



South Coast Air Quality Management District

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Draft Revised Environmental Impact Report (DREIR) for the Proposed Church of the Woods Project (SCH No.: 2004031114)

South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

SCAQMD Staff's Summary of Project Description

The Lead Agency proposes to construct a 69,901-square-foot church, consisting of a 27,364-square-foot gymnasium, a 41,037-square-foot assembly building/children's ministry, a 1,500-square-foot maintenance building, a 54,000-square-foot sports field, a 7,838-square-foot water retention basin, and a 1.5-acre park on 27.12 acres (Proposed Project). The Proposed Project will also include 13.5 acres of open space. The Proposed Project is located on the northwest corner of State Route 18 and Daley Canyon Road in the community of Rim Forest in San Bernardino County. Construction of the Proposed Project is expected to take place in two sequential phases over approximately 20 months¹.

SCAQMD Staff's Summary of Air Quality Analysis

In the Air Quality Analysis section, the Lead Agency quantified the Proposed Project's construction and operational emissions and compared those emissions to SCAQMD's recommended regional and localized air quality CEQA significance thresholds. Based on the analysis, the Lead Agency found that the Proposed Project's construction and operational air quality impacts would be less than significant, requiring no mitigation measures. Based on a review of the California Emissions Estimator Model (CalEEMod) modeling output, SCAQMD staff found that the Lead Agency would require the use of construction equipment that meets United States Environmental Protection Agency's (USEPA) Tier 2 emissions standard².

SCAQMD Staff General Comments

Upon a review of the Air Quality Analysis, SCAQMD staff found that the Lead Agency quantified construction emissions resulting from building approximately 47,809 square feet in the CalEEMod. It did not appear that construction emissions from a total of 69,901 square feet, including a 27,364-square-foot gymnasium, was quantified in CalEEMod to determine the level of significance. This may have led to an underestimation of the Proposed Project's construction emissions. Additionally, SCAQMD staff found that the Lead Agency did not include the use of Tier 2 construction equipment or better either as a project design feature or mitigation measure for the Proposed Project. Moreover, since the construction activities of the Proposed Project are expected to be sequential in two phases, the Lead Agency did not analyze a scenario in which operational activities from the first phase overlap with construction activities from the second phase. SCAQMD staff's detailed comments are provided in the attachment for more information.

¹ DREIR, Appendix B, *Air Quality and Greenhouse Gas Analysis*, CalEEMod Summer Run, 3.0 Construction Schedule. Page 59.

² *Ibid.* CalEEMod Output. Page 1.

Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and to the public who are interested in the Proposed Project.

SCAQMD staff is available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Robert Dalbeck, Assistant Air Quality Specialist - CEQA IGR Section, at RDalbeck@aqmd.gov, if you have any questions regarding these comments.

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment
LS:RD
SBC190115-02
Control Number

ATTACHMENT

Air Quality Analysis

1. Upon review of the Air Quality Analysis, SCAQMD staff found that the Lead Agency might have underestimated the Proposed Project's construction emissions because of inconsistencies between the Project Description and the CalEEMod assumptions in the Air Quality Analysis (land use unit amount and construction equipment mitigation). Additionally, an overlapping construction and operation scenario is reasonably foreseeable and should be analyzed as a worst-case impact scenario in the environmental analysis to support a good-faith disclosure. Additional details are provided follow.

Land Use Unit Amount in the CalEEMod

- a. Upon review of the Project Description in the DREIR and the CalEEMod land use inputs in Appendix B, it is unclear to SCAQMD staff if the Lead Agency modeled emissions resulting from construction of the entire building being proposed, or only modeled the building footprint and construction activities for the maintenance building. For example, the Project Description states that the Proposed Project includes construction of a "two-story building consisting of a 27,364-square foot (sq. ft.) gymnasium and a 41,037-sq. ft. assembly building/children's ministry" and an additional "1,500-sq. ft. two-story building that would serve as a maintenance building".³ As seen in Figure 1 and Table 1 below, it is estimated that a total of 69,901 sq. ft. would undergo construction. However, the Lead Agency input a 47,810-sq. ft. "place of worship" for the land use in the CalEEMod. In Figure 1 and Table 1 below, the proposed site plan summary table identifies the square footage of phase one and phase two exactly as stated in the project description. Table 1 also identifies the "building coverage (footprint)" to be 46,309 sq. ft.⁴ SCAQMD staff is concerned that the Lead Agency has only accounted for construction air quality impacts from portions of the total square footage and the 1,500-sq. ft. maintenance building. Therefore, SCAQMD staff recommends that the Lead Agency revise the air quality analysis to quantify construction emissions from the total of approximately 69,901 sq. ft., or provide additional information to justify the use of 47,809 sq. ft. in CalEEMod in the Final EIR. In the event that the Lead Agency, after revising the land use unit amount assumptions in CalEEMod, finds that the Proposed Project's air quality impacts would be significant, feasible mitigation measures will be required (CEQA Guidelines Sections 15126.2 and 15126.4).

Figure 1: Screenshot of Summary Table in Figure 2-7, Proposed Site Plan

<u>BUILDINGS</u>		<u>PROJECT SUMMARY</u>		
PHASE 1		BUILDING COVERAGE (FOOTPRINT)	46,309 SF	3.9 %
YOUTH CENTER GYMATORIUM.		DRIVEWAYS & PARKING	199,478 SF	16.9 %
FIRST FLOOR	18,305 SF	CONCRETE WALKS & PATIOS	26,200 SF	2.2 %
SECOND FLOOR	8,579 SF	SPORT COURTS	9,508 SF	0.8 %
SNACK BAR	480 SF	SPORTS FIELD	54,000 SF	4.6 %
	TOTAL SF= 27,364 SF	LANDSCAPE AREA	182,960 SF	15.5 %
		LANDSCAPE SLOPES	66,133 SF	5.6 %
PHASE 2		WATER QUALITY BASIN	7,838 SF	0.6 %
ASSEMBLY BUILDING - CHILDREN'S MINISTRY		NATURAL AREA	1,013,670 SF	49.9 %
FIRST FLOOR	27,254 SF			
SECOND FLOOR	13,783 SF	TOTAL PROJECT= (27.12 ACRES)	1,181,363 SF	100.0 %
	TOTAL = 41,037 SF			
MAINTENANCE BUILDING & CARETAKERS RESIDENCE				
FIRST FLOOR	750 SF			
SECOND FLOOR	750 SF			
	TOTAL SF= 1,500 SF			
	TOTAL PH 2= 42,537 SF			

³ DREIR. Chapter 2.0, *Project Description*, Section 2.2, Page 2-15.

⁴ *Ibid.* Page 2-18.

Table 1: Summary of Figure 2-7, Proposed Site Plan*

	First Floor (Footprint)	Second Floor	Total
Youth Center Gymnasium	18,305 sq. ft.	9,059 sq. ft. (8,579 sq. ft. + 480 sq. ft.)	27,364 sq. ft.
Assembly Building/ Children's Ministry	27,254 sq. ft.	13,783 sq. ft.	41,037 sq. ft.
Maintenance Building	750 sq. ft.	750 sq. ft.	1,500 sq. ft.
Total:	46,309 sq. ft.	23,592 sq. ft.	69,901 sq. ft.

*As stated above, the Lead Agency used 47,809 sq. ft. to model emissions in the CalEEMod and stated that "Church square footage includes the assembly building, gymnasium, and maintenance building." It appears that this unit amount was calculated using the footprint combined with the total sq. ft. of the maintenance building (including the first floor of the maintenance building twice, but not the second story of the gymnasium or assembly building).

Overlapping Construction and Operation Scenario

- b. The Lead Agency states that the Proposed Project will be completed in two sequential phases. Phase one would include construction of the gymnasium and the sports field, and phase two would include the assembly building and children's ministry⁵. While the Lead Agency modeled emissions by combining both phases into one continuous phase of construction, SCAQMD staff found that the Lead Agency did not analyze a scenario in which the Proposed Project's construction and operational activities overlap. This means that operational activities from phase one would take place when phase two would be under construction. Since the Proposed Project's construction activities will occur in phases, an overlapping construction and operation scenario is reasonably foreseeable (e.g., the gymnasium and sports field may be operational at the same time the children's ministry and assembly building is under construction), unless the Lead Agency includes a requirement, as a project design feature, mitigation measure, or condition of approval that will avoid overlapping construction and operational activities from the implementation of project development phases. To conservatively analyze a worst-case impact scenario that is reasonably foreseeable at the time the DREIR is prepared, SCAQMD staff recommends that the Lead Agency revise the Air Quality Analysis to identify potentially overlapping years, combine construction emissions with operational emissions, and compare the combined emissions to SCAQMD's air quality CEQA *operational* thresholds of significance to determine the level of significance in the Final EIR (*emphasis added*). In the event that the Lead Agency, after analyzing an overlapping construction and operation scenario, finds that the Proposed Project's air quality impacts would be significant, feasible mitigation measures will be required (CEQA Guidelines Sections 15126.2 and 15126.4).

Recommended Change to Existing Requirement of Tier 2 Construction Equipment*Tier 4 Construction Equipment or Level 3 Diesel Particulate Filters*

2. CEQA requires that all feasible mitigation measures go beyond what is required by law to minimize any significant impacts. In the DREIR, the Lead Agency modeled the Proposed Project's construction emissions by assuming that all equipment would be Tier 2 in CalEEMod. To further reduce construction emissions, particularly from NO_x and PM and to ensure consistency between the modeling assumption and the environmental analysis in the main body of the Final EIR, SCAQMD staff recommends that the Lead Agency use off-road diesel-powered construction equipment that meets or exceeds the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (USEPA) Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment will be outfitted with Best Available Control Technology (BACT) devices including CARB certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPFs are capable of achieving at least an 85 percent reduction in particulate matter

⁵ *Ibid.* Page 2-24

emissions⁶. A list of CARB verified DPFs are available on the CARB website⁷. Additionally, SCAQMD staff recommends that the Lead Agency include this requirement in applicable bid documents, and that successful contractor(s) must demonstrate the ability to supply such equipment prior to ground disturbing activities. A copy of each unit's certified tier specification and CARB or SCAQMD operating permit (if applicable) should be available upon request at the time of mobilization of each applicable unit of equipment. Additionally, the Lead Agency should require periodic reporting and provision of written documentation by contractors to ensure compliance, and conduct regular inspections to the maximum extent feasible to ensure compliance.

Enforceability

3. To ensure that Tier 4 construction equipment or Level 3 DPFs will be used during construction, SCAQMD staff recommends that the Lead Agency include this requirement as a project design feature, mitigation measure or a condition of approval for the Proposed Project in the Air Quality Section of the Final EIR rather than a mere modeling assumption in the CalEEMod. In the event that the Lead Agency finds that Tier 4 construction equipment is not feasible pursuant to CEQA Guidelines Section 15364, the Lead Agency should, at a minimum, specify in the Final EIR that using Tier 3 or newer construction equipment is a project requirement that contractor(s) must provide evidence to the Lead Agency for review and approval prior to the commencement of any construction activities.

Additional Recommended Mitigation Measures

4. In the event that the Lead Agency finds, after incorporating the above-mentioned revisions, that the Proposed Project's construction and/or operational emissions would exceed applicable SCAQMD CEQA air quality significance thresholds, a list of feasible mitigation measures as suggestions and guidance to the Lead Agency that should be incorporated in the Final EIR for the Proposed Project includes the followings.

Haul Trucks during Construction

- a. Require zero-emissions or near-zero emissions on-road haul trucks, such as heavy-duty trucks with natural gas engines that meet the California Air Resources Board (CARB)'s adopted optional NOx emissions standard of 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer trucks (e.g., material delivery trucks and soil and aggregate import/export) that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks.
- b. Maintain vehicle and equipment maintenance records for the construction portion of a project. All construction vehicles must be maintained in compliance with the manufacturer's recommended maintenance schedule. All maintenance records for each facility and their construction contractor(s) will remain on-site for a period of at least two years from completion of construction.
- c. Enter into a contract that notifies all construction vendors and contractors that vehicle idling time will be limited to no longer than five minutes or another time-frame as allowed by the California Code of Regulations, Title 13 section 2485 - CARB's Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. For any vehicle delivery that is expected to take longer than five minutes, each project applicant, project sponsor, or public agency will

⁶ California Air Resources Board. November 16-17, 2004. *Diesel Off-Road Equipment Measure – Workshop*. Page 17. Accessed at: https://www.arb.ca.gov/msprog/ordiesel/presentations/nov16-04_workshop.pdf.

⁷ *Ibid.* Page 18.

require the vehicle's operator to shut off the engine. Notify the vendors of these idling requirements at the time that the purchase order is issued and again when vehicles enter the gates of the facility. To further ensure that drivers understand the vehicle idling requirement, post signs at the entry of the construction site and throughout the site stating that idling longer than five minutes is not permitted.

Off-Road Construction Equipment

- d. Encourage construction contractors to apply for SCAQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NO_x emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD's website: <http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines>.