URBAN CROSSROADS

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Ms. Tracy Zinn
T&B Planning, Inc.
3200 El Camino Real, Suite 100
Irvine, CA 92602

SUBJECT: KAISER COMMERCE CENTER WAREHOUSE VEHICLE MILES TRAVELLED (VMT) ASSESSMENT

Dear Ms. Tracy Zinn:

The following Vehicle Miles Travelled (VMT) Assessment has been prepared for the Kaiser Commerce Center Warehouse (referred to as "Project"), which is located south of San Bernardino Avenue, between Commerce Drive and Calabash Avenue in unincorporated County of San Bernardino. The Project is currently proposing to develop 165,324 square feet of warehousing use (80% standard warehousing and 20% cold storage warehouse) (see Exhibit 1).

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. In July 2019, the County of San Bernardino adopted new *San Bernardino County Transportation Impact Study Guidelines* that address both traditional automobile delay-based level of service (LOS) and new VMT analysis requirements.

VMT ANALYSIS METHODOLOGY

The County's new VMT guidelines include recommendations screening procedures, analysis methodology, thresholds of significance and examples of potential mitigation measures. As noted in the guidelines, a land use project meeting certain screening criteria could result in a finding of less-than-significant for potential VMT impact, and not be required to complete a full VMT assessment. Screening criteria is as follows:

1) Project this is focused on serving the local community (e.g., K-12 schools, small retail projects, local parks, etc.)
2) Project that would generate fewer than 110 daily vehicle trips
3) Project that is within ½ mile of a Transit Priority Area (TPA) (i.e., TPAs reflect areas with rail transit service or bus service where lines have peak headways of less than 15 minutes)
4) Project is within a low VMT generating area

Based on our review of the applicable screening criteria, the Project is required to prepare a full VMT assessment.

According to the County's VMT Impact Thresholds, a project should be considered to have a significant impact if the project VMT per employee is greater than 4% below the existing VMT per person for the unincorporated County.

Consistent with County guidelines, employment projects should evaluate VMT per employee for only home-based-work (HBW) trip purpose (attractions) and would apply to office, industrial, governmental and institutional projects. As the proposed Project is an industrial warehouse, the use of HBW VMT per employee is the appropriate measure of efficiency. Therefore, to evaluate Project VMT impacts, estimated Project HBW VMT/Employee as a function of Project employment and is compared to unincorporated Countywide Auto HBW VMT/Employee.

VMT ANALYSIS

The calculation of VMT for a land use project has two components:

VMT = number of vehicle trips generated x **average trip length**

The San Bernardino Transportation Analysis Model or SBTAM is a useful tool to estimate a project's average trip length as it considers interaction between employment centers and housing areas based on socio-economic data such as population, households, employment and others. The County's guidelines require the use of SBTAM for the purposes of evaluating project generated VMT.

AVERAGE TRIP LENGTH

The average trip length for project automobile trips was calculated based on a select-zone model run for the traffic analysis zone (TAZ) in which the Project is located using SBTAM. Where applicable, adjustments were made to the socio-economic data (i.e., number of employees) to reflect the Project's land use. Based on the SBTAM model run, the average automobile trip length for the Project is 13.16 miles and was calculated by dividing the model VMT by the model daily flow for the TAZ in which the Project is located.

TABLE 1: AVERAGE TRIP LENGTH

Vehicle Type	Average Trip Length (Miles)
Automobiles	13.16

TRIP GENERATION

The daily vehicle trips for the proposed Project have been calculated based on trip generation rates obtained from the ITE Trip Generation Manual, 10th Edition (2017) and the South Coast Air Quality

Management District (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (2014). The proposed Project is anticipated to generate a total of 232 daily automobile trips (see Table 2).

TABLE 2: PROJECT TRIP GENERATION SUMMARY

Project[1]	Quantity	Units[2]	Daily
High-Cube Fulfillment Center Warehouse (132,259 SF) and High-Cube Cold Storage Warehouse (33,065 SF)	165.324	TSF	
High-Cube Fulfillment Center Warehouse Automobiles:			184
High-Cube Cold Storage Warehouse Automobiles:			48
Project Trips:			232

[1] Source: Kaiser Commerce Center Warehouse Trip Generation Assessment (Urban Crossroads, Inc., February 27, 2020)
[2] TSF = Thousand Square Feet

PROJECT VMT

Table 3 provides a summary of Project VMT for automobiles. As shown on Table 3, the estimated VMT for the Project is 3,053 vehicle-miles per day for automobiles.

TABLE 3: PROJECT VMT

Vehicle Type	Project Trip Generation (Daily)	Average Trip Length (Miles)	Project VMT (Vehicle-Miles)
Automobiles	232	13.16	3,053

PROJECT HOME-BASED WORK (HBW) VMT/EMPLOYEE

Because future occupants/tenants are not yet known, the number of jobs that the Project could generate cannot be precisely determined. Therefore, for purposes of this analysis, employment estimates have been calculated using data and average employment density factors obtained from the applicant. The proposed Project is anticipated to employ one (1) worker for every 1,000 SF of building area.

The home-based-work (HBW) VMT per employee is the HBW attraction VMT divided by the number of workers derived from the SBTAM model. The HBW VMT/Employee is used to measure efficiency of VMT generated by employment-based uses. As shown on Table 4, the Project HBW VMT/Employee calculated based on SBTAM is 18.39.

TABLE 4: PROJECT HBW VMT/EMPLOYEE

Project Employment (Auto)	166
Project Automobile VMT	3,053
Project Automobile VMT/Employee	18.39

UNINCORPORATED COUNTY OF SAN BERNARDINO BASELINE VMT

The average VMT of the unincorporated County of San Bernardino is calculated from the SBTAM model consistent with the model used to calculate the Project VMT.

COUNTY OF SAN BERNARDINO HBW VMT/EMPLOYEE

The HBW VMT/Employee calculated for unincorporated County of San Bernardino based on SBTAM is 19.63.

THRESHOLDS

For purposes of this VMT assessment, the Project's HBW VMT/Employee has been compared to areawide baseline HBW VMT/Employee.

Table 5 shows the calculated VMT thresholds for HBW VMT/Employee.

TABLE 5: VMT THRESHOLDS

Threshold Option	Threshold
Areawide Baseline (HBW VMT/Employee)	19.63
4% below Baseline (HBW VMT/Employee)	18.85

PROJECT GENERATED VMT COMPARISON TO BASELINE

As shown in Table 6, the Project's HBW VMT/Employee would meet the 4% below areawide baseline threshold. As such, the Project's transportation impact based on HBW VMT/Employee is less-than-significant based on the County of San Bernardino's recommended thresholds.

TABLE 6: VMT IMPACT EVALUATION

Threshold Option	Threshold	Project	Change in VMT	Potentially Significant?
HBW VMT/Employee	18.85	18.39	-0.46	No

PROJECT'S EFFECT ON AREAWIDE VMT (CUMULATIVE)

As the proposed Project is consistent with the County's General Plan land use and therefore is consistent with the Southern California Council of Governments (SCAG) RTP/SCS, a cumulative analysis that makes a comparison of areawide daily total VMT/Service Population (SP) without and with the Project was not performed.

CONCLUSION

In summary, the Project's HBW VMT/Employee appears to meet applicable thresholds. Since the Project's impact is less-than-significant, no TDM measures are required to reduce HBW VMT/Employee for the proposed Project.

If you have any questions, please contact me directly at (949) 336-5978.

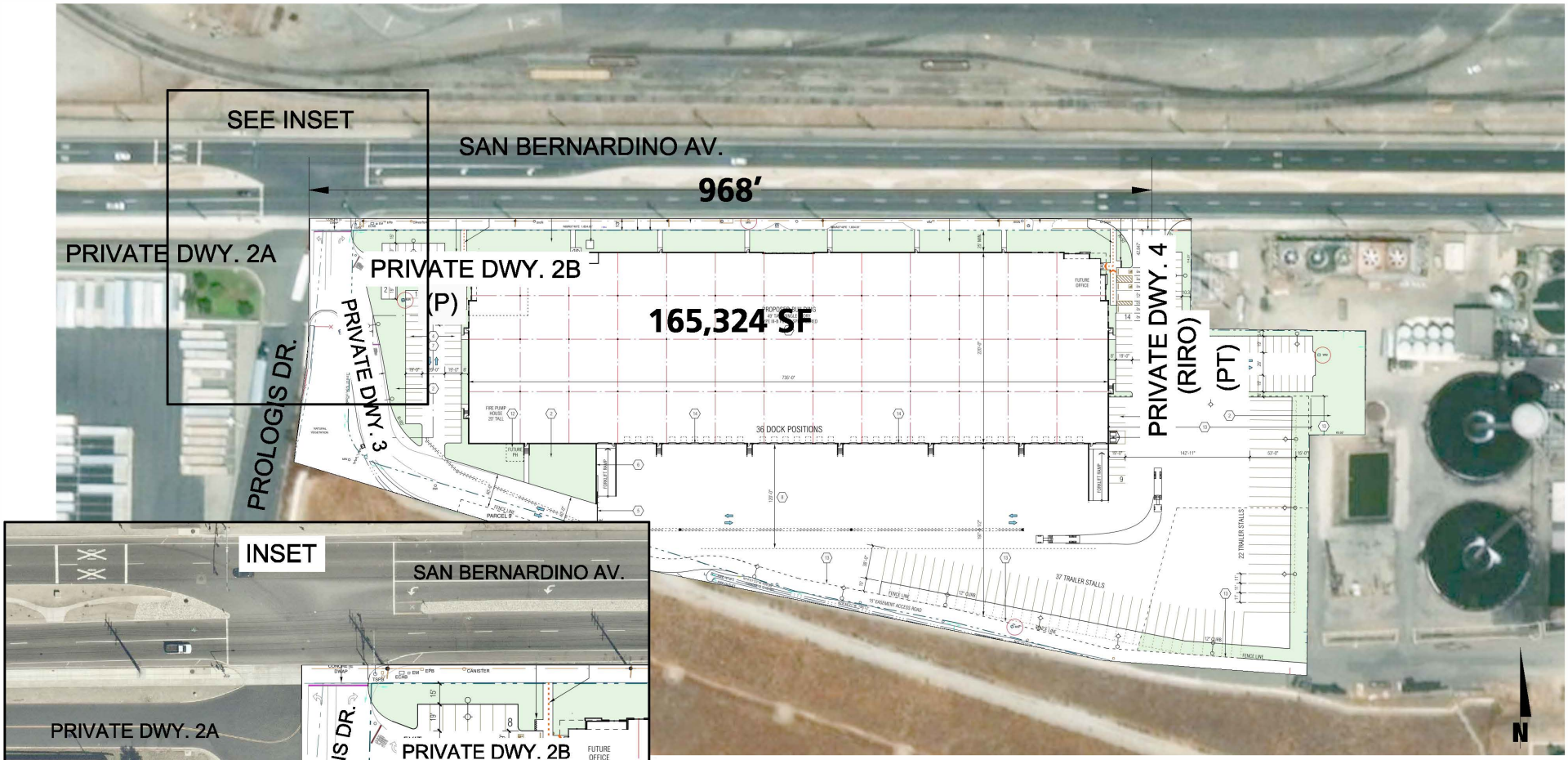
Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

Robert Vu, PE
Transportation Engineer

EXHIBIT 1: PRELIMINARY SITE PLAN



LEGEND:

RIRO = RIGHT-IN/RIGHT-OUT ONLY ACCESS
P = PASSENGER CARS ONLY
T = TRUCKS ONLY
PT = PASSENGER CARS AND TRUCKS

NOTE: UNLESS NOTED, ALL DRIVEWAYS ARE ASSUMED TO BE FULL ACCESS.