MEMORANDUM

URBAN CROSSROADS

DATE: June 5, 2024
TO: Dan Darnell, Carson Companies
FROM: Alex So, Urban Crossroads
JOB NO: 14324-01 Truck VMT

PEPPER 210 COMMERCE CENTER TRSTY-2022-00034 SUPPLEMENTAL VMT ANALYSIS

Urban Crossroads, Inc. is pleased to provide the following Supplemental VMT Analysis for the Pepper 210 Commerce Center (**Project**), which is located at 20080 N. Highland Avenue in the County of San Bernardino.

PROJECT OVERVIEW

The proposed Project is to consist of 1,867,660 square feet of High-Cube Fulfillment Center Warehouse use with an anticipated opening year (i.e. constructed and occupied) of 2029. The Project also includes a total of 626 trailer parking spaces that will be ancillary use and utilized by the future tenant of the building and not an independent off-site operator. It should be noted, 620,000 square feet of the total High-Cube Fulfillment Center square footage is associated with pick mod mezzanine space and the building footprint is 1,232,660 square feet. There is a proposed 2,100 square foot yard office associated with the trailer yard.

SUPPLEMENTAL VMT EVALUATION

California's Office of Planning and Research Technical Advisory on Evaluation Transportation Impacts in CEQA (OPR, December 2018) (1) was prepared to assist lead agencies in compliance with SB 743's new framework. As an initial point, CEQA Guidelines Section 15064.3(a) defines VMT as "the amount and distance of automobile travel attributable to a project." CEQA Guidelines Section 15064.3(a) focusses on "automobile travel." The OPR Technical Advisory states that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. It does not include heavy-duty trucks, semi-trailers, construction equipment, or other commercial-type vehicles.

In an effort to fully disclose potential VMT impacts, this memorandum includes a supplemental VMT evaluation measuring the Project's estimated total VMT per service population (i.e., project related employment). VMT per service population differs from the County's adopted VMT metric for industrial land use projects of Home-Based Work (HBW) VMT per employee in that VMT per service population gives an estimate all vehicle trips (i.e., passenger cars and trucks) and all trip

purposes, whereas HBW VMT per employee is focused on commute trips only and excludes other trip purposes and truck trips.

For purposes of this analysis, VMT has been estimated from vehicle trip generation rates (See Attachment A) consistent with the Project's traffic study and greenhouse gas analysis, and average trip length for each vehicle type. Average trip length information for passenger cars has been obtained from the San Bernardino Transportation Analysis Model (SBTAM) using the Origin/Destination (OD) method. The OD method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area (i.e., TAZ or group of TAZ's) (See Attachment B for Project TAZ location map). The OD method accounts for all trips (i.e., both passenger car and truck) and trip purposes (i.e., total VMT) and therefore provides a more complete estimate of VMT. The average trip length for passenger cars as obtained from SBTAM for the Project is 11,7 miles. Medium heavy-duty trucks (MHDT) and heavy heavy-duty trucks (HHDT) trip lengths have been obtained from the South Coast Air Quality Management District's (SCAQMD) Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce emissions (WAIRE) Program (May 2021) (2). SCAQMD's rule 2305 is based on a 14.2-mile trip length for MHDT and 39.9-mile trip length for HHDT.

The aforementioned trip lengths were utilized to be consistent with the Project's greenhouse gas analysis. Table 1 presents the Project trips by vehicle type, the average trip length by vehicle type and the resulting VMT estimates.

TABLE 1: PROJECT VMT

	Trips	Trip Length	VMT
MHDT	304	14.2	4,317
HHDT	406	39.9	16,199
Total Truck	**710**	**-**	**20,516**
Automobile	3,300	11.7	38,610
Total	**4,010**	**-**	**59,126**

LAND USE CONVERSION

To estimate project-generated VMT, standard land use information such as building square footage must be converted to socio-economic data (SED) (e.g., population, households, and employment). Table 2 summarizes the SED information to represent the Project.

TABLE 2: EMPLOYMENT ESTIMATES

Land Use	Building Area	Conversion Factor[1]	Estimated Employees
Warehouse	1,867,660 SF	1,195 SF per Employee	1,562
Yard Office	2,100 SF	300 SF per Employee	7

Table 3 presents the calculation of the efficiency metric VMT per service population. VMT per service population is the Project's VMT divided by its service population (i.e., estimated number

[1] SCAG Employment Density Study; Table II-B

of Project employees) and is a common VMT metric used by many agencies throughout Southern California to evaluate the efficiency of travel.

TABLE 3: VMT PER SP

	Project
Service Population	1,569
VMT	59,126
VMT per Service Population	37.7

Although not specified by San Bernardino County San Bernardino County Transportation Impact Study Guidelines (**County Guidelines**) (3), but consistent with other VMT impact thresholds utilized by County of 4% below existing VMT would be considered less than significant[2], it is reasonable to assume that exceeding the **4% below existing VMT per service population for the unincorporated County** would result in a potentially significant impact. San Bernardino County Transit Authority (SBCTA) provides published VMT values for its member agencies and for the existing unincorporated County average VMT per SP is 44.7 and 4% below existing unincorporated County average is 42.9 VMT per service population. As presented in Table 2, the Project is estimated to generate VMT per SP of 33.7, which would be below the County's threshold by 21.4% and would result in a less than significant VMT impact.

If you have any questions, please contact me directly at aso@urbanxroads.com.

[2] County Guidelines; Page 21

REFERENCES

1. **OPR.** *Technical Advisory on Evaluation Transportation Impacts in CEQA* . December 2018.
2. **SCAQMD.** *Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce emissions (WAIRE) Program.* May 2021.
3. **San Bernardino County.** *Transportation Impact Study Guidelines.* July 2019.

ATTACHMENT A

PROJECT TRIP GENERATION SUMMARY

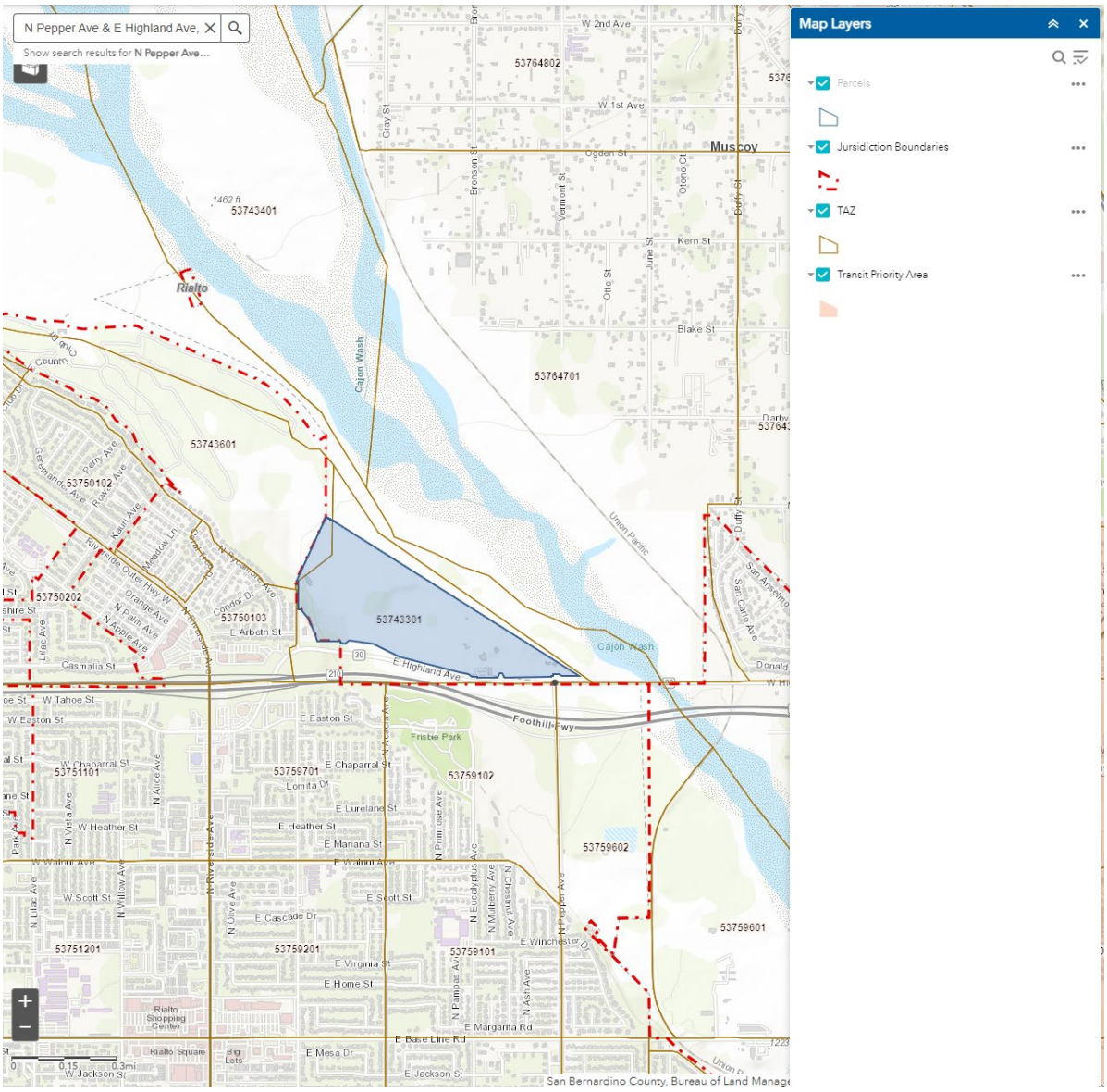
Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
High-Cube Fulfillment	1,867.660	TSF							
Passenger Cars:			148	44	192	75	194	269	3,268
2-4axle Trucks:			7	8	15	10	11	21	304
5+-axle Trucks:			10	10	20	9	10	19	406
Total Truck Trips (Actual Vehicles):			17	18	35	19	21	40	710
Warehouse Yard Office	2.100	TSF	3	1	4	2	3	5	32
Total Trips (Actual Vehicles)[2]			168	63	231	96	218	314	4,010

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

ATTACHMENT B
PROJECT TAZ LOCATION MAP


N Pepper Ave & E Highland Ave,
Show search results for N Pepper Ave...
Map Layers
Parcels
Jurisdiction Boundaries
TAZ
Transit Priority Area
53743401
53764802
53764701
53743601
53743301
53750102
53750202
53750103
53751101
53759701
53759102
53759602
53759601
53751201
53759201
53759101
Rialto
Muscoy
Cajon Wash
Foothill Fwy
E Highland Ave
W 2nd Ave
W 1st Ave
Ogden St
Kern St
Blake St
E Easton St
E Chaparral St
E Heather St
E Mariana St
E Walnut Ave
E Scott St
E Cascade Dr
E Virginia St
E Home St
E Base Line Rd
E Mesa Dr
E Jackson St
E Margarita Rd
E Winchester Dr
Frisbe Park
Rialto Shopping Center
Rialto Square
Big Lots
Union Pacific
San Bernardino County, Bureau of Land Manage