

APPENDIX 5.0

Supplemental Trip Generation Analysis

Memo

Date: 11/6/2025

To: Courtney Haddick, HKS

From: Delia Votsch, Fehr & Peers

Subject: Bakersfield LDS Church Project Alternative VMT Analysis

This study provides a summary of the potential transportation-related impacts from the proposed site located on the northwest corner of Stockdale Highway and Jewetta Avenue in Bakersfield, CA.

The proposed project includes two driveway accesses, located on Jewetta Avenue. The proposed project will be built out over two phases. The first phase will construct a temple, and the second phase will construct a meetinghouse for the Church of Jesus Christ of Latter-day Saints (the Church). However, an "on-site development alternative" is being considered that would include a 200,000 square foot medical office building. This memo presents the trip generation and VMT estimates for the medical office building project alternative.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates for the proposed Project were created for the weekday condition for the peak one-hour period during the morning (AM) and evening (PM) commute when traffic volumes on the adjacent streets are typically the highest.

Fehr & Peers used the *Trip Generation Manual, 12th Edition* (Institute of Transportation Engineers [ITE], 2025) to obtain the trip rates for calculating the approximate number of trips that the Project would generate on a typical weekday. **Table 1** identifies the trip generation estimates for the Project.

Table 1. Bakersfield LDS Project Alternative Trip Generation Estimates

| ITE Code | Land Use | Units | Quantity | Daily Total | AM Peak Hour | | | PM Peak Hour | | |
|----------|-----------------------|-------|----------|-------------|--------------|-----|-------|--------------|-----|-------|
| | | | | | In | Out | Total | In | Out | Total |
| 720 | Medical-Dental Office | KSF | 200 | 6,806 | 501 | 141 | 642 | 205 | 479 | 684 |

Source: ITE Trip Generation Manual, 12th Edition, Fehr & Peers, 2025

Trip Rates for ITE Code 720:

Daily trip rate of 34.03

AM Peak Hour trip rate of 3.21 (78% in, 22% out)

PM Peak Hour trip rate of 3.42 (30% in, 70% out)

VMT Analysis

In accordance with the updated California Environmental Qualities Act (CEQA) requirements, Vehicle Miles Traveled (VMT) analysis must be considered for new developments.

The City of Bakersfield has not established VMT thresholds of significance or recommendations for VMT analysis methodology. Based on communication with City staff, the project team discussed the VMT approach with Kern COG. Kern COG has also not established VMT thresholds, VMT screening criteria, or guidelines for VMT analysis methodology.

Kern COG provided the following direction for completing VMT analysis:

- Kern COG has not established county or regional VMT thresholds.
- Kern COG is often compared to Fresno COG, another San Joaquin Valley MPO, Fresno COG prepared a report on regional thresholds and identifying project VMT (https://www.fresnocog.org/wp-content/uploads/2025/08/Fresno-COG_SB743_VMT-Guidelines-June-2025.pdf).
- Kern COG has not established “low VMT areas” for project screening.
- A publicly available resource with a VMTIndex map is available at: [Find Your VMT - Fehr & Peers](#)

The City of Bakersfield indicated that while they had not adopted a threshold, recent nearby studies have utilized a threshold of 15% below the Kern County average VMT per employee for employment uses, consistent with the OPR Technical Advisory guidelines. This threshold of significance was applied to the project alternative analysis presented below.

Based on Kern COG and the City of Bakersfield input, Fehr & Peers prepared VMT estimates for the medical office building using the VMTIndex map tool.

VMT analysis for the project is presented below in **Table 2**.

Table 2. Medical Office VMT Estimates

| | Home-Based-Work VMT/Employee | Daily VMT | Annual VMT | Threshold of Significance (15% Below VMT/Employee) |
|----------------------------------|------------------------------|-----------|------------|--|
| Medical Office (Sq. Ft.) 200,000 | 11.5 | 7,667 | 2,376,667 | -- |
| Kern County | 13.6 | -- | -- | 11.6 |

Source: VMTIndex, Fehr & Peers, 2025.

As shown in Table 2, the medical office would generate 11.5 Home-Based-Work VMT/Employee, which is lower than the threshold of significance of 15% below the Kern County average VMT Employee which is 11.6. Therefore, the medical office building project alternative is expected to have **a less than significant impact on VMT**.