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**APPENDIX D12**

**Vehicle Miles Traveled (VMT) Assessment**

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# Memorandum

Date: November 1, 2024  
To: UltraSystems Environmental  
From: Fehr & Peers  
Subject: **Vehicle Miles Traveled Assessment for Kaiser Redlands**

OC22-0875.01

Fehr & Peers prepared a Vehicle Miles Traveled (VMT) assessment for the proposed expansion of the Kaiser campus (Project) located in Redlands, California.

The assessment analyzed VMT generated by the proposed Project and land uses to determine if the Project will substantially increase VMT. This VMT analysis is consistent with requirements of Senate Bill 743 (SB 743), the Office of Planning and Research's (OPR's) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018), and the *City of Redlands CEQA Assessment VMT Analysis Guidelines* (2020) (City's VMT Analysis Guidelines).

## Project Description

The Project is located on the northwest corner of California Street Lugonia Avenue bounded by California Street to the east, an existing Ashley Furniture Distribution Center to the west, Almond Avenue to the north, and Lugonia Avenue to the south. The current Project site contains a 120,000 square foot Kaiser Medical Office Building (MOB). The Project will be an expansion on the remaining undeveloped land on the property site. The expansion consists of various medical facilities and land uses. The expansion is proposed to occur in four phases:

### Phase One

- 165,000 sf maximum, 4-story Ambulatory Surgery Center/Medical Office Building 2 (ASC/MOB 2) (shown as MOB 2/ASC in the site plan)

### Phase Two

- 400,000 square feet of Hospital comprising of 213 beds
- 35,000 square foot Central Utility Plant (shown as CUP in the site plan).



- 464,000 square feet (6 level- 1218 parking stalls, 70 handicap stalls) Medical Center Parking Structure

### **Phase Three**

- 83,000 square feet of MOB (shown as MOB 3 in the site plan)

### **Phase Four**

- 180,000 square foot expansion to the Phase Tow Hospital comprising of an additional 108 beds, 5 stories, and basement

Access to the Project will be provided by the two existing full access driveways located along California Street and Lugonia Avenue. The full buildout of the Project proposes three additional driveways, one on Lugonia Avenue (west of the existing Lugonia Avenue driveway) and two on Almond Avenue. All driveways will provide full access to the Project, but the two most west driveways on Almond Avenue and Lugonia Avenue will primarily service ambulances and delivery trucks.

## **VMT Analysis**

According to the City's VMT Analysis Guidelines, there are three types of screening that can be applied to effectively screen projects from project-level assessment.

- Transit Priority Area (TPA Screening)
- Low VMT Area Screening
- Project Type Screening

Projects which are not eligible for any of the screening criteria are required to complete a VMT analysis using the San Bernardino County travel demand model to determine if they have a significant VMT impact.

### **VMT Methodology**

The Project does not meet any criteria to be screened from a VMT Analysis, therefore a full VMT analysis was performed through the SBTAM+ model, in line with the City's VMT Analysis Guidelines.

SBTAM+ was used to forecast intersection and roadway segment volumes, estimate existing and future VMT, and to perform an evacuation assessment. SBTAM+ is consistent with the 2024 Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategies (SCAG RTP/SCS); it has a base year of 2019 and a forecast year of 2050.



Since the existing land use within the site’s Traffic Analysis Zone (TAZ) does not accurately represent the employment of the full expansion, use of data from the existing TAZ was not appropriate for project analyses. Therefore, Fehr & Peers isolated the project into its own TAZ so that the project VMT could be estimated while accounting for socio-economic (SED) data that is consistent with the full buildout of the Kaiser expansion.

**Table 1** presents the SED inputs for the Project. The Project employment was estimated from data provided by Kaiser Permanente based on the expected operations of the site.

**Table 1: Project SED Inputs**

Project TAZ SED	Employment
Project	1,900

When calculating VMT for a project, the VMT methodology should match the methodology used to establish the Baseline VMT metrics and impact thresholds. For non-residential projects in the City of Redlands, Baseline VMT is defined as a measurement of Home-Based Work VMT per employee, which reflects all commute trips for places of employment within the San Bernardino County area. All Home-Based Work auto vehicle VMT attracted by the Project is divided by the total employment to get the efficiency metric of Home-Based Work VMT per employee. Following the VMT analysis, the Home-Based Work VMT per employee of the Project was then compared to the San Bernardino County Baseline VMT to determine if it exceeds the City’s impact threshold.

**VMT Assessment**

The Home-Based Work VMT per employee of the Project was calculated for the base year (2019) using the SBTAM+ travel demand model. The year 2050 analysis shows how the VMT generated by the Project compares to current travel and VMT characteristics in the area. **Table 2** shows the Home-Based Work VMT per employee of the Project.

**Table 2: Project VMT and VMT Threshold for Non-Residential Projects in Redlands**

VMT Metrics for Non-Residential Projects	Home-Based Work VMT per Employee
<b>Project VMT Estimates (2050)</b>	<b>22.7</b>
<b>San Bernardino County Baseline VMT (2050)</b>	23.8
<b>Threshold: 15% Below San Bernardino County Baseline VMT</b>	<b>20.2</b>
<b>Percent Higher than VMT Threshold</b>	<b>11%</b>
<b>VMT Exceeds Threshold?</b>	<b>Yes</b>

As represented in the table above, the Project generates 22.7 Home-Based Work VMT per employee. In comparison to the City’s threshold of 15% below San Bernardino County Baseline



VMT, the Project is 2.5 Home Based Work VMT per employee higher and will result in a VMT impact.

### **Mitigation**

Options for VMT mitigation will be calculated and presented in our final traffic study report. Although it is expected that some mitigation options will be available, given the suburban area, surrounding land use, and limit transit options, it is unlikely that there will be enough feasible mitigation available to reduce the home-based-work VMT by 11%.

### **Additional Data**

In addition to the VMT analysis completed by Fehr & Peers using the SBTAM+ model, Kaiser has provided additional information to support how the expansion of the Kaiser facility in Redlands, California may still reduce the VMT of their employees and patients by showcasing how this new location would result in shorter trips compared to other Kaiser locations their employees and patients currently go to. Kaiser has provided the following additional information:

- Locations of other facilities currently used by Kaiser patients.
- Locations of patients served by the current Kaiser facility in Redlands, California.
- Locations of employees and staff employed by this facility.

The data showed that for 164,156 Kaiser members, the distance to a facility in Redlands would be shorter than the current distance traveled to the Fontana Kaiser facility. For 69,788 members, the distance to Redlands would be an increase compared to the Fontana facility. For employees and physicians, the average miles traveled to the expanded Redlands Campus would be shorter than current distances traveled to Fontana and Ontario Kaiser facilities.

The data provided by Kaiser can be found within **Appendix A**.

### **Conclusion**

The VMT assessment for the proposed Kaiser expansion in Redlands, California determined that the Project is forecast to generate VMT at a rate approximately 11% higher than the City's threshold. However, the data Kaiser provided showed that for most Kaiser members and for their physicians and employees, trip distances would be shortened. Although the project may generate VMT at a higher rate than the City's adopted threshold, and therefore the project is anticipated to result in an impact related to VMT, it is expected that the Project would reduce the VMT of Kaiser members, employees, and physicians.



# Appendix A

**Comparison of Miles Traveled for Kaiser Members  
 Attending Redlands MOB vs. Fontana MOB**

Change in Miles	Number of Members
Reduced by more than 12	52,763
Reduced by 11 to 12	10,172
Reduced by 10 to 11	8,208
Reduced by 9 to 10	3,932
Reduced by 8 to 9	3,063
Reduced by 7 to 8	5,238
Reduced by 6 to 7	4,842
Reduced by 5 to 6	33,650
Reduced by 4 to 5	10,983
Reduced by 3 to 4	8,059
Reduced by 2 to 3	7,696
Reduced by 1 to 2	5,626
Reduced by 0 to 1	9,924
Increased by 0 to 1	1,909
Increased by 1 to 2	378
Increased by 2 to 3	3
Increased by 3 to 4	9
Increased by 4 to 5	5
Increased by 5 to 6	67,484

**Kaiser Employee Comparison**

Facility	Miles Traveled	Employees	Miles/Employee
Fontana	146,140	8,770	16.66
Redlands MOB	2,294	175	13.11
Ontario (w/ Hospital)	33,194	1,946	17.06
Ontario (w/ out Hospital)	10,827	707	25.8%



**Kaiser Physician Comparison**

Facility	Miles Traveled	Physicians	Miles/Physician
Fontana	18,787	714	26.31
Redlands MOB	497	57	8.72
Ontario	4,432	199	22.27