest patio. If it is again assumed that patio use creates an Leq of 77 dBA as measured at a distance of 5 feet, the Leq at 650 feet is reduced to less than 35 dBA. This value is well under the City's standard of 60 dBA at the property line. Furthermore, this value is well under the noise produced by the freeway, even during the night. As such, any potential for impact is less than significant.<sup>136</sup>

### **Parking Lot Noise**

Some types of noises are associated with parking lot operations and their potential impact on proximate receptors should not be ignored. Synectecology performed noise measurements of automobile door slams on March 11, 2002. Noise monitoring equipment is as described for the year 2002 field study and the meter was field calibrated at 6:05 p.m. The ambient noise level was noted at 43 to 44 dBA.

The measurements include 13 door slams. The vehicles included a 1999 Oldsmobile Aurora (six slams) and a 1990 Jeep Grand Wagoneer (seven slams); both full-size family vehicles. The meter was located 50 feet from the car door(s). The doors were purposely and forcefully slammed. Furthermore, the vehicle occupant stood to the side as the doors were slammed so that the meter had a clear line-of-sight to the car doors. Additionally, the meter was allowed to return to the ambient noise level between door slams. Instantaneous readings for the Aurora ranged from 55.3 to 59.8 dBA. The Jeep produced readings ranging from 57.4 to 61.4 dBA. As a worst-case scenario, it is assumed that a door slam produces an instantaneous noise level of 65 dBA. (This is well above any of the measured values and no shielding due to the presence of the occupant or other vehicles in the lot is assumed.) Note that this value represents an instantaneous, Lmax level. The west parking area is located at a distance of approximately 850 feet from the nearest existing residents. Based on an assumed value of 65 dBA as measured at a distance of 50 feet, noise from door slams could be on the order of 40 dBA at these homes.

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<sup>135</sup> Ibid.

<sup>136</sup> Ibid.

Noise from the east parking lot would be further reduced by the additional distance as well as the physical presence of the structure which would serve as an effective sound wall.<sup>137</sup> In addition, it is assumed that even if all of the guests leave at the same time, they will not all be slamming their car doors at the same instance, at the same distance from residents.

With respect to the adjoining parcels, the west and east parking areas are located approximately 350 and 400 feet, respectively, from the nearest property line to the south. Based on an assumed level of 65 dBA as measured at a distance of 50 feet, door slams would be on the order of 47 to 48 dBA at the property line.

The City's noise ordinance notes that for a noise to be offensive, measurements shall consist of "the average of not less than three readings taken at two minute intervals." Furthermore, "to have valid readings, the levels must be 5 dB or more above the levels prevailing at the same point when the source(s) of the alleged objectionable sound are not operating." Any parking lot noise is of extremely short duration and if averaged over the period noted in the ordinance would add only minimally to the ambient noise and would be far less than the 60-dBA standard. As such, these types of noises will not present a significant impact.<sup>138</sup>

In addition to door slams, parking lot noise would include engine starts and vehicle travel along the onsite access road. As a worst-case scenario, it is assumed that the entirety of the 250 trips per day that would leave the site were to leave in a 1-hour period. This noise was then modeled using the Caltrans, Sound32 Noise Model. The average onsite speed is assumed at 15 miles per hour (mph). The model notes that based on soft-site modeling, the volume of vehicles would create a 1-hour noise level of 46.5 dBA Leq as measured at a distance of 50 feet. At its nearest point, the access road is in excess of 700 feet from the nearest existing residents and noise is calculated at approximately 30 dBA Leq. The road comes to within about 200 feet of both the southern and western property lines and this noise is calculated at less than 39 dBA Leq at the property line. All of these values are well under the City's 60 dBA and any impact is less than significant. Furthermore, these levels are all well below the ambient noise measured the night of March 8, 2002 and the project would not contribute significantly to this ambient noise.<sup>139</sup>

Other sources of parking lot noise are also possible. People gather at the building entrance and converse while walking through the lot and entering their vehicles. Occasional horns and car alarms may also be sounded. The noise produced by people gathering outside the facility would not exceed that noted for patio activities and is less than significant. People conversing within the lot would not exceed the value used for door slams and, as demonstrated, the impact is also less than significant.<sup>140</sup>

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<sup>137</sup> Ibid.

<sup>138</sup> Ibid.

<sup>139</sup> Ibid.

<sup>140</sup> Ibid.



The use of horns and unintentional sounding of car alarms would be rare occurrences. The sound created by the use of automobile horns and alarms is exempted from the regulation within the City Municipal Code. Specifically, Section 6.70.010 of the ordinance notes, "Traffic sounds, sound created by emergency activities and sound created by governmental units shall be exempt from the applications of this chapter." Section 6.72.030.0203 notes that warning devices include horns or other warning devices on other vehicles when used for traffic safety purposes. Furthermore, because these warning devices sound for such short duration, they do not measurably raise the CNEL. As such, their impact, while potentially adverse, is less than significant.

### **Ground-borne Vibration Impacts**

Excessive ground-borne vibration is typically caused by activities such as blasting used in mining operations, or the use of pile drivers during construction. The project will not require any blasting or pile-driving activities and no significant impacts are projected.

### **Cumulative Impacts**

The two related projects subject to the analysis herein will involve the following land use and development impacts:

- *Stonegate Development* involves the construction of 61 single-family residential units within a 39-acre parcel located immediately south, of the proposed Canyon Hills Manor development site.
- *Maag Ranch (Tentative Tract No. 16254)* involves the construction up to 128 residential units within a 24.5-acre property. The project site is located northeast of the intersection of Imperial Highway and Santa Ana Canyon Road.

The greatest potential for cumulative noise impacts is related to the additional traffic that will be directed towards Santa Ana Canyon Road. The potential traffic generation from these projects, together with that anticipated from the proposed Canyon Hills Manor project, will not be great enough to result in a discernable change in the ambient noise levels. All three project sites are located within the Riverside Freeway corridor, which is a major noise source in the area. It would require a doubling of traffic on Santa Ana Canyon Road to increase the ambient noise levels by between 3.0 to 5.0 dBA.

## **3.9.5 Mitigation Measures**

The analysis determined that the proposed project would not result in any significant adverse short-term or long-term increases in the ambient noise levels. With the incorporation of the following proposed mitigation measures, the project noise levels will not adversely impact noise sensitive land uses in the area:

*Measure 3.9-1.* On-going during project operations, the proposed project shall adhere to the requirements of Chapter 6.70 of the Anaheim Municipal Code and any other noise-related conditions of the project.

*Measure 3.9-2.* On-going during construction, all construction equipment shall be properly maintained and tuned to minimize noise emissions.

*Measure 3.9-3.* On-going during construction, all equipment shall be fitted with properly operating mufflers and air intake silencers no less efficient than those originally installed.

*Measure 3.9-4.* Prior to the issuance of a building permit, plans shall indicate that all stationary noise sources (e.g., generators and compressors) shall be located as far from the existing and future residents as is feasible.

*Measure 3.9-5.* On-going during construction, construction shall be restricted to between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, including Saturday. No construction shall occur at any time on Sunday or a federal holiday. These days and hours shall also apply to any servicing of construction equipment and to the delivery of construction materials to or from the site.

*Measure 3.9-6.* Prior to the issuance of a building permit, plans shall show that double-pane glass or acoustic-rated window facilities shall be provided in all rooms where a public address system may be used. Said glass on facilities shall be installed prior to final building and zoning inspections and be maintained ongoing during project operation. Further, ongoing during project operations, no public address systems may be used in a room that does not have double-pane glass or acoustic-rated windows facilities. Further, no public address system may be placed outdoors or used such that it is audible at any decibel outdoors.

*Measure 3.9-7.* Prior to the issuance of a building permit, plans shall show that the outdoor patio areas will be enclosed on all sides, with the enclosure materials (such as glass or Plexiglas) having a height of 6 feet measured from the finished grade level of the patio floor. Said enclosure materials shall be installed prior to issuance of final building and zoning inspections and shall be maintained ongoing during project operation.

*Measure 3.9-8.* Ongoing during project operation, truck deliveries shall be prohibited between the hours of 7:00 p.m. and 7:00 a.m.

### **3.9.6 Significant Unavoidable Impacts**

With the mitigation measures that are proposed, no long-term significant impacts are associated with the proposed project's operation. The following findings may be made relative to the analysis, including: the proposed project's construction will result in short-term noise impacts, although these impacts will cease once the construction is complete; the proposed project's operation will result in additional traffic generation, which in turn, will result in

increased traffic noise levels along Santa Ana Canyon Road, however, the noise levels will be less than significant (the potential increase in traffic noise will be less than 1.0 dBA in the immediate area); and, the proposed project's operation will result in noise levels considered to be less than significant.

## **3.10 TRAFFIC AND CIRCULATION IMPACTS**

### **3.10.1 Scope Analysis**

The City of Anaheim, acting as lead Agency in the review of this proposed project, directed the preparation of an Initial Study to determine the nature and scope of the analysis that would be required as part of this draft EIR's preparations. Based on the results of the preliminary environmental analysis undertaken as part of the Initial Study's preparation, the following potential transportation and circulation impacts were identified as requiring analysis in this draft EIR:

- The project's potential for generating traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result of substantial increase in either the number of the vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- The project's potential for exceeding, either individually or cumulatively, a level of service standard established by the Orange County Transportation Authority (OCTA) for designated roads or highways.
- The project's potential for increasing in the number of peak hour trips over and above a residential project in conformance with the General Plan Hill Side Estate Density Residential land use designation.

The project applicant has submitted Traffic and Parking Studies, which are provided in Appendix E of the Draft EIR.<sup>141</sup> This information has been reviewed and analyzed by an independent Traffic Engineer under contract with the City, and the analysis and conclusions set forth in this section reflect said review, the findings of which have been approved by the City's Traffic and Transportation Manager.

### **3.10.2 Environmental Settings**

#### **Existing Facility**

The project is located along the south side of Santa Ana Canyon Road between Eucalyptus Drive on the west side and Festival Drive on the east side. Regional access to the site is provided via the SR-91 (Riverside Freeway) interchanges at Weir Canyon Road and Imperial Highway. Santa Ana Canyon Road currently provides the only public vehicle access to the site. Santa Ana Canyon Road is designated as Scenic Expressway with an ultimate configuration of a six-lane divided highway (3-lanes in each direction) and right-of-way (ROW) of 148 feet. Currently, Santa Ana Canyon Road is a four-lane undivided roadway adjacent to the project site that parallels SR-91. The roadway cross section at this location consists of two lanes and a shoulder for eastbound and westbound traffic with a double yellow centerline separation.

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<sup>141</sup> Traffic Study prepared by Pringle and Associates and Willdan.

Approximately 0.3 mile to the west, Santa Ana Canyon Road becomes a divided four-lane facility (2-lanes in each direction) with a median and various types of landscaping.

### **Festival Drive at Santa Ana Canyon**

To the east of the site, approximately 0.2 mile, is a signalized intersection at Festival Drive. No U-turn is allowed for eastbound traffic at this location. This intersection is a TEE (three legs) intersection with the south leg for the north-south direction. There are one left-turn lane and three thru-lanes westbound, three thru-lanes and one right-turn lane eastbound, and one left-turn lane, one left shared right-lane and one right-lane southbound. Because of its geometrics, this intersection does not provide a left turn-lane in the eastbound direction, however there is a wide raised median island with streetlights, along the west leg, which shadow out the westbound left-turn lane to southbound. There is a drop lane along the westbound south of the intersection, which reduces Santa Ana Canyon Road to two-lanes for westbound traffic.

### **Roosevelt Road at Santa Ana Canyon Road**

Further east of the site, approximately 0.6 mile, is a signalized intersection at Roosevelt Road. This four-leg intersection has left-turn lanes along Santa Ana Canyon Road with signal left-turn phasing. There are no restrictions on U-turns in the eastbound and westbound directions.

### **Eucalyptus Drive at Santa Ana Canyon Road**

This location is approximately 0.5 mile west of the site and is an unsignalized intersection at Eucalyptus Drive. There are one left-turn lane and two thru-lanes in the eastbound and westbound directions. This intersection is stop sign controlled at Eucalyptus Drive. There are no restrictions on U-turns in the eastbound and westbound directions at this location. The existing westbound and eastbound left-turn lanes are approximately 50 feet and 100 feet in length, respectively. The westbound left-turn lane is sized for two vehicles only, to serve the local residents, and the south leg of the intersection is signed with a "No Outlet" sign.

### **Canyon Crest Drive (Martin Drive) at Santa Ana Canyon Road**

This location is approximately 0.9 mile west of the site and is an unsignalized TEE intersection at Canyon Crest Drive (Martin Drive). The south leg of this intersection is signed with a "No Outlet" sign and serves only the local residents. There is a left-turn lane in the westbound direction and it is sized for approximately one vehicle only. There is no U-turn restriction posted for the westbound left-turn traffic.

### **Mohler Drive at Santa Ana Canyon Road**

Further west of the site, approximately 1.0 mile, there is a signalized intersection at Mohler Drive. This four-leg intersection has left-turn lanes along Santa Ana Canyon Road with signal left-turn phasing for eastbound and westbound directions. There is no restriction on U-turns in the eastbound and westbound directions.

## Existing Traffic

The Orange County Master Plan of Arterial Highways (MPAH) indicates that the existing Santa Ana Canyon Road segment of 4-lane undivided roadway would have a capacity range of 10,000 to 20,000 vehicles per day (ADT), which would be applicable to Santa Ana Canyon Road is currently a 4-lane undivided roadway condition in the project location. Traffic counts for Santa Ana Canyon Road were conducted on April 3, 2002 (see Appendix A of the Traffic Study in Appendix E of the draft EIR). A daily count of 20,019 vehicles was recorded on that date. This referenced count exceeds the theoretical capacity of the roadway for the existing conditions.

Santa Ana Canyon Road parallels the SR-91 and is being used as an alternative to the freeway during the peak hours. Santa Ana Canyon Road carries 1,098 vehicles during the morning peak hour (8:15 AM– 9:15 AM) with 38% in the eastbound and 62% in the westbound direction. In the evening peak hour (5:15 PM – 6:15 PM), it carries 2,198 vehicles with 64% in the eastbound direction and 36% in the westbound direction. Due to its use as an alternative to SR-91, traffic along Santa Ana Canyon Road is heavier in the eastbound direction during the pm peak period. Bypass traffic on Santa Ana Canyon Road will clearly increase and the peak periods will expand and could potentially conflict with project traffic.

According to the City of Anaheim General Plan Circulation Element policy, midblock arterial average daily Level of Service (LOS) is to be not worse than LOS C. This segment of Santa Ana Canyon Road currently operates at worse than LOS C.

Access to the Riverside Freeway (SR-91) is provided at Imperial Highway, west of the site and at Weir Canyon Road, east of the site. SR-91 is one of the most congested freeways in the nation, with an existing LOS F-3. This three-plus hours of congestion per day is forecast to increase significantly as the region builds out. A recent Orange County Transportation Authority (OCTA) SR-91 travel survey documented that 20 percent of commuters currently divert from the SR-91 onto parallel City arterials, including Santa Ana Canyon Road.

The City of Anaheim General Plan Circulation Element designates Santa Ana Canyon Road as a Scenic Expressway. The Circulation Element describes Scenic Expressways as "limited access highways that serve inter-city traffic." Santa Ana Canyon Road is one of two designated Scenic Expressways in Planning Area B; the other being Weir Canyon Road. This category of roadway requires 148 feet of right-of-way and typically provides for a 6-lane divided highway. The posted speed limit for this section of Santa Ana Canyon Road is 45 mph.

The proposed project site is currently vacant, and as a result is not presently generating any vehicle traffic. A traffic count was conducted at the intersection of Santa Ana Canyon Road and Mohler Drive to quantify existing conditions. Since peak project traffic inbound to the site on weeknights would occur between 6:00 p.m. and 7:00 p.m. at the earliest, this hour was surveyed. The resultant traffic volumes are contained on the intersection analysis sheet in Appendix A of the Traffic Report (see Appendix E of the draft EIR). An intersection Capacity Utilization (ICU) analysis was completed and indicated an ICU value of 0.50 or Level of Service (LOS) A for existing conditions. The analysis sheet is also contained in Appendix A of the Traffic Report.

### 3.10.3 Thresholds of Significance

According to the City of Anaheim, acting as lead agency, a project will normally have a significant adverse impact on traffic and circulation if it results in any of the following:

- An increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., results in a substantial increase in either the number of the vehicle trips, the volume to capacity ratio on roads, or congestion at intersections); or,
- An increase in the level of service standard established by the Orange County Transportation Authority for designated roads or highways.
- An increase in the number of the peak hour trips over and above a residential project in conformance with the General Plan Hill Side Estate Density Residential land use designation.

To understand how well a roadway or intersection is handling traffic, several concepts have been devised. The first is a qualitative measure, referred to as Level of Service (LOS), which evaluates a roadway's operation based on observations. A LOS "A" is an optimal traffic condition, while a LOS "F" represents service congestion. A second, more quantitative measure, referred to as Volume to Capacity Ratio (V/C), is the ratio of an intersection's or roadway's traffic volumes to its design capacity. The relationship between the LOS and V/C Ratio for intersections is summarized below in Table 3-17.

LOS	ICU Range (V/C Ratio)	Description
A	Less than 0.60	Free flowing traffic conditions, no congestion.
B	0.60 to less than 0.70	Generally free from congestion. All vehicles may clear signal in a single cycle.
C	0.70 to less than 0.80	Light congestion with occasional back-ups at critical approaches.
D	0.80 to less than 0.90	Congestion at critical approaches.
E	0.90 to less than 1.0	Moderate to severe congestion during peak period.
F	1.00 or greater	Severe congestion.

Source: Blodgett/Baylosis Associates, 2000

### 3.10.4 Analysis of Environmental Impacts

In connection with the request for approval of the chapel and banquet facility, the applicant is requesting an amendment to the Santa Ana Canyon Road Access Points Study to allow an additional access point (the proposed project’s driveway) on Santa Ana Canyon Road. The applicant is also requesting a waiver of the minimum required number of parking spaces (278 required, 269 proposed) and a waiver of the requirement to improve Santa Ana Canyon Road to its ultimate 140-foot wide right-of-way.

With regard to the projects hours of operation, the facility would hold events on Friday evenings from 7:00 p.m. to midnight and on Saturdays/Sundays from 9:00 a.m. to midnight as described in detail in Section 2.3.3 (Operational Characteristics of the Proposed Facility). In addition, the facility is proposed to be used for a maximum of four weekday evening activities per month (the hours for these weekday events would be the same as the Sunday schedule). The facility would have a maximum occupancy of 450 patrons, and a total of 269 parking spaces are proposed to serve the facility. A single access at Santa Ana Canyon Road, located east of Eucalyptus Drive, is planned to serve the project site.

It is important to note the unique operational nature of the proposed facility. Although there are different gathering areas within the facility (i.e., the chapel and the dining/reception area), there would only be one event arriving or departing the premises at a time. On Saturdays/Sundays there would be a minimum one-hour separation between different event departures and arrivals with the afternoon events ending by 6:00 p.m. and the first evening event starting at 7:00 p.m. (for weddings, the wedding party would arrive at 6:00 p.m., however, the ceremony would not commence until 7:00 p.m.). This element becomes very important when analyzing the parking demand for the proposed project.

#### 3.10.4.1 Projected Trip Generation

The January 2003 Project Description documents 269 parking stalls and a total building square footage of 27,910. The building square footage was used to derive the code required parking as shown in the following table (Table 3-18). This table shows the code requirement (278 parking spaces) compared to the proposed 269 spaces.

**Table 3-18  
 Parking Requirements**

Square Footage	Maximum Occupancy	Stalls Proposed	Code Requirements	29/tsf Assembly	.333/seat	4/tsf Office	.02/Person
27,910	466	269	278	267	155	2	9

tsf: thousand square feet

Traffic generation refers to the number of vehicle trip-ends a project will generate over a specified time period. In order to estimate trips for the proposed project, the parking study that was prepared for this project, dated July 9, 1999 (see Appendix E of the Draft EIR), was referenced to obtain trip generation data. Utilizing data from similar uses, the parking study



estimated that a total of 278 parking spaces would be needed. The typical scenario operations referenced in the DEIR call for 67% of the parking demand (180 spaces) generated by wedding/banquet facility #1 and 33% (89 spaces) by wedding/banquet facility #2. For a "worst-case" analysis, an assumption was made whereby all 245 vehicles would arrive within a single one-hour period and depart within a later one-hour period. Due to the unique nature of this project, it can be assumed that all of the people arriving for the event would do so within the same hour, though it is more likely that the departures would be spread out over a longer time period.<sup>134</sup> The results of the trip generation analyses are shown in Table 3-19.

<b>Land use</b>	<b>Measurement Units</b>	<b>Daily Trip Rates</b>	<b>Evening Peak Hour Traffic</b>	
			<b>In</b>	<b>Out</b>
Canyon Hills Manor	27,910 SF	500 (est.)	245	245

Source: Trips generated by the proposed project, Canyon Hills Manor, were based upon the parking study prepared for this site dated July 9, 1999.

The project would be expected to attract a maximum of 245 vehicles during the 6:00 p.m. to 7:00 p.m. hour on weekdays when events were scheduled. Minor, negligible traffic volumes for staff would occur prior to this period. On a weekday basis, an estimated 500 trip ends would be anticipated when events were scheduled. Of these, 245 could arrive in the 6:00 p.m. to 7:00 p.m. period, and would depart at a later hour. It should be noted that a total of 245 trip ends (or daily trip generation of approximately 500 trips) are likely to be an overestimate, since the total combined seating capacity of the two chapels is 450 seats. The great majority of the events will not represent a 100 percent capacity of the facility. In addition, there is typically relatively high vehicle occupancy where family members, participants, and others in attendance often share vehicles. The worst-case figure of 500 weekday trips would translate into a vehicle-occupancy ratio that is quite low (1.85 persons/vehicle). In addition, the number of employees will be limited to between 10 and 16 persons. At any one time, the maximum number of persons will be less than 500 persons during the peak activity periods.

In summary, the estimated trip generation is below the minimum required for a traffic impact analysis by the Orange County Congestion Management Program (CMP), and no significant trips would be generated during street peak hours (between 6:00 p.m. and 7:00 p.m.).

### **3.10.4.2 Traffic Impacts**

Since the project would not generate traffic during the a.m. and p.m. peak hours of the street system, no analyses were completed for these periods. The intersection of Santa Ana Canyon Road and Mohler Drive was analyzed for the 6:00 p.m. to 7:00 p.m. period, as this period could be affected by project traffic. The intersections to the east of the site were not analyzed since they would potentially be affected only by outbound traffic in the late evening.

<sup>134</sup> WPA Traffic Engineering, Inc., Signal Warrant Analysis – Canyon Hills Manor. March 20, 2002.

Access to the project site is proposed to be provided via a 28-foot wide gated private driveway from Santa Ana Canyon Road, which, as previously indicated, requires an amendment to the Santa Ana Canyon Road Access Points Study. The driveway would follow a curvilinear alignment from Santa Ana Canyon Road to the building pad and parking area. The project driveway would include a turnaround area providing minimum delivery truck turn radii in the event that the entrance gate is closed. Channelization is also proposed for the project to limit movements to right turns in and out only (see Exhibit 3-14). As a result, there could be a demand for vehicles approaching from the west or east that wish to make U-turns. In addition, the nearest locations, Festival Drive to the east and Eucalyptus Drive to the west, would require significant modifications to accommodate U-turns.

Due to the fact that the proposed project would have functions starting after 7:00 p.m. on weekend evenings and up to four weekday evenings per month, the street peak travel period from 4:00 p.m. to 6:00 p.m., along with 7:00 p.m. to 9:00 p.m. was analyzed for Saturday. The additional period would cover the proposed project's street peak period during a weekend evening and the occasional weekday evening.<sup>135</sup> Table 3-20 lists the existing Saturday volumes on Santa Ana Canyon Road between 4:00 p.m. and 9:00 p.m. Due to the nature of the proposed project's operation, it was assumed that there would be a reduction in trips after 6:00 p.m. Since outbound traffic would generally occur after 9:00 p.m., past the peak hour travel period, there would not be an impact, due to the reduced levels of traffic from other sources at that time.<sup>136</sup> According to the 24-hour count conducted on April 3, 2002, the evening peak hour was 5:15 – 6:15 pm with a volume of 2,198 vehicles. The volume between 6:00 p.m. and 7:00 p.m. is 1,944 vehicles. The traffic volume for Friday between 6:00 p.m. and 7:00 p.m. would be significantly higher. Table 3-20 represents Saturday evening only counts.

<b>Time</b>	<b>Existing Volumes</b>	<b>Proposed Project</b>	<b>Total</b>
4:00 p.m.	1,917	0	1,917
5:00 p.m.	1,818	180	1,998
6:00 p.m.	1,451	89	1,540
7:00 p.m.	975	180	1,155
8:00 p.m.	781	0	816
9:00 p.m.	500	0	526
<b>Volumes were based upon Saturday evening counts.</b>			

The proposed entryway is to be designed in such a manner that ingress would be restricted to right-turning movements from the far-right eastbound lane of Santa Ana Canyon Road. Egress

<sup>135</sup> Ibid.

<sup>136</sup> Ibid.

would also be restricted to right-turn movements as well. Left-turn ingress or egress at the driveway would not be possible due to the entryway's design. Additionally, for drivers approaching from the east of the project site, a U-turn would be required to access the project location. In order to eliminate the possibility of drivers making U-turns adjacent to the project entryway and along the double yellow striped section, a median island needs to be constructed along Santa Ana Canyon Road.

The most time-efficient and nearest location to accommodate westbound U-turns on Santa Ana Canyon Road is at the intersection of Eucalyptus Road and Santa Ana Canyon Road. The site distance for westbound vehicles is limited at this site due to a crest in Santa Ana Canyon Road. This intersection would require the installation of a traffic signal and lengthening the westbound left-turn lane by approximately 130 feet in order to serve the increased demand and alleviate the sight distance concerns. Drivers approaching from the east are unlikely to travel further west than Eucalyptus to complete their U-turns. The second U-turns possibility is the intersection of Canyon Crest Drive at Santa Ana Canyon Road. This intersection will require substantial improvements to accommodate U-turns.

The Santa Ana Canyon Road/Mohler Drive intersection (1.0 mile west of the site) provides a signalized phase for possible U-turns. An analysis was completed to examine the impact of U-turns at this intersection. If it is assumed that half of the trips would be completing this move, 145 trips would be added to the westbound left-turn movement, and 14 added to the eastbound through movement. These volumes were added to existing volumes and the ICU analyses were recalculated. The analyses (contained in Appendix A to the Traffic Report) resulted in an ICU value of 0.61, or LOS B. This indicates that there is no traffic LOS impact at this intersection due to the project, although the left-turn pocket would need to be lengthened by 130 feet to serve the increased U-turn demand. The Santa Ana Canyon Road/Festival Drive intersection east of the site was not analyzed since it would potentially be affected only by outbound traffic in the late evening, well past the p.m. peak period.

A right-turn lane on Santa Ana Canyon Road is required to serve the site. Otherwise the eastbound traffic will have to slow down in a through traffic lane (from the 45 mph posted speed limit) to turn the corner at the project driveway (at steep grade), as a right-turn lane is not provided. The exclusive right-turn lane will allow the drivers to reduce their speed and turn safely into the project driveway especially if the entrance gate is closed for any reason. As discussed above, the project is estimated to generate 245 inbound trips under a "worst-case" scenario. Some of these trips may occur at times when Santa Ana Canyon Road is heavily used as an alternate route to the freeway. Most of the added trips would occur after 6:00 p.m. on weeknights when events are scheduled (with a maximum of four weekday events per month). This is after the peak traffic period on the roadway, when speeding traffic is more likely.

The sight distance for drivers exiting the site was examined based upon the site-grading plan. A driver located 10 feet behind the end of the driveway at Santa Ana Canyon Road can see eastbound vehicles approaching for a distance of 1,000 feet (see Exhibit 3-15). Based upon Table 201.1 of the Caltrans *Highway Design Manual*, a speed of 80 kilometers per hour (50

miles per hour) requires a stopping sight distance of 130 meters (425 feet). On this basis, the sight distance would be more than adequate (i.e., exceed requirements).<sup>137</sup>

### **3.10.4.3 Alternate Access**

An alternative access point suitable to serve all the affected properties in the area could be provided further west of the project site. The construction and signalization of a new combined access point at this location could serve all area planned development consistent with the designated "Limited Access Highway" concept of Santa Ana Canyon Road. The combined traffic from the four properties using the single access point would likely exceed the threshold required for signalization of the intersection. A signalized intersection at this location would provide access for both eastbound and westbound traffic, eliminating the need to accommodate Canyon Hills Manor U-turns at nearby intersections. To the extent that other properties as they develop benefit from said improvements, a reimbursement district could be requested to be established to provide for said properties to reimburse their proportionate share of the improvement costs.

## **3.10.5 SIGNIFICANT IMPACTS**

### **3.10.5.1 Project Impacts**

The proposed project will have impacts related to traffic operation and design features. They are:

- The design of the project driveway to provide for right turn in/out at the project driveway would not prevent illegal U-turns across the double yellow centerline stripe in the vicinity of the project.
- Project related U-turns would exceed the available storage length of left-turn pockets at the intersections of Eucalyptus Drive and Canyon Crest Drive and Mohler Drive along Santa Ana Canyon Road, west of the project which would impact through traffic on Santa Ana Canyon Road.
- A new access point will be added to Santa Ana Canyon Road. The Circulation Element describes Scenic Expressway as "limited access highways that serve inter city traffic".

### **3.10.5.2 Cumulative Impacts**

The two related projects subject to the analysis herein will involve the following land use and development impacts:

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<sup>137</sup> Ibid.

- *Stonegate Development* involves the construction of single-family residential units within a 39-acre parcel located immediately south of the proposed Canyon Hills Manor development site. This project will generate 746 trips on a daily basis with 59 of those trips occurring during the AM peak hour and 79 trips occurring during the PM peak hour. Two-way daily volumes during the weekends are anticipated to be 787 trips on Saturdays and 685 trips on Sundays.
- *Maag Ranch (Tentative Tract No. 16254)* involves the construction of up to 128 residential units within a 24.5-acre property. The project site is located northeast of the intersection of Imperial Highway and Santa Ana Canyon Road. This project will generate 852 trips on a daily basis with 67 of those trips occurring during the AM peak hour and 90 trips occurring during the PM peak hour. Two-way daily volumes during the weekends are anticipated to be 898 trips on Saturdays and 781 trips on Sundays.

The related projects together with the proposed Canyon Hills Manor project will result in an additional 2,098 daily trips. These additional trips will translate into a future volume of 22,098 daily trips for that segment of Santa Ana Canyon Road, west of the proposed project site. The future volume of 22,098 exceeds the theoretical capacity of this section of Santa Ana Canyon Road. Therefore this segment will continue to operate at worse than the City policy of LOS C.

### **3.10.6 Mitigation Measures**

The results of the traffic analysis indicate that the proposed project would have significant adverse impacts at Santa Ana Canyon Road and its intersection with Eucalyptus Road as well as along Santa Ana Canyon Road in the vicinity of the project. City of Anaheim criteria require measures be developed to mitigate significant impacts to a level of insignificance.

#### **3.10.6.1 Recommended Project Mitigations and Improvements**

*Measure 3.10-1.* Prior to the issuance of the first building permit, the property owner/developer shall irrevocably offer for dedication to the City of Anaheim, the rights-of-way for Santa Ana Canyon Road (with subordination of easements) to a width of 106 feet, including necessary construction easements, adjacent to their property. The property owner/developer shall also dedicate along the project site frontage an additional 13-foot wide, 180-foot long area with a transition area of 90 feet for an eastbound right-turn only lane into the site to the satisfaction of the City Engineer.

*Measure 3.10-2.* Prior to the issuance of the first building permit, the property owner/developer shall submit plans to the Public Works Department for review and approval showing the following improvements to Santa Ana Canyon Road:

1. Construction of Santa Ana Canyon Road to a Primary Arterial 106-foot cross-section including a 16-foot wide fully landscaped raised median island along the existing undivided section of Santa Ana Canyon Road (from west of Festival Drive to Eucalyptus Drive) to prevent left turns into the project site and U-turns to/from the project site;

2. Construction of a 180-foot long, 13-foot wide (including curb and gutter) eastbound right-turn only lane into the project site; and
3. Construction and signalization of an opening in the Santa Ana Canyon median at the new Deer Canyon Road (west of the project site) and construction of a left-turn pocket length adequate to serve project U-turns plus related project left-turns as approved by the City Engineer.

All plans shall be prepared to the satisfaction of the City Engineer and shall be subject to the review and approval of the City Engineer. All engineering requirements of the City of Anaheim for preparation of improvement plans shall be complied with as required by the City Engineer and in accordance with specifications on file in the office of the City Engineer, as may be modified by the City Engineer. Security in the form of a bond, certificate of deposit, letter of credit or cash, in an amount and form satisfactory to the City of Anaheim, shall be posted with the City to guarantee the satisfactory completion of said improvements except landscape and irrigation within the median. Said security shall be posted with the City prior to the issuance of a building permit or final map approval, whichever occurs first, to guarantee the installation of the improvements required by this mitigation measure prior to the first final building and zoning inspection.

*Measure 3.10-3.* To the extent the property owner/developer may qualify for reimbursement from other benefited properties, the property owner/developer may petition the City Council to establish a reimbursement agreement or benefit district to include other areas of benefit. Costs associated with the establishment of any such districts shall be at the expense of the property owner/developer.

*Measure 3.10-4.* Prior to issuance of the first building permit, the property owner/developer shall submit plans to the Public Works Department showing the provision of a vehicular turnaround area between the public right-of-way and the project gated entry. The turnaround area shall be designed to the satisfaction of the City Engineer and shall be installed prior to the first final building and zoning inspection.

*Measure 3.10-5.* Ongoing during project operation, the property owner/developer shall be required to provide patrons of the subject facility with access instructions, driving directions and/or maps for distribution to their guests.

*Measure 3.10-6.* Ongoing during project operation, the facility shall operate in conformance with the hours of operation as detailed in Section 2.0 of the DEIR.

### **3.10.7 Significant Unavoidable Impacts**

The proposed project will not result in any significant unavoidable impacts related to parking or traffic. The following findings have been made with regard to parking impacts associated with the proposed project's operation: the proposed project would result in sufficient parking

capacity on-site or off-site; and the proposed development will not result in hazards or barriers to pedestrians or bicyclists. The CMP requires that traffic studies be prepared to document impacts to all CMP monitored intersections, where the proposed project will add 50 or more peak hour trips. Impacts to CMP freeway monitoring stations are not anticipated, since the proposed project is not expected to affect CMP monitoring sites.

At the request of the applicant, an alternative Section 3.10 regarding "Traffic and Circulation Impacts" analysis (prepared by Parsons Brinckerhoff in association with Blodgett/Baylosis Associates, the Applicant's Consultants) is included in the Draft EIR (see Appendix E, Volume II). The City's Traffic and Transportation Manager does not concur with the conclusions in this alternative analysis.