4.10 NOISE

4.10.1 Introduction

This section analyzes the potential noise impacts associated with the construction and operation of the South Shores Church Master Plan project (proposed project). This analysis is intended to satisfy the City of Dana Point (City) requirements for a project-specific noise impact analysis by examining the short-term and long-term noise impacts of the proposed project on sensitive uses adjacent to the project site and by evaluating the effectiveness of mitigation measures incorporated as part of the project design. This includes the potential for the proposed project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project site, exposure of people to excessive noise levels, groundborne vibration, or groundborne noise levels. The analysis in this section is based on information provided in the *Noise Impact Analysis* for the proposed project (LSA Associates, Inc. [LSA], August 2014). The *Noise Impact Analysis* is contained in Appendix H of this Draft EIR.

4.10.2 Methodology

Evaluation of the proposed project's noise impacts includes the following:

- Determination of the short-term construction noise impacts on off-site noise sensitive uses.
- Determination of the long-term noise impacts, including vehicular traffic noise impacts on on-site and off-site noise sensitive receptors.
- Determination of the required mitigation measures to reduce long-term impacts associated with the on-site noise sources.

Characteristics of Sound. Noise is usually defined as unwanted sound; it consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect our ability to hear. The analysis of a project's noise impact defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound. There are many ways to rate sound for various time periods. An appropriate rating of ambient noise[1] affecting humans accounts for the annoying effects of sound by penalizing noises that occur during quiet periods of time, such as late night/early morning, through a weighted averaging metric. Single-event or peak noises are measured by a simple peak noise measurement. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a five dBA

[1] Ambient noise is the totality of noise in a given place and time; usually a composite of sounds from varying sources at varying distances. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same. Table 4.10.A defines noise measurements that are typically used in noise analyses.

Table 4.10.A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter deemphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control (1991).

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Table 4.10.B describes attenuation levels of various types of noise sources.

Table 4.10.B: Attenuation Levels and Type of Noise Sources

Decrease in Sound for Each Doubling of Distance	Type of Noise Source	Description/Example
6.0 decibels	Single-point source	Stationary equipment
4.5 decibels	Line source	Highway traffic or railroad operations in a relatively flat environment with absorptive vegetation
3.0 decibels	Line source	Highway traffic or railroad operations in a hard site environment

Source: LSA Associates, Inc. *Noise Impact Analysis* (August 2014).

Definition of Noise. Noise impacts can be described in three categories:

- Audible (3.0 decibels [dB] or greater);
- Potentially audible (between 1.0 and 3.0 dB); and
- Inaudible (less than 1.0 dB).

Audible noises are increases in noise levels noticeable to humans and generally refer to a change of 3.0 dB or greater, because this level has been found to be barely perceptible in exterior environments. Potentially audible refers to a change in the noise level between 1.0 and 3.0 dB, which is noticeable only in laboratory environments. Changes in noise levels of less than 1.0 dB are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant. Therefore, a 3 dBA increase in long-term noise levels above existing ambient noise levels is used as a threshold of significant change in this noise analysis.

Physiological Effects of Noise. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire body, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA would result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying less developed areas.

Fundamentals of Groundborne Vibration. Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may not be discernable. However, without the effects associated with the shaking of a building, there is less adverse reaction. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction or mining. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by up to 10 decibels. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to within about 100 feet (ft) of the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 ft, as described in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (FTA, May 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible.

Factors that influence groundborne vibration and noise include the following:

- Vibration Source: vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source.
- Vibration Path: soil type, rock layers, soil layering, depth to water table, and frost depth.
- Vibration Receiver: foundation type, building construction, and acoustical absorption.

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground versus at ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in groundborne vibration problems at a great distance from the track. Factors such as layering of the soil and depth to water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

4.10.3 Existing Environmental Setting

Ambient Noise Measurements. The primary existing noise sources in the vicinity of the project site are transportation facilities. Traffic on Crown Valley Parkway, Pompeii Drive, Sea Island Drive, and other local streets is a steady source of ambient noise. LSA Associates, Inc. (LSA) conducted 15-minute ambient noise measurements at two representative locations on the project site. The first ambient noise measurement location was near the southern project boundary adjacent to the Monarch Bay Villas, approximately 250 ft from the edge of Crown Valley Parkway and 50 ft from the residences. Primary noise sources at this location included traffic on Crown Valley Parkway and Pacific Coast Highway (PCH). Aircraft overflight and dog barking contributed to the ambient noise

measured. The second location for the ambient noise measurement was at the sidewalk by the existing Administration and Fellowship Hall building, approximately 60 ft from the edge of Crown Valley Parkway. Primary noise sources at this location included traffic on Crown Valley Parkway. Table 4.10.C lists the noise measurement results at these two representative locations in the project vicinity. Noise measurement survey sheets are included in Appendix B of the *Noise Impact Analysis*.

Table 4.10.C: Ambient Noise Level (dBA)

Location	Time Period	L_{eq}	L_{50}	L_8	L_2	L_{max}
60 ft from Monarch Bay Villas and 250 ft from Crown Valley Parkway	2:05 p.m.–2:20 p.m. (with dog barking/ no dog barking)	54.6	45.2	51.3	66.3	76.8
		47.8	46.5	51.2	53.2	56.6
Sidewalk by the existing Administration and Fellowship Hall, 60 ft from Crown Valley Parkway	3:04 p.m.–3:19 p.m.	61.6	58.8	65.0	67.9	79.0

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
dBA = A-weighted decibels
ft = feet
L_2 = A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 2 percent of a stated time period
L_8 = A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 8 percent of a stated time period
L_{50} = A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 50 percent of a stated time period
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level

Table 4.10.C shows that ambient noise levels are relatively high at the location on the project site closer to Crown Valley Parkway. Ambient noise levels are low to moderate when the distance to Crown Valley increases. With the dog barking, the ambient noise levels were almost 7 dBA higher compared to when the dog was quiet.

Existing Traffic Noise Modeling. To document the existing environment, the Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate highway traffic-related noise conditions in the project vicinity. The standard vehicle mix for County of Orange (County) roadways was used for traffic on these roadway segments. The modeled 24-hour CNEL levels are shown in Tables 4.10.D and 4.10.E for the existing weekday and Sunday conditions, respectively. These traffic noise levels are representative of a worst-case scenario, which assumes a flat terrain and no shielding between the traffic and the noise contours. Traffic noise levels in the project vicinity are generally moderate along Camino Del Avion, Sea Island Drive, and Lumeria Lane, and high along Crown Valley Parkway and PCH.

Table 4.10.D: Existing Weekday Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	20,700	76	148	311	69.0
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	21,200	64	126	265	68.3
Crown Valley Parkway between Sea Island Drive and Church Driveway	20,800	61	123	261	68.6
Crown Valley Parkway between Church Driveway and Lumeria Lane	20,800	61	123	261	68.6
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	19,000	58	116	246	68.2
Crown Valley Parkway south of Pacific Coast Highway	1,700	< 50	< 50	< 50	54.9
Camino Del Avion west of Crown Valley Parkway	3,400	< 50	< 50	67	59.9
Camino Del Avion east of Crown Valley Parkway	9,400	< 50	75	155	65.1
Sea Island Drive west of Crown Valley Parkway	1,500	< 50	< 50	< 50	54.3
Lumeria Lane east of Crown Valley Parkway	220	< 50	< 50	< 50	46.0
Pacific Coast Highway west of Crown Valley Parkway	29,000	74	153	326	70.0
Pacific Coast Highway east of Crown Valley Parkway	21,800	63	127	270	68.8

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted Decibel
ft = feet

Table 4.10.E: Existing Sunday Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	18,200	71	137	286	68.4
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	19,500	62	120	251	67.9
Crown Valley Parkway between Sea Island Drive and Church Driveway	18,500	57	114	242	68.1
Crown Valley Parkway between Church Driveway and Lumeria Lane	18,000	56	112	238	67.9
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	16,600	< 50	107	225	67.6
Crown Valley Parkway south of Pacific Coast Highway	1,200	< 50	< 50	< 50	53.4
Camino Del Avion west of Crown Valley Parkway	2,900	< 50	< 50	60	59.2
Camino Del Avion east of Crown Valley Parkway	8,500	< 50	71	145	64.7
Sea Island Drive west of Crown Valley Parkway	1,300	< 50	< 50	< 50	53.7
Lumeria Lane east of Crown Valley Parkway	270	< 50	< 50	< 50	46.9
Pacific Coast Highway west of Crown Valley Parkway	24,000	66	135	287	69.2
Pacific Coast Highway east of Crown Valley Parkway	20,300	60	121	257	68.5

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information. Modeled using the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted Decibel
ft = feet

Sensitive Land Uses in the Project Vicinity. The project site is bounded on the west by Crown Valley Parkway, with single-family residential beyond. The Monarch Bay Villas border the project site immediately to the south with the Monarch Bay Plaza Shopping Center beyond. PCH fronts the shopping center on the southwest. The project site is bounded on the east by a vacant hillside, the paved Salt Creek recreational trail,[1] the Monarch Beach Golf Links golf course, Salt Creek, and single-family residential beyond approximately 1,000 ft from the project site. The project site is bounded to the north by the Monarch Coast Apartments and beyond by Camino del Avion.

[1] Salt Creek Trail is not listed on the County's Master Plan of Regional Riding and Hiking Trails. However, according to the County of Orange Major Riding and Hiking Trails and Off-Road Paved Bikeways map, Salt Creek Trail is an Existing Off-Road Paved Bikeway. Website: http://ocparks.com/civicax/filebank/blobdload.aspx?BlobID=8223 (accessed March 11, 2013).

4.10.4 Regulatory Setting

The applicable noise standards governing the project site are the criteria in the City of Dana Point General Plan Noise Element and Municipal Code (Noise Ordinance). In addition, standards identified in the *California Noise Insulation Standards*[1] and the *State of California Vehicle Code*[2] are included below. The following sections list the General Plan policies and State standards relevant to noise for the proposed project.

Local Regulations and Standards.

City of Dana Point General Plan Policies and Noise Ordinance. The *Noise Element* of the *City of Dana Point General Plan*[3] defines goals, objectives, policies, and action items related to noise conditions in the City. The specific policies related to noise that are relevant to the proposed project are as follows:

Goal 1: Provide for measures to reduce noise impacts from transportation noise sources.

Policy 1.1: Require construction of barriers to mitigate sound emissions where necessary or feasible.

Goal 2: Incorporate noise considerations into land use planning decisions.

Policy 2.1: Establish acceptable limits of noise for various land uses throughout the community, in accordance with Table N-2.

Policy 2.2: Ensure acceptable noise levels near schools, hospitals, convalescent homes, and other noise sensitive areas, in accordance with Table N-1.

Policy 2.3: Establish standards for all types of noise not already governed by local ordinances or preempted by State or Federal law.

Policy 2.4: Require noise reduction techniques in site and architectural design and construction where noise reduction is necessary.

Policy 2.5: Discourage locating noise sensitive land uses in noisy environments.

Goal 3: Develop measures to control non-transportation noise impacts.

Policy 3.2: Evaluate and develop measures to reduce noise generated by construction activities.

Policy 3.3: Establish and maintain coordination among the appropriate agencies involved in noise abatement.

---

1 State of California Code of Regulations, Title 24, Part 2, §3501, *California Noise Insulation Standards.*
2 State of California Governor's Office of Planning and Research, *State of California General Plan Guidelines*, October 2003, pages 249 and 250.
3 City of Dana Point. *City of Dana Point General Plan*, July 9, 1991.

Table 4.10.F shows land use noise compatibility taken from Table N-1 of the City's General Plan Noise Element (July 9, 1991).The noise standards specified in Table N-2 of the City's General Plan Noise Element (shown in Table 4.10.G) are used as a guideline to evaluate the acceptability of the noise levels generated by the traffic flow. These standards are for assessment of long-term vehicular traffic noise impacts. The City of Dana Point set exterior noise criteria for assessing the compatibility of residential uses with transportation facilities. The City requires that the interior areas for residences not exceed 45 dBA CNEL and that the exterior active use areas (such as backyards or patios) not exceed 65 dBA CNEL. Other short-term noise impacts, such as construction activities or on-site stationary sources, are regulated by the noise ordinance.

Table 4.10.F: Noise/Land Use Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Designations	**Uses**	**<55**	**60**	**65**	**70**	**75**	**80>**	
Residential (all except mobile home)	Single Family, Duplex, Multiple Family	A	A	B	B	C	D	D
Residential	Mobile Home	A	A	B	C	C	D	D
Visitor/Recreation Commercial	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Neighborhood Commercial, Community Commercial	Commercial Retail, Bank, Restaurant, Movie Theater	A	A	A	A	B	B	C
Professional/Administrative, Industrial/Business Park	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
Community Facility	Amphitheater, Concert Hall, Auditorium, Meeting Hall	B	B	C	C	D	D	D
Visitor/Recreation Commercial, Community Commercial	Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
Community Commercial, Industrial/Business Park, Community Facility	Automotive Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Community Facility	Hospital, Church, Library, School Classrooms	A	A	B	C	C	D	D
Recreation/Open Space	Park	A	A	A	B	C	D	D
Recreation/Open Space	Golf Course, Cemeteries, Natural Centers, Wildlife Reserve/Habitat	A	A	A	A	B	C	C
Recreation/Open Space	Agriculture	A	A	A	A	A	A	A

Source: City of Dana Point, Noise Element (July 9, 1991).

Zone A: Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B: Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C: Normally Incompatible. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Zone D: Clearly Incompatible. New construction or development should generally not be undertaken.

CNEL = Community Noise Equivalent Level

Table 4.10.G: Interior and Exterior Noise Standards

Land Use Categories		CNEL (dBA)	
Designations	**Uses**	**Interior**[1]	**Exterior**[2]
Residential (all)	Single Family, Duplex, Multiple Family	45[3]	65
	Mobile Homes	--	65[4]
Neighborhood Commercial, Community Commercial, Visitor/ Recreation Commercial, Commercial/Residential, Professional/ Administrative, Industrial/ Business Park, Recreation/Open Space, Harbor Marine Land	Hotel, Motel, Transient Lodging	45	--
	Commercial Retail, Bank, Restaurant	55	--
	Office Building, Research and Development, Professional Offices, City Office Building	50	--
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	--
	Gymnasium (Multipurpose)	50	--
	Sports Club	55	--
	Manufacturing, Warehousing, Wholesale, Utilities	65	--
	Movie Theaters	45	--
Community Facility	Hospital, School Classrooms	45	65
	Church, Library	45	--
Recreation/Open Space	Parks	--	65

Source: City of Dana Point General Plan, Noise Element (July 9, 1991).

1 Indoor environment including: bathrooms, toilets, closets, corridors.

2 Outdoor environment limited to: private yard of single family, multifamily private patio, or balcony which is served by a means of exit from inside the dwelling.

3 Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of UBC.

4 Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
UBC = Uniform Building Code

Dana Point Municipal Code. The Dana Point Municipal Code[1] describes the noise standards within the City. The City's Noise Ordinance establishes the maximum permissible noise level that may intrude into a neighbor's property. The Noise Ordinance (added in 1992) establishes noise level standards for various land use categories affected by stationary noise sources.

For Noise Zone 1, which includes the entire City, the exterior noise levels shall not exceed 55 dBA for more than 30 minutes in any hour during daytime hours between 7:00 a.m. and 10:00 p.m. For events occurring within shorter periods of time, the noise levels are adjusted upward accordingly. For events lasting equal to or less than 30 minutes but more than 15 minutes, the exterior

1 City of Dana Point Municipal Code, current through Ordinance 13-03 and the January 2010 Code Supplement.

noise shall not exceed 60 dBA during daytime hours. For events lasting equal to or less than 15 minutes but more than 5 minutes, the exterior noise shall not exceed 65 dBA during daytime hours. For events lasting equal to or less than 5 minutes but more than 1 minute, the exterior noise shall not exceed 70 dBA during daytime hours. At any time during daytime hours, the exterior noise shall not exceed 75 dBA. During the nighttime hours between 10:00 p.m. and 7:00 a.m. the following day, the above noise standard levels are reduced by 5 dBA.

In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

The interior noise levels for Noise Zone 1 areas shall not exceed 55 dBA for events lasting up to 15 minutes but more than 5 minutes during daytime hours. For events lasting equal to or less than 5 minutes but more than 1 minute, the interior noise shall not exceed 60 dBA during daytime hours. At any time during daytime hours, the interior noise shall not exceed 65 dBA. During the nighttime hours between 10:00 p.m. and 7:00 a.m. the following day, the above noise standard levels are reduced by 5 dBA.

In the event the ambient noise level exceeds either of the first two noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

The City's Noise Ordinance has not established any upper limits for construction noise because it is temporary and will cease to occur after completion of the project construction. The Noise Ordinance regulates the timing of construction activities and includes special provisions for sensitive land uses. Construction activities are allowed between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday. No construction is permitted outside of these hours or on Sundays and federal holidays. Additionally, Section 8.01.250 (Time of Grading Operations) of the City's Municipal Code limits grading and equipment operations within 0.5 mile of a structure for human occupancy. Consequently, grading and equipment operations may only occur between the hours of 7:00 a.m. and 5:00 p.m. during the weekdays and are prohibited on Saturdays, Sundays and City recognized holidays.

State Regulations and Standards

State of California Vehicle Code. Recent studies have shown that the most objectionable feature of traffic noise is the sound produced by vehicles equipped with illegal or faulty exhaust systems. In addition, such vehicles are often operated in a manner that causes tire squeal and excessively loud exhaust noise. A number of California State vehicle noise regulations can be enforced by local authorities as well as the California Highway Patrol. These include Sections 23130, 23130.5, 27150, and 38275 of the California Vehicle Code, as well as excessive speed laws, which may be applied to curtail traffic noise:

- Sections 23130 and 23130.5 establish maximum noise emission limits for the operation of all motor vehicles at any time under any conditions of grade, load, acceleration, or deceleration.

- Section 27150 requires motor vehicles to be equipped with an adequate muffler to prevent excessive noise.
- Section 38275 requires off-highway motor vehicles to be equipped with an adequate muffler to prevent excessive noise.

The California Highway Patrol and the Department of Health Services (through local health departments) are available to aid local authorities in code enforcement and training pursuant to proper vehicle sound level measurements.

4.10.5 Thresholds of Significance

The applicable noise standards governing the project site are the criteria in the City's Noise Element of the General Plan and its Noise Ordinance. The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines* and the City's CEQA Thresholds of Significance. Based on these thresholds, implementation of the proposed project would have a significant adverse impact on noise if it would:

Threshold 4.10.1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

Threshold 4.10.2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels;

Threshold 4.10.3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

Threshold 4.10.4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

Threshold 4.10.5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or

Threshold 4.10.6: For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

4.10.6 Project Impacts

Threshold 4.10.1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

Less Than Significant Impact.

Short-Term Construction-Related Impacts. Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would

incrementally increase noise levels on access roads leading to the site. Although there would be a relatively high single event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to a maximum of 87 dBA), the effect on longer term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during demolition, excavation, grading, and building construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site, and therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Typical noise levels range up to 90 dBA L_{max} at 50 ft during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed project is expected to require the use of earthmovers, bulldozers, and water and pickup trucks on the project site. The maximum noise level generated by each scraper on the proposed project site is assumed to be 84 dBA L_{max} at 50 ft from the scraper. Each bulldozer would also generate 82 dBA L_{max} at 50 ft. The maximum noise level generated by water and pickup trucks is approximately 75 dBA L_{max} at 50 ft from these vehicles. Each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 ft from the active construction area. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site today but would no longer occur once construction of the project is completed.

The nearest residential uses to the south of the project site would potentially be exposed to construction noise up to 94 dBA L_{max} during the Phase 1A construction period, when the Preschool/Administration building is being constructed. However, construction of the proposed Preschool/Administration building would not be continuous over the entire Phase 1A period. This phase also involves construction of an underground storm water detention system and construction of the proposed Landscaped Garden in the southeastern corner of the project site. Although this range of construction noise would be higher than the ambient noise, it would cease to occur once the construction of the Preschool/Administration building is completed. Construction of other on-site buildings would result in lower noise level increases at the residences to the south.

Residential uses approximately 200 ft to the north of the construction area on the project site would be exposed to construction noise up to 78 dBA L_{max} during construction of Phase 1C and Phase 2, when the Community Life Center building and Christian Education Building 1 are being constructed. Construction noise would be much lower during other construction phases due to the distance attenuation and shielding provided by the buildings completed in earlier phases. Existing residences to the east across the golf course are approximately 1,000 ft away from the project site. At this distance, noise levels would be reduced by 26 dBA when compared to the noise levels measured at 50 ft from the construction activity. Therefore, construction activity on the project site could potentially result in noise levels reaching 64 dBA L_{max} at the residences located to the east of the project site. Compliance with the construction hours specified in the City's Noise Ordinance would reduce the proposed project's construction noise impacts to a less than significant level.

Construction of the proposed project would potentially result in relatively high noise levels and annoyance at the closest off-site residential and commercial uses. Standard Condition 4.10.1 includes the following conditions required of all development within the City and would reduce short-term construction-related noise impacts resulting from the proposed project:

- During all project site excavation and grading, the project contractors should equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- The project contractor should place all stationary construction equipment so that emitted noise is directed away from the relatively more sensitive receptors nearest the project site.
- The construction contractor should locate equipment staging in areas that will create the greatest distance between construction-related noise sources and relatively more noise-sensitive receptors nearest the project site during all project construction.
- The construction contractor shall limit all grading and equipment operations and all construction-related activities that would result in high noise levels (90 dBA or greater) to between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday. No high noise level construction activities shall be permitted outside of these hours or on Saturdays, Sundays, and federal holidays.

Long-Term Operational Noise Impacts.

On-Site Stationary Source Noise Impacts. Potential on-site noise sources would primarily include activities associated with the children's play areas. The majority of other activities at the Church facilities are conducting inside the buildings and would not create significant noise impacts on surrounding land uses.

Children's Play Areas. Following the completion of Phase 3, the proposed play areas would be located to the north and east of the Christian Education buildings and at least 300 ft away from existing residences to the south and north. The distance attenuation would reduce noise from the play areas by 16 dBA. In addition, on-site buildings would provide shielding to the majority of the residences to the south. Therefore, the proposed project would result in less

than significant impacts related to noise from the proposed play areas on the project site following completion of Phase 3, and no mitigation is required. During Phases 1B, 1C, 2, and 3, however, the children's play area would temporarily be located in the parking lot in front of the Preschool/Administration building, an area that is approximately 147 ft from the residences to the south at the Monarch Bay Villas. The following evaluates potential noise from the temporary play area to the residences to the south.

Sample Play Area Noise Measurements. Based upon a sample of previous noise level surveys conducted at elementary school and preschool playgrounds, worst-case noise levels at a play area with up to 80 students playing at one time are estimated to be 68.2 dBA L_{eq} and 79.5 dBA L_{max} measured at 50 ft.

Play Area Noise Impact Analysis. As noise spreads from a source it loses energy, so the farther away the noise receiver is from the noise source the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dBA reduction in the noise level for each doubling of distance from a single-point source of noise, such as noise from a child, to the noise-sensitive receptor of concern.

As stated in Chapter 3.0, Project Description, Preschool programs located on the church campus operate on weekday mornings from 9:00 a.m. to 2:00 p.m. mid-September to mid-June. Currently, the existing Preschool is licensed to accommodate 86 preschool children per day. No increase in the licensed number of children is proposed as part of the project.

The maximum voice levels from 86 students are approximately 0.3 dBA higher than that of 80 students. According to the *Noise Impact Analysis* for the proposed project, the maximum noise levels associated with 80 students playing on a school playground averaged 68.2 dBA L_{eq} and 79.5 dBA L_{max} measured at 50 ft. Therefore, the worst-case voice levels, in which all students are playing at once, from the play area would be 68.5 dBA L_{eq} and 79.8 dBA L_{max} measured at 50 ft. However, the project applicant has indicated that no more than 30 students are on the playground at the same time because outdoor play is staggered. The maximum noise levels associated with 30 students would be 4.25 dBA lower than that of 80 children; therefore, worst-case voice levels from the play area, in which all 30 students are playing at once, would be 64.25 dBA L_{eq} and 75.55 dBA L_{max} measured at 50 ft.

The temporary play area would be approximately 147 ft from the nearest residences to the south. At this distance, the noise level would be reduced by 9 dBA from the noise level measured at 50 ft. This noise attenuation will reduce the maximum on-site play area noise to 55.25 dBA L_{eq} and 66.55 dBA L_{max}. The 66.55 dBA maximum noise level would not exceed the City's 75 dBA L_{max} that is not to be exceeded at any time during the daytime hours for residential areas. In addition, the 55.25 dBA L_{eq} noise level averaged over that 30-minute recess time period would not exceed the City's 60 dBA L_{50} that is not to be exceeded for more than 15 minutes (but less than 30 minutes) in any hour during the daytime hours between 7:00 a.m. and 10:00 p.m. No mitigation is required.

Off-Site Stationary Source Noise Impacts. The proposed project would be potentially exposed to source noise impacts from off-site stationary noise sources. Adjacent uses that could potentially be considered noise sources include the paved Salt Creek Trail and the Monarch Beach Golf Links golf course.

Salt Creek Trail. People using the Salt Creek Trail would result in a maximum noise level similar to noise readings from conversation outdoors, which generates a noise level of 60 to 65 dBA L_{max} at 5 ft based on LSA's measurements conducted in the past. The 100 ft distance would provide a noise reduction of 26 dBA compared to the noise level measured at 5 ft from the noise source. The conversation noise associated with Salt Creek Trail users would be reduced to 40 dBA L_{max} or lower at the nearest building on the project site. This range of noise levels is below the City's exterior noise standards. Therefore, noise associated with the trail would not result in noise levels exceeding the typical standards at the nearest on-site outdoor activity area, and no mitigation is required.

Monarch Beach Golf Links. Representative golf course activities, such as golfers conversing or ball hitting, would generate up to 65 dBA L_{max} at 15 ft, and would be intermittent in nature. Golf course playing areas are more than 50 ft from the nearest on-site outdoor activity areas, which would receive at least 10 dBA in noise reduction. Noise from the off-site golf course activities would be reduced to 55 dBA L_{max} or lower, which would be a less than significant impact. No mitigation is required.

Threshold 4.10.2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels

Less Than Significant Impact. It is unlikely that any activities occurring as a result of project implementation will expose the area to excessive groundborne vibration or groundborne noise levels. Potential noise impacts would result from typical construction activities, including grading necessary to excavate the site for subterranean parking and structural footings for the proposed structures, and caisson drilling to install the caissons and tieback system to provide structural stability to the site. However, it is not anticipated that unusual grading or construction techniques (e.g., drill rig and/or blasting) would be utilized that would cause excessive groundborne vibration or noise. Caission drilling generates 0.089 in/sec vibration level at 25 ft; this level of vibration is much lower than the 0.2 in/sec threshold recommended for non-engineered timber and masonry buildings; engineered and reinforced buildings have higher thresholds for vibration. Therefore construction activities would not result in any significant vibration impacts on adjacent properties, which are located further than 25 ft from such activities. Further, no operational uses proposed on the site would result in such impacts. Therefore, the proposed project would result in less than significant impacts with respect to groundborne vibration or noise, and no mitigation is required.

Threshold 4.10.3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

Less Than Significant Impact with Mitigation Incorporated.

Long-Term Traffic Noise Impacts. The *Noise Impact Analysis* prepared for the project evaluated traffic-related noise conditions along the roadway segments in the vicinity of the project site. Although project-related long-term vehicular trip increases are anticipated to be low, these traffic trips would potentially impact road links and intersections in the vicinity of the project site. Existing off-site sensitive receptors in the vicinity of the project site would be potentially affected by noise associated with these new traffic trips.

Tables 4.10.H and 4.10.I list the existing plus project traffic noise levels along Crown Valley Parkway, Camino del Avion, Sea Island Drive, Lumeria Lane, and PCH in the vicinity of the project site during the weekday and Sunday conditions. Tables 4.10.J and 4.10.K list the cumulative traffic noise conditions without the project during the weekday and Sunday conditions. Tables 4.10.L and 4.10.M list the cumulative traffic noise conditions with the project during the weekday and Sunday conditions. These noise levels represent the worst-case scenario, which assumes no shielding is provided between the traffic and the location where the noise contours are drawn.

Tables 4.10.H, 4.10.I, 4.10.K, and 4.10.M show that project-related traffic would have mostly small (0.3 dBA or less) noise level increases along roadway segments in the project vicinity for the existing and future weekday and Sunday cumulative year scenarios. The existing plus project scenario would have up to 0.1 dBA increase along PCH, west of Crown Valley Parkway, up to 0.2 dBA increase along Crown Valley Parkway and Camino Del Avion, as well as up to 0.3 dBA increase along Sea Island Drive, west of Crown Valley Parkway. Other roadway segments would have no measurable traffic noise level increases under the existing plus project scenario. Because changes in noise levels of 3 dBA or less are not perceptible to the human ear in an outdoor environment, noise level increases associated with the proposed project would be considered less than significant. No mitigation is required.

On-site proposed church facility expansion areas would be exposed to potentially high traffic noise levels along Crown Valley Parkway. Because Table 4.10.M shows the future Sunday with project scenario would have higher traffic volumes along Crown Valley Parkway between Sea Island Drive and the church driveway to the south of Sea Island Drive than the future weekday with project scenario, potential traffic noise impacts on the proposed on-site uses such as the Community Life Center building and the two Christian Education buildings would be analyzed using the Sunday traffic volumes. The proposed Preschool/Administration building, which is situated closer to the segment of Crown Valley Parkway between the church driveway to the south of Sea Island Drive and Lumeria Lane; however, will be evaluated with the future weekday with project traffic volumes because they are higher than the corresponding Sunday traffic volumes under the future scenario for this segment.

Table 4.10.H: Existing Weekday With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	20,800	76	148	312	69.0	0.0
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	21,300	64	126	266	68.3	0.0
Crown Valley Parkway between Sea Island Drive and Church Driveway	20,900	61	124	262	68.6	0.0
Crown Valley Parkway between Church Driveway and Lumeria Lane	20,900	61	124	262	68.6	0.0
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	19,000	58	116	246	68.2	0.0
Crown Valley Parkway south of Pacific Coast Highway	1,700	< 50	< 50	< 50	54.9	0.0
Camino Del Avion west of Crown Valley Parkway	3,400	< 50	< 50	67	59.9	0.0
Camino Del Avion east of Crown Valley Parkway	9,400	< 50	75	155	65.1	0.0
Sea Island Drive west of Crown Valley Parkway	1,500	< 50	< 50	< 50	54.3	0.0
Lumeria Lane east of Crown Valley Parkway	220	< 50	< 50	< 50	46.0	0.0
Pacific Coast Highway west of Crown Valley Parkway	29,000	74	153	326	70.0	0.0
Pacific Coast Highway east of Crown Valley Parkway	21,800	63	127	270	68.8	0.0

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Soft setting and the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = feet

Table 4.10.I: Existing Sunday With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	18,700	72	139	291	68.5	0.1
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	20,100	62	122	256	68.0	0.1
Crown Valley Parkway between Sea Island Drive and Church Driveway	18,900	58	116	245	68.1	0.0
Crown Valley Parkway between Church Driveway and Lumeria Lane	18,400	57	114	241	68.0	0.1
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	17,000	< 50	108	229	67.7	0.1
Crown Valley Parkway south of Pacific Coast Highway	1,200	< 50	< 50	< 50	53.4	0.0
Camino Del Avion west of Crown Valley Parkway	3,000	< 50	< 50	62	59.3	0.1
Camino Del Avion east of Crown Valley Parkway	8,600	< 50	71	147	64.7	0.0
Sea Island Drive west of Crown Valley Parkway	1,400	< 50	< 50	< 50	54.0	0.3
Lumeria Lane east of Crown Valley Parkway	270	< 50	< 50	< 50	46.9	0.0
Pacific Coast Highway west of Crown Valley Parkway	24,300	67	136	290	69.20	0.0
Pacific Coast Highway east of Crown Valley Parkway	20,500	61	122	259	68.5	0.0

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Soft setting and the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = feet

Table 4.10.J: Future Weekday Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	23,800	82	162	341	69.6
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	24,300	69	137	290	68.9
Crown Valley Parkway between Sea Island Drive and Church Driveway	23,900	66	135	287	69.2
Crown Valley Parkway between Church Driveway and Lumeria Lane	23,900	66	135	287	69.2
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	21,900	63	127	271	68.8
Crown Valley Parkway south of Pacific Coast Highway	2,000	< 50	< 50	< 50	55.6
Camino Del Avion west of Crown Valley Parkway	3,900	< 50	< 50	73	60.4
Camino Del Avion east of Crown Valley Parkway	10,600	< 50	81	168	65.6
Sea Island Drive west of Crown Valley Parkway	1,500	< 50	< 50	< 50	54.3
Lumeria Lane east of Crown Valley Parkway	220	< 50	< 50	< 50	46.0
Pacific Coast Highway west of Crown Valley Parkway	36,700	85	178	381	71.0
Pacific Coast Highway east of Crown Valley Parkway	28,900	74	152	325	70.0

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Soft setting and the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = feet

Table 4.10.K: Future Weekday With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	23,900	82	162	342	69.6	0.0
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	24,400	69	138	291	68.9	0.0
Crown Valley Parkway between Sea Island Drive and Church Driveway	24,000	66	135	287	69.2	0.0
Crown Valley Parkway between Church Driveway and Lumeria Lane	24,000	66	135	287	69.2	0.0
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	21,900	63	127	271	68.8	0.0
Crown Valley Parkway south of Pacific Coast Highway	2,000	< 50	< 50	< 50	55.6	0.0
Camino Del Avion west of Crown Valley Parkway	3,900	< 50	< 50	73	60.4	0.0
Camino Del Avion east of Crown Valley Parkway	10,600	< 50	81	168	65.6	0.0
Sea Island Drive west of Crown Valley Parkway	1,500	< 50	< 50	< 50	54.3	0.0
Lumeria Lane east of Crown Valley Parkway	220	< 50	< 50	< 50	46.0	0.0
Pacific Coast Highway west of Crown Valley Parkway	36,700	85	178	381	71.0	0.0
Pacific Coast Highway east of Crown Valley Parkway	28,900	74	152	325	70.0	0.0

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Soft setting and the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = feet

Table 4.10.L: Future Sunday Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	20,700	76	148	311	69.0
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	21,900	65	129	271	68.4
Crown Valley Parkway between Sea Island Drive and Church Driveway	20,900	61	124	262	68.6
Crown Valley Parkway between Church Driveway and Lumeria Lane	20,400	60	122	258	68.5
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	18,800	58	116	245	68.1
Crown Valley Parkway south of Pacific Coast Highway	1,400	< 50	< 50	< 50	54.0
Camino Del Avion west of Crown Valley Parkway	3,300	< 50	< 50	65	59.7
Camino Del Avion east of Crown Valley Parkway	9,400	< 50	75	155	65.1
Sea Island Drive west of Crown Valley Parkway	1,300	< 50	< 50	< 50	53.7
Lumeria Lane east of Crown Valley Parkway	270	< 50	< 50	< 50	46.9
Pacific Coast Highway west of Crown Valley Parkway	30,600	76	158	338	70.2
Pacific Coast Highway east of Crown Valley Parkway	26,900	71	145	310	69.7

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Soft setting and the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = feet

Table 4.10.M: Future Sunday With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline To 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase CNEL (dBA) 50 ft from Centerline of Outermost Lane
Crown Valley Parkway north of Camino Del Avion	21,100	77	150	315	69.1	0.1
Crown Valley Parkway between Camino Del Avion and Sea Island Drive	22,600	66	131	277	68.5	0.1
Crown Valley Parkway between Sea Island Drive and Church Driveway	21,300	62	125	266	68.7	0.1
Crown Valley Parkway between Church Driveway and Lumeria Lane	20,800	61	123	261	68.6	0.1
Crown Valley Parkway between Lumeria Lane and Pacific Coast Highway	19,300	59	117	249	68.2	0.1
Crown Valley Parkway south of Pacific Coast Highway	1,400	< 50	< 50	< 50	54.0	0.0
Camino Del Avion west of Crown Valley Parkway	3,300	< 50	< 50	65	59.7	0.0
Camino Del Avion east of Crown Valley Parkway	9,500	< 50	76	156	65.2	0.1
Sea Island Drive west of Crown Valley Parkway	1,300	< 50	< 50	< 50	53.7	0.0
Lumeria Lane east of Crown Valley Parkway	270	< 50	< 50	< 50	46.9	0.0
Pacific Coast Highway west of Crown Valley Parkway	30,800	77	159	339	70.3	0.1
Pacific Coast Highway east of Crown Valley Parkway	27,000	71	146	311	69.7	0.0

Source: LSA Associates, Inc., *Noise Impact Analysis* (August 2014).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
Modeled using the Soft setting and the Orange County default fleet percentages. Roadway segments directly adjacent to the project site are shaded.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = feet

Crown Valley Parkway. Tables 4.10.K and 4.10.M show that the 70 dBA CNEL along Crown Valley Parkway near the project site would extend up to 69 ft from the roadway centerline under the future with project conditions. The 65 dBA CNEL would extend up to 138 ft from the roadway centerline. The proposed buildings on the project site are located approximately 60 ft (Community Life Center) to 240 ft (Christian Education buildings) from the roadway centerline and would potentially be exposed to traffic noise up to 71 and 62 dBA CNEL, respectively. Because the buffer area between the project buildings and Crown Valley Parkway includes only parking and landscaped areas and does not have any outdoor recreation areas, no mitigation is required to reduce the exterior noise level.

Based on the United States Environmental Protection Agency (EPA's) Protective Noise Levels (EPA 550/9-79-100, November 1978), standard building construction in warm climate areas such as southern California would provide 12 dBA in exterior-to-interior noise attenuation. With windows or

doors open, interior noise levels at the Community Life Center building would potentially exceed the 45 dBA CNEL (i.e., 71 dBA - 12 dBA = 59 dBA) interior noise level recommended for noise-sensitive uses. With windows closed, interior noise levels in these frontline rooms would also exceed the 45 dBA CNEL (71 dBA - 24 dBA = 47 dBA) standard for noise-sensitive uses. Therefore, windows with Sound Transmission Class (STC) ratings provided by standard building construction (STC-24 to STC-28) would not be sufficient for the interior spaces inside the Community Life Center building facing Crown Valley Parkway. Mitigation Measure 4.10.1, which requires building facade upgrades, such as windows with STC ratings higher than those provided by standard building construction, would reduce interior noise levels in the frontline rooms of the Community Life Center building below the 45 dBA CNEL. With implementation of Mitigation Measure 4.10.1, potential long-term traffic noise impacts on on-site uses would be reduced to less than significant levels.

Interior rooms or spaces that are not directly adjacent to Crown Valley Parkway would be sufficient with standard double paned windows. Air conditioning, a form of mechanical ventilation, is required for all buildings along Crown Valley Parkway to ensure that windows can remain closed for prolonged periods of time. Because the proposed project would provide air conditioning as a standard feature, no additional mitigation is required for the building facade along Crown Valley Parkway. For the two proposed Christian Education buildings, the western facades facing Crown Valley Parkway would be exposed to up to 62 dBA CNEL traffic noise, and would be sufficient with windows provided with standard building construction. No building facade upgrades would be required for these two buildings.

The proposed Preschool/Administration building on the project site is located approximately 240 ft from the roadway centerline and would potentially be exposed to traffic noise up to 62 dBA CNEL. Since the buffer area between the project building and Crown Valley Parkway includes only parking and landscaped areas and does not have any outdoor recreation area, no mitigation is required to reduce the exterior noise level.

Based on the EPA's Protective Noise Levels (EPA 550/ 9-79-100, November 1978), with windows or doors open, interior noise levels at the frontline rooms/spaces inside the Preschool/Administration building would potentially exceed the 45 dBA CNEL (i.e., 62 dBA - 12 dBA = 50 dBA) interior noise level recommended for noise-sensitive uses. With windows closed, interior noise levels in these frontline rooms/spaces would not exceed the 45 dBA CNEL (62 dBA - 24 dBA = 38 dBA) interior noise level recommended for noise-sensitive uses. Because the building is projected to be exposed to traffic noise levels below 69 dBA CNEL, windows with STC ratings provided by standard building construction (up to STC-28) would be sufficient for rooms or interior spaces facing Crown Valley Parkway. Air conditioning, a form of mechanical ventilation, is required to ensure that windows can remain closed for prolonged periods of time. As the proposed project would provide air conditioning as a standard feature, no mitigation is required for the facade of the Preschool/Administration building facing Crown Valley Parkway.

Children's Play Areas. Following the completion of Phase 3, the proposed play areas would be located to the north and east of the Christian Education buildings and shielded from Crown Valley Parkway traffic noise. Therefore, the proposed project would result in less than significant traffic noise impacts on the proposed play areas on the project site following completion of Phase 3, and no mitigation is required. During Phases 1B, 1C, 2, and 3, however, the children's play area would be

located in the parking lot in front of the Preschool/Administration building, an area that is approximately 200 ft from the centerline of Crown Valley Parkway. At this distance, the projected traffic noise level would be 63 dBA CNEL, which is less than the City's 65 dBA CNEL exterior noise level recommended for outdoor activity areas. Therefore, the proposed project would result in less than significant traffic noise impacts on the proposed play areas on the project site during Phases 1B, 1C, 2, and 3, and no mitigation is required.

Mechanical Equipment. The project proposes to have a mechanical room at the lower level at the southwest corner of the Parking Structure. A noise impact analysis was conducted for the potential noise impacts on the Monarch Bay Villas residences to the south of the project site (Mestre Greve Associates, July 16, 2009) from the mechanical room equipment. It was found that operation of the mechanical room equipment would result in a noise level of 49 dBA at the nearest residence at Monarch Bay Villas when the equipment is running at full capacity. This noise level is less than the City requirement (Municipal Code Section 11.10.010) of 50 dBA during the nighttime period (10 p.m. to 7 a.m.) and City requirement of 55 dBA during the daytime (7 a.m. to 10 p.m.). In addition, since the mechanical equipment is serving the Administration/Preschool Building and the Sanctuary, it is rare that the mechanical equipment would operate during the nighttime hours. Indoor noise levels would be at least 12 dBA lower than the exterior noise level with windows open. Therefore, indoor noise levels would be no higher than 37 dBA which is well below the City's daytime limit of 55 dBA and the nighttime limit of 45 dBA (Municipal Code Section 11.10.012). No mitigation is required.

Threshold 4.10.4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Less Than Significant Impact. As described above for construction noise impacts, maximum combined noise levels from proposed project-related construction activities could reach up to 94 dBA L_{max} at the nearest residential uses to the south of the project site during the Phase 1A construction period, when the Preschool/Administration building is being constructed, and up to 78 dBA L_{max} at the nearest residential uses to the north of the project site during construction of Phase 1C and Phase 2, when the Community Life Center building and Christian Education Building 1 are being constructed. Existing residences to the east across the golf course are approximately 1,000 ft away from the project site. At this distance, noise levels would be reduced by 26 dBA when compared to the noise levels measured at 50 ft from the construction activity. Therefore, construction activity on the project site could potentially result in noise levels reaching 64 dBA L_{max} at the residences located to the east of the project site. Compliance with the construction hours specified in the City's Noise Ordinance would reduce the proposed project's construction noise impacts to a less than significant level.

Construction of the proposed Preschool/Administration building would not be continuous over the entire Phase 1A period. This phase also involves construction of an underground storm water detention system and construction of the proposed Landscaped Garden in the southeastern corner of the project site. Although this range of construction noise would be higher than the ambient noise, it would cease to occur once the construction of the Preschool/Administration building is completed. Based on the location and amount of construction equipment required, construction of other on-site buildings during subsequent phases would result in lower noise level increases at the residences to the south. As described above, construction would be limited to the hours specified in the City's Municipal Code and would comply with the City's standard conditions to reduce construction noise

impacts. Compliance with the construction hours specified in the City's Noise Ordinance and Standard Condition 4.10.1, which requires specific measures to reduce short-term construction-related noise impacts, would reduce the proposed project's temporary increases in ambient noise levels in the proposed project vicinity to a less than significant level.

Threshold 4.10.5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels

No Impact. No portion of the project site is located within an airport land use plan, or within 2 miles of a public airport or public use airport. John Wayne Airport (JWA) is located approximately 12 miles northwest of the project site. Future development of the subject property would neither affect nor be affected by aircraft operations at such a facility that would generate noise in excess of regulatory standards. Therefore, the proposed project would result in no impacts with respect to the generation of excessive noise levels in the vicinity of a public airport, and no mitigation is required.

Threshold 4.10.6: For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels

No Impact. No portion of the project site is located in the vicinity of a private airstrip. Implementation of the proposed project on the site would neither affect nor be affected by aircraft operations at such a facility that would generate noise in excess of regulatory standards. Therefore, the proposed project would result in no impacts with respect to the generation of excessive noise levels in the vicinity of a private strip, and no mitigation is required.

4.10.7 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative study area for noise.

The cumulative study area for noise impacts is the City of Dana Point. Cumulative projects are identified in Chapter 4.0, Table 4.A, and Figure 4.1. Construction of the proposed project has the potential to overlap with construction of one or more related projects. The closest related project is the Ritz Carlton Expansion project, approximately 0.75 mile south of the project site. Because construction and vibration are localized and rapidly attenuate within an urban environment, the related projects are located too far from the project site to contribute to cumulative impacts related to noise levels due to construction activities. Construction activity at any related project site would not result in a noticeable increase in noise to sensitive receptors adjacent to the project site. Furthermore, all related projects would be required to comply with the City's Noise Ordinance. Therefore, cumulative construction impacts would be less than significant

Cumulative noise impacts could occur as a result of increased traffic volumes on local roadways due to future growth and increased development in the vicinity of the project site. Cumulative traffic noise impacts are based on the difference between existing traffic volumes and future traffic volumes after

build out of the project and in combination with related projects currently being proposed or built within the vicinity of the project site. An increase of 3.0 dBA CNEL at any roadway location is considered a significant impact. As shown in Tables 4.10.K and 4.10.M, none of the roadway segments within the vicinity of the project site is expected to experience a noise level increase greater than 3.0 dBA CNEL. The proposed project's incremental contributions would be between 0.0 and 0.3 dBA along these roadway segments. Therefore, the proposed project would not contribute substantially to cumulative roadway noise impacts and would have a less than cumulatively considerable impact.

4.10.8 Standard Condition

Standard Condition 4.10.1 **Short-Term Construction-Related Noise Impacts.** The following standard conditions are required of all development within the City of Dana Point (City) and would reduce short-term construction-related noise impacts resulting from the proposed project:

- During all project site excavation and grading, the project contractors should equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- The project contractor should place all stationary construction equipment so that emitted noise is directed away from the relatively more sensitive receptors nearest the project site.
- The construction contractor should locate equipment staging in areas that will create the greatest distance between construction-related noise sources and relatively more noise-sensitive receptors nearest the project site during all project construction.
- The construction contractor shall limit all grading and equipment operations and all construction-related activities that would result in high noise levels (90 dBA or greater) to between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday. No high noise level construction activities shall be permitted outside of these hours or on Saturdays, Sundays, and federal holidays.

4.10.9 Mitigation Measure

Mitigation Measure 4.10.1: Prior to the issuance of any grading or building permits for Phase 1C, the Applicant shall submit the building plans for review and approval by the City of Dana Point (City) Building Official, or designee, to ensure that building facade upgrades, including but not limited to windows with Sound Transmission Class (STC)-30 or higher, have been included in the plans for the western facade of the Community Life Center along Crown Valley Parkway to reduce noise levels associated with traffic noise to an acceptable level.

4.10.10 Level of Significance Prior to Mitigation

The proposed project would not result in any impacts related to excessive noise levels associated with a public or private airport/airstrip. The proposed project would not contribute substantially to cumulative construction or operational noise levels, and cumulative impacts would be less than significant. However, the proposed project could result in potentially significant impacts related to permanent increases in ambient noise levels. These impacts would be potentially significant prior to mitigation. Potential impacts related to groundborne vibration and noise levels, as well as on-site operational noise levels, would be less than significant.

4.10.11 Level of Significance After Mitigation

With the implementation of Mitigation Measure 4.10.1 and compliance with Standard Condition 4.10.1, all identified potentially significant impacts associated with long-term traffic and operational noise impacts on nearby sensitive receptors would be reduced to less than significant levels.

4.11 PUBLIC SERVICES AND UTILITIES

4.11.1 Introduction

This section describes the public service and utility providers currently serving the South Shores Church Master Plan (proposed project) site and evaluates the potential impacts of the proposed project on public service and utility providers. This section is based on multiple data sources, including the Public Facilities/Growth Management Element (1991) of the City of Dana Point (City) General Plan, as well as coordination with potentially affected public service and utility providers. Specific references are identified within the subsection for each respective issue. This section addresses the following public services and utilities (the service providers are noted in parenthesis):

- Fire Protection (Orange County Fire Authority [OCFA])
- Police Protection (Orange County Sheriff Department [OCSD])
- Public Schools (Capistrano Unified School District [CUSD])
- Parks (City of Dana Point)
- Public Libraries (Orange County Public Library [OCPL] System)
- Public Transportation (Orange County Transportation Authority [OCTA])
- Wastewater (South Coast Water District [SCWD])
- Potable Water (SCWD)
- Storm Drains (City of Dana Point, Public Works Department)
- Solid Waste (Orange County Waste and Recycling [OCWR])
- Electricity (San Diego Gas and Electric [SDG&E])
- Natural Gas (The Southern California Gas Company [SoCalGas])

4.11.2 Methodology

Shortly after the Notice of Preparation (NOP) was issued in 2010, public service and utility providers were sent a questionnaire that requested information regarding current service provided to the proposed project site, including information on possible constraints or impacts to their services associated with proposed project build out. The impact analyses are based on responses to the questionnaires and/or information obtained through subsequent phone conversations with public service and utility provider representatives, as well as data obtained through websites when public service and utility providers did not provide responses. Correspondence with public service and utility providers is included in (Appendix I).

4.11.3 Existing Environmental Setting

Fire Protection. The City contracts with OCFA for fire protection services. OCFA is a Joint Powers Authority (JPA) responsible for reducing loss of life and property from fire, medical, and environmental emergencies. The OCFA is a regional fire service agency that serves over 23 cities in

Orange County (County) and all unincorporated areas in the County. The OCFA protects over 1.7 million residents through its 71 fire stations located throughout the County.

In addition to providing fire, emergency medical, and rescue services, OCFA provides a variety of public services, including the following:

- Providing public education programs to schools, businesses, community associations, childcare providers, and other members of the community;
- Administering a Reserve Firefighter Program;
- Adopting and enforcing codes and ordinances relative to fire and life safety issues associated with commercial, industrial, and residential development;
- Coordinating the inspection of all commercial buildings, investigating all fires, and enforcing hazardous materials regulations;
- Working with developers and jurisdictional planning departments on development projects impacting fire protection services, from project conception through planning process approval;
- Conducting new construction inspections, fire safety inspections, and State Fire Marshal-required inspections (including high rise, jail, board and care, and day care inspections), and enforcing applicable fire codes and ordinances;
- Interacting with developers, architects, and engineers to meet the fire protection requirements for buildings and developments by reviewing all architectural blue prints, development plans, and proposals submitted in OCFA's jurisdiction;
- Conducting Uniform Fire Code inspections, assisting in reducing risks associated with the use of hazardous materials in the community, and administering the State-mandated Risk Management and Prevention program;
- Investigating fires to determine their causes, preparing arson and hazardous materials cases for the district attorney, and initiating actions to recover costs for negligently caused fires; and
- Developing and maintaining a fire-safe corridor between the wildland and community developments through fuel modifications and inspections.

The City is located in Division III, which includes Battalions 6 and 7, and serves the Cities of Dana Point, Mission Viejo, Rancho Santa Margarita, San Clemente, and San Juan Capistrano, along with the unincorporated communities of Coto de Caza, Ladera, Las Flores, Modjeska Canyon, Trabuco Canyon, and Talega.[1]

There are currently two fire stations located within the City that provide assistance to area residents. The fire station closest to the project site is Station No. 30, located approximately 1.9 miles (mi) south of the project site at 23831 Stonehill Drive, in Dana Point 92629. Station No. 30 is staffed by three captains, three engineers, three firefighters, and reserve firefighters. In 2013, Station No. 30 responded to 1,772 calls.[2] The second nearest station to the project site is Station No. 29, located at

[1] Orange County Fire Authority (OCFA), Operations Division: http://www.ocfa.org/Menu/Departments/Operations/OperationsDivIII.aspx, accessed April 7, 2014.

[2] Written correspondence, Michele Hernandez, Management Analyst, OCFA, April 23, 2014.

26111 Victoria Boulevard, in Dana Point 92624, and approximately 4.3 mi south of the project site. Station No. 29 is staffed by three battalion chiefs, three captains, three engineers, and six firefighters. In 2013, Station No. 29 responded to 3,116 calls.[1]

According to the City's General Plan Public Facilities/Growth Management Element (1991), it is the City's goal to have the first fire engine reach an emergency scene within 5 minutes and paramedics reach the scene within 10 minutes for 80 percent of the City.[2] On average, OCFA response times are from 3 to 7 minutes for engines to arrive on scene after a 911 call has been placed. In 2013, the OCFA responded to 40 fires, 2,050 emergency service calls, and 769 other incidents within the City.[3]

Police Protection. The City contracts with OCSD for law enforcement services. The Central Justice Center, the main OCSD facility, is located at 700 Civic Center West, in Santa Ana, approximately 26 mi north of the project site. OCSD is a large, multi-faceted law enforcement agency composed of approximately 4,000 sworn and professional staff members and 800 reserve personnel.[4] The core services provided by the department are: public protection, including patrol of land, harbors and coastline, homeland security, court and airport security, and emergency communications. In addition to patrolling the unincorporated areas of Orange County, the OCSD contracts with 12 cities in the County to serve as the police departments for those cities.

The City is divided into three distinct Community Service Unit (CSU) Districts. Each CSU District is assigned a deputy who assists the community with its specific concerns. The proposed project site is located in CSU District 1.[5]

According to the City's General Plan Public Facilities/Growth Management Element, Table PF-1, Traffic and Public Facility Performance Criteria, the City has an emergency response goal of one deputy at the scene of an emergency call within 5 minutes, 50 percent of the time; to all emergency calls within 8 minutes; and to non-emergency calls within 15 minutes or less, 75 percent of the time.[6]

Public Schools. The provision of education and school facilities in the City is the responsibility of CUSD, which is the second largest school district in the County, encompassing 195 square miles (sq mi). CUSD includes all or part of the Cities of Dana Point, San Clemente, San Juan Capistrano, Laguna Niguel, Aliso Viejo, Mission Viejo, and Rancho Santa Margarita, as well as the unincorporated communities of Las Flores, Coto de Caza, Dove Canyon, Ladera Ranch, and Wagon Wheel. Governed by a seven-member Board of Trustees, CUSD currently (2013–2014 school year) operates 35 elementary schools, 2 kindergarten through 8th grade (K–8) schools, 10 middle schools, 6 comprehensive high schools, 1 alternative education high school, 1 adult school, 2 exceptional

1 Written correspondence, Michele Hernandez, Management Analyst, Orange County Fire Authority, April 23, 2014.
2 City of Dana Point General Plan, Public Facilities/Growth Management Element, Table PF-1. July 9, 1991.
3 Written correspondence, Michele Hernandez, Management Analyst, Orange County Fire Authority, April 23, 2014.
4 Orange County Sheriff Department, About OCSD: http://ocsd.org/about/ (accessed March 17, 2014).
5 City of Dana Point, Community Services Unit District Map: http://www.danapoint.org/Modules/ShowDocument.aspx?documentid=5263 (accessed March 17, 2014).
6 City of Dana Point General Plan, Public Facilities/Growth Management Element, Table PF-1. July 9, 1991.

needs facilities, 1 independent study high school, and 5 charter schools.[1] The project site is in the attendance boundaries for Moulton Elementary School,[2] Niguel Hills Middle School,[3] and Dana Hills High School.[4] The demand for public school facilities is driven by residential land use. As the project site does not consist of residential land uses, the existing land use is not creating any demand on public school facilities.

Parks. According to the City's General Plan Conservation/Open Space Element, the City determines the need for park space based on its population. The City requires 4 acres (ac) of park space per 1,000 residents; 1.5 ac of that ratio may be provided by school playgrounds.[5] Because the project site does not contain residential land uses, the existing land use is not contributing to a demand for park facilities within the City or the County.

Public Libraries. The OCPL system provides library services to the County, including the City, and includes 33 branches as well as an outlet in the Orangewood Children's Home.[6] The County library nearest the project site is the Dana Point branch located at 33841 Niguel Road, in Dana Point 92629, approximately 1.4 mi northwest of the project site. The Dana Point branch is open daily providing library services to the community of Dana Point. According to the City's General Plan Public Facilities/Growth Management Element, Table PF-1, the City uses a library demand of 0.2 square feet (sf) of library space per capita.[7] Because the project site does not contain residential land uses and does not contribute to the population within the City, the existing land use is not contributing to a demand on public library facilities within the City or the County.

Public Transportation. The proposed project is within the OCTA bus service area. OCTA currently maintains one bus route, Route 85 on Crown Valley Parkway, with a north and southbound bus stop directly in front of the project site on the south side of Crown Valley Parkway at Sea Island Drive. Additionally, Route 85 has a scheduled departure stop located approximately 0.25 mi south of the project site at Crown Valley Parkway and Seven Seas Drive. Route 85 provides 50 weekday trips and 18 Saturday trips. Route 85 does not provide service on Sundays. Route 85 utilizes a 40-foot (ft) bus, which has between 37–47 seats and can carry 57 to 77 passengers standing. In written correspondence dated August 10, 2010 (Appendix I), Carolyn Mamaradlo, Associate Transportation Analyst at the OCTA, indicated the maximum load on Route 85 is 31 persons on weekdays and 26 persons on

1 Capistrano Unified School District Facts. http://capousd.ca.schoolloop.com/cms/page_view?d=x&piid=&vpid=1232963502427 (accessed April 7, 2014).
2 Capistrano Unified School District, Elementary School Attendance Boundaries, 2008-2009: http://cusd.capousd.org/cusdweb/boundary_maps/CombinedElementary0809.pdf (accessed March 17, 2014).
3 Capistrano Unified School District, Middle School Attendance Boundaries, 2008-2009: http://cusd.capousd.org/cusdweb/boundary_maps/CombinedMiddle0809.pdf (accessed March 17, 2014).
4 Capistrano Unified School District, High School Attendance Boundaries, 2008-2009: http://cusd.capousd.org/cusdweb/boundary_maps/CombinedHigh0809.pdf (accessed March 17, 2014).
5 City of Dana Point General Plan, Conservation/Open Space Element, July 9, 1991.
6 "About OCPL." http://ocpl.org/services/about (accessed April 7, 2014).
7 City of Dana Point General Plan, Public Facilities/Growth Management. July 9, 1991.

Saturdays. Therefore, Route 85 is servicing only one half of its capacity. Additionally, the maximum daily boarding at the bus stops (Stop IDs: 1521 and 1524) within the project area is three persons.

Wastewater. The City's sewer system is owned, operated, and maintained by the SCWD. The SCWD provides sewer treatment to more than 40,000 residents and over 2 million visitors per year in the coastal communities of Dana Point and South Laguna, and in areas of north San Clemente. Wastewater is removed via the sanitary sewer system, which consists of approximately 140 mi of sewer lines ranging in size from 6 inches to 24 inches in diameter; 14 lift stations; and 3 mi of force mains across SCWD's service area.[1]

Collected wastewater is pumped to one of two treatment plants owned and operated by the South Orange County Wastewater Authority (SOCWA). The SOCWA is a JPA with ten member agencies, consisting of local retail water agencies and cities that provide water to their residents. It operates four treatment plants and two ocean outfalls, in addition to multiple programs to meet the needs of its member agencies and the requirements of the Clean Water Act (CWA) and applicable National Pollutant Discharge Elimination System (NPDES) permits. The two SOCWA wastewater treatment plants include the Coastal Treatment Plant in Aliso Canyon, Laguna Niguel and the J.B. Latham Plant in the City of Dana Point.

The J.B. Latham Plant is located approximately 4 mi southeast of the project site and provides treatment of wastewater generated by the project site. The J.B. Latham Plant has a total design capacity of 13 million gallons per day (mgd) and, on average, currently treats a wastewater flow of 9.44 mgd from the southern part of the SCWD.[2] Therefore, the J.B. Latham Plant is currently operating at approximately 72.6 percent of its daily design capacity.

Table 4.11.A provides the estimated wastewater generated by the existing uses on the project site, as calculated by the California Emissions Estimator Model (CalEEMod) Version 2013.2.2, the South Coast Air Quality Management District's (SCAQMD) most current air quality model. As shown in Table 4.11.A, the total average wastewater generated by the existing uses on the project site is estimated to be approximately 1,409,298 gallons per year (gpy), which equals approximately 3,861 gallons per day (gpd).

Water Supply. The project site is within SCWD's service area. SCWD receives its water from two main sources; the San Juan Basin, which is managed by the San Juan Basin Authority (SJBA) and imported water from the Municipal Water District of Orange County (MWDOC). SCWD's service area covers approximately 5,300 ac, along the southern coastline of Orange County. SCWD provides water service to more than 40,000 residents and over two million visitors per year in the coastal communities of Dana Point, South Laguna, and areas of north San Clemente. The SCWD delivers 7 million gallons of potable water to residential and commercial uses daily through 147 mi of pipelines and 11 pump stations. SCWD maintains extensive facilities serving its customers, which include 147 mi of pipeline, 15 reservoirs, 11 pump stations, and 1,500 fire hydrants. Additionally, the SCWD

1 South Coast Water District (SCWD), Infrastructure Master Plan 2008.

2 J.B. Latham Treatment Plant. http://www.socwa.com/About/JBLathamTreatmentPlant.aspx (accessed October 8, 2013).

Table 4.11.A: Existing Wastewater Generation on Project Site

Land Use	Area	Annual Wastewater Generation (gpy)	Annual Wastewater Generation (gpd)
Church[1]	35,828 sf	1,121,080	3,071
Preschool[2]	6,717 sf	288,218	790
	Total	**1,409,298**	**3,861**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).
1 Includes the existing Sanctuary, Chapel, and Administration and Fellowship Hall buildings; calculated based on the Place of Worship land use in CalEEMod.
2 Includes the existing Preschool building; calculated based on the Day Care Center land use in CalEEMod.
CalEEMod = California Emission Estimator Model
gpd = gallons per day
gpy = gallons per year
sf = square feet

maintains a recycled water system that includes 15 mi of pipeline, three storage tanks, and three pump stations.

SCWD's total water storage capacity of approximately 22 million gallons is maintained in 15 reservoirs. Due to SCWD's hilly terrain, much of the water must be pumped and stored in reservoirs to maintain constant pressure. Water is moved to upper elevations through approximately 147 mi of local mains using a system of nine pump stations. As an additional safeguard to assure the water supply, SCWD maintains a series of interties (emergency use interconnections) with neighboring water districts that can be activated in an emergency.

Over the next 15 years, imported water supplies are expected to decrease. The SCWD is working to tap into local groundwater from the SCWD's San Juan Property in Capistrano Beach, which will convert high salinity groundwater into drinking water to meet 10 percent of current demand.

The SCWD is a special district, operating under State law, completely independent of County government. The SCWD published the 2010 Urban Water Management Plan (UWMP), which outlines how the SCWD will provide customers with a reliable supply of drinking water for the next 30 years. The State requires the SCWD to update this plan every 5 years. This UWMP provides the California Department of Water Resources with information on the present and future water resources and demands and provides an assessment of SCWD's water resource needs.

The current total water demand for retail customers served by the SCWD is approximately 7,000 acre-feet annually consisting of 5,500 acre-feet per year (afy) of imported water, 624 afy of local groundwater, and 790 afy of recycled water. The SCWD is projecting a 25 percent increase in demand in the next 25 years accompanying a projected 7 percent population growth.[1] The SCWD relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The SCWD currently relies on 5,567 afy of imported water wholesaled by the Metropolitan

1 South Coast Water District. 2010. Urban Water Management Plan. http://www.scwd.org/about/plansanddocs/urbanwater.asp (accessed October 11, 2013).

Water District through MWDOC to supplement local groundwater. Imported water represents approximately 80 percent of the SCWD's total water supply.

Recycled Water Supply. Treatment plants produce wastewater that meets the quality requirements of the CWA for discharge into the ocean. However, complete disposal of this water is not necessary. Additional treatment, filtration, and disinfection can be performed to meet State health criteria so that "recycled water" can be used for irrigation. Utilizing recycled water for landscaping irrigation frees up imported drinking (or potable) water for other uses. Water recycling and reuse has proven to be safe, reliable, and a long-term, cost-effective approach to water resource management. Recycled water is used to irrigate parks, golf courses, playgrounds, greenbelts, and common areas of homeowners associations. Currently the SCWD provides recycled water to 175 customer accounts, including the City of Dana Point.

Existing Water Demand. The SCWD maintains an 8-inch water main located within Crown Valley Parkway, which services the project site and surrounding uses. Water from the Crown Valley Parkway water main is conveyed to the existing project site buildings via an additional, on-site, 8-inch water main connecting to the Crown Valley water main approximately 100 ft north of the southern property boundary.

Table 4.11.B provides the estimated water demand for the existing uses on the project site. As shown in Table 4.11.B, the total average water demand for the existing uses on the site is estimated to be approximately 3,903,919 gpy, which equals approximately 10,696 gpd.

Table 4.11.B: Existing Water Demand on the Project Site

Land Use	Area	Annual Water Demand (gpy)	Annual Water Demand (gpd)
Church[1]	35,828 sf	1,121,080	3,071
Preschool[2]	6,717 sf	288,218	790
Landscaping	N/A	2,494,622	6,835
Total		**3,903,919**	**10,696**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).

1 Includes the existing Sanctuary, Chapel, and Administration and Fellowship Hall buildings; calculated based on the Place of Worship land use in CalEEMod.

2 Includes the existing Preschool building; calculated based on the Day Care Center land use in CalEEMod.

CalEEMod = California Emission Estimator Model
gpd = gallons per day
gpy = gallons per year
N/A = not available
sf = square feet

Fire Flow. As discussed previously, the OCFA is responsible for fire suppression within the City. The OCFA relies on the area's infrastructure, including the adequacy of nearby water supplies to suppress fire. Thus, the City has adopted the 2013 California Fire Code (CFC) (Chapter 8.24 of the City's Municipal Code) that lists the minimum required fire flow and flow duration for

buildings of different floor areas and construction types (Appendix B of the Fire Code). Fire flow is the flow rate of water supply (measured in gallons per minute, or gpm) available for firefighting measured at 20 pounds per square inch (psi) pressure. Available fire flow is the total water flow available at the fire hydrants, also measured in gpm.

Storm Drains. The City, in conjunction with the County, operates and maintains a storm drain system that includes approximately 70,000 linear feet of storm drains, 13 diversion facilities, including 4 Continuous Deflective Separation (CDS) units, and 9 urban runoff systems.[1] The City's storm drain system consists of regional facilities, including the San Juan and Salt Creek storm channels, and local storm drains.

Storm water runoff from the project site currently drains in a south-easterly direction away from Crown Valley Parkway. Approximately 3.25 ac of the 6.0 ac project site sheet flows to the southeast corner of the property into an existing man-made drainage basin. Of the 3.25 ac, runoff from the existing parking lot drains to an existing catch basin and then to an underground storm drain before discharging to a concrete channel which outlets to the drainage basin. Runoff from the remainder of the 3.25 ac flows to the underground storm drain system at various locations before discharging into the drainage basin. The existing drainage basin discharges to an existing concrete v-ditch that runs south towards the Pointe Monarch Community and discharges into a man-made drainage basin. From the basin, flow travels southeast via a reinforced concrete pipe storm drain, which connects to a concrete box culvert (Orange County Flood Control District Facility No. K01) at the north side of Pacific Coast Highway and the bottom of Salt Creek. Flows then travel within the concrete box culvert underneath Pacific Coast Highway and enter the Salt Creek Ozone Treatment Plant before discharging directly to the Pacific Ocean. Runoff from the remaining 2.75 ac of the project site does not drain to the southeast corner of the site and the drainage basin. Approximately 2.4 ac in the areas surrounding the existing Preschool, Administration and Fellowship Hall, and Chapel buildings and the undeveloped hillsides on the eastern side of the project site drains toward the existing slope on the east side of the project site. In addition, a small area (0.4 ac) of the site consisting of driveway and landscaping drains towards Crown Valley Parkway.

Solid Waste. The project site is located within the OCWR's service area. The OCWR owns and operates three active landfills and four household hazardous waste collection centers, and monitors 12 closed landfills. All three landfills are permitted as Class III landfills, which accept all types of nonhazardous municipal solid waste for disposal; however, no hazardous or liquid waste can be accepted.

The Prima Deshecha Landfill is the closest OCWR landfill to the proposed project site, approximately 9 mi east of the project site, and would be expected to provide solid waste disposal for the construction and operation of the proposed project. The Prima Deshecha Landfill service area includes the Cities of Dana Point, San Juan Capistrano, Laguna Beach, Laguna Hills, Laguna Niguel, Lake Forest, Mission Viejo, and San Clemente, as well as unincorporated areas in South Orange County. Solid waste considered unacceptable waste at Prima Deshecha Landfill includes asbestos, batteries, brake linings, chemicals, fuel tanks, mufflers, paints, poisons, hazardous waste, animal

[1] City of Dana Point Utilities. http://www.danapoint.org/index.aspx?page=346 (accessed October 9, 2013).

parts, body parts, medical wastes, radioactive materials, auto body shredder wastes, fuels, heavy metals, explosives, pesticides, contaminated soil, liquid waste (moisture content greater than 50 percent), and nuisance dust. One of the three household waste collection centers provided by OCWR is located at 32250 La Pata Avenue, in the City. Therefore, waste considered unacceptable at the Prima Deshecha Landfill would be hauled to the household waste collection center.[1]

The Prima Deshecha Landfill, which is permitted to receive a daily maximum of 4,000 tons per day (tpd), receives an average of approximately 2,500 tpd.[2] The Prima Deshecha Landfill is approximately 1,530 ac with 699 ac permitted for refuse disposal. The landfill opened in 1976 and is scheduled to close in approximately 2067. A General Development Plan is being prepared for Prima Deshecha Landfill which indicates its end use as a regional park.

The Prima Deshecha Landfill is subject to regular inspections from the California Integrated Waste Management Board (CIWMB) and the CIWMB's Local Enforcement Agency (LEA), the California Regional Water Quality Control Board (RWQCB), and the SCAQMD to ensure compliance with applicable regulations.

In 1989, the CIWMB, Assembly Bill 939 (AB), was passed, which mandated a 25 percent reduction of waste being disposed of in the landfill system by 1995, and a 50 percent reduction by 2000. In response to AB 939, the CIWMB was established to monitor compliance with waste reduction requirements. According to the CIWMB, all counties within the State are required to have an approved Countywide Integrated Waste Management Plan (CIWMP), which outlines methods for waste diversion and demonstrates sufficient solid waste disposal capacity for a minimum of 15 years. In compliance with AB 939, the County prepared a CIWMP, which is kept current, demonstrating the required 15-year disposal capacity and allowing disposal of a maximum daily imported waste stream of 1,000 tons per day (tpd). Imported tonnage varies depending on demand and is limited by the solid waste facility permit for each site.

Table 4.11.C provides the estimated solid waste generated by the existing uses on the project site. As shown in Table 4.11.C, the total average solid waste generated by the existing uses on the project site is estimated to be approximately 212.97 tons per year (tpy), which equals approximately 566.8 pounds per day (lbs/day). This represents approximately 0.04[3] percent of the existing available daily capacity of the Prima Deshecha Landfill.

Natural Gas. SoCalGas, the service provider for the project site, services approximately 19 million people in a 23,000 sq mi service territory. SoCalGas has four storage fields—Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey—and a combined storage capacity of 134.1 billion cubic feet (bcf). According to a California Energy Commission (CEC) staff report, "as existing producing

1 Household Hazardous Waste Collection Centers. OC Waste and Recycling. http://oclandfills.com/civicax/filebank/blobdload.aspx?BlobID=6682 (accessed April 3, 2014).

2 Prima Deshecha Landfill. http://www.ocregister.com/articles/county-156776-landfill-deshecha.html (accessed April 7, 2014).

3 0.6 ton per day/1,500 tons per day.

Table 4.11.C: Existing Solid Waste Generation on Project Site

Land Use	Area	Annual Solid Waste Generation (tons)
Church[1]	35,828 sf	204.23
Preschool[2]	6,717 sf	8.74
	Total	**212.97**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).
1 Includes the existing Sanctuary, Chapel, and Administration and Fellowship Hall buildings; calculated based on the Place of Worship land use in CalEEMod.
2 Includes the existing Preschool building; calculated based on the Day Care Center land use in CalEEMod.
CalEEMod = California Emission Estimator Model
sf = square feet

regions mature and new resources are developed, it is only natural that new pipelines will be built and supply shares will shift."[1]

According to the CEC, natural gas demand in the SoCalGas service area was 7,431 million therms (or 743,100 million cubic feet [cf]) in 2010.[2] The CEC prepared three scenarios for forecasting future growth in natural gas demand between 2012 and 2022: a high-energy demand case, a low-energy demand case, and a mid-energy demand case. The low-demand scenario, which incorporates relatively high economic/demographic growth, relatively low electricity and natural gas rates, and relatively low efficiency program and self-generation impacts, estimates that natural gas demand in the SoCalGas service area would be 7,951 million therms in 2022 (the latest year in the demand forecast).

Natural gas provides almost a third of California's total energy requirements and will continue to be a major fuel in California's energy supply. Only 13.5 percent of the natural gas California used came from in-state production in 2006; the rest was delivered by pipelines from several production areas in the western United States and western Canada. Once the gas arrives in California, it is distributed by the State's three major gas utilities that provide a collective of 98 percent of the State's natural gas.[3]

Table 4.11.D provides the estimated natural gas demand for the existing uses on the project site. As shown in Table 4.11.D, the total average natural gas demand for the existing uses on the project site is estimated to be approximately 858,756 cf of natural gas per year, which equals approximately 2,353 cf of natural gas per day.

1 California Energy Commission. California Energy Demand 2008–2018 Staff Revised Forecast. November 2007.
2 Ibid.
3 California Energy Commission. 2007. Integrated Energy Policy Report 2007 Summary. (http://www.energy.ca.gov/2007publications/CEC-100-2007-008/CEC-100-2007-008-CMF-ES.PDF).

Table 4.11.D: Existing Natural Gas Demand on Project Site

Land Use	Area	Annual Natural Gas Demand (cf)
Church[1]	35,828 sf	775,361
Preschool[2]	6,717 sf	83,395
	Total	**858,756**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).
Note: 1 cubic foot of natural gas equals approximately 1 kilo British Thermal Unit.

1 Includes the existing Sanctuary, Chapel, and Administration & Fellowship Hall buildings; calculated based on the Place of Worship land use in CalEEMod.

2 Includes the existing Preschool building; calculated based on the Day Care Center land use in CalEEMod.

CalEEMod = California Emission Estimator Model
cf = cubic feet
sf = square feet

4.11.4 Regulatory Setting

Federal Policies and Regulations. There are no federal policies or regulations applicable to public services, utilities, and service systems for the proposed project.

State Policies and Regulations.

California Integrated Water Management Act of 1989. The California Integrated Waste Management Act of 1989 (Public Resource Code [PRC] Division 30), enacted through AB 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by 2000 (PRC Section 41780). The State determines compliance with this mandate to "divert" 50 percent of generated waste (which includes both disposed and diverted waste) through a complex formula. This formula requires cities and counties to conduct empirical studies to establish a "base year" waste generation rate against which future diversion is measured. The actual determination of the diversion rate in subsequent years is arrived at through deduction, not direct measurement: instead of counting the amount of material recycled and composted, the city or county tracks the amount of material disposed at landfills, then subtracts the disposed amount from the base year amount. The difference is assumed to be diverted (PRC 41780.2).

Senate Bill 1374. Senate Bill (SB) 1374 requires that the annual report submitted to the CIWMB include a summary of the progress made in diversion of construction and demolition waste materials. In addition, SB 1374 requires that the CIWMB adopt a model ordinance suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition waste materials from landfills by March 1, 2004. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CIWMB's model by default. However, adoption of such an ordinance may be considered by CIWMB when

determining whether to impose a fine on a jurisdiction that has failed to implement its Source Reduction and Recycling Element (SRRE).

Assembly Bill 75. AB 75, passed in 1999, took effect on January 1, 2000. This bill added new provisions to the PRC, mandating that State agencies develop and implement an Integrated Waste Management Plan (IWMP); it also mandated that community service districts providing solid waste services report disposal and diversion information to the city, county, or regional agency in which the community service district is located.

Appendix F of the *California Environmental Quality Act (CEQA) Guidelines*. Appendix F, Energy Conservation, states that Environmental Impact Reports (EIRs) are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. In addition, Appendix F seeks inclusion of information in the EIR addressing the following:

- Measures to reduce wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and maintenance of the project;
- The siting and orientation of buildings and structures to minimize energy consumption, including transportation energy;
- Measures for reducing peak energy demand;
- Incorporation of alternative fuels (particularly renewable ones) or energy systems; and
- Incorporation of recycling of nonrenewable resources.

Assembly Bill 341. AB 341, enacted in 2011 and begun in 2012, changed the due date of the State agency waste management annual report to May. The bill makes a legislative declaration that it is the policy goal of the State of California that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020.

Title 24 of the California Code of Regulations. Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in California Code of Regulations (CCR) Title 24. The efficiency standards apply to both new construction and rehabilitation of both residential and nonresidential buildings, and to regulation of energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed Title 24 Building Code requirements. Title 24 regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting with regard to both electricity and natural gas. These standards are typically updated every 3 years by the CEC. The 2013 Standards will continue to improve upon the 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Standards went into effect January 1, 2014, following approval by the California Building Standards Commission.

Compliance with Title 24 energy efficiency requirements can be achieved through following a prescriptive approach outlined in the standards or following a performance approach using computer modeling. The prescriptive approach offers relatively little design flexibility but is easy to use, while the performance approach allows design flexibility that can be used to find the most cost-effective solutions, but requires multiple calculations.

Local Policies and Regulations.

City of Dana Point Municipal Code. Section 8.24.001 Adoption of the California Fire Code. The City Council of the City of Dana Point adopted by reference the California Code of Regulations Title 24, Part 9, known and designated as the 2013 California Fire Code (CFC), based on the International Fire Code, 2012 Edition. The provisions of the CFC constitute the fire code regulations for development within the City.

City of Dana Point Municipal Code. Section 6 Health and Sanitation. Pursuant to Public Resources Code Sections 40100 et. seq., the City is mandated to conduct an integrated solid waste management program to reduce, reuse, and recycle solid waste to extend the life of its sanitary landfill. The integrated Waste Management Act of 1989 and subsequent legislation (AB 939) regards a waste diversion mandate that requires the City to achieve 50 percent waste diversion under current regulation, to include, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal.

To meet the requirements of the California Integrated Waste Management Act, the City Municipal Code (Title 6) establishes different recycling requirements that address the recycling needs and the specific nature of the waste generation for various types of activities. These requirements help to facilitate the City's compliance with State recycling mandates, remove architectural barriers to recycling, and ensure the recycling of construction and demolition debris. The purpose of Chapter 6.12 of the City's Municipal Code, entitled Construction and Demolition (C&D) Debris, is to promote the recycling of construction and demolition debris in order to protect the public health, safety, and welfare and to meet the City's obligations under both AB 939 and SB 1374, and to meet the requirements of the 3-year extension approved by the California Integrated Waste Management Board under the provisions of PRC Section 41820 (SB 1066).[1]

Section 6.12.050 of the City's Municipal Code specifies the requirements for a waste reduction and recycling plan, which includes:

A. Prior to issuance of a building, demolition, or encroachment permit for any covered project, the applicant shall complete and submit a Waste Reduction and Recycling Plan ("WRRP") to the C&D Compliance Official.

[1] City of Dana Point. Dana Point Municipal Code. Chapter 6.12, Construction and Demolition Debris. Declaration of Purpose. Available at http://qcode.us/codes/danapoint/, (accessed on October 9, 2013).

B. The C&D Compliance Official is authorized to create guidelines setting forth the information to be included in a WRRP, as well as the form thereof. At a minimum, the WRRP shall delineate all of the following:

1. The estimated weight of C&D debris to be generated by the covered project, listed by materials types;
2. The estimated weight of C&D debris generated by the covered project to be diverted, listed by materials types;
3. The facility or facilities to which C&D debris will be taken, listed by material types; and
4. The estimated weight of C&D debris generated by the covered project that will be landfilled, listed by the material types. (Added by Ordinance 03-17, December 10, 2003)

Orange County Growth Management Plan. The Orange County Growth Management Plan Element establishes the conceptual framework for managing growth in Orange County. The Element includes provisions regarding jobs/housing balance, traffic levels of service standards, traffic improvement programs, and public facility plans. The most applicable sections of the County Growth Management Plan to the City include the Facilities Implementation Plans (FIPs) and the Development Monitoring Program (DMP).

The FIPs analyze existing traffic and public facility levels of service and, based on adopted standards, establish a financing plan for new facilities. Affected facilities include transportation, sheriff's department, library, and fire department facilities, and storm drains. Because the City contracts with the County for these services, these plans directly affect the City. The existing levels of service prescribed by the FIPs are discussed further in the Public Facilities/Growth Management Element (1995) of the City's General Plan.

The purpose of the DMP is to monitor new development, service delivery, and regional and State growth management legislation, and to make recommendations for responding to new information and changing conditions. Because the recommendations of the DMP can affect service levels in the City, it is important for the City to monitor and cooperate in the preparation of the DMP.

City of Dana Point Construction and Demolition Waste Ordinance (No. 03-17). The City's Construction and Demolition Waste Ordinance requires contractors and other construction personnel to obtain a permit and haul at least 75 percent of their construction waste to a recycling facility certified by the City. The City of Dana Point requires a construction and demolition deposit in the amount of 1 percent of the project's valuation in order to encourage compliance with the ordinance.

Southern California Association of Governments Growth Management Plan. The Southern California Association of Governments (SCAG) Growth Management Plan recommends ways to redirect the regions' growth in order to minimize congestion and better protect the environment. While SCAG lacks the authority to mandate implementation of the Growth Management Plan,

other agencies, such as the Air Quality Management District (AQMD), are authorized to mandate implementation of the Air Quality Management Plan (AQMP), a program related to the Growth Management Plan that follows its major provisions.

City of Dana Point General Plan. The Public Facilities/Growth Management Element (1991) of the City's General Plan establishes a plan for ensuring that future growth is coordinated with the provision of public services and facilities (e.g., sewer, water, storm drainage, and utilities) so that desirable level of service standards and community qualities important to the citizens are maintained. This element addresses growth management issues on a local and regional level. The Public Facilities/Growth Management Element has two interrelated purposes: (1) to plan for adequate public services and facilities, and (2) to coordinate new development with the provision of public facilities. While many public facilities issues will be addressed independently from growth management issues, a significant portion of the Public Facilities/Growth Management Element deals with the overlap between the two subjects. Public Facilities and Growth Management goals and policies are included in the Public Facilities/Growth Management Utilities Element of the City's General Plan. The following goals and policies are applicable to the proposed project:

GOAL 4: Maintain desirable levels of police, fire, and emergency medical services in the City.

Policy 4.5: Coordinate with the Orange County Sheriff's and Fire Departments for the continued provision of adequate law enforcement and fire protection.

Policy 4.6: Coordinate sheriff facility and traffic facility planning where necessary to maintain adequate levels of law enforcement service.

GOAL 5: Encourage adequate community facilities including libraries, schools, civic and cultural facilities.

GOAL 6: Maintain, improve, and expand utilities including natural gas, electricity, and communications.

Policy 6.1: Where feasible, provide underground utility lines in all neighborhoods and continue to underground utility lines in future developments.

4.11.5 Thresholds of Significance

The following criteria are based on Appendix G of the *State CEQA Guidelines*. The effects of the proposed project on public services and utilities are considered to be significant if the proposed project would:

Threshold 4.11.1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable

service ratios, response times or other performance objectives for *fire protection;*

Threshold 4.11.2: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *police protection;*

Threshold 4.11.3: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *schools;*

Threshold 4.11.4: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *parks;*

Threshold 4.11.5: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *public transportation;*

Threshold 4.11.6: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *other public facilities;*

Threshold 4.11.7: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

Threshold 4.11.8: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

Threshold 4.11.9: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

Threshold 4.11.10: Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;

Threshold 4.11.11: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the providers existing commitments;

Threshold 4.11.12: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

Threshold 4.11.13: Comply with federal, state, and local statutes and regulations related to solid waste.

Currently, the project site is developed with the existing South Shores Church facility and does not generate a demand for public school facilities, public libraries, or public recreational facilities. Similarly, the proposed expansion of the same uses on the project site (church facility) would not generate a demand for public school facilities, public libraries, or public recreational facilities. Therefore, Thresholds 4.11.3 and 4.11.4 will not be further analyzed in this section.

4.11.6 Project Impacts

The proposed project would include the demolition of 23,467 sf of existing church buildings (Chapel, Preschool, and Administration and Fellowship Hall) and the construction of 70,284 sf of new development (Preschool/Administration Hall, Community Life Center, two Christian Education buildings, and Parking Structure). Therefore, the proposed project would include construction of an additional 46,817 sf of new building area.

Threshold 4.11.1: **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *fire protection***

Less than Significant Impact.

Construction. Overall, short-term demolition and construction activities would require minimal fire protection and are not expected to have any adverse impacts on existing fire protection. Therefore, impacts related to the provision of fire protection for the construction of the proposed project would be less than significant, and no mitigation is required.

Operation. The project is expected to create the typical range of service calls for church facilities, including emergency medical and rescue service. The proposed project would be required to comply with all applicable building code requirements requiring fire protection devices, such as sprinklers, alarms per the 2013 CFC (Chapter 8.24 of the City's Municipal Code), adequately spaced fire hydrants, and fire access lanes. As required by Standard Condition 4.11.1, prior to the issuance of building permits, approval of the final plans (including all fire prevention and suppression systems) by the OCFA is required. Adherence to applicable codes would decrease the demand for fire services and ensure that there is adequate emergency access on site.

In a letter dated April 23, 2014 (Appendix L), the OCFA indicated that the proposed project would not substantially increase response times, or create a substantial increase in demand for staff, facilities, equipment, or fire protection services. The letter also stated that the OCFA would

be able to adequately service the proposed project. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, and no mitigation is required.

Threshold 4.11.2: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *police protection*

Less than Significant Impact.

Construction. Overall, short-term demolition and construction activities would require minimal police protection and are not expected to have any adverse impacts on the existing available police protection. Therefore, impacts related to the provision of police protection for the construction of the proposed project would be less than significant, and no mitigation is required.

Operation. The proposed project is not anticipated to result in an increase in the demand of OCSD services within the City. No residential units are proposed as part of the project. In a letter dated October 2, 2013 (Appendix I), the OCSD indicated that the proposed project would not substantially increase response times, or create a substantial increase in demand for staff, facilities, equipment, or police services. The letter also stated that the OCSD would be able to adequately service the proposed project. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for police protection, and no mitigation is required.

Threshold 4.11.5: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *public transportation*

Less than Significant Impact.

Construction. Overall, short-term demolition and construction activities would require minimal use of public transportation, and they are not expected to have any adverse impacts on the existing available public transportation system. Therefore, impacts related to the provision of public transportation services for the construction of the proposed project would be less than significant, and no mitigation is required.

Operation. Operation of the proposed project is not anticipated to result in an increase in the demand of OCTA services within the City. As previously discussed, OCTA currently operates Route 85, that services the project site via Crown Valley Parkway, located immediately west of the project site. The proposed project would not include development of residential units, and ridership is not anticipated to increase as a result of the proposed project. In a letter dated August 10, 2010 (Appendix I), OCTA indicated that, based on the current ridership of Route 85 (Route 85 is servicing one half of its capacity),[1] it is not anticipated that the proposed project would create a public transportation need that requires service expansion, and OCTA would be able to provide adequate services to the proposed project. Therefore, because existing routes in the vicinity of the project site are operating within capacity, and additional ridership is not anticipated to increase as a result of the proposed project, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, in order to maintain acceptable service ratios, response times or other performance objectives for public transportation, and no mitigation is required.

Threshold 4.11.6: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *other public facilities*

Less than Significant Impact.

Natural Gas.

Construction. Overall, short-term demolition and construction activities would not require natural gas and are not expected to have any adverse impacts on the existing available natural gas supplies. Therefore, impacts related to the provision of natural gas services for the construction of the proposed project would be less than significant, and the proposed project would not require new or physically altered transmission facilities. Similarly, no significant impacts to local regional supplies of natural gas would occur as a result of the construction of the proposed project, and no mitigation is required.

Operation. Operation of the proposed project is anticipated to result in an increase in long-term demand for natural gas. SoCalGas currently provides service to the project site through existing gas lines along Crown Valley Parkway. SoCalGas would continue to provide natural gas to the project site upon build out of the project. Table 4.11.E provides the estimated natural gas demand at project build out. As shown in Table 4.11.E, the proposed project would generate a total natural gas demand of 1,862,437 cf per year, which would be

[1] Orange County Transportation Authority. Written correspondence. Carolyn Mamaradlo, Associate Transportation Analyst, August 10, 2010.

Table 4.11.E: Natural Gas Demand at Project Build Out

Land Use	Area	Annual Natural Gas Demand (cf)
Church[1]	81,612 sf	1,766,260
Preschool[2]	7,750 sf	96,178
Total		**1,862,437**
Difference Between Existing Uses and Project Build Out		**+1,003,681**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).
Note: 1 cf of natural gas equals approximately 1 kilo British Thermal Unit.
1 Includes the existing Sanctuary and the proposed Preschool/Administration Building, Christian Education Building 1, and Community Life Center, and the proposed uses on the upper level of Christian Education Building 2; calculated based on the Place of Worship land use in CalEEMod.
2 Includes all uses on the lower level of Christian Education Building 2; calculated based on the Day Care Center land use in CalEEMod.
CalEEMod = California Emission Estimator Model
cf = cubic feet
sf = square feet

approximately 1,003,681 cf greater than the natural gas demand of the existing uses on the project site. The SoCalGas service area covers approximately 20,000 sq mi, from San Luis Obispo to the Mexican border. The service territory covers 12 counties, 220 incorporated cities, and at least as many unincorporated communities. Included in the SoCalGas service area are most of the region's heavily populated areas, with the exception of the City of Long Beach and the County of San Diego.[1] Based on CEC projections for the SoCalGas service area in 2022 (the latest year for which a natural gas demand forecast for the SoCalGas service area is available), the estimated increase in natural gas demand associated with the proposed project would represent approximately 0.05 percent[2] of the forecasted natural gas demand.[3]

According to the CEC, SoCalGas has adequate planned pipeline and storage improvements to address future natural gas needs associated with implementation of the proposed project. Consequently, the supply and distribution of natural gas within the area surrounding the project site would not be reduced or inhibited as a result of the proposed project, and levels of service to off-site users would not be adversely affected. Therefore, impacts related to the provision of natural gas services for the proposed project would be less than significant, and the proposed project would not require new or physically altered transmission facilities (other than those facilities needed for on-site distribution and hook-up into the existing system). Similarly, no significant impacts to local regional supplies of natural gas would occur as a result of the proposed project, and no mitigation is required.

1 Southern California Gas Company Service Territory. https://www.socalgas.com/documents/news-room/fact-sheets/ServiceTerritory.pdf (accessed April 10, 2014).
2 Formula: 1,862,437 cf/yr/3,875,000,000 cf = 0.05 percent.
3 California Energy Commission, California Energy Demand 2014–2024 Preliminary Forecast, http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-SD-V2.pdf (accessed April 7, 2014).

Electricity.

Construction. Overall, short-term demolition and construction activities would require minimal electricity and are not expected to have any adverse impacts on the existing available electricity supplies. Therefore, impacts related to the provision of electrical services for the construction of the proposed project would be less than significant, and the proposed project would not require new or physically altered transmission facilities. Similarly, no significant impacts to local regional supplies of electricity would occur as a result of the construction of the proposed project, and no mitigation is required.

Operation. Operation of the proposed project is anticipated to result in an increase in long-term demand for electricity. The project site is within the service territory of SDG&E. All new development is required to comply with State law regarding energy conservation measures, including pertinent provisions of Title 24 of the California Government Code. Title 24 covers the use of energy-efficient building standards, including ventilation, insulation, construction, and the use of energy-saving appliances, conditions systems, water heating, and lighting.

Table 4.11.F provides the estimated electricity demand at project build out. As shown in Table 4.11.F, the proposed project would generate a total electricity demand of 985,131 kilowatt-hours (kWh) per year, which would be approximately 527,371 kWh greater than the electricity demand of the existing uses on the project site. In May 2013, the CEC published preliminary California Energy Demands for the years 2014 through 2024.[1] According to the CEC, electricity consumption in the SDG&E service area is projected to reach between 23,280 gigawatt-hours (gWh) in the low-demand scenario and 26,376,193 gWh in the high-demand scenario by 2024. Peak electricity demand is projected to reach between 5,032 megawatts (mW) and 5,772 mW by 2024. In addition, the CEC estimates that net peak demand and net energy load within SDG&E's service territory will continue to grow annually by 1.4 percent by 2018.[2] The SDG&E's service area covers approximately 4,100 sq mi spanning the counties of San Diego and Imperial, and 25 communities, with a total population of 1.4 million business and residential accounts.[3] Based on CEC projections for the SDG&E service area in 2024, the maximum project-related annual consumption would represent 0.003[4] percent of the forecasted net energy load.

1 California Energy Commission, 2014-2014 Electricity Demand by Planning Area. http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-SD-V2.pdf (accessed March 13, 2014).

2 California Energy Commission, California Energy Demand, 2010-2020 Adopted Forecast. http://www.energy.ca.gov/2009publications/CEC-200-2009-012/CEC-200-2009-012-CMF.PDF (accessed March 27, 2014).

3 San Diego Gas and Electric Service Area. http://www.sdge.com/our-company/about-us/our-service-territory (accessed April 10, 2014).

4 758,154 kwh/23,280 gWh.

Table 4.11.F: Electricity Demand at Project Build Out

Land Use	Area	Annual Electricity Demand (kWh)
Church[1]	81,612 sf	751,169
Preschool[2]	7,750 sf	53,553
Parking Lot	59 spaces	20,768
Parking Structure	352 spaces	159,641
	Total	**985,131**
Difference Between Existing Uses and Project Build Out		**+527,371**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).

1 Includes the existing Sanctuary and the proposed Preschool/Administration Building, Christian Education Building 1, and Community Life Center, and the proposed uses on the upper level of Christian Education Building 2; calculated based on the Place of Worship land use in CalEEMod.

2 Includes all uses on the lower level of Christian Education Building 2; calculated based on the Day Care Center land use in CalEEMod.

CalEEMod = California Emission Estimator Model
kWh = kilowatt hour
sf = square feet

Therefore, SDG&E would have adequate capacity for increased electrical demands associated with implementation of the proposed project. Consequently, the supply and distribution of electricity within the area surrounding the project site would not be reduced or inhibited as a result of the proposed project, and levels of service to off-site users would not be adversely affected. Therefore, impacts related to the provision of electrical services for the proposed project would be less than significant, and the proposed project would not require new or physically altered transmission facilities. Similarly, no significant impacts to local regional supplies of electricity would occur as a result of the proposed project, and no mitigation is required.

Consistency with Appendix F of the *State CEQA Guidelines*. CEQA requires that EIRs include a discussion of the potential energy impacts of a proposed project to the extent relevant and applicable, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (refer to PRC 21100[b][3]). Appendix F of the *State CEQA Guidelines* is an advisory document that assists Lead Agencies in determining whether a project would result in the inefficient, wasteful, and unnecessary consumption of energy. Not all items listed in Appendix F are applicable to every project; however, those items listed in Table 4.11.G. are applicable and relevant to the proposed project.

Table 4.11.G: Proposed Project Comparison to *State CEQA Guidelines* Appendix F

Appendix F Items for Consideration	Proposed Project
1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.	Operational energy use is discussed in Threshold 4.11.6. Energy use during construction would primarily involve gasoline and diesel, and represents a short-term use of readily available fuels. Potential impacts would be less than significant, and no mitigation is required.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.	The proposed project's impacts relative to regional energy supplies are discussed in Threshold 4.11.6. The proposed project would comply with the California Building Energy Efficient Standards contained in Title 24. Potential impacts would be less than significant, and no mitigation is required.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.	The proposed project's impacts relative to peak and base demands for electricity and other forms of energy are discussed in Threshold 4.11.6. The proposed project would comply with the California Building Energy Efficient Standards contained in Title 24. Potential impacts would be less than significant, and no mitigation is required.
4. The degree to which the project complies with existing energy standards.	As discussed in Threshold 4.11.6, the proposed project would comply with the California Building Energy Efficient Standards contained in Title 24. Potential impacts would be less than significant, and no mitigation is required.
5. The effects of the project on energy resources.	As discussed in Threshold 4.11.6, the proposed project would comply with the California Building Energy Efficient Standards contained in Title 24. Further, the energy demands of the proposed project would be within the delivery capabilities and projected loads for SDG&E and SoCalGas. Potential impacts would be less than significant, and no mitigation is required.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.	The proposed project would be located in an urban area currently served by public transportation. Transit service is provided within the project vicinity by OCTA. It is anticipated that the existing transit service in the project area would be able to accommodate the project-generated transit trips. All other potential impacts related to transportation and circulation can be reduced to a less than significant level through the implementation of mitigation identified in Section 4.12, Transportation/Traffic, of this EIR.

CEQA = California Environmental Quality Act
OCTA = Orange County Transportation Authority
SDG&E = San Diego Gas & Electric
SoCalGas = The Southern California Gas Company

Threshold 4.11.7: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board

No Impact. The proposed project would not include any industrial uses that would be subject to an individual permit with specific treatment requirements from the San Diego RWQCB. Sewage would be discharged to the SCWD for treatment. Therefore, no impact would occur, and no mitigation is required.

Threshold 4.11.8: Would the project require or result in the construction of new *water* or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

OR

Threshold 4.13.10: Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed

Note: This section discusses the potential project impacts related to water supplies and facilities. Wastewater generation facilities are discussed under the following section for Thresholds 4.11.8 and 4.11.11.

Less than Significant Impact. The SCWD would provide water services to the proposed project through a water main in Crown Valley Parkway, where the existing South Shores Church water main is currently connected. Project development would include construction of an additional 46,817 sf of new building area and is anticipated to result in both short-term and long-term increases in water demand.

Construction. Short-term demand for water may occur during demolition, excavation, grading, and construction activities on site. Water demand for soil watering (fugitive dust control), cleanup, masonry, painting, and other activities would be temporary and would cease at project build out. Overall, short-term demolition and construction activities would require minimal water and are not expected to have any adverse impacts on the existing water system or available water supplies. Therefore, impacts associated with short-term demolition and construction activities would not require or result in the construction of new water treatment facilities or the expansion of existing facilities, and construction of the proposed project would not require the need for new or expanded water entitlements. No mitigation is required.

Operation. An increase in long-term demand for water is anticipated to occur during operation of the proposed project. The total average daily water demand for the existing uses on the project site is estimated to be approximately 3,903,919 gpy. Table 4.11.H provides the estimated water demand on the project site at project build out. As shown in Table 4.11.H, the proposed project would demand approximately 7,735,334 gpy of water, which would be approximately 3,831,415 gpy greater than the water demand of the existing uses on the project site.

Table 4.11.H: Water Demand at Project Build Out

Land Use	Area	Annual Water Demand (gpy)	Annual Water Demand (gpd)
Church[1]	81,612 sf	2,553,800	6,997
Preschool[2]	7,750 sf	332,394	911
Landscaping	N/A	4,849,138	13,285
	Total	7,735,334	21,193
Difference Between Existing Uses and Project Build Out		**+3,831,415**	**10,497**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).
[1] Includes the existing Sanctuary and the proposed Preschool/Administration Building, Christian Education Building 1, and Community Life Center, and the proposed uses on the upper level of Christian Education Building 2; calculated based on the Place of Worship land use in CalEEMod.
[2] Includes all uses on the lower level of Christian Education Building 2; calculated based on the Day Care Center land use in CalEEMod.
CalEEMod = California Emission Estimator Model
gpd = gallons per day
gpy = gallons per year
N/A = not available
sf = square feet

According to SCWD's 2010 Urban Water Management Plan, the City's projected water supply in 2020 is 8,495 afy. The increase in water demand as a result of proposed project would represent a very small (0.14 percent[1]) portion of the City's projected water supply in 2020. Therefore, because the water demand associated with the proposed project would represent 0.14 percent of the water supply in SCWD's service area in 2020, the proposed project would not necessitate new or expanded water facilities, and the SCWD would be able to accommodate the increased demand for potable water. Therefore, sufficient water supplies from existing entitlements are available to serve the proposed project, project impacts associated with water demand are less than significant, and no mitigation is required.

Threshold 4.11.8: Would the project require or result in the construction of new water or *wastewater treatment* facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

OR

Threshold 4.11.11: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments

Note: This section discusses wastewater generation and facilities. Water supplies and facilities are discussed under the previous thresholds.

[1] 3,831,415 gpy/8,495 afy.

Less than Significant Impact. Wastewater collection for the proposed project would be provided by the SCWD, and treatment of wastewater generated by the proposed project would be provided by the J.B. Latham Plant. The J.B. Latham Plant, located in the City, has a total design capacity of 13 mgd and currently treats an average wastewater flow of 9.44 mgd.[1] Therefore, the J.B. Latham Plant is currently operating at approximately 72.6 percent of its daily design capacity.

Construction. No significant increase in wastewater flows is anticipated as a result of construction activities on the project site. Sanitary services during construction would likely be provided by portable toilet facilities, which transport waste off site for treatment and disposal. The development will be phased with existing wastewater facilities remaining in place as well. Therefore, during construction, potential impacts to wastewater treatment and wastewater conveyance infrastructure would be less than significant, and no mitigation is required.

Operation. Project development would include construction of an additional 46,817 sf of new building area and is anticipated to result in an increase in wastewater generation during operation. The total average daily generated wastewater for the existing project site is estimated to be approximately 3,861 gpd. As shown in Table 4.11.I, the proposed project is estimated to generate approximately 7,907 gpd of wastewater, which would be approximately 4,046 gpd greater than the wastewater generated by the existing uses on the project site. As described above, the estimated increase in wastewater associated with the proposed project would represent 0.001[2] percent of the J.B. Latham Plant's total available daily capacity. The increase of wastewater generated by the proposed project is anticipated to be accommodated within the existing design capacity of the J.B. Latham Plant, which currently accepts 62.5 percent of its capacity and is projected to be operating at 62.5 percent of its capacity at the time of project build out.

Table 4.11.I: Wastewater Generation at Project Build Out

Land Use	Area	Annual Wastewater Generation (gpy)	Annual Wastewater Generation (gpd)
Church[1]	81,612 sf	2,553,800	6,997
Preschool[2]	7,750 sf	332,394	911
Total		**2,886,196**	**7,908**
Difference Between Existing Uses and Project Build Out		**+1,476,898**	

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).

1 Includes the existing Sanctuary and the proposed Preschool/Administration Building, Christian Education Building 1, and Community Life Center, and the proposed uses on the upper level of Christian Education Building 2; calculated based on the Place of Worship land use in CalEEMod.

2 Includes all uses on the lower level of Christian Education Building 2; calculated based on the Day Care Center land use in CalEEMod.

CalEEMod = California Emission Estimator Model
gpd = gallons per day
gpy = gallons per year
sf = square feet

1 J.B. Latham Treatment Plant. http://www.socwa.com/About/JBLathamTreatmentPlant.aspx (accessed October 8, 2013).

2 Formula: 4,046 gpd/3.56 mgd.

Therefore, the proposed project would not require, nor would it result in, the construction of new wastewater treatment or collection facilities or the expansion of existing facilities other than those facilities to be constructed on site. Therefore, project impacts related to the construction of wastewater treatment or collection facilities and the capacity of the wastewater treatment provider are less than significant, and no mitigation is required.

Threshold 4.11.9: Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

Less than Significant Impact. The capacity of the downstream storm drain network is dependent on peak discharge rates entering the system. In the existing condition, storm water runoff from the project site drains in a southeasterly direction, away from Crown Valley Parkway. The proposed project would result in a permanent increase in impervious surface area of 1.25 ac (an increase of 54 percent to 75 percent of the project site). An increase in impervious area would increase the volume of runoff during a storm. As discussed in Section 4.8, Hydrology and Water Quality, the proposed project would include stormwater planters, and the project site would be designed for stormwater to drain to the storm drain system. The storm drain system will be designed to match the existing storm drain discharge, including the existing peak discharge. Therefore, peak discharge would not adversely affect the capacity of downstream networks, and construction or expansion of storm water drainage facilities would not be required. Therefore, impacts to storm water drainage facilities are less than significant, and no mitigation is required.

Threshold 4.11.12: Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs

Less than Significant Impact. The proposed project would result in additional solid waste generation during construction and operation. The project site is located within the OCWR's service area, who manages the Prima Deshecha Landfill. For the purpose of this analysis, it is assumed that solid waste generated by construction and operation would be disposed of at the Prima Deshecha Landfill, in the City of San Juan Capistrano. The Prima Deshecha Landfill is approximately 9 mi east of the project site, and is the closest active landfill to the project site. As previously discussed, the Prima Deshecha Landfill is permitted to receive a daily maximum of 4,000 tpd of solid waste and is not scheduled to close until approximately 2067.

Construction. Construction of the proposed project would generate a limited amount of construction debris; however, such debris would be accommodated by the Prima Deshecha Landfill. Additionally, the City's C&D Waste Ordinance (No.03-17) requires contractors and other construction-related persons to obtain a permit and haul at least 75 percent of their construction waste to a recycling facility certified by the City.[1] The City requires a C&D deposit in the amount of 1 percent of the project valuation in order to encourage compliance with the ordinance. In the City, CR&R, a recycling and waste collection company, currently hauls 100

[1] Construction and Demolition Waste Recycling. http://www.danapoint.org/index.aspx?page=566 (accessed October 3, 2013).

percent of all construction and demolition waste to a Materials Recycling Facility, where the recyclable items are removed for processing. Construction of the proposed project would comply with the City's C&D Ordinance No.03-17. Therefore, compliance with the City's C&D Ordinance No. 03-17 would ensure that the proposed project would not result in significant impacts related to solid waste generation during construction, and no mitigation measures are required.

Operation. As shown in Table 4.11.J, operation of the proposed project is anticipated to generate a total of approximately 475.31 tpy, which equals approximately 2,604 lbs/day.

Table 4.11.J: Solid Waste Generation at Project Build Out

Land Use	Area	Annual Solid Waste Generation (tons)
Church[1]	81,612 sf	465.23
Preschool[2]	7,750 sf	10.08
	Total	475.31
Difference Between Existing Uses and Project Build Out		**+262.34**

Source: CalEEMod, version 2013.2.2; LSA Associates, Inc. (March 2014).

1 Includes the existing Sanctuary and the proposed Preschool/Administration Building, Christian Education Building 1, and Community Life Center, and the proposed uses on the upper level of Christian Education Building 2; calculated based on the Place of Worship land use in CalEEMod.

2 Includes all uses on the lower level of Christian Education Building 2; calculated based on the Day Care Center land use in CalEEMod.

CalEEMod = California Emission Estimator Model
sf = square feet

Therefore, implementation of the proposed project would result in an increase of approximately 1,437 lbs of solid waste per day, compared to existing conditions. During operation, the proposed project is anticipated to generate 0.05[1] percent of the daily solid waste capacity of the Prima Deshecha Landfill. In a letter, dated July 26, 2010 (Appendix I), the OCWR specified that the proposed project would not result in the need to expand any existing solid waste landfill facilities in Orange County, or create the need to permit and build any new solid waste landfill facilities in Orange County. The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs. Therefore, impacts to solid waste generation during operation would be less than significant, and no mitigation is required.

1 1,437 lbs per day /1,500 tons per day.

Threshold 4.11.13: Would the project comply with federal, state, and local statutes and regulations related to solid waste

Less than Significant Impact. Solid waste practices in California are governed by multiple federal, State, and local agencies that enforce legislation and regulations ensuring that landfill operations minimize impacts to public health and safety and the environment. The project site is located within the OCWR's service area. An important part of OCWR's mission is to apply sound environmental practices to ensure compliance with these regulations. Additionally, the OCWR has an adopted CIWMP that requires countywide facilities to meet the 15-year capacity requirements. The OCWR is also obligated to obtain a Solid Waste Facilities Permit, a Storm Water Discharge Permit, and permits to construct and operate gas management systems and meet Waste Discharge Requirements. The LEA, the SCAQMD, and the RWQCB enforce landfill regulations related to health, air quality, and water quality, respectively. The proposed project would not inhibit OCWR's compliance with the requirements of each of the governing bodies.

It should also be noted that the City is required by the Integrated Solid Waste Management Act (AB 939) to achieve a 50 percent diversion level with regard to solid waste disposed in landfills. The City supports the recommendations of the Waste Management Commission in attempt to address barriers to achieving 50 percent diversion posed by "self-hauling". Therefore, the City implemented a $19.00 AB 939 surcharge to the standard landfill disposal fee for self-hauled waste.[1]

The proposed project would be required to comply with federal, State, and local statutes and regulations related to solid waste, and no mitigation is required.

4.11.7 Standard Conditions

Standard Condition 4.11.1 **Orange County Fire Authority Plan Check.** Prior to the issuance of building permits, approval of final building design plans (including all fire prevention and suppression systems) by OCFA is required. Approval of the final building design plans would ensure that the development is constructed pursuant to California Fire Code (CFC) requirements.

4.11.8 Mitigation Measures

The proposed project would not result in any significant adverse impacts related to public services and utilities. No mitigation is required.

4.11.9 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for public services and utilities. The project site is a

[1] City of Dana Point. Agenda Report. http://www.danapoint.org/agendas/02-22-06/09.pdf (accessed October 3, 2013).

developed Church facility in the City of Dana Point currently served by utility and public service providers; therefore, the cumulative area for public services and utilities is listed below for each individual public service and utility provider.

Fire Protection. The geographic area for cumulative analysis of fire protection services is defined as the service territory for the OCFA. The City is almost entirely built out, with most new development occurring as in-fill or redevelopment projects. The contribution of these projects to area growth is reflected in the Orange County Projections-2010 (OCP-2010) estimates and has been considered in long-range planning efforts undertaken by agencies such as the OCFA. The OCFA anticipates cumulative demand in order to plan for overall service. The OCFA is currently meeting its response time objectives and, in light of past, present, and reasonably foreseeable projects, expects to continue meeting its response time objectives. In addition, the OCFA confirmed that the project could be accommodated with adequate fire protection and emergency medical services. The OCFA's determination that adequate service can be provided includes consideration of area demand in light of cumulative planned or anticipated projects. Therefore, the project's demand for fire protection services would not result in or contribute to a significant cumulative impact to fire protection services, and no mitigation is required.

Police Protection. The geographic area for cumulative analysis of police projection is defined as the service area for the OCSD. The City is almost entirely built out, with most new development occurring as in-fill or redevelopment projects. The contribution of these projects to area growth is reflected in the OCP-2010 estimates and has been considered in long-range planning efforts undertaken by agencies such as the OCSD's Department. Based on a letter received October 2, 2013, the OCSD is currently meeting its staffing and response time goals, and in light of past, present, and reasonably foreseeable projects, expects to continue to meet those goals. In addition, the need for additional law enforcement associated with cumulative growth would be addressed through the annual budgeting process, when budget adjustments may be made in an effort to meet changes in service demand. Therefore, the proposed project's contribution to police protection impacts would not be cumulatively considerable, and no mitigation is required.

Public Transportation. The geographic area for the cumulative analysis of transit services is defined as the service territory for the OCTA. Each future project within the project area will be evaluated, and mitigation will be required as needed. The OCTA indicated that the transit services operating within the project area are operating at about half capacity, and that the OCTA would be able to adequately provide services to the proposed project. Additionally, the OCTA did not indicate that the proposed project would substantially increase ridership within the project area. With OCTA's ability to meet the future transit demands within the project area, the proposed project's contribution to cumulative transit impacts would not generate a significant cumulative increase in ridership that would exceed OCTA capacity and the proposed project's contribution to transit service impacts would not be cumulatively considerable, and no mitigation is required.

Wastewater. The geographic area for the cumulative analysis for wastewater treatment is defined as the City and the SCWD. Within its service area, the SCWD uses United States Census Bureau

population information with population projections as well as existing land use and build out or zoned land use to project current and future wastewater flows. The proposed project would not generate wastewater above the SCWD current capacity; further, it is anticipated that the SCWD's existing and planned wastewater treatment capacity would be sufficient to accommodate the growth forecasted by the United States Census within its service area, and development that is generally consistent with this forecast can be adequately served by SOCWA facilities. The proposed project would not result in employment growth and would not induce significant population or housing growth, either directly or indirectly. In addition, the proposed project would not contribute wastewater that would exceed the service capacity of SOCWA. Therefore, the proposed project's contribution to wastewater generation in the SCWD service area would not be cumulatively considerable, and no mitigation is required.

Potable Water. The geographic area for the cumulative analysis of water infrastructure includes the project site and the service territory of the City. According to the SCWD, the existing facilities serving the project site have sufficient capacity to meet the additional maximum day and peak-hour water demand and fire flow demand from the proposed project and other projects within the City's service territory. Therefore, the proposed project's contribution to water demand in the City would not be cumulatively considerable, and no mitigation is required.

Solid Waste. Development associated with the proposed project would contribute to an increased demand for landfill capacity for solid waste. As stated previously, the landfill serving the project site would be the Prima Deshecha Landfill, which is not scheduled to close until approximately 2067. As indicated by OCWR, there is currently sufficient permitted capacity within the existing OCWR system serving Orange County to provide adequate future capacity for Orange County's solid waste needs.[1] Therefore, in light of future capacity within OCWR facilities, and with compliance with federal, State, and local statues and regulations related to solid waste, which require reductions in solid waste generation, the proposed project's contribution to solid waste impacts would not be cumulatively considerable, and no mitigation is required.

Electricity. The geographic area for the cumulative analysis of impacts to the provision of electricity is the service territory of SDG&E. The SDG&E's service area covers approximately 4,100 sq mi spanning the counties of San Diego and Imperial, and 25 communities, with a total population of 1.4 million business and residential accounts.[2] The projections of statewide electricity supply capacity demand rates are cumulative in nature. They are based on population and economic growth in addition to such physical variables as average temperature and water supplies (important to hydroelectric generation) in a given year. The proposed project would increase electrical demand in the area. However, SDG&E has identified adequate capacity to handle any increase in electrical demand resulting from the proposed project as it would be incremental compared to an increase in regional electrical demand.

1 Orange County Waste & Recycling. John J. Arnau, CEQA & Habitat Program Manager. Email correspondence dated July 26, 2010 (Appendix I).

2 SDG&E Service Area. http://www.sdge.com/our-company/about-us/our-service-territory (accessed April 10, 2014).

Title 24 of the California Administrative Code regulates energy consumption in new construction and regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting. Therefore, in relation to the cumulative study area, the proposed project would not generate a significant cumulative increase in demand for electricity or a significant disruption in service or service level. Therefore, the proposed project's contribution to electricity impacts would not be cumulatively considerable, and no mitigation is required.

Natural Gas. The geographic area for the cumulative analysis of impacts to the provision of natural gas is the service territory for SoCalGas. The SoCalGas service area covers approximately 20,000 sq mi, from San Luis Obispo to the Mexican border. The service territory covers 12 counties, 220 incorporated cities, and at least as many unincorporated communities. Included in the SoCalGas service area are most of the region's heavily populated areas, with the exception of the City of Long Beach and the County of San Diego.[1] There are several new supply and storage projects under consideration at the State level. If approved, these projects could add as much as 1,700 million cubic feet per day (MMcf/d) of natural gas to the statewide system, of which SoCalGas is a part.[2] Moreover, in the past few years, the State has supported construction of gas transmission transportation capacity in excess of the quantity of gas it consumes.[3] Therefore, sufficient gas supplies and infrastructure capacity are available, or have already been planned, to serve past, present, and reasonably foreseeable projects. Furthermore, like the proposed project, all future projects would be subject to Title 24 requirements and would be evaluated on a case-by-case basis to determine the need for specific distribution improvements. As the natural gas provider has identified adequate capacity and additional development within the SoCalGas service area and because the proposed project would comply with Title 24, the proposed project's contribution to natural gas impacts would not be cumulatively considerable, and no mitigation is required.

4.11.10 Significant Unavoidable Adverse Impacts

There are no significant unavoidable adverse impacts related to public services, utilities, and service systems.

1 Southern California Gas Company's Service Territory. https://www.socalgas.com/documents/news-room/fact-sheets/ServiceTerritory.pdf (accessed April 10, 2014).
2 W. William Wood Jr. Natural Gas Infrastructure. May 2009.
3 Ibid.

4.12 TRANSPORTATION/TRAFFIC

4.12.1 Introduction

This section analyzes the existing and planned transportation and circulation conditions for the South Shores Church Master Plan project (proposed project) site and surrounding area, and identifies parking and circulation impacts that may result during, or subsequent to, the development of the proposed project. The analysis contained in this section is based on the *Traffic Impact Analysis and Parking Analysis* (TIA), *South Shores Church Master Plan Project, Dana Point, California,* prepared by LSA Associates, Inc. (LSA, July 2014) (Appendix J of this Environmental Impact Report [EIR]).

4.12.2 Methodology

The TIA prepared for the proposed project is consistent with the objectives and requirements of the City of Dana Point's (City) General Plan Circulation Element (1995), the Orange County Congestion Management Plan (CMP) (2013), and applicable provisions of the California Environmental Quality Act (CEQA), including disclosure of project impacts in both existing and cumulative horizon years.

Project Study Area. The project study area was developed in coordination with the City and was based on logical routes to/from the project site via adjacent intersections, as well as the proximity of these intersections to the project site. The study area analyzed in this report is depicted in Figure 4.12.1, Project Location and Study Area Intersections, and includes the following five intersections:

1. Crown Valley Parkway/Camino Del Avion
2. Crown Valley Parkway/Sea Island Drive-full-access driveway
3. Crown Valley Parkway/ right-in/right-out (RIRO) driveway
4. Crown Valley Parkway/Lumeria Lane
5. Crown Valley Parkway/Pacific Coast Highway (PCH)

Intersection Level of Service Methodology. Traffix (Version 8.0 R1) computer software was utilized to determine the study area intersection levels of service (LOS) based on the intersection capacity utilization (ICU) methodology for signalized intersections. Consistent with the City's requirements, the ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. Typical intersection operations by LOS grade are described below in Table 4.12.A.

Table 4.12.A: LOS Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
F	This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream.

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
LOS = level of service

The relationship between LOS and the ICU value (i.e., v/c ratio) is shown in Table 4.12.B, below.

Table 4.12.B: LOS/ICU Value Comparison

LOS	Volume-to-Capacity (ICU Methodology)
A	≤ 0.60
B	>0.60 and ≤ 0.70
C	>0.70 and ≤ 0.80
D	>0.80 and ≤ 0.90
E	>0.90 and ≤ 1.00
F	>1.00

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
ICU = intersection capacity utilization
LOS = level of service

In addition to the ICU methodology of calculating intersection LOS, the 2000 Highway Capacity Manual (HCM 2000) methodology was used to determine the LOS at unsignalized intersections within the study area. The HCM 2000 intersection methodology presents LOS in terms of delay (in seconds per vehicle). The resulting delay is expressed in terms of LOS, as in the ICU methodology. The relationship between LOS and delays at unsignalized intersections is shown below in Table 4.12.C.

Table 4.12.C: LOS/Unsignalized Intersection Delay Comparison

LOS	Unsignalized Intersection Delay (seconds) per Vehicle
A	≤ 10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
LOS = level of service

The study area intersection LOS analysis was conducted for the weekday a.m. peak hour, weekday p.m. peak hour, and the Sunday peak hour.

As stated in the City's General Plan Circulation Element (1995), the City considers LOS C as the minimum acceptable condition that should be maintained during the peak commute hours for Primary Arterials, Secondary Arterials, and local streets. LOS D is the minimum acceptable condition that should be maintained during the peak commute hours for Major Arterials and State highways. LOS E is the minimum acceptable condition that should be maintained for CMP-designated roadways. However, the City Public Works Department strives to maintain LOS C as the lowest service level for impacts to signalized intersections for development projects.

For purposes of this traffic impact analysis, a minimum acceptable service level of LOS C has been applied to signalized study area intersections. For unsignalized study area intersections, the LOS thresholds outlined in the General Plan Circulation Element have been applied. For example, the minimum acceptable LOS for an unsignalized intersection along a Major Arterial such as Crown Valley Parkway is LOS D.

4.12.3 Existing Environmental Setting

Existing Circulation System. The project site is located at the southeast corner of Crown Valley Parkway/Sea Island Drive in the City of Dana Point. Access to the project site is provided via the intersection of Crown Valley Parkway/Sea Island Drive and the RIRO driveway on Crown Valley Parkway.

Key roadways in the vicinity of the proposed project are as follows:

- **Crown Valley Parkway:** Crown Valley Parkway is a divided four-lane, north-south roadway providing direct access to the project site at the Sea Island Drive–full-access driveway. It is designated as a Major Arterial in the City's General Plan Circulation Element and the Orange County Master Plan of Arterial Highways (MPAH). The speed limit along Crown Valley Parkway is 45 miles per hour (mph) between Pacific Island Drive and Sea Island Drive, and 35 mph between Sea Island Drive and PCH. Curbside parking is permitted on both sides of the

roadway in select locations, including along the project frontage between Sea Island Drive and Lumeria Lane.

- **Pacific Coast Highway:** PCH is a divided six-lane, east–west roadway located south of the project site. It is a California Department of Transportation (Caltrans) and Orange County CMP facility with a speed limit of 50 mph in this area. PCH is designated as a Major Arterial Highway in the City's General Plan Circulation Element and the Orange County MPAH. It is also a CMP facility. Curbside parking is permitted on both sides of the highway in select locations.
- **Camino Del Avion:** Camino Del Avion is a divided, four-lane east–west roadway located north of the project site. It is designated as a Primary Arterial in the City's General Plan Circulation Element and the Orange County MPAH, and is owned by the City of Laguna Niguel. The speed limit is 45 mph along Camino Del Avion. Curbside parking is prohibited on both sides of the roadway.
- **Sea Island Drive:** Sea Island Drive is an undivided two-lane, local residential street. Direct access to the project site is provided at its terminus (i.e., full-access driveway) at Crown Valley Parkway. The speed limit is 25 mph along Sea Island Drive. Curbside parking is permitted on both sides of the roadway in select locations.
- **Lumeria Lane:** Lumeria Lane is an undivided two-lane, private gated road that serves the gated Monarch Bay Villas residences located south of the project site.

Existing Traffic Volumes and LOS Analysis. Existing peak-hour intersection turn volumes were provided by City staff (from other projects/sources) and collected by National Data and Surveying Services (NDS) in September 2012 and April 2014 for the study area intersections. The study area traffic volumes have not materially changed from 2012 to 2014. The existing weekday a.m. and p.m., and Sunday midday peak-hour volumes for the study area intersections are shown on Figures 4.12.2, Existing Weekday Peak-Hour Traffic Volumes, and 4.12.3, Existing Sunday Midday Peak-Hour Traffic Volumes, respectively.

Table 4.12.D summarizes the results of the peak-hour LOS analysis for the five study area intersections. As previously discussed, the LOS was determined using the ICU methodology for signalized intersections and the HCM methodology for unsignalized intersections.

Table 4.12.D: Existing Level of Service Summary

	Intersection	Analysis Method	Traffic Control	Existing					
				Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Midday Peak Hour	
				V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1	Crown Valley Parkway/Camino Del Avion	ICU	Signal	0.442	A	0.486	A	0.427	A
2	Crown Valley Parkway/Sea Island Drive-Church Driveway	ICU	Signal	0.407	A	0.390	A	0.449	A
3	Crown Valley Parkway/Church Driveway	HCM	Unsignalized	0.0	A	12.2	B	11.5	B
4	Crown Valley Parkway/Lumeria Lane	HCM	Unsignalized	18.3	C	25.7	D	10.9	B
5	Crown Valley Parkway/Pacific Coast Highway	ICU	Signal	0.577	A	0.574	A	0.529	A

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
Note: Delay is reported in seconds for unsignalized intersections using the Highway Capacity Manual (HCM) methodology.
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
V/C = Volume-to-Capacity ratio (for ICU)

As shown in Table 4.12.D, all study area intersections currently operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) during the weekday a.m. peak hour, weekday p.m. peak hour, and Sunday midday peak hour.

Existing Transit Service. Transit service is provided within the project vicinity by the Orange County Transportation Authority (OCTA). OCTA bus stops are located adjacent to the project site at the northeast and southwest corners of the Crown Valley Parkway/Sea Island Drive–full-access driveway. Bus stops are also located south of the project site on both sides of Crown Valley Parkway and PCH.

OCTA bus routes in close proximity to the project site are described below[1]:

- **Route 1:** Route 1 originates at the Long Beach Transit Gallery (Shelter D) and ends in San Clemente while passing through Dana Point along PCH. The bus operates between 5:30 a.m. and 10:40 p.m., Monday through Friday, and between 5:30 a.m. and 9:30 p.m. on weekends and holidays.
- **Route 45:** Route 85 originates at Mission Viejo and ends at Dana Point High School. The bus operates between 5:35 a.m. and 8:53 p.m., Monday through Friday, and between 6:52 a.m. and 7:51 p.m. on Saturdays.

4.12.4 Regulatory Setting

Federal Regulations. There are no relevant federal traffic and circulation regulations applicable to the proposed project.

State Regulations and Policies.

Congestion Management Program (CMP). In Orange County (County), the 2013 CMP is the program by which agencies in the County have agreed to monitor and report on the status of regional roadways. In June 1990, the passage of the Proposition 111 gas tax increase required urbanized areas in the State with a population of 50,000 or more to adopt a CMP. Decisions made the following year by the majority of local governments in the County designated OCTA as the Congestion Management Agency (CMA) for the County. Since then, OCTA has been charged with the development, monitoring, and biennial updating of Orange County's CMP. The goals of Orange County's CMP are to reduce traffic congestion and provide a mechanism for coordinating land use and development decisions. The CMP is also the vehicle for proposing transportation projects that are eligible to compete for the State gas tax funds.

The CMP requires that a TIA be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System. Per the CMP guidelines, this number is based on the desire to analyze any impacts that comprise

[1] The routes and times of each transit service were verified as of October 2013.

3 percent or more of the existing capacity of the CMP Highway System facilities. The CMP Highway System includes specific roadways, including State highways, smart streets, and CMP arterial monitoring locations/intersections. Therefore, the CMP TIA requirements relate only to the designated CMP Highway System. The CMP system in the City consists of the following roadways: Crown Valley Parkway, Street of the Golden Lantern, PCH, and Del Prado Avenue.

Local Regulations.

City of Dana Point General Plan Circulation Element. The City's General Plan Circulation Element (June 27, 1995) establishes goals and policies that address circulation improvements needed to relieve traffic congestion and establishes strategies aimed at improving mass transit services in the City. The following goals and policies presented in the General Plan Circulation Element related to transportation/traffic are applicable to the proposed project:

Goal 1: Provide a system of streets that meets the needs of current and future residents and facilitates the safe and efficient movement of people and goods throughout the City. (California Coastal Act [Coastal Act]/30252)

Policy 1.9: Limit driveway access on arterial streets to maintain a desired quality of flow.

Policy 1.11: Require that proposals for major new developments include a future traffic impact analysis which identifies measures to mitigate any identified project impacts. (Coastal Act/30250)

Policy 1.13: Minimize pedestrian and vehicular conflicts. (Coastal Act/30252)

Goal 5: Encourage non-motorized transportation, such as bicycle and pedestrian circulation.

Policy 5.2: Maintain existing pedestrian facilities and encourage new development to provide pedestrian walkways between developments, schools and public facilities.

Policy 5.3: Ensure accessibility of pedestrian facilities to the elderly and disabled.

Policy 5.12: Provide for a non-vehicular circulation system that encourages mass-transit, bicycle transportation, pedestrian circulation. (Coastal Act/30252, 30253)

Goal 6: Provide for well-designed and convenient parking facilities.

Policy 6.1: Consolidate parking, where appropriate, to reduce the number of ingress and egress points onto arterials.

Policy 6.4: Encourage the use of shared parking facilities, such as through parking districts or other mechanisms.

City of Dana Point General Plan Conservation/Open Space Element. The City's General Plan Conservation/Open Space Element (July 9, 1991) establishes goals and policies aimed at preserving and improving public and private facilities to increase the livability of the City for its residents. The following policy presented in the General Plan Conservation/Open Space Element is applicable to the proposed project:

> **Policy 5.1:** Design safe and efficient vehicular access to streets to ensure efficient vehicular ingress and egress. (Coastal Act/30252)

City of Dana Point General Plan Land Use Element. The City's General Plan Land Use Element (August 26, 1997) establishes goals and policies aimed at directing growth to maintain the quality of life within the City. The following policy presented the Land Use Element is applicable to the proposed project:

> **Policy 1.8:** The location and amount of new development should maintain and enhance public access to the coast by facilitating the provision or extension of transit service, providing non-automobile circulation within the development, providing adequate parking facilities or providing substitute means of serving the development with public transportation, and assuring the potential for public transit for high intensity uses. (Coastal Act/30252)

Dana Point Municipal Code. Chapter 9.35, Access, Parking, and Loading, of the City's Municipal Code provides parking requirements for development projects within the City. Since the proposed project involves the expansion of existing church facilities on the project site, which will require adequate parking, the proposed project is subject to the requirements of Chapter 9.35 of the City's Municipal Code.

4.12.5 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines* and the City's CEQA Thresholds of Significance. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to transportation/traffic if it would:

Threshold 4.12.1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

Threshold 4.12.2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;

Threshold 4.12.3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;

Threshold 4.12.4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

Threshold 4.12.5: Result in inadequate emergency access; or

Threshold 4.12.6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The proposed project would not result in a change of air traffic patterns because the project site is located approximately 15 miles southeast of the nearest airport (Threshold 4.12.3). The design of the proposed project would not substantially increase hazards due to a design feature nor would the proposed project result in inadequate emergency access (Thresholds 4.12.4 and 4.12.5). Furthermore, the proposed project would not result in conflicts with adopted plans, policies, or programs regarding public transportation (Threshold 4.12.6) because the project consists of the replacement and addition of new church facilities and all project-related improvements would take place on the project site. As a result, these thresholds are not discussed further in this EIR.

4.12.6 Project Impacts

Threshold 4.12.1: **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit**

Less than Significant Impact with Mitigation. The proposed project includes the demolition of the existing Preschool, Administration and Fellowship Hall, and Chapel (a total of 23,467 square feet [sf] of building space) and construction of 70,284 sf of new building space on the project site, including a 15,115 sf Preschool/Administration building, a 24,314 sf Community Life Center, a 15,399 sf Christian Education Building 1, and a 15,456 sf Christian Education Building 2. The project also includes the construction of a two-level parking structure with 352 spaces (176 spaces on each level) and 59 surface parking spaces. At project buildout, the existing 19,078 sf Sanctuary will remain. The proposed project would result in a net increase of 46,817 sf of building space on the project site. The project will be constructed in five phases (of which Phase 1 has five subphases) over an estimated 10-year period (with gaps of periods with no active construction between each phase). Detailed information regarding each construction phase, including proposed construction activities, staging areas, parking supply, and the duration of each phase is provided in Chapter 3.0, Project Description, of this Draft EIR. Access to the project site would continue to be provided at a full-access driveway (the east leg of the signalized intersection of Crown Valley Parkway/Sea Island Drive) and an unsignalized RIRO driveway along Crown Valley Parkway. Traffic volumes were collected in September 2012 and April 2014 and analyzed to determine the existing LOS at the five study area intersections during the weekday a.m. peak hour, weekday p.m. peak hour, and Sunday midday peak hour.

Construction Analysis. During the construction period, two types of construction traffic would be generated: construction employee trips and construction haul and delivery trips. This assessment quantifies the projected construction-related traffic and assesses the likelihood of impacts during the construction period.

Development of the proposed project would require demolition of some of the existing structures on the project site, remedial earthwork (including installation of a tieback system), grading of the project site, site preparation, and construction of buildings and a parking structure. The project would be constructed in five phases (of which Phase 1 has five subphases) over an estimated 10-year period (with time between phases). Project construction would consist of the following phases (including number of employees, trucks, and duration):

- **Phase 1A (Construction of New Preschool/Administration Building):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, with a 13-month duration
- **Phase 1B (Demolition of Existing Buildings [Preschool, Administration and Fellowship Hall, and the Chapel]):** 15 workers, 4 dump trucks, with a 3-month duration
- **Phase 1B-E1 (Earthwork):** 15 workers, 8 dump trucks, with a 3-month duration
- **Phase 1B-E2 (Grading):** 15 workers, 4 delivery trucks, 12 dump trucks, 12 concrete trucks, with a 3-month duration
- **Phase 1C (Construction of New Community Life Center Building):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, with a 12-month duration
- **Phase 2 (Construction of New Christian Education Building 1):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, with a 12-month duration
- **Phase 3 (Construction of New Christian Education Building 2):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, with a 12-month duration
- **Phase 4 (Construction of the South Half of the Parking Structure):** 15 workers, 4 delivery trucks, 20 dump trucks, 20 concrete trucks, with a 7-month duration
- **Phase 5 (Construction of the North Half of the Parking Structure):** 15 workers, 4 delivery trucks, 20 dump trucks, 20 concrete trucks, with a 7-month duration

According to the City's Noise Ordinance, the noise that emanates from construction activities is restricted between 7:00 a.m. and 8:00 p.m. Therefore, construction activities are limited to the hours between 7:00 a.m. and 8:00 p.m. on weekdays (excluding holidays). Additionally it should be noted that work hours for grading activities are further restricted by City Municipal Code, Chapter 8, between the hours of 7:00 a.m. and 5:00 p.m. on weekdays (excluding holidays, Saturdays, and Sundays). Construction workers may arrive and depart outside of the peak traffic/commute times; however, in order to present a conservative analysis, construction workers are assumed to arrive after 7:00 a.m. (during the a.m. peak hour) and depart after 5:00 p.m. (during the p.m. peak hour). Truck trips may occur throughout the day (between 7:00 a.m. and 5:00 p.m.). Therefore, a uniform distribution of trucks has been assumed for the 10-hour period between 7:00 a.m. and 5:00 p.m., although trucking/hauling hours may be further restricted by the City.

Heavy equipment will not be hauled to/from the project site on a daily basis; it will be dropped off at the beginning of each construction phase and picked up at completion of that construction phase. The majority of the construction trips would be associated with workers traveling to and from the site and daily truck activities (i.e., hauling of debris/soil and deliveries of various materials/equipment). In order to avoid traffic impacts associated with construction activities and damage along haul routes, the proposed project would be required to comply with Standard Condition 4.12.1, which stipulates that the Applicant's construction contractor will keep all haul routes used during the demolition and site preparation phases clean and free of debris and repair any damage to existing pavement, streets, curbs, or gutters along such routes. Standard Condition 4.12.1 also requires that the proposed project comply with a Construction Management Plan. With implementation of Standard Condition 4.12.1, impacts due to construction delivery and haul trips would be less than significant.

Phases 1A, 1C, 2, and 3 would generate the most construction trips. These phases would generate 58 a.m. peak-hour trips (39 inbound and 19 outbound) and 58 p.m. peak-hour trips (19 inbound and 39 outbound). Construction activity is anticipated to generate more peak-hour trips than typical operations of the Church on a weekday (during the construction period).

To determine existing plus construction conditions, traffic generated by the most intense phases of project construction (Phases 1A, 1C, 2, and 3) was added to the existing baseline traffic volumes at the study area intersections. The existing plus construction peak-hour LOS analysis for the study area intersections is presented in Table 4.12.E.

Table 4.12.E: Existing and Existing Plus Construction Level of Service Summary

	Intersection	Analysis Method	No Project				Plus Construction				Peak-Hour Δ in V/C/Delay	
			Weekday AM Peak Hour		Weekday PM Peak Hour		Weekday AM Peak Hour		Weekday PM Peak Hour			
			V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	Weekday AM	Weekday PM
1	Crown Valley Parkway/ Camino Del Avion	ICU	0.442	A	0.486	A	0.451	A	0.491	A	0.009	0.005
2	Crown Valley Parkway/ Sea Island Drive-Church Driveway	ICU	0.407	A	0.390	A	0.414	A	0.416	A	0.007	0.026
3	Crown Valley Parkway/ Church Driveway (Unsignalized)	HCM	0.0	A	12.2	B	10.8	B	12.4	B	10.8	0.2
4	Crown Valley Parkway/ Lumeria Lane (Unsignalized)	HCM	18.3	C	25.7	D	18.6	C	26.1	D	0.3	0.4
5	Crown Valley Parkway/ Pacific Coast Highway	ICU	0.577	A	0.574	A	0.579	A	0.577	A	0.002	0.003

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
V/C = volume-to-capacity ratio (for ICU)

As Table 4.12.E indicates, all study area intersections are anticipated to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) with the addition of construction traffic during the weekday peak hours. Therefore, construction of the proposed project would not result in, or contribute to, a significant impact at any study area intersection. In compliance with the City's Municipal Code, no construction would occur on Sundays. Consequently, no Sunday construction analysis was conducted.

Operational Trip Generation. The existing South Shores Church currently has a current membership of approximately 1,500 persons, and accommodates regular attendees, and visitors. The Church holds four worship services and three Bible study groups on Sundays, periodic worship services on Wednesday evenings, Preschool programs on weekdays, and 22 youth and adult ministry programs and community activities/meetings (i.e., martial arts classes and support groups) throughout the week. In addition, full-time, part-time, and volunteer staff members work at the Church on weekdays between 8:00 a.m. and 5:00 p.m. Trips generated by these current church functions and activities are included in the existing counts. The Church also accommodates various special events such as meetings for organizations, fundraisers, and weddings, etc.

The proposed project would increase overall building square footage with the addition of the Community Life Center and the Christian Education Buildings, but typical weekday and Sunday church activities and schedules are not anticipated to change. Special events (such as basketball/ volleyball leagues) may occur in the Community Life Center; however, these activities will not take place during typical peak-hour periods on a weekday or Sunday (the busiest day on site). These facilities will serve as the new locations for church programs and activities currently housed in existing buildings that will be demolished with the proposed project. The new Community Life Center and Christian Education Buildings will be amenities for the church congregation. As a result, the church trip generation is based on its operations (i.e., activities, schedules, and attendance), not building square footage.

Church activities and schedules will remain the same; however, in order to provide a conservative analysis, attendance was projected to grow from current conditions through project completion. Therefore, increases in attendance (people) have been utilized for purposes of the project trip generation.

With buildout of the project, attendance is anticipated to increase by 12 people during the weekday a.m. peak hour (from 40 to 52 people), by 18 people during the weekday p.m. peak hour (from 70 to 88 people), and by 158 people during the Sunday peak hour (from 580 to 738 people).

Table 4.12.F presents the project trip generation for the proposed project based on the estimated increase in attendance. As Table 4.12.F indicates, the proposed project has the potential to generate an additional approximately 12 inbound weekday a.m. peak-hour trips, 18 outbound weekday p.m. peak-hour trips, and 106 Sunday peak-hour trips (57 inbound and 49 outbound) at buildout.

Table 4.12.F: Project Trip Generation Summary

Land Use	Peak Hour	In	Out	Total
Project Trip Generation				
Church	Weekday AM	12	0	12
Church	Weekday PM	0	18	18
Church	Sunday Midday	57	49	106

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).

For trip generation purposes, one vehicle has been assumed per new staff member and program/ service (i.e., Grief Share) attendee during typical weekday operations at project buildout. The church staff schedule is 8:00 a.m. to 5:00 p.m. As such, 12 new staff members are anticipated to arrive on site during the a.m. peak hour (which is equivalent to 12 additional inbound trips) and depart during the p.m. peak hour (which is equivalent to 12 additional outbound trips). The Grief Share meetings are scheduled from 2:00 p.m. to 4:00 p.m. 6 new Grief Share attendees would therefore leave the site during the p.m. peak hour (which is equivalent to 6 additional outbound trips).

In order to identify the existing trip generation characteristics of the South Shores Church during typical Sunday operations, the TIA utilized the parking demand survey data and the inbound and outbound volume data at the project site's full-access and RIRO driveways. According to the parking surveys, the peak parking demand was 254 spaces. The counted attendance was 379 people at this time, and therefore, the average vehicle occupancy is approximately 1.49 people per vehicle, or 0.67 trips per person. The inbound/outbound split of vehicle trips at the project site is approximately 54 percent inbound and 46 percent outbound during the peak hour of a typical Sunday. Therefore, 158 new church attendees on a Sunday are equivalent to 106 additional trips (57 inbound and 49 outbound).

Trip Distribution/Assignment. Trip distribution for the proposed project is based on the inbound and outbound characteristics at the church driveways and turn movements at the upstream and downstream study area intersections.

Figures 4.12.4, Weekday Project Trip Distribution and Assignment, and 4.12.5, Sunday Midday Project Trip Distribution and Assignment, illustrate the regional project trip distribution and assignment for the study area intersections for weekdays and Sundays, respectively. As shown on Figures 4.12.4 and 4.12.5, leaving the project site, a total of 60 percent of trips are destined north on Crown Valley Parkway, 2 percent are destined west on Sea Island Drive, and 38 percent are destined south via Crown Valley Parkway. Ultimately, 44 percent of the trips are destined north via Crown Valley Parkway, 1 percent is destined south via Monarch Bay Drive beyond PCH, 25 percent are destined east (12 percent via Camino Del Avion and 13 percent via PCH), and 30 percent are destined west (4 percent via Camino Del Avion, 2 percent via Sea Island Drive, and 24 percent via PCH).

Existing Plus Project. To determine the existing plus project conditions, traffic generated by the proposed project was added to the existing baseline traffic volumes at the study area intersections. Figures 4.12.6, Existing Plus Project Weekday Peak-Hour Traffic Volumes, and 4.12.7, Existing Plus Project Sunday Midday Peak-Hour Traffic Volumes, show the resulting existing plus project peak-hour traffic volumes. The existing plus project peak-hour LOS analysis is presented in Table 4.12.G.

As Table 4.12.G indicates, all study area intersections are anticipated to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) with the addition of project traffic during the weekday and Sunday peak hours. Therefore, the proposed project would not result in, or contribute to, a significant impact at any study area intersection.

Parking Analysis. Parking surveys were conducted at the site in April 2014 by NDS to determine the peak weekday and Sunday parking demand. Based on review of the parking survey data, the following peak times and peak parking demands were identified:

- Weekday (9:45 a.m.–10:00 a.m.): 193 spaces
- Sunday (10:15 a.m.–10:30 a.m.): 254 spaces

Based on the NDS parking surveys, the Church generates the highest parking demand on a Sunday. The peak parking demand occurs when a worship service and bible study session are both in session. On a typical Sunday, four worship services and three bible study classes are provided as follows:

- 1st Service (8:15 a.m.–9:15 a.m.)
- 2nd Service (9:30 a.m.–10:30 a.m.)
- Bible Study (9:30 a.m.–10:30 a.m.)
- Bible Study (10:45 a.m.–11:45 a.m.)
- Bible Study (10:45 a.m.–12:00 p.m.)
- 3rd Service (11:00 a.m.–12:00 p.m.)
- 4th (Remix) Service (6:00 p.m.–7:30 p.m.)

Using the existing attendance for the survey days/times, the following parking rates were developed:

- Weekday (225 people): 0.86 space per person
- Sunday (379 people): 0.67 space per person

Table 4.12.G: Existing and Existing Plus Project Level of Service Summary

	Intersection	Analysis Method	No Project						Plus Project						Peak-Hour Δ in V/C/Delay		
			Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Midday Peak Hour		AM Peak Hour		PM Peak Hour		Sunday Midday Peak Hour				
			V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	Weekday AM	Weekday PM	Sunday Midday
1	Crown Valley Parkway/Camino Del Avion	ICU	0.442	A	0.486	A	0.427	A	0.444	A	0.488	A	0.435	A	0.002	0.002	0.008
2	Crown Valley Parkway/Sea Island Drive-Church Driveway	ICU	0.407	A	0.390	A	0.449	A	0.405	A	0.388	A	0.429	A	(0.002)	(0.002)	(0.020)
3	Crown Valley Parkway/Church Driveway (Unsignalized)	HCM	0.0	A	12.2	B	11.5	B	0.0	A	12.3	B	11.9	B	0.0	0.1	0.4
4	Crown Valley Parkway/Lumeria Lane (Unsignalized)	HCM	18.3	C	25.7	D	10.9	B	18.4	C	25.8	D	11.0	B	0.1	0.1	0.1
5	Crown Valley Parkway/Pacific Coast Highway	ICU	0.577	A	0.574	A	0.529	A	0.577	A	0.574	A	0.535	A	0.000	0.000	0.006

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
V/C = volume-to-capacity ratio (for ICU)

Similar to the church trip generation, parking demand is based on church operations (i.e., activities, schedules, and attendance), not building square footage. Although the proposed project would increase overall building square footage (as previously discussed in Chapter 3.0, Project Description), the church activities and schedules are not anticipated to change. However, in order to provide a conservative analysis, attendance was projected to grow from current conditions to project completion. Therefore, increases in attendance (people) have been utilized for purposes of estimating the peak parking demand for weekdays and Sundays for each phase of the project, including completion, as summarized in Table 4.12.H.

Table 4.12.H: Project Parking Adequacy

Phase	Time Period	Parking Demand	On-Site Parking Supply	Surplus/(Deficit)
Existing Conditions	Weekday[1]	193	228	35
	Sunday[2]	254	228	(26)
1A	Weekday[3]	34	161	127
	Sunday	262	161	(101)
1B	Weekday[3,4]	34	190	156
	Sunday	262	218	(44)
1B-E1	Weekday[3,4]	34	188	154
	Sunday	262	216	(46)
1B-E2	Weekday[3,4]	34	188	154
	Sunday	262	216	(46)
1C	Weekday[3,4]	34	109	75
	Sunday	262	137	(125)
2	Weekday[3,4]	35	253	218
	Sunday	267	281	14
3	Weekday[3,4]	36	196	160
	Sunday	271	224	(47)
4	Weekday[3,5]	37	91	54
	Sunday[6]	276	91	(185)
5	Weekday[3]	38	150	112
	Sunday	281	150	(131)
Master Plan Completion	Weekday	333	150	78
	Sunday	352	150	59

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
Note: Parking demand estimates developed from surveys conducted at the project site on April 27 (Sunday) and April 30 (Wednesday), 2014.
[1] April 30, 2014.
[2] April 27, 2014.
[3] The Women's Bible Study Fellowship held on Wednesdays would be discontinued during project construction.
[4] The on-site parking supply would be reduced by 28 spaces during weekdays to accommodate the temporary outdoor play area for the preschool.
[5] After the first 2 months of Phase 1C, the on-site parking supply on weekdays increases to 253 parking spaces.
[6] After the first 2 months of Phase 1C, the on-site parking supply on Sundays increases to 281 parking spaces.

As described in Chapter 3.0, Project Description, a portion of the parking spaces on the project site will be utilized for construction activities during each construction phase, which would reduce the available parking supply for church members. Table 4.12.H provides a comparison of the projected weekday and Sunday parking demand and the available spaces during each construction phase and upon completion of the Master Plan.

As shown in Table 4.12.H, adequate weekday parking would be provided during each construction phase. However, a parking deficit would occur on Sundays during Phase 1A (101 spaces), Phase 1B (44 spaces), Phases 1B-E1 and 1B-E2 (46 spaces), Phase 1C (125 spaces), Phase 3 (47 spaces), Phase 4 (185 spaces), and Phase 5 (131 spaces). Although on-street parking spaces along portions of Crown Valley Parkway between Camino Del Avion and PCH would be maintained during construction to assist in handling church parking and avoid spillover parking on adjacent neighborhoods, off-site parking will need to be secured by the Church in order to accommodate the Sunday parking demand during project construction (with the exception of Phase 2). Implementation of Mitigation Measure 4.12.1, which requires the Applicant to secure sufficient off-site parking on Sundays during those construction phases when the project site is projected to have insufficient on-site parking and would reduce the proposed project's parking impacts during construction to a less than significant level. The off-site parking agreements would be reviewed and approved by the City prior to issuance of any permits for each phase.

As shown in Table 4.12.H, the proposed project would provide adequate on-site parking to accommodate the projected parking demand on weekdays and Sundays without the need for any on-street parking. Therefore, the proposed project would not result in any long-term parking impacts following project build out. No mitigation is required.

Circulation and Access Analysis. As previously stated, access to the project site would continue to be provided via a full-access driveway (the east leg of the signalized intersection of Crown Valley Parkway/Sea Island Drive) and a RIRO driveway located south along Crown Valley Parkway.

A queuing analysis was conducted utilizing the HCM methodology to determine the potential queuing of vehicles entering (i.e., making northbound right turns and southbound left turns) and exiting (i.e., making westbound left turns, proceeding westbound through, and making westbound right turns) the project site at the Crown Valley Parkway/Sea Island Drive–full-access driveway, as well as entering (i.e., making northbound right turns) and exiting (i.e., making westbound right turns) at the Crown Valley Parkway/RIRO driveway. For purposes of the queuing analysis, a length of 22 ft per vehicle has been assumed. The queuing results for the Crown Valley Parkway/ Sea Island Drive–full-access driveway and the Crown Valley Parkway/RIRO driveway are described below.

The lengths of the northbound right-turn and southbound left-turn pockets at the Crown Valley Parkway/Sea Island Drive–full-access driveway are 100 feet (ft) and 110 ft, respectively. The westbound left-turn and shared westbound through/right-turn lanes at this intersection are both 70 ft. An additional 80 ft of storage is provided between these two westbound lanes to the first surface parking space on site. Therefore, a total storage capacity of 220 ft is provided for vehicles exiting the project site at this location. The results of the queuing analysis indicate that the

northbound right-turn movement would not have a vehicle queue, and the southbound left-turn queues would not exceed four vehicles (or 88 ft) during the weekday or Sunday midday peak hours under the existing plus project scenario. Therefore, the existing 100 ft northbound right-turn pocket and 110 ft southbound left-turn pocket are adequate. The total westbound left-turn and westbound through/right-turn queues would not exceed 10 vehicles (or 220 combined ft) during the weekday or Sunday midday peak hours under the existing plus project scenario. Therefore, the existing 220 ft of westbound storage is adequate. It should be noted that any westbound (outbound) queues located on site would not affect Crown Valley Parkway.

A queuing analysis was also conducted for the northbound right-turn and westbound right turn movements at the Crown Valley Parkway/RIRO driveway. The northbound right-turn storage is approximately 50 ft. The westbound right-turn storage is approximately 25 ft between the back of the Crown Valley Parkway sidewalk and the first intersecting drive aisle on site. The results of the queuing analysis indicate that the uncontrolled northbound right-turn movement would not have a vehicle queue as there are no opposing turn movements at this location. Therefore, the existing 50 ft of northbound right-turn storage is adequate. The westbound right-turn queue would not exceed one vehicle (or 22 ft) during the weekday or Sunday midday peak hours under the existing plus project scenario. Therefore, the 25 ft of westbound right-turn storage is adequate. Westbound (outbound) queues at this location would not affect Crown Valley Parkway.

As previously stated, the proposed project would not result in significant traffic impacts during project construction or operation and would provide sufficient parking to serve employees and visitors to the project site on weekdays during each construction phase and following completion of the master plan. Therefore, the proposed project would not conflict with any plan, ordinance, and policy establishing measures of effectiveness for the performance of the circulation system or CMP (i.e., LOS standards). The proposed project would, however, result in parking deficits on Sundays during each construction phase (with the exception of Phase 2). Off-site parking will need to be secured by the church in order to accommodate the Sunday parking demand during project construction (with the exception of Phase 2). Implementation of Mitigation Measure 4.12.1, which requires the applicant to secure sufficient off-site parking on Sundays during those construction phases when the project site is projected to have insufficient on-site parking, would reduce the proposed project's parking impacts during construction to a less than significant level. The off-site parking agreements would be reviewed and approved by the City prior to the issuance of any permits for each phase.

Threshold 4.12.2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

Less than Significant Impact. As described earlier, Crown Valley Parkway and PCH are both designated as part of the CMP Highway System. Because the proposed project does not directly access a CMP facility, does not generate 2,400 or more daily trips, and would not result in, or contribute to, a significant impact on Crown Valley Parkway or PCH, the proposed project would not conflict with the Orange County CMP and impacts would less than significant. No mitigation measures are required.

4.12.7 Standard Conditions

Standard Condition 4.12.1: **Construction Management Plan.** Prior to the issuance of demolition, grading or any construction permits, the project Applicant shall submit a Construction Management Plan for review and approval by the City of Dana Point (City) Engineer. The Construction Management Plan shall include, at a minimum, the following measures, which shall be implemented during all construction activities as overseen by the construction contractor:

- Traffic controls shall be implemented for any street closure, detour, or other disruption to traffic circulation.
- The routes that construction vehicles shall utilize for the delivery of construction materials (i.e., lumber, tiles, piping, windows, etc.) to access the site shall be identified; traffic controls and detours shall be identified; and the proposed construction phasing plan for the project shall be provided.
- The hours during which transport activities will occur shall be specified.
- Identify the haul route for the materials to be removed (i.e., concrete, soil, steel, etc.) during the demolition phase and/or soil import during the site preparation phase.
- Subject to the direction of the City's Traffic Engineer, haul operations associated with the materials export/soil import may be prohibited during the a.m. and p.m. peak commute periods (i.e., between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m.).
- The Applicant shall keep all haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Applicant shall clean adjacent streets, as directed by the City's Traffic Engineer (or representative of the City Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.
- Hauling or transport of oversize loads shall be allowed between the hours of 9:00 a.m. and 3:00 p.m. only, Monday through Friday, unless approved otherwise by the City Engineer. No hauling or transport shall be allowed during nighttime hours, weekends or Federal holidays.
- Use of local streets shall be prohibited.
- Haul trucks entering or exiting public streets shall at all times yield to public traffic.

- If hauling operations cause any damage to existing pavement, street, curb, and/or gutter along the haul route, the Applicant shall be fully responsible for repairs. The repairs shall be completed to the satisfaction of the City Engineer.
- All construction-related parking and staging of vehicles will be kept out of the adjacent public roadways and will occur on-site to the extent feasible.
- This Construction Management Plan shall meet standards established in the current *California Manual on Uniform Traffic Control Device (MUTCD)*, as well as City of Dana Point requirements.

4.12.8 Mitigation Measure

Mitigation Measure 4.12.1: **Off-Site Shared Parking Agreement.** Prior to the issuance of any demolition, grading, or construction permits associated with any phase of the proposed project, the project Applicant shall obtain the City of Dana Point (City) Planning Commission's approval for an updated Parking Management Plan as detailed in Chapter 9.35 of the City's Zoning Ordinance. The Parking Management Plan shall include parking agreements to accommodate parking needs for construction phase off site or by other means to provide required spaces on site during each phase on Sundays in an amount equal to or greater than the following number of spaces for each corresponding phase:

- Phase 1A – 101 parking spaces;
- Phase 1B – 44 parking spaces;
- Phase 1B-E1 – 46 parking spaces;
- Phase 1B-E2 – 46 parking spaces;
- Phase 1C – 125 parking spaces (during the first 2 months of this phase);
- Phase 3 – 47 parking spaces;
- Phase 4 – 185 parking spaces; and
- Phase 5 – 131 parking spaces.

The off-site shared parking agreement for each construction phase shall be in effect until commencement of the following phase or until the Applicant demonstrates to the City's Community Development Director and Public Works Director, or designee, that the project site is able to provide adequate on-site parking to meet the proposed project's parking demand.

4.12.9 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative study area for transportation and traffic. The project site is a developed church facility in the City of Dana Point; therefore, the cumulative study area for transportation and traffic is the City of Dana Point.

Less than Significant Impact.

Cumulative Study Area. As described in Chapter 3.0, Project Description, the master plan is anticipated to be completed in 2025. In consultation with the City Traffic Engineer, LSA applied an ambient growth rate of 1 percent per year to the traffic volumes (i.e., 13 percent total growth to the 2012 weekday volumes and 11 percent total growth to the 2014 Sunday volumes) and manually assigned trips generated by approved/pending (cumulative) projects to develop a cumulative 2025 traffic condition.

A list of approved/pending projects was reviewed to determine whether projects in the vicinity of the project site (if any) should be included in the project build out year plus project condition. With concurrence from the City, the following six approved/pending projects were identified as relevant to the project study area (refer to Figures 4.12.8, Weekday Cumulative Project Trip Assignment, and 4.12.9, Sunday Midday Cumulative Project Trip Assignment, for the locations of these projects):

1. **Headlands Specific Plan:** 125 single-family dwelling units (DU); 65-room Seaside Inn that includes meeting/function space, restaurant, and lounge; 13,000 sf of commercial uses; park and recreation areas; visitor recreation (community) facilities; and recreation/open space and visitor commercial areas of up to 40,000 sf.
2. **Dana Point Town Center Plan:** A combination of land use regulatory and zoning changes to allow mixed-use and transportation capital improvements.
3. **Dana Point Harbor Revitalization:** Establishment of a Commercial Core and replacement/remodel of all existing retail and restaurant buildings.
4. **Ritz Carlton Expansion:** Addition of 32 hotel rooms and 41,000 sf of amenities.
5. **Doheny Hotel:** 258-room hotel with a 12,103 sf conference center/banquet facility and a 7,087 sf restaurant.
6. **34202 Del Obispo Street:** 168 residential condominium units with 2,471 sf of commercial space.

Cumulative Trip Generation. As described above, the trip generation for the cumulative projects has been manually assigned to the project study area. The trip generation for each of the six cumulative projects is provided in Table 4.12.I. The total cumulative project trip assignments for the weekday and Sunday midday peak hours are shown on Figures 4.12.8 and 4.12.9, respectively. The resulting cumulative peak-hour traffic volumes for the study area intersections are shown on Figures 4.12.10, Cumulative Weekday Peak-Hour Traffic Volumes, and 4.12.11, Cumulative Sunday Midday Peak-Hour Traffic Volumes, respectively.

Table 4.12.I: Cumulative Projects Trip Generation Summary

		Weekday AM Peak Hour			Weekday PM Peak Hour			Sunday Midday Peak Hour		
	Project	In	Out	Total	In	Out	Total	In	Out	Total
1	Headlands Specific Plan	100	114	214	219	178	397	219	178	397
2	Dana Point Town Center Plan	306	180	486	374	498	872	374	498	872
3	Dana Point Harbor Revitalization	276	226	502	317	260	577	317	260	577
4	Ritz Carlton Expansion	11	7	18	10	9	19	10	9	19
5	Doheny Hotel	56	31	87	55	49	104	55	49	104
6	34202 Del Obispo Street	15	63	78	64	34	98	64	34	98

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
[1] *Headlands Traffic Study*, RK Engineering Group, Inc., September 2001.
[2] *Dana Point Town Center Traffic Impact Analysis*, Kimley-Horn and Associates, Inc., August 2006.
[3] *Dana Point Harbor Revitalization Traffic & Parking Analysis*, RBF Consulting, September 2005.
[4] *Ritz Carlton Expansion Traffic Impact Analysis*, Kimley-Horn and Associates, Inc., February 2007.
[5] *Doheny Hotel Traffic Impact Analysis*, Kunzman Associates, Inc., August 2012.
[6] *34202 Del Obispo Street Traffic Impact Analysis*, LSA Associates, Inc., June 2014.

Table 4.12.J presents the LOS for the study area intersections under the cumulative scenario. As shown in Table 4.12.J indicates, all study area intersections are forecast to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) during the weekday and Sunday peak hours under the cumulative scenario.

Cumulative Plus Project. To determine the cumulative 2025 (Master Plan completion) plus project condition, traffic generated by the proposed project was added to the cumulative traffic volumes at each study area intersection. Figures 4.12.12, Cumulative Plus Project Weekday Peak-Hour Traffic Volumes, and 4.12.13, Cumulative Plus Project Sunday Midday Peak-Hour Traffic Volumes, show the resulting cumulative plus project peak-hour volumes for the weekday and Sunday midday peak hours. The cumulative plus project peak-hour LOS analysis for the study area intersections is presented in Table 4.12.J.

Table 4.12.J: Cumulative and Cumulative Plus Project Level of Service Summary

	Intersection	Analysis Method	No Project						Plus Project						Peak-Hour Δ in V/C/Delay		
			Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Midday Peak Hour		AM Peak Hour		PM Peak Hour		Sunday Midday Peak Hour				
			V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	V/C/ Delay	LOS	Weekday AM	Weekday PM	Sunday Midday
1	Crown Valley Parkway/ Camino Del Avion	ICU	0.497	A	0.547	A	0.475	A	0.499	A	0.548	A	0.484	A	0.002	0.001	0.009
2	Crown Valley Parkway/ Sea Island Drive-Church Driveway	ICU	0.452	A	0.435	A	0.486	A	0.450	A	0.433	A	0.467	A	(0.002)	(0.002)	(0.019)
3	Crown Valley Parkway/ Church Driveway (Unsignalized)	HCM	0.450	A	13.0	B	12.1	B	0.0	A	13.2	B	12.6	B	0.0	0.2	0.5
4	Crown Valley Parkway/ Lumeria Lane (Unsignalized)	HCM	0.0	C	33.9	D	11.3	B	22.0	C	34.0	D	11.5	B	0.1	0.1	0.2
5	Crown Valley Parkway/ Pacific Coast Highway	ICU	21.9	B	0.707	C	0.647	B	0.676	B	0.709	C	0.653	B	0.000	0.001	0.006

Source: LSA Associates, Inc. *Traffic Impact Analysis and Parking Analysis* (July 2014) (Appendix J).
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
V/C = volume-to-capacity ratio (for ICU)

As shown in Table 4.12.J, all study area intersections are anticipated to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) with the addition of project traffic during the weekday and Sunday peak hours. Therefore, the proposed project would not result in, or contribute to, a cumulatively significant impact at any study area intersection.

A queuing analysis was also conducted to determine the potential queuing of vehicles entering and exiting the project site at the Crown Valley Parkway/Sea Island Drive–full-access driveway, as well as entering and exiting at the Crown Valley Parkway/RIRO driveway under the cumulative plus project scenario. The queuing results for the Crown Valley Parkway/Sea Island Drive–full-access driveway and the Crown Valley Parkway/RIRO driveway are described below.

As described above in the Circulation and Access Analysis in Section 4.12.6, similar to the existing plus project scenario, the northbound right-turn movement would not have a vehicle queue, and the southbound left-turn queues would not exceed four vehicles during the weekday or Sunday midday peak hours under the cumulative plus project scenario. The total westbound left-turn and westbound through/right-turn queues would not exceed 10 vehicles during the weekday or Sunday midday peak hours under the cumulative plus project scenario. Therefore, the existing northbound right-turn pocket, southbound left-turn pocket, and westbound storage space would be adequate.

The uncontrolled northbound right-turn movement at the Crown Valley Parkway/RIRO driveway would not have a vehicle queue as there are no opposing turn movements at this location, and the westbound right-turn queue would not exceed one vehicle during the weekday or Sunday midday peak hours under the cumulative plus project scenario. Therefore, the existing northbound right-turn storage and westbound right-turn storage would be adequate.

As described above, the proposed project would not result in, or contribute to, significant cumulative impacts at any study area intersection.

4.12.10 Level of Significance Prior to Mitigation

The proposed project would result in less than significant traffic impacts during project construction or operation and would provide sufficient parking to serve employees and visitors to the project site on weekdays during each construction phase and following completion of the master plan. Therefore, the proposed project would not conflict with any plan, ordinance, and policy establishing measures of effectiveness for the performance of the circulation system or CMP (i.e., LOS standards). The proposed project would, however, result in significant impacts related to parking deficits on Sundays during each construction phase (with the exception of Phase 2).

4.12.11 Level of Significance After Mitigation

With implementation of Standard Condition 4.12.1 and Mitigation Measure 4.12.1, the proposed project would result in less than significant impacts related to traffic and transportation.

4.12.12 Significant Unavoidable Adverse Impacts

Implementation of Standard Condition 4.12.1 and Mitigation Measure 4.12.1 would reduce the proposed project's impacts related to traffic and transportation during construction to below a level of significance. Therefore, the proposed project would not result in any significant and unavoidable adverse impacts related to traffic and transportation.

LSA

LEGEND

1 - Study Area Intersections

FIGURE 4.12.1

N

0 1000 2000

FEET

SOURCE: The Thomas Guide

South Shores Church Master Plan

Project Location and Study Area Intersections

I:\DPC0902\G\Traffic for EIR\Study Ints.cdr (7/18/14)

This page intentionally left blank

1 Crown Valley Pkwy/Camino Del Avion	2 Crown Valley Pkwy/Sea Island Dr	3 Crown Valley Pkwy/Church Dwy	4 Crown Valley Pkwy/Lumeria Ln	5 Crown Valley Pkwy/Pacific Coast Hwy
14 / 9	43 / 47	1105 / 1028	1105 / 1028	776 / 470
792 / 790	1072 / 993			33 / 40
129 / 301	48 / 16		3 / 7	198 / 215
203 / 133	5 / 6	0 / 2	4 / 5	193 / 216
56 / 83	1 / 0			949 / 719
260 / 140	3 / 8		3 / 4	30 / 30
4 / 13	44 / 42			421 / 721
36 / 72	3 / 0			503 / 961
94 / 98	30 / 27	727 / 1043	727 / 1043	10 / 12
47 / 62	18 / 26	7 / 0	2 / 6	13 / 12
615 / 818	706 / 1015			28 / 44
102 / 206	3 / 2			26 / 30

LSA

FIGURE 4.12.2

LEGEND

XX/YY - Weekday AM/PM Peak Hour Volumes

South Shores Church Master Plan

Existing Weekday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\Existing Weekday Volumes.cdr (7/18/14)

This page intentionally left blank

LSA

FIGURE 4.12.3

LEGEND

XX/YY - Sunday Midday Volumes

South Shores Church Master Plan

Existing Sunday Midday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\Existing Sunday Volumes.cdr (7/18/14)

This page intentionally left blank

1 Crown Valley Pkwy/Camino Del Avion | 2 Crown Valley Pkwy/Sea Island Dr | 3 Crown Valley Pkwy/Church Dwy | 4 Crown Valley Pkwy/Lumeria Ln | 5 Crown Valley Pkwy/Pacific Coast Hwy

LSA

FIGURE 4.12.4

LEGEND

XX/YY - Weekday AM/PM Peak Hour Volumes

South Shores Church Master Plan

Weekday Project Trip Distribution and Assignment

I:\DPC0902\G\Traffic for EIR\Trip Dist-Weekday.cdr (7/18/14)

This page intentionally left blank

LSA

FIGURE 4.12.5

LEGEND

XX/YY - Sunday Midday Volumes

South Shores Church Master Plan

Sunday Midday Project Trip Distribution and Assignment

I:\DPC0902\G\Traffic for EIR\Trip Dist-Sunday.cdr (7/18/14)

This page intentionally left blank

1 Crown Valley Pkwy/Camino Del Avion	2 Crown Valley Pkwy/Sea Island Dr	3 Crown Valley Pkwy/Church Dwy	4 Crown Valley Pkwy/Lumeria Ln	5 Crown Valley Pkwy/Pacific Coast Hwy
14 / 9 ↰ 797 / 790 ↓ 129 / 301 ↲	43 / 47 ↰ 1072 / 993 ↓ 55 / 16 ↲	1105 / 1035 ↓	1105 / 1035 ↓ 3 / 7 ↲	776 / 474 ↰ 33 / 40 ↓ 198 / 217 ↲
203 / 133 ↱ 56 / 83 ← 261 / 140 ↰	5 / 10 ↱ 1 / 0 ← 3 / 15 ↰	0 / 9 ↱	4 / 5 ↱ 3 / 4 ↰	195 / 216 ↱ 949 / 719 ← 30 / 30 ↰
4 / 13 ↱ 36 / 72 → 94 / 98 ↳	44 / 42 ↱ 3 / 0 → 30 / 27 ↳	727 / 1043 → 11 / 0 ↱	732 / 1043 → 2 / 6 ↱	424 / 721 ↱ 503 / 961 → 10 / 12 ↳
47 / 63 ↑ 615 / 826 ↑ 102 / 208 ↱	18 / 26 ↑ 706 / 1022 ↑ 3 / 2 ↱			13 / 12 ↑ 28 / 44 ↑ 26 / 30 ↱

LSA

FIGURE 4.12.6

LEGEND

XX/YY - Weekday AM/PM Peak Hour Volumes

South Shores Church Master Plan

Existing Plus Project Weekday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\Ex+Project Weekday Volumes.cdr (7/18/14)

This page intentionally left blank

1 Crown Valley Pkwy/Camino Del Avion	2 Crown Valley Pkwy/Sea Island Dr	3 Crown Valley Pkwy/Church Dwy	4 Crown Valley Pkwy/Lumeria Ln	5 Crown Valley Pkwy/Pacific Coast Hwy
5 ← 776 ← 210 →	40 ← 943 ← 56 →	1041 ←	1030 ←	519 ← 33 ← 315 →
13 ↓ 165 ↑	32 ↓ 104 ↑	88 ↑	13 ↓ 6 ↑	442 ↓ 234 ↑
43 ↓ 61 ↑	2 ↓ 4 ↑	765 ↑ 26 →	784 ↑ 8 →	634 ↓ 814 ↑
83 ↓ 158 →	20 ↓ 63 →			14 ↓ 27 ↑
89 ↑ 696 ↑ 217 →	33 ↑ 816 ↑ 8 →			1 ↑ 26 ↑ 19 →

LSA

FIGURE 4.12.7

N

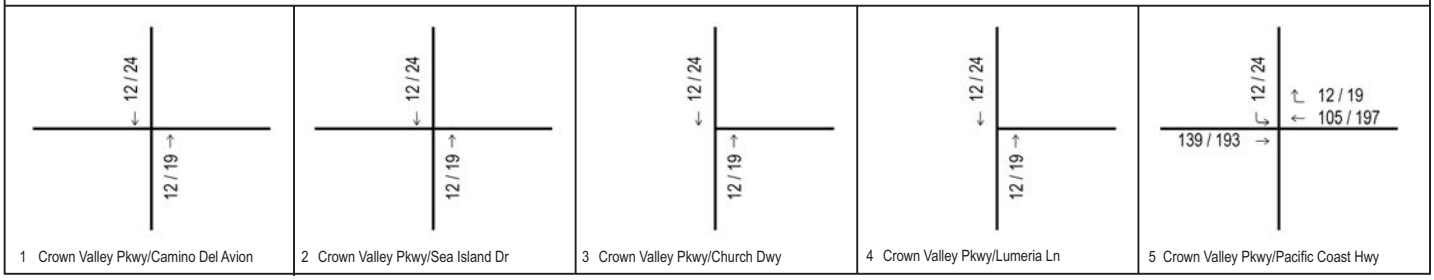
LEGEND

XX/YY - Sunday Midday Volumes

South Shores Church Master Plan

Existing Plus Project Sunday Midday Peak-Hour Traffic Volumes

This page intentionally left blank



LSA

FIGURE 4.12.8

LEGEND

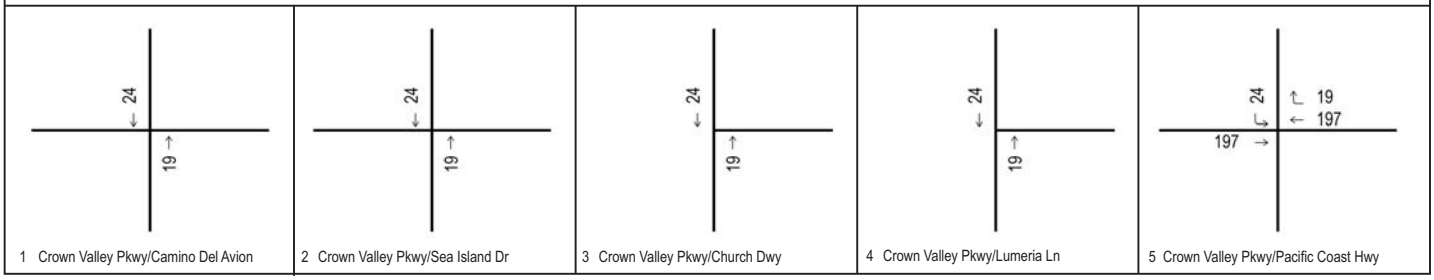
XX/YY - Weekday AM/PM Peak Hour Volumes

South Shores Church Master Plan

Weekday Cumulative Project Trip Assignment

I:\DPC0902\G\Traffic for EIR\Cumulative Trip Assign-Weekday.cdr (7/18/14)

This page intentionally left blank



LSA

FIGURE 4.12.9

LEGEND

XX/YY - Sunday Midday Volumes

South Shores Church Master Plan

Sunday Midday Cumulative Project Trip Assignment

I:\DPC0902\G\Traffic for EIR\Cumulative Trip Assign-Sunday.cdr (7/18/14)

This page intentionally left blank

1 Crown Valley Pkwy/Camino Del Avion			2 Crown Valley Pkwy/Sea Island Dr		
16 / 10	907 / 917	146 / 340	43 / 47	1223 / 1146	48 / 16
5 / 15	41 / 81	106 / 111	44 / 42	3 / 0	30 / 27
53 / 70	707 / 943	115 / 233	18 / 26	810 / 1166	3 / 2
229 / 150	63 / 94	294 / 158	5 / 6	1 / 0	3 / 8

3 Crown Valley Pkwy/Church Dwy		
1261 / 1186		
834 / 1198	0 / 2	7 / 0

4 Crown Valley Pkwy/Lumeria Ln		
1261 / 1186	3 / 7	
834 / 1198	4 / 5	2 / 6
	3 / 4	

5 Crown Valley Pkwy/Pacific Coast Hwy		
877 / 531	37 / 45	236 / 267
476 / 815	707 / 1279	11 / 14
15 / 14	32 / 50	29 / 34
230 / 263	1177 / 1009	34 / 34

LSA

FIGURE 4.12.10

LEGEND

XX/YY - Weekday AM/PM Peak Hour Volumes

South Shores Church Master Plan

Cumulative Weekday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\CumulativeWeekday Volumes.cdr (7/18/14)

This page intentionally left blank

LSA

FIGURE 4.12.11

LEGEND

XX/YY - Sunday MiddayVolumes

South Shores Church Master Plan

Cumulative Sunday Midday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\Cumulative Sunday Midday Volumes.cdr (7/18/14)

This page intentionally left blank

1 Crown Valley Pkwy/Camino Del Avion	2 Crown Valley Pkwy/Sea Island Dr	3 Crown Valley Pkwy/Church Dwy	4 Crown Valley Pkwy/Lumeria Ln	5 Crown Valley Pkwy/Pacific Coast Hwy
16 / 10 ↰	43 / 47 ↰	1261 / 1193 ↓	1261 / 1193 ↓	877 / 535 ↰
912 / 917 ↓	1223 / 1146 ↓	0 / 9 ↱	3 / 7 ↱	37 / 45 ↓
146 / 340 ↱	55 / 16 ↱	834 / 1198 →	4 / 5 ↰	236 / 269 ↱
229 / 150 ↑	5 / 10 ↑	11 / 0 ↱	3 / 4 ↰	232 / 263 ↑
63 / 94 ←	1 / 0 ←		839 / 1198 →	1177 / 1009 ←
295 / 158 ↰	3 / 15 ↰		2 / 6 ↱	34 / 34 ↰
5 / 15 ↰	44 / 42 ↰			479 / 815 ↱
41 / 81 →	3 / 0 →			707 / 1279 →
106 / 111 ↱	30 / 27 ↱			11 / 14 ↱
53 / 70 ↰	18 / 26 ↰			15 / 14 ↰
707 / 951 ↑	810 / 1173 ↑			32 / 50 ↑
115 / 235 ↱	3 / 2 ↱			29 / 34 ↱

LSA

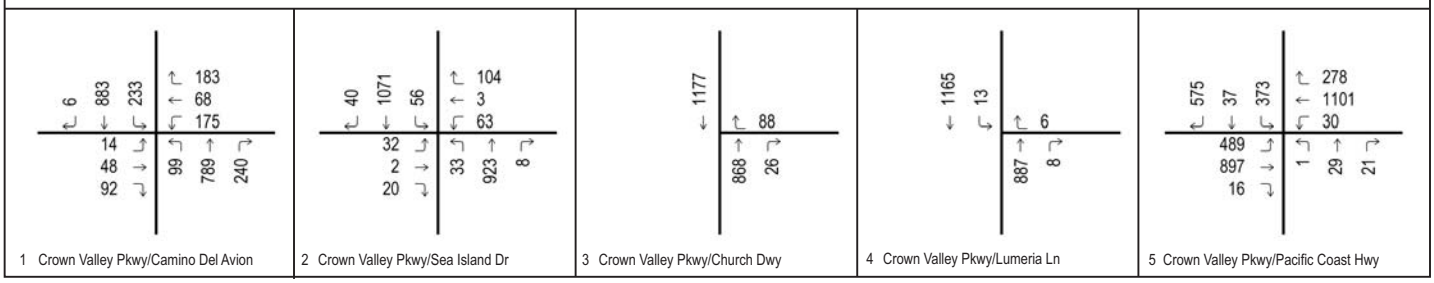
FIGURE 4.12.12

South Shores Church Master Plan

Cumulative Plus Project Weekday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\Cumulative+Proj Weekday Volumes.cdr (7/18/14)

This page intentionally left blank



LSA

FIGURE 4.12.13

LEGEND

XX/YY - Sunday Midday Volumes

South Shores Church Master Plan

Cumulative Plus Project Sunday Midday Peak-Hour Traffic Volumes

I:\DPC0902\G\Traffic for EIR\Cumulative+Proj Sunday Midday Volumes.cdr (7/18/14)

This page intentionally left blank

5.0 ALTERNATIVES

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) to describe a reasonable range of alternatives to a project, including in some cases involving general plan and zoning amendments, an alternative location for the project that could "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (*State CEQA Guideline*s Section 15126.6). This chapter sets forth the potential alternatives to the South Shores Master Plan Project (proposed project) and compares the potential impacts of each alternative with the proposed project's impacts.

Key provisions of the *State CEQA Guidelines* on alternatives (Section 15126.6(b) through (f)) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly (15126.6(b)).
- The specific alternative of "no project" shall also be evaluated along with its impact (15126.6(e)(1)). The "no project" analysis shall discuss the existing conditions at the time the Notice of Preparation is published and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6(e)(2)).
- The range of alternatives required in an EIR is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6(f)).
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (15126.6(f)(2)(A)).

- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project, which must be in close proximity to natural resources at a given location (15126.6(f)(2)(B)).
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6(f)(3)).

In identifying alternatives for this EIR, alternatives were selected by the City of Dana Point (City) that comply with CEQA requirements and would otherwise be reasonable and feasible for the project site, in consideration of the characteristics of the area and public comments received during the Notice of Preparation (NOP) comment period (February 4 to March 22, 2010) and at the public scoping meeting held on March 4, 2010.

5.2 SELECTION OF ALTERNATIVES

Section 21100 of the Public Resources Code (PRC) and Section 15126.6 of the *State CEQA Guidelines* require an EIR to identify and discuss a No Project Alternative as well as a reasonable range of alternatives to a project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. Based on the criteria listed above, the No Project Alternative and the Reduced Project Alternative have been selected to avoid or substantially lessen the significant impacts of the proposed project. Therefore, the alternatives considered in this Draft EIR include the following:

- **Alternative 1: No Project/No New Development.** This alternative would involve no changes to the existing land uses and conditions on the project site. No new development on the project site would occur, and the church facilities and activities would continue to operate as they do currently.
- **Alternative 2: Reduced Project**. This alternative would include the same proposed uses as the proposed project but would reduce the proposed building square footage from 70,284 square feet (sf) to approximately 52,651 sf. Specifically, Alternative 2 would reduce the Preschool/ Administration Building from 15,115 sf to 13,867 sf, reduce the Community Life Center from 24,314 sf to 11,738 sf, and reduce the Christian Education Building 2 from 15,456 sf to 9,788 sf. The only building that would increase in size would be the Christian Education Building 1, which would increase from 15,399 sf to 17,258 sf. In addition, the Reduced Project Alternative would provide 47 fewer parking spaces than the proposed project.

Table 5.A provides a summary of the relative impacts and feasibility of each alternative. A complete discussion of each alternative is provided below.

For each alternative, the analysis provides the following:

- Description of the alternative;

Table 5.A: Summary of Development Alternatives

Alternative	Description	Basis for Selection and Summary Analysis
Proposed Project	• Approximately 6 acres (ac) • Land use and zoning designations of Community Facility (CF) • 19,078 sf existing Sanctuary remains on site • Total new construction includes 70,284 sf of new building space, including the following: o 15,115 sf Preschool/Administration Building o 24,314 sf Community Life Center o 15,399 sf Christian Education Building 1; 15,456 sf Christian Education Building • Demolishes 23,467 of building space including the existing Preschool, Administration and Fellowship Hall building, and Chapel, and replaces the existing parking lot • Provision of 411 parking spaces • Phased construction over 10 years	• The proposed project is consistent with land use and zoning designations. • Meets all of the project objectives. • Refer to Chapters 3.0 and 4.0 of this Draft EIR.
Alternative 1: No Project/No New Development	• Approximately 6 ac • Project site would retain land use and zoning designations of CF • Existing buildings on the project site include Sanctuary, Chapel, Administration and Fellowship Hall, and Preschool, as well as a paved parking lot • Does not demolish existing buildings on the project site	• The No Project Alternative is required by CEQA. • Inconsistent with most project objectives.
Alternative 2: Reduced Project	• Approximately 6 ac • Land use and zoning designations of CF • 19,078 sf existing Sanctuary remains on site • Total new construction includes 52,651 sf of new building space, including the following: o 13,867 sf Preschool/Administration Building o 11,378 sf Community Life Center o 17,258 sf Christian Education Building 1; 9,788 sf Christian Education Building • Demolishes 23,467 sf of building space, including the existing Preschool, Administration and Fellowship Hall building, and Chapel, and replaces the existing parking lot • Provision of 364 parking spaces • Phased construction over 10 years	• Land use and zoning designations are compatible with proposed uses. • Potentially consistent with the project objectives. • Equal or fewer physical environmental impacts as compared to the proposed project due to reduction in square footage of proposed project.

Source: LSA Associates, Inc. (July 2014).
ac = acre(s)
ADT = average daily trips
CEQA = California Environmental Quality Act (CEQA)
CF = Community Facility
EIR = Environmental Impact Report
sf = square feet

- Environmental Analysis of the potential impacts of the alternative and the significance of those impacts (per the *State CEQA Guidelines*, significant effects of an alternative shall be discussed, but in less detail than those of the proposed project);
- Overview of the potential impacts of the alternative and the significance of those impacts; and
- Summary comparison of the alternative relative to the proposed project's impacts, specifically addressing whether the alternative would meet the project objectives, eliminate or reduce impacts as compared to the project, and other comparative merits.

5.3 ALTERNATIVES INITIALLY CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

Section 15126.6(c) of the *State CEQA Guidelines* suggests that EIRs identify any alternatives that were considered by the Lead Agency but were rejected during the scoping process and briefly explain the reasons underlying the Lead Agency's determination. In evaluating an appropriate range of alternatives to the proposed project, a number of alternatives were considered and rejected for differing reasons by the City.

The following is a discussion of the development alternatives considered during the environmental review process and the reasons they were not selected for detailed analysis in this Draft EIR.

5.3.1 Previous Proposal

As described further in Chapter 3.0, Project Description, the current efforts to develop the project site began in 2003. In 2004, the current Applicant submitted an application for the first Master Plan concept. Over the course of 10 years, six additional versions of the Master Plan were submitted to the City. In order to determine the feasibility of these design alternatives, the City evaluated each of these Master Plan proposals based on their ability to reduce or eliminate potentially significant impacts associated with the proposed project. The six Master Plan alternatives are summarized briefly in Chapter 3.0 Project Description, and are illustrated on Figure 3.1, Master Plan Evolution. As described further in Chapter 3.0, the current project design has been refined due to concerns related to the height and scale of the project, noise impacts on adjacent sensitive users bordering the southern portion of the project site, and geotechnical constraints on the northeastern portion of the project site.

5.3.2 Alternative Sites

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant impacts of the project. The key question and first step in the decision whether to include in the Draft EIR an analysis of alternative sites is whether any of the significant impacts of the project would be avoided or substantially lessened by relocating the project. Only developments or locations that would avoid or substantially lessen any of the significant impacts of the project need be considered for inclusion in the EIR (*State CEQA Guidelines*, Section 15126.6(f)(2)(A)). Further, *State CEQA Guidelines* Section 15126.6(f)(1) states that alternative locations only need be considered if the project proponent can reasonably acquire or already owns the identified alternative site. If it is determined that no feasible alternative

locations exist, the EIR must disclose the reasons for this conclusion (*State CEQA Guidelines*, Section 15126.6(f)(2)(B)).

No alternative locations to undertake the proposed project are analyzed in the Draft EIR. The proposed project involves replacement and expansion of existing Church facilities on the subject property, which has been owned by South Shores Church since 1962. Further, the property is designated Community Facilities (CF) in both the City's General Plan and Zoning Ordinance, which allows for existing and proposed church facilities. The central Church facility in terms of church activities and operations, the Sanctuary, would remain as it is today. Moreover, all impacts of the proposed project would be less than significant after mitigation. Relocating the project to an alternative location would not avoid any of the significant unavoidable impacts of the proposed project because the proposed project would not result in any significant unavoidable impacts. Because the existing church facilities are already developed on the project site, replacing and expanding these facilities on another site is not considered feasible. Therefore, the Draft EIR does not include analysis regarding alternative locations.

5.4 PROPOSED PROJECT

5.4.1 Project Characteristics

As described earlier in Chapter 3.0, Project Description, the proposed project would demolish the existing Preschool, Administration and Fellowship Hall building, the Chapel, and the on-site parking lot, and construct new on-site church facilities. No changes to the existing Sanctuary would occur. As shown in Figure 3.4, Proposed Master Plan (refer to Chapter 3.0, Project Description), new development on the project site would consist of a Preschool/Administration building, two Christian Education buildings, a Community Life Center, and a two-level partially subterranean Parking Structure. The proposed project also includes the construction of a Landscaped Meditation Garden in the southeastern corner of the project site that would serve as passive open space for visitors to the project site. The proposed Community Life Center would be a single structure located in the northwestern corner of the project site; Christian Education Buildings 1 and 2 would be located on the eastern portion of the project site, in between the existing Sanctuary and the Community Life Center; the Preschool/Administration building would be located in the southeastern corner of the project site, adjacent to the proposed Landscaped Meditation Garden; and the two-level partially subterranean Parking Structure would be located on the western portion of the site abutting Crown Valley Parkway. Table 5.B summarizes the square footage of various buildings on the project site under the proposed project. Chapter 3.0 provides additional descriptive information regarding the proposed project, project phasing, and figures showing the site layout and elevations.

5.4.2 Project Objectives

Each alternative is analyzed to determine whether it achieves the basic objectives of the proposed project. The underlying purpose of the proposed project is to provide for the replacement and expansion of existing church facilities and the development of new on-site buildings of superior quality and design. The proposed project would include the development of a two-level partially subterranean Parking Structure that would minimize existing parking deficiencies for visitors to the project site. The following project objectives listed in Chapter 3.0 are repeated below and numbered for reference in this chapter:

Table 5.B: Project Square Footage

Proposed Master Plan Buildings	Existing or New Construction	First Floor Area (sf)	Second Floor Area (sf)	Total Building Area (sf)
Sanctuary	Existing Building to Remain	9,140	9,938	19,078
Total Area to Remain				**19,078**
Preschool/Administration Building	Proposed	7,737	7,378	15,115
Community Life Center	Proposed	17,331	6,983	24,314
Christian Education Building 1	Proposed	7,674	7,725	15,399
Christian Education Building 2	Proposed	7,750	7,706	15,456
Total New Construction				**70,284**
Total Master Plan Building Area				**89,362**

Source: Matlock Associates (December 2013).
sf = square feet

1. Replace existing facilities on the north end of the property with new facilities consistent with the architectural design and setting of both the church property and the surrounding area;
2. Accommodate the relocation of all existing church structures on the proposed project site, with the exception of the Sanctuary;
3. Address the parking needs on Sundays by constructing an on-site Parking Structure;
4. Employ mechanical and structural techniques to address on-site geotechnical issues;
5. Enhance and beautify the southeast corner of the property by constructing a Landscaped Meditation Garden; and
6. Provide adequate on-site parking and circulation for the church congregation and visitors of the new South Shores Church uses.

5.4.3 Significant Unavoidable Impacts of the Proposed Project

As discussed in detail in Chapter 4.0, Environmental Setting, Impacts, and Mitigation Measures, the proposed project would not result in significant, unavoidable, adverse impacts related to aesthetics; air quality; biological resources; cultural, archaeological, or paleontological resources; geology and soils; greenhouse gas (GHG) emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; public services and utilities; or transportation/traffic. For the purpose of this analysis, it is assumed that all of the alternatives would comply with applicable federal, State, and local regulations, policies, and ordinances. It is also assumed that all design features, standard conditions, and mitigation measures required to reduce impacts associated with project implementation would also apply to the project alternatives and that similar reductions in impacts would be achieved through such design features, standard conditions, and mitigation. As such, all applicable design features, standard conditions, and mitigation measures are listed within their respective topical environmental impacts discussion. Therefore, the following discussion focuses on the ability of the alternatives to further reduce project impacts and the potential impacts of the

project alternatives related to these issues. For ease of reference, all mitigation measures applicable to Alternative 2 are included in the following analysis.

5.5 ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT ALTERNATIVE

5.5.1 Description

Consistent with Section 15126.6 of the *State CEQA Guidelines*, the No Project/No Development Alternative assumes that the existing land uses and condition of the project site at the time the NOP was published would continue to exist without changes. The setting of the project site at the time the NOP was published is described as part of the existing conditions throughout Chapter 4.0 of this Draft EIR with respect to individual environmental issues and forms the baseline of the impact assessment of the proposed project. This No Project Alternative represents the environmental conditions that would exist if no new development of any kind were to occur on the project site. The No Project/No Development Alternative anticipates that the existing Preschool, Administration and Fellowship Hall building, Chapel, Sanctuary, and parking uses on the project site would continue to operate without any improvements or changes.

The existing City of Dana Point General Plan land use designation for the project site is Community Facility (CF). The base land use designation of CF allows for wide range of public and private uses, including, but not limited to, schools, churches, child care centers, community theaters, hospitals, and cultural and recreational activities. As established by the City's General Plan Land Use Element, the maximum intensity of development allowed within the CF land use designation is a Floor Area Ratio (FAR)[1] of 1:1; however, the standard intensity of development on parcels designated as CF is 0.4:1.

The existing zoning designation for the project site is also CF. The CF zoning district is intended to provide for public, quasi-public, and private community uses to serve both residents of and visitors to the City. As stated in the City's Zoning Code, the CF zoning district allows for churches and associated church facilities with the approval of a Conditional Use Permit (CUP).

The No Project/No Development Alternative would allow for the existing land uses on the project site to operate as they currently do in the foreseeable future. There would be no expansion or addition of building square footage on the project site. No variance to allow for building heights greater than 35 feet (ft), as would be required for the Community Life Center under the proposed project, would be necessary under the No Project/No Development Alternative. Further, the No Project/No Development Alternative would not require a CUP to allow for an off-site shared parking plan during project construction, as would be required under the proposed project.

5.5.2 Environmental Analysis

The project site is currently developed with the Preschool, Administration and Fellowship Hall, Chapel, and Sanctuary buildings, as well as a surface parking lot. These existing structures are two stories in height. The existing Preschool is located in the northwestern corner of the project site along

[1] Floor area ratio is the ratio of a building's total (gross) floor area to the size of the piece of land on which it is built.

Crown Valley Parkway, near the main project site entrance; the existing Administration and Fellowship building abuts the main project driveway, behind the Preschool; and the existing Chapel is located between the Administration and Fellowship Hall building and the Sanctuary. The No Project/ No Development Alternative assumes that the existing conditions on the project site would remain unchanged and would continue into the future. While ongoing maintenance would occur, it is assumed that no new construction would occur. Construction impacts associated with the proposed project would be avoided because no development would occur on the project site under the No Project/No Development Alternative.

The project site is bounded by residential uses to the north and south, Crown Valley Parkway to the west, and a vacant undeveloped hillside to the east. Land uses in the immediate project vicinity are primarily residential uses. To the north, uses include a combination of single- and multi-family residential uses; a vacant undeveloped hillside and the Monarch Bay Golf Links golf course are located to the east of the project site; multi-family residential uses (i.e., Monarch Bay Villas) and commercial uses are located south of the project site; and a single-family residential community is located west of the project site, across Crown Valley Parkway.

Under the No Project/No Development Alternative, the visual setting of the project site would not be altered. No new air pollutant emissions or GHG emissions would be generated by new visitors to the project site or from short-term construction since no new construction is proposed. The existing vegetation and wildlife on the project site would not be disturbed as compared to existing conditions. However, the existing and approved fuel modification plan would continue to be applicable, and thinning of vegetation on the eastern undeveloped slope would continue as part of the regular maintenance operations, and to be in compliance with Orange County Fire Authority (OCFA) requirements. Unknown potential cultural, archaeological, or paleontological resources would remain undisturbed. There would be no impacts related to hazardous materials. The existing land uses would continue to be consistent with the City's General Plan and zoning documents. No short-term construction noise impacts or long-term operational noise impacts would occur to the surrounding area. No additional demand for fire or police services would occur, and no additional demand for public services and utilities would result under the No Project/No Development Alternative. No additional vehicle trips would be generated by construction or operations at the project site, and no additional CUP would be required to allow for off-site shared parking facilities. Further, no new sources of solid waste would be created, and no increase in demand for energy would occur as a result of the No Development Alternative.

Although the No Development Alternative would not result in physical impacts related to geology or soils, it would not remediate potential landslide risks on the northeastern portion of the project site. Further, although the No Development Alternative would not change the percentage of the project site that would remain pervious or the volume of runoff during a storm event, the No Development Alternative would not improve water quality because it would not implement any of the runoff treatment measures from best management practices (BMPs) that are included in the proposed project. Similar to the proposed project, the No Development Alternative would result in less than significant impacts; however, as described above, the No Development Alternative would result in greater impacts with respect to geology and soils and hydrology and water quality than the proposed project.

5.5.3 Overview of Potential Impacts/Comparison to the Proposed Project

The No Project/No Development Alternative would not require a CUP to allow for the shared use of off-site parking facilities, nor would it require a height variance to allow for the development of the proposed Community Life Center, proposed as part of the project. No physical changes would occur on the project site, and there would not be a potential for new environmental impacts to occur. Overall, the No Project/No Development Alternative would result in fewer environmental impacts than the proposed project because no construction or development would take place.

5.5.4 Attainment of Project Objectives

The No Project/No Development Alternative would not achieve any of the six project objectives. Without the proposed project, the project site would not replace or expand existing facilities on the project site (Objectives 1 and 2). The No Project/No Development Alternative would not help the South Shores Church address the parking needs on Sunday (Objective 3) or help to provide adequate on-site parking and circulation for the church congregation and visitors of the Church (Objective 6). Additionally, because no development would occur under this alternative, no opportunities to address on-site geotechnical issues (Objective 4), or enhance the southeastern corner of the project site with a Landscaped Meditation Garden (Objective 5) would be provided.

5.6 ALTERNATIVE 2: REDUCED PROJECT

5.6.1 Description

In March 2012, an alternative to the March 2012 Master Plan was submitted to reflect further public input received regarding the project design. This alternative was subsequently refined to reflect a geotechnical solution similar to the proposed project and a more detailed design for the Landscaped Meditation Garden in the southeast corner of the project site and resubmitted to the City in December 2013. In comparison to the proposed project, the Reduced Project Alternative proposes to reduce the size of Christian Education Building 2, but would slightly increase the size of Christian Education Building 1. The proposed Preschool/Administration building and Community Life Center would also be reduced in size. The Reduced Project Alternative would also provide fewer parking spaces than the proposed project. The Parking Structure would also be moved 10 ft to the north, farther away from the Monarch Bay Villas bordering the southern perimeter of the project site. Similarly, the proposed Community Life Center would be located further east, away from the neighboring residential uses across Crown Valley Parkway. The Reduced Project Alternative would employ the same mechanical and structural techniques to resolve geotechnical issues on the northeastern portion of the project site.

Similar to the proposed project, the Reduced Project Alternative would demolish the existing Preschool, Administration and Fellowship Hall, Chapel, and parking lot. As listed in Table 5.C and illustrated in Figure 5.1, the Reduced Project Alternative, includes construction of 52,651 sf of new building space, including a new Preschool/Administration building, two Christian Education buildings, a Community Life Center, and a Parking Structure. Refer to Figure 5.2, Site Plan Cross Sections, for a cross-section providing details regarding the heights of the proposed buildings and the proposed locations of the caissons, tiebacks, and other geotechnical features associated with the project. No construction to or modifications of the existing Sanctuary would occur.

Table 5.C: Reduced Project Alternative Square Footage

Proposed Master Plan Buildings	Existing or New Construction	First Floor Area (sf)	Second Floor Area (sf)	Total Building Area (sf)
Sanctuary	Existing Building	9,140	9,938	19,078
Total Area to Remain				**19,078**
Preschool/Administration Building	Proposed	7,841	6,026	13,867
Community Life Center	Proposed	11,738	N/A	11,738
Christian Education Building 1	Proposed	8,747	8,511	17,258
Christian Education Building 2	Proposed	4,963	4,825	9,788
Total New Construction				**52,651**
Total Master Plan Building Area		**42,429**	**29,300**	**71,729**

Source: Matlock Associates (December 2013).
N/A = not applicable
sf = square feet

Although the amount of building square footage would be reduced for the Reduced Project Alternative, the operational characteristics (time of church activities and attendance at church events) would be similar to the proposed project. The church uses would be accommodated within similar, but reduced overall building square footages.

Similar to the proposed project, demolition and construction of the Reduced Project Alternative would occur in five phases over a 10-year period; however, construction activities would not occur continuously over the 10 years. Similar to the proposed project, under Alternative 2, four of the existing ministry programs (the Wednesday morning bible study, the biweekly Friday morning ministry program, and the two small ministry programs held on Tuesday mornings) would be discontinued during construction due to the fact that this alternative is anticipated to result in temporary on-site parking deficiencies during construction. As such, an off-site shared parking program would also be required during construction of the Reduced Project Alternative and would be in effect during construction of the Master Plan to address these deficiencies. No parking deficiencies are anticipated to occur after the completion of this alternative. See Figures 5.3.a through 5.3.c, Construction Phasing. Construction phases are detailed in the following discussion.

Phase 1A: Construct New Preschool/Administration Building. Under the Reduced Project Alternative, Phase 1A is anticipated to be completed over the course of 12 months and would involve the import of 500 cubic yards (cy) of soil. Similar to the proposed project, Phase 1A of the Reduced Project Alternative includes the construction of a Preschool/Administration Building and Landscaped Meditation Garden in the southeastern corner of the project site and an underground storm water detention system beneath a portion of the existing parking area at the southern end of the project site. Under the Reduced Project Alternative, the Preschool/Administration building would be a total of 13,867 sf, which is approximately 1,248 sf smaller than the Preschool/Administration building included as part of the proposed project. Although the Preschool/Administration building included as part of the Reduced Project Alternative would be smaller, this building would include the same

number of classrooms and support facilities as it would under the proposed project scenario. As shown in Figure 5.4, Preschool/Administration Building Elevation, the Preschool/Administration building would be two stories and would be constructed to the same height (31 ft) as proposed under the proposed project. The Landscaped Meditation Garden would also be the same size and would include the same design features under the Reduced Project Alternative as it would under the proposed project scenario.

A total of 67 parking spaces would be taken for construction activities during Phase 1A, leaving a total of 161 at-grade parking spaces available for on-going church activities. At the completion of Phase 1A, 210 parking spaces would be available for church activities.

Phases 1B, 1B-E1, and 1B-E2: Demolition of Existing Buildings and Remedial Grading. Similar to the proposed project, Phase 1B includes the demolition of the existing buildings on the north end of the project site. Demolition and removal of the 23,467 sf of buildings would occur over a 3-month period.

Following the demolition of the existing buildings, earthwork on the north end of the site would commence as part of Phases 1B-E1 and 1B-E2, including the preparation of rough grade pad elevations and remedial earthwork. Unlike the proposed project, the rough grade earthwork activities would involve the export of 23,000 cy of soil. Earthwork activities on the north end of the project site would be conducted over a period of 6 months with primary export occurring during the first 3 months of this period in Phase 1B-E1.

Demolition would temporarily utilize 8 existing parking spaces for construction activities, leaving a total of 202 available on-site parking spaces. Following demolition activities, preparation of rough grade pad elevations and remedial earthwork activities would use an additional 2 parking spaces for construction activities (totaling 10 parking spaces being utilized for construction staging purposes), leaving 200 on-site spaces available for church activities. In addition, 28 parking spaces would be temporarily used during the weekdays as a play area for the Preschool during this phase. These spaces would be available for church activities on Saturdays and Sundays. At the completion of Phase 1B, 210 parking spaces would be available for church activities.

Phase 1C: Earthwork/Construction of New Community Life Center Building. Under the Reduced Project Alternative, Phase 1C includes construction of the 11,738 sf Community Life Center Building located in the northwest corner of the project site, which would be approximately 12,576 sf smaller than the 24,314 sf Community Life Center included as part of the proposed project. Unlike the proposed project which includes a two-story building, the Community Life Center included in the Reduced Project Alternative would be one story. As shown in Figure 5.5, Community Life Center Building Elevation, this building would be 35 ft in height, approximately 14 ft lower in height, as measured from the lowest existing grade within this building's footprint along its east elevation, than the Community Life Center included as part of the proposed project. The Community Life Center included as part of this alternative would feature similar facilities as the Community Life Center included as part of the proposed project; however, under the Reduced Project Alternative, the Community Life Center Building would not contain any classrooms.

Phase 1C is anticipated to be completed over a period of 1 year. During this phase, a total of 7,500 cy of soil would be exported from the project site. Similar to the proposed project, access to the project site at the signalized intersection of Sea Island Drive and Crown Valley Parkway would be temporarily closed during the first 2 months of Phase 1C, leaving the right-turn-in/right-turn-out-only access point on the east side of Crown Valley Parkway as the only site driveway. During Phase 1C, the construction staging area would be located in the northeastern corner of the project site (future location of Christian Education Building 1).

During the first 2 months of construction of Phase 1C, a total of 89 spaces would be taken for construction activities, leaving a total of 121 at-grade parking spaces available for church activities. Subsequent to the first 2 months of construction, Phase 1C would reopen the signalized project access at Sea Island Drive and Crown Valley Parkway and would provide 250 at-grade parking spaces. In addition, 28 parking spaces would be temporarily used during the weekdays as a play area for the Preschool during this phase. These spaces would be available for church activities on Saturdays and Sundays. At the completion of Phase 1C, 250 parking spaces would be available for church activities.

Phase 2: Construction of Christian Education Building 1. Construction of Phase 2 is anticipated to be conducted over 1 year and would not involve the import or export of soil. Under the Reduced Project Alternative, Phase 2 includes construction of the 17,258 sf Christian Education Building 1, which would be approximately 1,859 sf larger than Christian Education Building 1 included as part of the proposed project. As illustrated by Figure 5.6, Christian Education Building 1 Elevation, Christian Education Building 1 would be constructed to the same height (31 ft) as the Christian Education Building proposed as part of the proposed project and would include similar features (i.e., classrooms, nursery, multi-use rooms, etc.); however, under the Reduced Project Alternative, Christian Education Building 1 would include a library rather than a church bookstore.

Approximately 46 existing parking spaces would be taken for construction staging activities during Phase 2, leaving a total of 204 at-grade parking spaces available for church activities. Additionally, 28 parking spaces would be temporarily used during the weekdays as a play area for the Preschool during this phase; however, these spaces would be available for church activities on Saturdays and Sundays. At the completion of Phase 2, 250 parking spaces would be available for church activities.

Phase 3: Construction of Christian Education Building 2. Construction of Phase 3 is anticipated to be conducted over 1 year and would not involve the import or export of soil. Under the Reduced Project Alternative, Phase 3 includes construction of the 9,788 sf Christian Education Building 2, which would be approximately 5,668 sf smaller than Christian Education Building 2 included as part of the proposed project. As shown in Figure 5.7, Christian Education Building 2 Elevation, Christian Education Building 2 would be constructed to the same height (31 ft) and would include similar facilities (i.e., classrooms) as the Christian Education Building proposed as part of the proposed project, but would not include offices or a teachers' lounge.

A total of 46 existing parking spaces would be taken for construction staging activities during Phase 3, leaving a total of 204 at-grade parking spaces available for church activities. In addition, 28 parking spaces would be temporarily used during the weekdays as a play area for the preschool

during this phase. These spaces would be available for church activities on Saturdays and Sundays. At the completion of Phase 3, a total of 250 parking spaces would be available for church activities.

Phase 4: Construction of the South Half of Parking Structure. Phase 4 is anticipated to be constructed over a period of 7 months and would involve the export of 7,500 cy of soil from the project site. As illustrated by Figure 5.8, Parking Structure Elevation, the Parking Structure included as part of the Reduced Project Alternative would also be partially subterranean and would consist of two levels. Similar to the proposed project, during this phase of construction the right-turn-in, right-turn-out-only project access on the east side of Crown Valley Parkway would be temporarily unavailable. The only access point to the project site during this phase would be from the signalized intersection at Sea Island Drive/Crown Valley Parkway.

Similar to the proposed project, under the Reduced Project Alternative, Phase 4 includes the construction of the southern half of the proposed Parking Structure and the interior renovation of the Preschool/Administration Building previously occupied by the Preschool. Under the Reduced Project Alternative, the Parking Structure would be constructed on a reduced scale and would include 22 fewer parking spaces than the structure included as part of the proposed project. The Parking Structure included as part of the Reduced Project Alternative would include a total of 164 parking spaces on the lower level and 166 spaces on the upper level. In addition, a total of 34 parking spaces would be provided by the at-grade parking lot located on the southern half of the project site.

A total of 178 existing parking spaces would be taken for construction activities during Phase 4; therefore, a total of 72 at-grade parking spaces would be available for church activities. As such, parking would be accommodated through off-site agreements with satellite parking lots in which visitors to the Church will park and then subsequently be shuttled to and from the project site. At the completion of Phase 4, a total of 283 parking spaces would be available for church activities.

Phase 5: Construction of the North Half of Parking Structure. Similar to the proposed project, Phase 5 is anticipated to be completed over 7 months, but would involve the export of 3,000 cy of soil from the project site (2,500 fewer cy than the proposed project). Refer to the discussion under Phase 4 for details related to the proposed Parking Structure's design features. During Phase 5, the construction staging area would be located in the lower level of the southern half of the proposed Parking Structure.

A total of 148 existing parking spaces would be taken for construction activities during Phase 5; therefore, a total of 135 at-grade parking spaces would be available for church activities. As such, parking would be accommodated through off-site agreements with satellite parking lots in which visitors to the church will park and then subsequently be shuttled to and from the project site. At completion of this phase, a total of 364 parking spaces would be provided.

Completed Master Plan for the Reduced Project Alternative. Similar to the proposed project, the Master Plan for the Reduced Project Alternative would be developed over 10 years. Completion of the Reduced Project Alternative would include the same buildings proposed as part of the proposed project; however, each of the buildings included in the Reduced Project Alternative, with the

exception of Christian Education Building 1, would be constructed on a reduced scale. The Reduced Project Alternative would also differ from the proposed project in that the Community Life Center would only be one story (35 ft) rather than the two-story Community Life Center, which would be 49 ft high as measured from the lowest existing grade within this building's footprint along its east elevation, included as part of the proposed project.

Completion of the proposed Master Plan would provide a total of 34 parking spaces on the main drive aisle and 330 parking spaces in the proposed Parking Structure, resulting in a total of 364 parking spaces available for church users.

Access

As shown in Figure 3.4 (Chapter 3.0, Project Description), vehicular access to the project site would be provided by the same two access points that currently exist along Crown Valley Parkway. Vehicles from Crown Valley Parkway would enter into the Parking Structure via either a right-turn-in/right-turn-out-only entrance or enter the project site at grade via the signalized intersection at Sea Island Drive and Crown Valley Parkway. Project site circulation would be required to comply with the OCFA Fire Code.

Lighting

The proposed South Shores Church project would involve some nighttime operations such as Christian children, youth/college/adult ministry, community meetings, and community events. All facilities would be lighted to accommodate planned nighttime activities and to provide for security after facilities are closed. Lighting for the proposed project includes vertical light posts within the interior of the parking lot, small wall mount lamps along the northern and eastern boundaries of the Parking Structure, and recessed wall lights along the western and southern boundaries of the Parking Structure.

Similar to the proposed project, all lighting proposed as part of the Reduced Project Alternative would comply with Section 9.05.220 of the City's Municipal Code regarding lighting. As illustrated by Figure 5.9, Lighting Plan, any exterior lighting proposed as part of this alternative would be energy-efficient and shielded or recessed, directing any potential glare or reflections within the boundaries of the project site parcel. Lighting would also be directed downward and away from adjoining properties and public rights-of-way. No lighting included as part of the Reduced Project Alternative would blink, flash, or utilize unusually high intensity or brightness. Proposed lighting fixtures would also be appropriate in scale, intensity, and height.

5.6.2 Environmental Analysis

Aesthetics. Similar to the proposed project, Alternative 2 would have less than significant impacts related to aesthetics, light, and glare. During construction of this alternative, temporary construction fencing would be placed along the perimeter of the construction area on the project site to minimize potential impacts to scenic vistas and the surroundings. Therefore, impacts related to the visual character of the project site during project operation would be similar under Alternative 2 to what they would be under the proposed project.

Following implementation of the Reduced Project Alternative, the Community Life Center would be constructed in compliance with the City's 35 ft height limit as stated in the Zoning Ordinance. Although the Community Life Center building would be constructed at a lower height under this alternative, the design of Alternative 2 would be similar to the proposed project and would not conflict with the visual character of the site or the surrounding area. Therefore, development of these structures would modify the existing visual character of the project site, as well as existing views to and from the project site; however, potential impacts on the visual character of the project site and on scenic views of surrounding hills to and from the project site and adjacent roadways would be less than significant under both the proposed project and Alternative 2.

Although Crown Valley Parkway is designated within the vicinity of the project site as a Scenic Roadway for which view protection should be considered in the Conservation/Open Space Element of the City's General Plan, motorists and pedestrians traveling along Crown Valley Parkway would continue to enjoy views of the surrounding hills and distant open space following implementation of Alternative 2. Further, Alternative 2 would not result in damage related to scenic resources within a State-designated scenic highway given that the closest scenic highway to the project site is Pacific Coast Highway, which is currently only listed as an Eligible State Scenic Highway. Therefore, similar to the proposed project, potential impacts related to scenic resources within a State-designated scenic highway, and views to and from City-designated scenic corridors would be less than significant, and no mitigation would be required.

Similar to the proposed project, view simulations were prepared for the Reduced Project Alternative to analyze the proposed alternative's visual impacts. The vantage points from each key view were the same for this alternative as they were for the proposed project (see Figure 4.1.1, Key View Locations, in Section 4.1, Aesthetics). Figures 5.10 through 5.16 contain these key view photographs for the Reduced Project Alternative, as referenced in the following discussion.

- **Key View 1: View from Camino del Avion.** Key View 1 depicts a view of the project site facing south from Camino Del Avion looking towards the project site over the Monarch Beach Golf Links. Currently, undeveloped Salt Creek Canyon and natural vegetation dominate the foreground of the view. Multi-family residential uses, undeveloped portions of Salt Creek Canyon, Crown Valley Parkway, eucalyptus trees, natural vegetation, Salt Creek Bike Trail, and the Monarch Bay Golf Links dominate the middleground of this view. Portions of undeveloped Salt Creek Canyon, the existing South Shores Church facilities with ornamental landscaping, multi-family residential, ornamental vegetation, natural vegetation, and the sky dominate the background views.

  As depicted in the postdevelopment view in Figure 5.10, Key View 1, Salt Creek Canyon and natural vegetation continue to dominate the foreground view. The South Shores Church Community Life Center and the Christian Education buildings would be visible in the middleground of the postdevelopment view. Multi-family residential uses, Crown Valley Parkway, the proposed South Shores Church facilities with ornamental landscaping, the Salt Creek Bike Trail, Monarch Bay Golf Links golf course, Salt Creek Canyon, natural vegetation, and ornamental vegetation would continue to be part of the middleground view after construction of the Reduced Project Alternative. Single-family residential uses, ornamental vegetation, natural vegetation,, and the sky would also continue to be part of the background view after construction of this alternative.

Although the buildings on the project site would increase in density overall and would be visible from this vantage point, the area surrounding the project site would continue to be described as open space with ocean views surrounded by development. A very small portion of the views of the sky above the project site would be obstructed by the proposed development. Additionally, similar to the proposed project, some of the eucalyptus trees that comprise the ornamental landscaping on site would be removed as a result of the Reduced Project Alternative. Construction of the Reduced Project Alternative, like the proposed project, would be architecturally consistent with the existing surrounding development, and views of Salt Creek Canyon would continue to be visible from this City-designated Scenic Overlook from Public Land. Therefore, similar to the proposed project, there would be no significant impacts to the views from this location as a result of this alternative.

- **Key View 2: View facing South from the Salt Creek Bicycle Path.** Key View 2 shows a view of the project site from the Salt Creek Bike Trail facing south. Currently, natural vegetation, wood fencing, signage, and the paved Salt Creek Trail are in the foreground of the view. The Salt Creek Bike Trail, ornamental vegetation, eucalyptus trees, natural vegetation, multi-family residential, and Monarch Bay Golf Links dominate the middleground of the view. Background views include the project site with the existing South Shores Church, ornamental vegetation, eucalyptus trees, natural vegetation, vegetated hillside, and the sky.

  As depicted in the postdevelopment view in Figure 5.11, Key View 2, natural vegetation, wood fencing, signage, and the paved Salt Creek Trail are in the foreground of the view. The Salt Creek Trail, ornamental vegetation, eucalyptus trees, natural vegetation, multi-family residential, and Monarch Bay Golf Links dominate the middleground of the view. Following implementation of this alternative, views of the South Shores Church Community Life Center and Christian Education buildings would be similar to those of the postdevelopment views under the proposed project. Implementation of the Reduced Project Alternative would also retain a similar amount of existing on-site vegetation and landscaping on the project site as the proposed project. Similar to the proposed project, implementation of this alternative would include the addition of landscaping surrounding the proposed facilities. Ornamental vegetation, natural vegetation, a vegetated hillside, and the sky would continue to be part of the background view following implementation of this alternative.

  The area surrounding the project site would continue to be described as recreational within open space surrounded by development. Overall, the building square footage on the project site (i.e., Christian Education Buildings 1 and 2 and the Community Life Center) would increase in density; however, the square footage increase under the Reduced Project Alternative would be less than the proposed project. Similar to the proposed project, eucalyptus trees would be removed and replaced with other ornamental vegetation to screen the proposed buildings. No views of the open space or undeveloped Salt Creek Canyon or Salt Creek Trail would be obstructed. A small portion of the views of the sky above the project site would be obstructed by the proposed development. Construction of the Reduced Project Alternative would also be architecturally consistent with the existing surrounding development, and views of the Salt Creek Canyon and the Salt Creek Bike Trail would continue to be visible from this vantage point. Therefore, similar to the proposed project, there would be no significant impacts to the views from this location as a result of implementation of the Reduced Project Alternative.

- **Key View 3: View from Southbound Crown Valley Parkway.** Key View 3 shows a view of the project site facing east, from the southbound lanes on Crown Valley Parkway. Currently, the

landscaped median on Crown Valley Parkway, grass, eucalyptus trees, and the roadway are located in the foreground of View 3. Crown Valley Parkway, the roadway, the landscaped median with grass and eucalyptus trees, sidewalk, ornamental vegetation, the existing South Shores Church Preschool building, and the traffic signal at Sea Island Drive and Crown Valley Parkway are located in the middleground of the view. Background views include the sky.

As depicted in the postdevelopment view in Figure 5.12, Key View 3, the landscaped median on Crown Valley Parkway, eucalyptus trees, and the roadway would remain in the foreground of the view. Crown Valley Parkway, vehicles, the roadway, the landscaped median with eucalyptus trees, the sidewalk, ornamental vegetation, eucalyptus trees, and the signal at Sea Island Drive and Crown Valley Parkway would remain in the middleground of the view. Implementation of the Reduced Project Alternative includes the demolition of the existing South Shores Church Preschool building, the removal of some of the eucalyptus trees, and the construction of the proposed Community Life Center building, which would be visible from this vantage point. However, because the Community Life Center proposed as part of the Reduced Project Alternative would slightly lower in height than under the proposed project, construction of the Community Life Center would obstruct views of the sky to a lesser extent than the proposed project. The visual character from this view would continue to be described as urban transportation with landscaping surrounded by development. The buildings on the project site would increase in density and mass and would be visible from this vantage point, but to a lesser extent than the proposed project. Eucalyptus trees would be removed. Landscaping along this corridor would not be impacted by this alternative from this vantage point. Although the Reduced Project Alternative would obstruct some of the sky views, this alternative would not completely block open sky views. In addition, construction of this alternative would be architecturally consistent with the development surrounding the project site. Therefore, similar to the proposed project, there would be no significant impacts to the views from this location as a result of project implementation.

- **Key View 4: View from Sea Island Drive.** Key View 4 shows a view of the project site facing east, from Sea Island Drive at its intersection with Crown Valley Parkway. Currently, Sea Island Drive roadway, sidewalk, and ornamental vegetation are located in the foreground of Key View 4. Crown Valley Parkway vehicles, signals, street lighting, the project site with the existing South Shores Church Preschool, the Preschool playground (and its associated playground equipment and fencing), the Administration and Fellowship Hall, ornamental landscaping, and eucalyptus trees are located in the middleground of the view. Background views include hillside residential development in the distance and the sky.

  As depicted in the postdevelopment view in Figure 5.13, Key View 4, Sea Island Drive roadway, sidewalk, and ornamental vegetation are located in the foreground of the view. Crown Valley Parkway, vehicles, signals, and street lighting are located in the middleground of the view. Implementation of the proposed project would remove the existing South Shores Church Preschool, the Preschool playground, the Administration and Fellowship Hall, ornamental landscaping, and eucalyptus trees from the middleground view and replace them with the proposed Community Life Center, Christian Education buildings, and new ornamental landscaping. Construction of the Reduced Project Alternative would partially obstruct views of the hillside residential development in the distance and some of the sky. However, because the Community Life Center proposed under this alternative would be slightly lower in height than proposed as part of the project, this alternative would result in the obstruction of background views of hillside residential development and sky to a lesser extent than the proposed project.

The visual character from this view would continue to be described as a landscaped urban area. The buildings on the project site and within this view would increase in density and mass, but to a lesser extent than the proposed project. Eucalyptus trees would be removed and replaced with new ornamental vegetation. Similar to the proposed project, the increase in the density of the buildings would partially obstruct views of distant hillside development; however, these views from this roadway intersection are not considered sensitive, would not be entirely blocked, and are not views protected by the City. The proposed project would be constructed in Mediterranean-style architecture to ensure consistency with existing development surrounding the project site. Therefore, similar to the proposed project, there would be no significant impacts to the views from this location as a result of implementation of this alternative.

- **Key View 5: View from Monarch Beach Golf Links.** Key View 5 shows a view of the project site facing west from the Monarch Beach Golf Links. Currently, ornamental vegetation and wood fencing are located in the foreground. Middleground views include the Monarch Beach Golf Links and ornamental vegetation. Background views include naturally vegetated undeveloped hillside, the project site with the existing South Shores Church development, and the sky.

  As depicted in the postdevelopment view in Figure 5.14, Key View 5, the foreground views of the ornamental vegetation and wood fencing would not change. Middleground views would continue to include the Monarch Beach Golf Links and ornamental vegetation. Background views would continue to include the naturally vegetated undeveloped hillside and the sky. Similar to the proposed project, implementation of this alternative would construct a Preschool/Administration building on the southeast corner of the project site and two Christian Education buildings on the northeast corner of the project site, both within view of this vantage point. As with the proposed project, some of the eucalyptus trees and ornamental landscaping would be removed under Alternative 2; however, they would be replaced by additional new vegetative landscaping.

  While the number of buildings and massing would increase on the project site, this would not obstruct any views from this City-designated Scenic Overlook from Public Lands since development would occur on the other side of the golf course and above the undeveloped hillside. In addition, the Reduced Project Alterative would be constructed in the Mediterranean architectural style, consistent with the residential development immediately south of the project site. The visual character from this vantage point would continue to be described as recreational open space with undeveloped hillsides surrounded by residential and institutional development. Therefore, similar to the proposed project, no significant impacts to this Scenic Overlook from Public Land would occur as a result of implementation of the Reduced Project Alternative.

- **Key View 6: View from Monarch Beach Golf Links Clubhouse.** Key View 6 shows a view of the project site facing northwest, from the Monarch Beach Golf Links Clubhouse. Currently, the foreground of the view consists of the Monarch Beach Golf Links facilities and ornamental landscaping. Middleground views include the golf course with ornamental landscaping. Background views include ornamental landscaping, undeveloped hillside, the existing South Shores Church Sanctuary, Chapel, Administration and Fellowship Hall, and the sky.

  As depicted in the postdevelopment view in Figure 5.15, Key View 6, the Monarch Beach Golf Links facilities and ornamental landscaping would continue to be located in the foreground. The Monarch Beach Golf Links and ornamental landscaping would be located in the middleground. Similar to the proposed project, background views for Alternative 2 would continue to include ornamental landscaping, undeveloped hillside, and the sky. In the postdevelopment view, the proposed South Shores Church Administration building, the existing Sanctuary, and proposed

Christian Education buildings would be visible. As with the proposed project, some of the eucalyptus trees and ornamental landscaping would be removed under Alternative 2; however, they would be replaced by additional new vegetative landscaping.

While the density of the buildings on the project site would increase overall, under the Reduced Project Alternative, the project site would not be developed beyond the allowed building height, setbacks, or the density of the designated CF Zoning. The increase in building density on site would not obstruct any views from the Monarch Beach Golf Links Clubhouse. In addition, the Reduced Project Alternative would be constructed in the Mediterranean architectural style, consistent with the surrounding development. The visual character from this vantage point would continue to be described as recreational open space surrounded by landscaping, development, and undeveloped hillsides. Therefore, similar to the proposed project, no significant impacts to views from this vantage point would occur as a result of implementation of the Reduced Project Alternative.

- **Key View 7: View facing North from the Salt Creek Bicycle Path.** Key View 7 shows a view of the project site facing northwest from the Salt Creek Bike Trail. Currently, the foreground of the view consists of the native vegetation and shrubbery and a portion of the Salt Creek Bike Trail. Middleground views include native vegetation and shrubbery on an undeveloped hillside abutting the eastern border of the project site and portions of the Salt Creek Bike Trail. Background views include native vegetation and shrubbery, a vegetated hillside, the existing South Shores Church Sanctuary, and the sky.

  As depicted in the postdevelopment view in Figure 5.16, Key View 7, the Salt Creek Bike Trail and native vegetation would continue to be located in the foreground and middleground. Background views would continue to include native vegetation, undeveloped hillside, and the sky. In the postdevelopment view of this alternative, the existing South Shores Church Sanctuary, as well as the proposed Preschool/Administration and Christian Education buildings, would be visible, but to a lesser extent than the proposed project. As with the proposed project, some of the eucalyptus trees and ornamental landscaping would be removed under Alternative 2.

  The area surrounding the project site would continue to be described as recreational/open space surrounded by development. The buildings on the project site would increase in density and would be visible from this vantage point, but to a lesser extent than the proposed project. Existing eucalyptus trees and ornamental trees would be removed and would be replaced with ornamental landscaping and the proposed Christian Education buildings. No views of the open space or undeveloped Salt Creek Canyon or Salt Creek Trail would be obstructed. A small portion of the views of the sky above the project site would be obstructed by the proposed development. Construction of this alternative would be architecturally consistent with the existing surrounding development, and views of the Salt Creek Canyon and the Salt Creek Bike Trail would continue to be visible from this vantage point. Therefore, similar to the proposed project, there would be no significant impacts to the views from this location as a result of implementation of the Reduced Project Alternative.

Similar to the proposed project, the Reduced Project Alternative would permanently alter the existing visual character and quality of the project site; however, this alternative would be of a height and scale that is compatible with surrounding development and would not have a massing that would significantly impact views. Under this alternative, the Community Life Center would be constructed at the allowable 35 ft height standard established in the City's Zoning Code. Foreground and

background views from surrounding roadways, Crown Valley Parkway, the Salt Creek Bike Trail, and the Monarch Beach Golf Links would not be significantly impacted or obstructed by project implementation. The Reduced Project Alternative would result in visual changes to the project site associated with the demolition of existing church facilities (with the exception of the Sanctuary) and the construction of new church facilities. Implementation of this alternative would include landscaping that would shield views of the project site from Crown Valley Parkway. While this alternative would permanently alter the visual conditions of the project site and its surroundings, no significant impacts or complete obstructions of any views from the aforementioned view locations would occur, and no mitigation is required. Overall, the building massing on site proposed as part of the Reduced Project Alternative would be similar to, but reduced overall, as compared to the proposed project. The Reduced Project Alternative would be constructed lower in height as compared to the proposed project. Overall, impacts related to the visual character of the project site under Alternative 2 would be less than for the proposed project.

Similar to the proposed project, Alternative 2 would be required to comply with the City's lighting code. As such, lighting included as part of this Alternative 2 would not illuminate areas off site and would be shielded and directed downward. In addition, no reflective glass surfaces or structures would be included as part of Alternative 2. As such, similar to the proposed project, impacts related to light and glare in the project area would be less than significant under this alternative, and no mitigation would be required.

Alternative 2 would not result in significant impacts related to viewsheds, visual character, or lighting and glare. However, because the Reduced Project Alternative 2 includes reduced building square footage on the project site and would develop the Community Life Center at a reduced height compared to the proposed project, there would be fewer visual impacts under this alternative. As such, this alternative would be slightly superior to the proposed project.

Air Quality. Similar to the proposed project, Alternative 2 would have less than significant impacts related to air quality. Construction emissions associated with Alternative 2 would be reduced since the amount of building would be reduced under this alternative. Overall, air quality impacts would be incrementally reduced during construction when compared to the project due to the reduced amount of building square footage proposed as part of this alternative. Operational emissions would be similar to the proposed project for this alternative because the same number and intensity of church activities would occur even though the building square footage is reduced.

Because construction air quality emissions under Alternative 2 would be less than those associated with the proposed project, and operational emissions would be similar to the proposed project, and because the proposed project would be consistent with the Southern California Association of Government's (SCAG) Regional Comprehensive Plan (RCP) guidelines and the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), Alternative 2 would also be consistent with SCAG's RCP and the SCAQMD's AQMP, like the proposed project. Further, Alternative 2 would not exceed significance thresholds for criteria pollutants with implementation of standard SCAQMD measures (Standard Conditions 4.2.1 and 4.2.2). Like the proposed project, no carbon monoxide (CO) hot spots would occur; therefore, there would be no impact under this alternative related to impacts on CO concentrations, and no mitigation would be required. In addition, because Alternative 2 would develop the project site with the same uses as the

proposed project, this alternative would also not result in significant impacts related to objectionable odors. Overall, because there would be fewer construction-related air quality emissions under Alternative 2, this alternative would be slightly superior to the proposed project.

The following standard conditions would be applicable to Alternative 2, as well as the proposed project, to ensure that potential air quality impacts remain less than significant:

Standard Condition 4.2.1: **South Coast Air Quality Management District (SCAQMD) Rule 403 Measures.** The proposed project would be required to implement the following SCAQMD measures:

- Apply nontoxic chemical soil stabilizers shall be applied to all inactive construction areas (previously graded areas inactive for 10 days or more) according to manufacturers' specifications.
- Active sites shall be watered at least twice daily (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and the top of the trailer).
- Construction access roads shall be paved at least 30 meters (m) (100 ft) onto the site from the main road.
- Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour (mph) or less.
- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard).
- Use "green building materials" such as those materials that are rapidly renewable or resource-efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project, as defined on the California Department of Resources Recycling and Recovery (CalRecycle) website.

Standard Condition 4.2.2 **Title 24.** The proposed project would be required to comply with Title 24 of the California Code of Regulations (CCR) established by the California Energy Commission (CEC) regarding energy conservation and green building standards, including, but not limited to, green measures concerning project site design, water use reduction, improvement of indoor air quality, and conservation of materials and resources

Biological Resources. Similar to the proposed project, Alternative 2 would have less than significant impacts related to biological resources. Alternative 2, like the proposed project, would preserve 0.12 ac of undisturbed coastal sage scrub and remove approximately 0.18 ac of disturbed coastal sage scrub in the northeastern portion of the project site. Therefore, because Alternative 2 would remove existing natural vegetation on the project site, Alternative 2 would include mitigation (Mitigation Measures 4.3.1 through 4.3.3) to reduce potential impacts associated with sensitive species on site (i.e., California gnatcatcher), the removal of coastal sage scrub, and nesting bird species. Following implementation of Mitigation Measures 4.3.1 through 4.3.3, Alternative 2 would be consistent with applicable goals and policies aimed at preserving and protecting sensitive plant and animal species, as established in the City's Conservation/Open Space Element of the General Plan. Further, implementation of Mitigation Measure 4.3.1 would ensure that the Reduced Project Alternative 2 would be consistent with the Orange County Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which provides funding for land acquisition, weed control, soil preparation, planting native species, supplemental irrigation, and other activities aimed at restoring, establishing, enhancing, and/or preserving covered coastal sage scrub species in the NCCP/HCP area.

Alternative 2, like the proposed project, would not have an impact on any federally protected wetlands as there are no riparian habitats or wetlands on the project site. The Reduced Project Alternative would result in the disruption/removal of the same amount of coastal sage scrub as the proposed project. Therefore, biological impacts associated with Alternative 2 are considered to be similar to the proposed project.

The following mitigation measures would be applicable to Alternative 2, as well as the proposed project, to ensure that potential impacts related to biological resources are reduced to a less than significant level:

Mitigation Measure 4.3.1: **Orange County Central and Coastal Subregion NCCP/HCP.** Prior to issuance of any demolition and/or grading permits, the project Applicant shall provide evidence to the City of Dana Point (City) Community Development Director, or designee, of in-lieu fees paid to the Nature Reserve of Orange County (NROC). The exact acreage of impact shall be determined during final site plan review and in-lieu fees shall be based on $65,000 per impacted acre or the most current in-lieu fee amounts. These fees are considered mitigation within signatory agencies of the Natural Communities Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) per the City's Section 10(a) permit. In addition, the NCCP/HCP requires implementation of the following construction minimization measures during the authorized removal of coastal sage scrub habitat. The project Applicant shall retain a qualified biological monitor to assist with the implementation of these measures as approved by the City Community Development Director, or designee, prior to issuance of any demolition or grading permit, or any impacts on the on-site sensitive habitat.

- All natural vegetation shall only be removed outside the coastal California gnatcatchers breeding season (February 15 through July 15).
- Prior to the commencement of grading operations or other activities involving significant soil disturbance, all areas of coastal sage scrub habitat to be avoided under the provisions of the NCCP/HCP shall be identified with temporary fencing or other markers clearly visible to construction personnel. Additionally, prior to the commencement of grading operations or other activities involving disturbance of coastal sage scrub, a survey shall be conducted to locate coastal California gnatcatchers and cactus wrens within 100 feet (ft) of the outer extent of projected soil disturbance activities, and the locations of any such species shall be clearly marked and identified on the construction/grading plans.
- A monitoring biologist, acceptable to USFWS/CDFW, shall be on site during any clearing of coastal sage scrub. The project Applicant or relevant public agency/utility shall advise USFWS/ CDFW at least seven (7) calendar days (and preferably fourteen [14] calendar days) prior to the clearing of any habitat occupied by Identified Species to allow USFWS/CDFW to work with the monitoring biologist in connection with bird flushing/capture activities. The monitoring biologist shall flush Identified Species (avian or other mobile Identified Species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities. If birds cannot be flushed, they shall be captured in mist nets, if feasible, and relocated to areas of the site to be protected or to the NCCP/HCP Reserve System. It shall be the responsibility of the monitoring biologist to assure that identified bird species shall not be directly impacted by brush-clearing and earth-moving equipment in a manner that also allows for construction activities on a timely basis.
- Following the completion of initial grading/earth movement activities, all areas of coastal sage scrub habitat to be avoided by construction equipment and personnel shall be marked with temporary fencing or other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials shall be permitted within such marked areas.
- Coastal sage scrub identified in the NCCP/HCP for protection and located within the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves as recommended by the monitoring biologist.

Mitigation Measure 4.3.2: **Avoidance of Invasive Nonnative Plant Species.** Prior to issuance of any grading or construction permits, the project Applicant shall provide a final landscape plan for review and approval by the City Community Development Director, or designee, and the City Public Works Director. The final landscape plan shall not include any invasive nonnative plant species on site in association with landscaping and/or redevelopment of the site. For the purposes of this mitigation, invasive nonnative plants are considered those plant species rated as "High" or "Moderate" in the California Invasive Plant Council (CAL-IPC) Invasive Plant Inventory.

Mitigation Measure 4.3.3: **Migratory Bird Treaty Act (MBTA).** In the event that project construction or grading activities occur within the active breeding season for birds (i.e., February 15 through August 15), a nesting bird survey shall be conducted by a qualified biologist prior to commencement of construction activities. If active nesting of birds is observed within 100 ft of the designated construction area prior to construction, the construction crew shall establish an appropriate buffer around the active nest. A qualified biologist shall determine the buffer distance based on the specific nesting bird species and circumstances involved. Once the designated project biologist verifies that the birds have fledged from the nest, the buffer may be removed. Prior to issuance of any grading or building permits, the City Community Development Director, or designee, shall verify that all project grading and construction plans include specific documentation regarding the requirements of the MBTA, that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

Cultural Resources. Similar to the proposed project, Alternative 2 would not significantly impact cultural resources. No archaeological, paleontological, or historical resources are known to exist at the project site. However, similar to the proposed project, Alternative 2 would be required to adhere to mitigation (Mitigation Measures 4.4.1 and 4.4.2) to reduce impacts to any unknown archaeological or paleontological resources that may be uncovered during implementation of this alternative. Alternative 2, like the proposed project, would also be required to implement Mitigation Measure 4.4.3, which requires compliance with Health and Safety Code (HSC) 7050.5 in the unlikely event that human remains are encountered during grading. Therefore, with implementation of Mitigation Measures 4.1.1 through 4.4.3, this alternative's impacts to cultural resources would, similar to the proposed project, be less than significant.

The following mitigation measures would be applicable to Alternative 2, as well as to the proposed project, to ensure that potential impacts related to cultural and paleontological resources are reduced to a less than significant level: