RUETTGERS & SCHULER CIVIL ENGINEERS | PROVOST & PRITCHARD

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February 26, 2026

Jaymie Brauer
Quad Knopf, Inc.
5080 California Avenue, Suite 220
Bakersfield, CA 93309

RE: Vehicle Miles Traveled (VMT) Analysis for a Zone Change for a Parcel Located South of Rosedale Highway, between Coffee Rd. and Wedding Ln. (APN 368-060-32), in Bakersfield, CA

Dear Ms. Brauer:

This letter presents the findings of a Vehicle Miles Traveled (VMT) analysis for a zone classification change for a proposed 32K square foot manufacturing development located South of Rosedale Highway, between Coffee Rd. and Wedding Ln. (APN 368-060-32), in Bakersfield, CA., see attached tract map.

Project Trip Generation

The project trip generation volumes shown in Table 1 were estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition. Trip rates, equations and directional splits for ITE Land Use Code 140 (Manufacturing) were used to estimate project trips for weekday peak hour of adjacent street traffic.

Table 1
Trip Generation

General Information			Daily Trips		AM Peak Hour			PM Peak Hour		
ITE Code	Development Type	Variable (1,000 SQFT GFA)	ADT RATE	ADT	Rate	IN % Split/ Trips	OUT % Split/ Trips	Rate	IN % Split/ Trips	OUT % Split/ Trips
140	Manufacturing	32	4.27	137	0.51	75%	25%	0.63	29%	71%
						12	4		6	14
TOTAL						16			20	

VMT Background

In 2013, the state of California enacted legislation (SB 743) which required the Governor's Office of Planning and Research (OPR) to identify new metrics for measuring and mitigating transportation impacts within the California Environmental Quality Act (CEQA). For land development projects, OPR recommended replacing the metric of vehicle delay, as defined by level of service (LOS) and other similar measures, with VMT metrics

based on project land use. Regulatory changes to CEQA Guidelines incorporating SB 743 were approved on December 28, 2018. Statewide implementation began on July 1, 2020.

Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies. At the time of this report, the City of Bakersfield has not yet adopted VMT guidelines. Therefore, the VMT analysis was completed using the guidelines and thresholds identified in the *California Governor's Office of Research and Planning Technical Advisory (OPR TA)*, dated December 2018.

VMT Project Screening

The OPR TA provides multiple screening criteria for land use projects. The various criteria were evaluated for the project to determine if the proposed project could be screened out. It was determined that the project does not screen out under the Small Project, Map-Based, Local-Serving Retail, or any other screening criteria.

Since the proposed project does not screen out, a more detailed VMT analysis using a regional travel demand model is required by the OPR TA.

VMT Metrics, Region & Threshold

Pursuant to the attached VMT report prepared by LSA, "VMT per employee" was considered as the most appropriate VMT metric to be used for evaluating the industrial use, because the project is non-residential and non-retail in nature. As such, a significant VMT impact will be considered if the project "VMT per employee" is higher than 85 percent of the region's baseline average VMT per employee.

Similarly, the OPR TA recommends using a region for VMT analysis purposes that is estimated to contain majority of the project land use trips, and thereby VMT. The project is located along the city boundary and is anticipated to have trips from both the city and surrounding regions. Therefore, the entire County of Kern has been used as the region for VMT analysis purposes as a conservative estimate. If the average VMT per employee for the project is higher than 85 percent of the baseline VMT per employee for the entire County of Kern, it will have a significant VMT impact.

Detailed VMT Analysis

Using the Kern Council of Governments' (Kern COG's) San Joaquin Valley Model Improvement Program Phase 3 (VMIP III) was used to model socioeconomic categories for the base year 2020. Model outputs were used to estimate the project's "VMT per employee" rate.

The regional baseline VMT per employee value was calculated from the VMIP III base year (2020) "no project" model run. This value is estimated to be 16.52. Furthermore, 15 percent below the baseline regional VMT per employee was considered as the threshold for employment projects, which resulted in a VMT threshold of 14.04. Table 2 shows the regional threshold and project VMT per employee rate for the project. As shown in Table 2, the VMT per employee rate for the project is 15.17, which is 8.04 percent higher than the significant threshold. Therefore, the project would have a significant VMT impact. A detailed VMT calculation for the project is included in the attached LSA report.

Table 2
Baseline (2020) Regional and Project VMT per Employee

Base Year (2020)	APN 368-060-32 Manufacturing (Project)	Significant Threshold *	Difference	% Difference
VMT per Employee	15.17	14.04	1.13	8.04%

Source: Kern COG VMP III model Travel Demand Model
**Threshold obtained from Kern COG VMP III Base (2020) No Project Model Run (85% of baseline average)*

VMT Mitigation

A review of possible mitigation measures to reduce VMT from the project was performed. The goal of reducing VMT is to lower emissions from combustion engines. One way to reduce emissions is to encourage the use of electric vehicles by adding EV charging stations. A calculation was prepared to determine how many vehicles would need to switch to electric vehicles in order to reduce the total VMT from the project. It was assumed that the switch to an electric vehicle would reduce the VMT from the previously used combustion engine vehicle. Table 3 shows the calculation of how many charging stations would need to be installed to reduce the VMT impacts to less than significant.

Table 3
VMT Mitigation

Project VMT	Threshold	Drivers/Trips	Total Project VMT	Total VMT Threshold	Reduction Needed	Charging Stations Recommended
15.17	14.04	137	2,078	1,923	155	11

It was assumed that over time, a switch from combustion engine vehicles to electric vehicles would occur as they become more popular and there are available charging stations. In order to reduce the VMT impact of this project, it is recommended that the City should condition the project to have 11 charging stations installed. With the implementation of the charging stations, the VMT impacts would be reduced to less than significant.

VMT Conclusion

As shown in Table A, the project will have a significant VMT impact, and will require the implementation of VMT mitigation measures, as those discussed above, and that will decrease the project's VMT impacts to less than significant.

Trip Generation Summary & Conclusion

As shown in Table 1, the project would generate approximately 137 new vehicle trips daily, 16 trips during the AM peak hour and 20 trips during the PM peak hour of a typical weekday. Pursuant to the *City of Bakersfield, Division 6 – Traffic* guidelines, the threshold for requiring level of service analysis is 50 trips in a peak hour. The project does not exceed the peak hour threshold established by the City of Bakersfield. Therefore, no further analysis is required.

Please contact me should you have any questions.

Very truly yours,

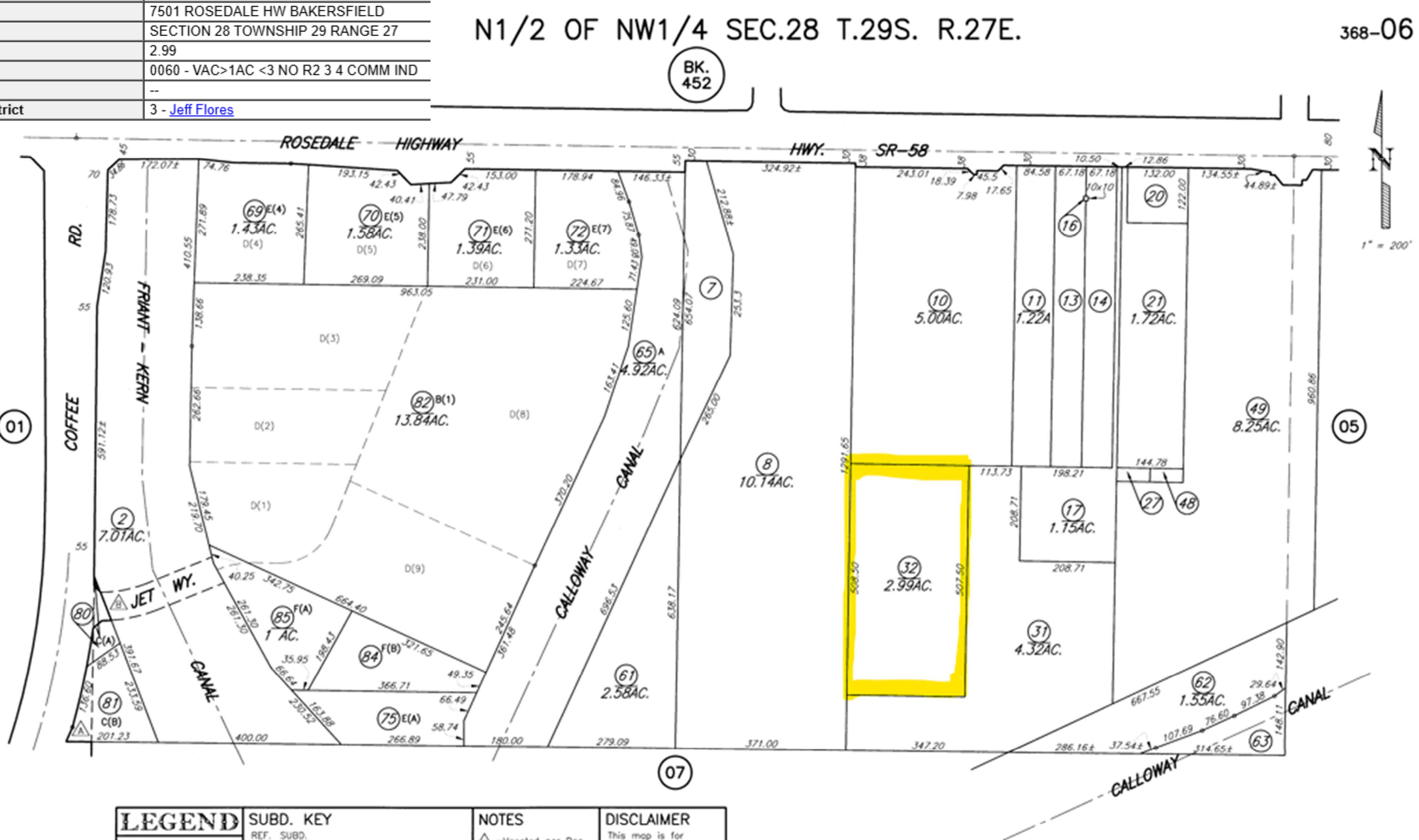
DRAFT

Ian J. Parks
RCE #58155

IJP/MEA

Attachments

General Property Information	
ATN	368-060-32-01-1
Parcel Num.	368-060-32-3
Site Addr.	7501 ROSEDALE HW BAKERSFIELD
Legal	SECTION 28 TOWNSHIP 29 RANGE 27
Acres	2.99
Use Code	0060 - VAC>1AC <3 NO R2 3 4 COMM IND
Prior APN(s)	--
Supervisorial District	3 - Jeff Flores



LEGEND	SUBD. KEY	NOTES	DISCLAIMER
REVISED August 20, 2021 JURISDICTION CITY OF BAKERSFIELD	REF. SUBD. A. CC1896 F. PMW 19-0286 B. PMW P99-0270 C. LLA P01-0873 D. PM 10236 E. PM 10236 AMEND. (LOT DESIGNATIONS IN PARENTHESIS)	A =Vacated per Doc. 198164695, Recd. 11/25/98 O.R. B =Bridge	This map is for assessment purposes only. It is not to be construed as portraying legal ownership or divisions of land for purposes of zoning or subdivision law.

ASSESSORS MAP NO. 368-06
COUNTY OF KERN

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: February 25, 2026

TO: Mark Assi; Provost & Pritchard Consulting Group

FROM: Ambarish Mukherjee, Principal, LSA Associates, Inc.

SUBJECT: APN 368-060-32 Zone Change Vehicle Miles Traveled Analysis Memorandum (LSA Project# 20262766, P&P project# 1665-25-006)

LSA has prepared this Vehicle Miles Traveled (VMT) Analysis Memorandum (Memo) for the proposed for the APN 368-060-32 Zone Change (project). The project site is located south of Rosedale Highway, east of Coffee Road and Calloway Canal within the City of Bakersfield (City). The project is a zone change project and would include 32,000 square feet of manufacturing uses. The project will require a Zone Change.

BACKGROUND OF CEQA VMT ANALYSIS

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) guidelines for use. Among the changes to the guidelines was the removal of vehicle delay and level of service (LOS) from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project generated VMT.

The City is yet to adopt its own Senate Bill 743 (SB 743) guidelines and so, the VMT analysis was conducted generally using the methodology and significant threshold criteria identified in the California Governor's Office of Research and Planning (OPR, currently Governor's office of Land Use and Climate Innovation) *Technical Advisory* (TA), dated December 2018.

VMT METRICS, REGION AND THRESHOLD

The OPR TA recommends use of "VMT per capita" to evaluate residential uses, "VMT per employee" to evaluate office uses and "net change in VMT" to evaluate the project retail/commercial uses. The TA does not recommend any VMT metric for industrial land uses including manufacturing uses. However, given that the project land use is non-residential and non-retail land use in nature, "VMT per employee" was considered as the most appropriate VMT metric, to be used to evaluate the industrial uses. As such, a significant VMT impact will be considered if the project "VMT per employee" is higher than 85 percent of the region's baseline average VMT per employee.

Similarly, the OPR TA recommends using a region for VMT analysis purposes that is estimated to contain majority of the project land use trips, and thereby VMT. The project is located along the city boundary and is anticipated to have trips from both the city and surrounding regions. Therefore, the entire Kern County has been used as the region for VMT analysis purposes as a conservative estimate.

Therefore, if the average VMT per employee for the project higher than 85 percent of baseline VMT per employee for the entire Kern County, it will have a significant VMT impact.

VMT SCREENING ANALYSIS

The OPR TA provides multiple screening criteria for land use projects. Each of these criteria was evaluated for the project to determine if the proposed project components can be screened out. The following is a brief description of the applicability of each of these screening criteria for the proposed project:

Small Project: OPR identifies projects generating less than 110 daily trips could be screened out of a detailed VMT analysis. The project trip generation estimate for the project was obtained from the project applicant to determine the eligibility of this screening criteria. The project is estimated to generate 137 daily trips. As such, the project is estimated to generate more than 110 trips and this screening criteria does not apply to the project.

Map-Based Screening for Residential and Office Projects: Residential and office projects that are in low VMT areas, and those incorporate similar features (i.e., density, mix of uses, transit accessibility) tend to exhibit similarly low VMT will be eligible to be screened out from further analysis. However, the project does not include any residential or office uses. Additionally, the City is yet to adopt its own VMT Guidelines and therefore has not officially adopted any low VMT area screening maps for screening out projects. As such, given the project land uses and in absence of such low VMT area screening maps, this screening criteria may not be applicable for the project and was not applied.

Local-Serving Retail: OPR TA recommends retail developments with less than 50 TSF may be considered as local serving and could be screened out from further evaluation. The project does not include any retail uses. Therefore, it could not be screened out using this criterion.

Other Screening Criteria: The project is not an affordable housing project, nor does it include any institutional/government use. Therefore, it could not be screened out using this criterion.

Thus, pursuant to the OPR TA recommendations, a detailed VMT analysis is required for the industrial land use components of the project. The OPR TA recommends using the regional travel demand model for detailed VMT analysis. The Kern Council of Governments' (Kern COG's) San Joaquin Valley Model Improvement Program Phase 3 (VMIP III) is the currently used travel demand model within the County. Therefore, this model was used for the VMT evaluation for all the analysis scenarios.

DETAILED VMT ANALYSIS

Project Traffic Analysis Zone Update

The first step in the preparation of this analysis was to update the traffic analysis zones (TAZs) in the model that includes the project area. VMIP III model includes the ability to add or split zones. Therefore, one separate TAZ was created to incorporate the project land uses. The project land use quantities were converted into model socioeconomic categories using regional conversion factors and using the ratio of daily trips/employee and daily trips/TSF rates from Institute of Transportation Engineer (ITE) *Trip Generation Manual*. The socioeconomic data for the project TAZs were updated

for the base year (2020) scenario of the model. No major roadway network changes were performed.

VMIP III Model Run

Model run was conducted for this updated model and the outputs from this model run were used to estimate project VMT. The output from the model run was used to determine project VMT per employee rate for the industrial component.

VMT Analysis

The regional baseline VMT per employee value was calculated from the VMIP III base year (2020) no project model run. This value is estimated to be 16.52. Further, as stated above, 15 percent below the baseline regional VMT per employee was considered as the threshold for employment projects, which resulted in a VMT threshold of 14.04. Table A shows the regional threshold and project VMT per employee rate for the project. As shown in Table A, the VMT per employee rate for the project is 15.17, which is 8.04 percent higher than the significant threshold. Therefore, the project would have a significant VMT impact. Detailed VMT calculation for the project is included in Appendix A.

Table A: Baseline (2020) Project and Regional VMT per Employee Comparison

Base Year (2020)	APN 368-060-32 Manufacturing (Project)	Significant Threshold *	Difference	% Difference
VMT per employee	15.17	14.04	1.13	8.04 %

Source: Kern COG VMIP III model Travel Demand Model
**Threshold obtained from Kern COG VMIP III Base (2020) No Project Model Run (85% of baseline average)*

CONCLUSION

The project could not be screened out from a detailed VMT analysis, and as shown in Table A, would have a significant VMT impact. Therefore, the project would require VMT mitigation measure implementation that would substantially decrease or eliminate the project's VMT impact.

ATTACHMENTS

Appendix A: VMT Calculation Worksheets

Appendix A - VMT Calculation Worksheet

APN 368-060-32 Zone Change Bakersfield - VMT Analysis

2020	Project	Kern County*
Total Employees	61	339,500
Homebased Work (HBW) VMT	919	5,609,069
HBW VMT per employee	**15.17**	**16.52**

** Estimated using "no project" base year (2020) VMIP III model run*