TECHNICAL MEMORANDUM

DATE: March 20, 2025
TO: Anne Hernandez, Hernandez, Kroone & Associates, Inc.
FROM: Alex So, Urban Crossroads, Inc.
JOB NO: 16456-01 VMT

SUBJECT: FREEPOINT ECO-SYSTEMS YERMO SUPPLY LLC PLASTICS SORTING AND PROCESSING FACILITY VEHICLE MILES TRAVELED (VMT) ANALYSIS

Urban Crossroads, Inc. has completed the following Vehicle Miles Traveled (VMT) Analysis for the Freepoint Eco-Systems Yermo Supply LLC Plastics Sorting and Processing Facility (Project), which is located at 37265 Yermo Road in the County of San Bernardino.

PROJECT OVERVIEW

A large building will be built, consisting of:

- A receiving area for inbound material
- Sorting and processing equipment
- Storage areas for outbound material awaiting pickup
- Offices, break room, locker room, restrooms, and support spaces

All materials will be stored in this building. The Project land use plan is found in Attachment 1.

Post-industrial waste from manufacturers and post-consumer material (Raw Material) from material recovery facilities will be trucked to the Project site. The recyclable plastic in this material will be sorted, baled, and sent to a pyrolysis facility in Eloy, Arizona. This material will be delivered by rail, but the plastic bales may be trucked while the rail is being constructed.

Other recyclables diverted from the waste stream, such as old corrugated containers (OCC), ferrous, and non-ferrous metals, would be sorted, baled, and then collected by traditional mechanical third party recycling companies. Any residual, unusable material would be trucked off-site for disposal at an area landfill.

Currently the site is envisioned to operate 24 hours per day, Sunday through Saturday. Deliveries of Raw Material to be sorted will be accepted from 8:00 am to 6:00 pm, Monday – Saturday. It is anticipated that up to 61 trucks (an average of 14 tons each) for a typical scenario, or 86 trucks (an average of 10 tons each) for a worst case scenario will be delivering materials for sorting. The Project will have a designed processing capacity of 855 tons (U.S. short tons) per day.

Residual material destined for the landfill will be trucked from the site between 8:00 am to 6:00 pm, Monday – Saturday. It is anticipated that up to 31 trucks will move baled plastics to Eloy for additional processing and up to 31 trucks will be moving the remaining materials to other recyclers or to a landfill.

Employees will be on site:

- Sunday – Saturday 1st Shift 6:00 a.m. – 6:00 p.m., 22 – 27 employees.
- Sunday – Saturday 2nd Shift 6:00 p.m. – 6:00 a.m., 22 – 27 employees

The employee parking lot will have 14 carpool parking spaces, but the analysis was completed as if all employees will drive individually to and from the Project site.

Other people that might occasionally travel to or from the Project site include:

- Schoolchildren and their chaperons, by bus or van.
- Other occasional visitors.
- Outside maintenance vendors.

BACKGROUND

The California Environmental Quality Act (CEQA) requires all lead agencies to adopt VMT as the measure for identifying transportation impacts for land use projects. To comply with CEQA, the County of San Bernardino adopted Transportation Impact Study Guidelines (July 2019) (**County Guidelines**) (1). This VMT Analysis has been prepared based on the adopted County Guidelines.

VMT SCREENING

County Guidelines state that a project may be determined to have a non-significant transportation impact if it meets one or more VMT screening criteria. Each of the screening criteria listed in the County Guidelines are described in Table 1 along with a determination of the Project's eligibility to meet each criterion.

TABLE 1: SCREENING FOR LAND USE PROJECTS EXEMPT FROM VMT CALCULATIONS

Screening Criteria	Description	Result
Local Serving Land Use	Local-Serving Retail under 50,000 square feet or Local Essential Services such as K-12 schools, day care centers, and community institutions.	Does not meet.
Projects Generating Less Than 110 Daily Trips	Projects generating fewer than 110 daily trips are presumed to have a less than significant impact on VMT.	Does not meet.
Transit Priority Area (TPA)	Projects located within a TPA (i.e., within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor) are presumed to have less than significant impact on VMT.	Does not meet.
Low VMT Area	Projects located in a low VMT-generating area of the County are beneficial to the region as they can reduce VMT per person/employee.	Does not meet.

Consistent with the County Guidelines, as the Project was not found to meet any of the applicable screening criteria, a Project-level VMT analysis has been prepared.

TRAFFIC MODELING METHODOLOGY

County Guidelines state that San Bernardino County Transportation Analysis Model (SBTAM) is the preferred tool for conducting VMT analysis for land use projects in the County of San Bernardino.

San Bernardino County Transportation Authority's (SBCTA) most recent release of SBTAM is version 3.2, released in June 2024. SBTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle type.

VMT ANALYSIS METHODOLOGY

For purposes of this assessment, VMT was estimated using the Production/Attraction method and Boundary method. For the Production/Attraction method, VMT is presented as Home-Based-Work (HBW) attraction VMT per employee, while the Boundary method presents VMT as total VMT and total VMT per service population.

PRODUCTION/ATTRACTION METHOD

The Production/Attraction (PA) method for calculating VMT sums all weekday VMT generated by HBW trips with at least one trip-end in the study area (i.e., Project Traffic Analysis Zone or TAZ) by trip purpose to/from their ultimate destination unless that destination is outside of the model boundary area. Productions are land use types that generate trips (residences), and attractions are land use types that attract trips (employment). The PA method allows Project VMT to be evaluated based on trip purpose, which is consistent with both the Office of Planning and Research (OPR) Technical Advisory and County Guidelines.

BOUNDARY VMT METHOD

The boundary method is the sum of all weekday VMT on the roadway network within a designated boundary (i.e., County boundary or other designated geographic area). The boundary method estimates VMT by multiplying vehicle trips on each roadway segment within the boundary by that segment's length. This is the only VMT method that captures the effect of cut-through and/or displaced traffic. This approach consists of all trips, including those trips that do not begin or end in the designated boundary. In addition, a 10-mile radius boundary surrounding the Project has also been utilized to provide a more accurate and complete accounting of trips coming to and from the Project.

VMT METRIC AND SIGNIFICANCE THRESHOLD

As stated in the County Guidelines, the appropriate VMT metric for employment projects is VMT per employee.[1] An employment project would result in a significant project-generated VMT impact if the following condition is met:

- Project-generated VMT per employee is greater than 4% below the existing VMT per employee for the unincorporated County.

Additionally, if the Project is inconsistent with the regional transportation plan or sustainable community strategies (RTP/SCS), the Project's cumulative effect on VMT would be considered significant if it results in the following condition:

[1] County Guidelines; Page 20

- Cumulative year VMT per service population (population + employment) increases in the with-project condition as compared to the no-project condition.

COUNTY OF SAN BERNARDINO VMT PER EMPLOYEE

The County of San Bernardino's existing VMT per employee has been calculated using SBTAM. Table 2 presents the resulting County of San Bernardino's existing VMT per employee of 22.3, with a threshold of 4% below existing VMT per employee of 21.4.

TABLE 2: UNINCORPORATED COUNTY OF SAN BERNARDINO BASELINE VMT PER EMPLOYEE

	Unincorporated County of San Bernardino
Employee	296,716
VMT	6,630,823
VMT per Employee	22.3
4% Below Existing	21.4

PROJECT VMT ESTIMATES

To estimate project-generated VMT, the SBTAM model utilizes socio-economic data (SED) (e.g., employment) for the purposes of vehicle trip estimation. As provided by the Project Applicant, 54 employees are expected over a daily weekday period.

Project-generated VMT and a comparison to the County's impact threshold is presented in Table 3. The Project is estimated to generate VMT per employee below the County's adopted impact threshold. SBTAM output information can be found in Attachment 2.

TABLE 3: PROJECT VMT PER EMPLOYEE

	Baseline
Employment	54
VMT	740
VMT/Employee	13.7
County Threshold	21.4
Exceeds Threshold?	No

Table 4 presents boundary VMT and boundary VMT per service population estimates for cumulative conditions. The boundary VMT per service population in the with-project scenario is found to remain unchanged for the Countywide boundary evaluation and decrease slightly for the 10-mile boundary evaluation. The with-project condition does not exceed the County's adopted threshold of a net increase above the no-project condition.

TABLE 4: CUMULATIVE BOUNDARY VMT

	Service Population	Boundary VMT	VMT per Service Population	Exceeds Threshold?
Countywide Cumulative No-Project	3,761,191	94,743,867	25.2	-
Countywide Cumulative With-Project	3,761,251	94,723,749	25.2	No
10-mile Cumulative No-Project	32,740	1,584,186	48.4	-
10-mile Cumulative With-Project	32,800	1,584,152	48.3	No

[1] Service population refers to population and employment

CONCLUSION

Based on the results of this analysis, the following findings are made:

- The Project was evaluated against screening criteria as outlined in the County Guidelines. The Project was not found to meet any of the screening criteria and a VMT analysis was performed.
- Project-generated VMT estimates were calculated from SBTAM and compared to the County's adopted impact threshold of 4% below existing Countywide VMT per employee. Project-generated VMT per employee was found to be below the County's impact threshold.
- The Project's cumulative effect on VMT was found to be unchanged or below the County's adopted impact threshold of no net increase in VMT per service population for with project conditions.

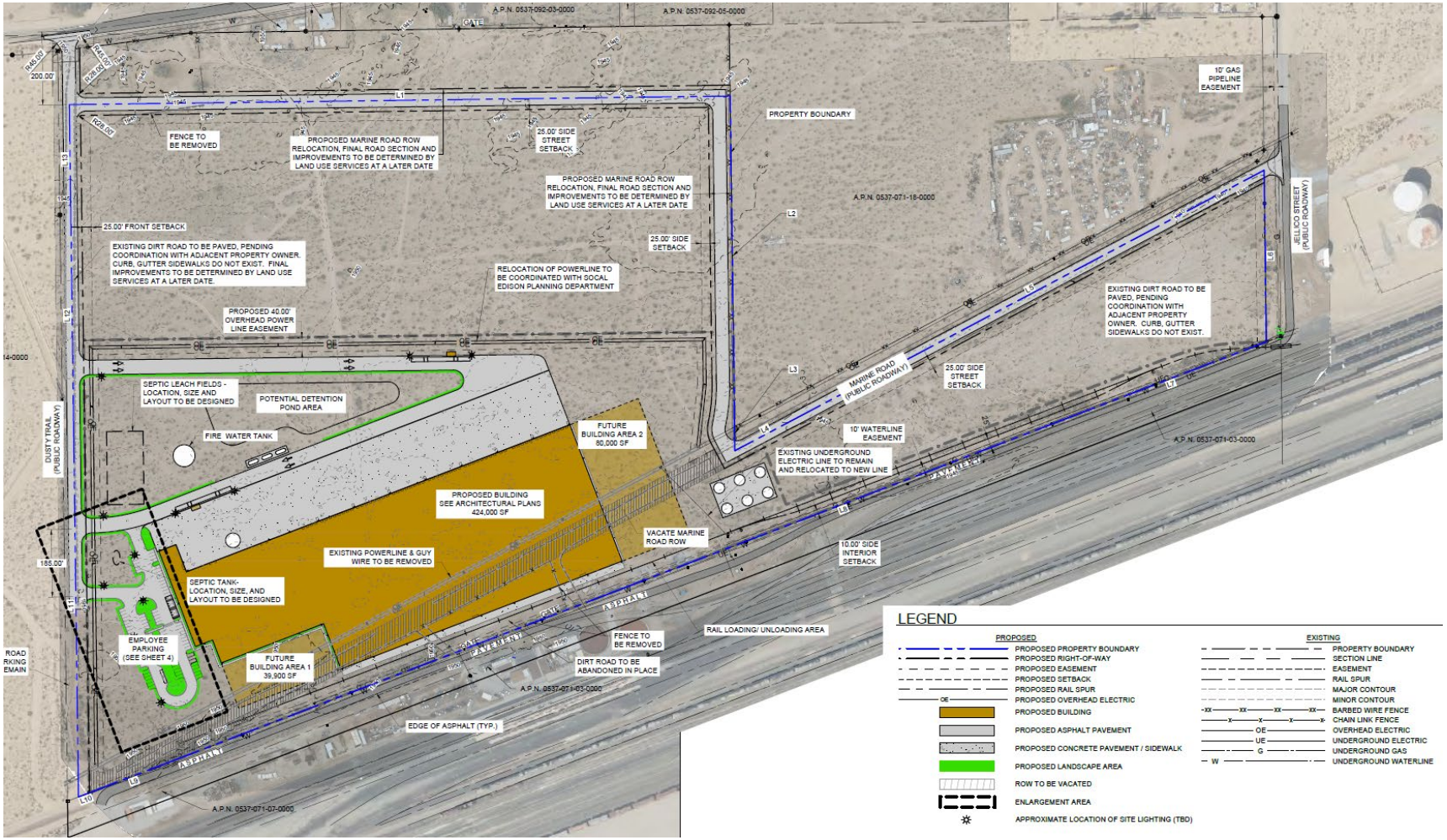
If you have any questions, please contact me directly at aso@urbanxroads.com.

REFERENCES

1. **San Bernardino County.** *Transportation Impact Study Guidelines.* July 2019.

ATTACHMENT 1:

PROJECT LAND USE PLAN



ATTACHMENT 2:

SBTAM OUTPUT DATA

	2019	2050
TAZ	53956401	53956401
HBW VMT From	0	0
HBW VMT To	718.932042	829.197882
HBW VMT Intra	0	0
HBW VT From	0	0
HBW VT To	42.246276	45.793374
HBW VT Intra	0	0
HBW TripLen From	0	0
HBW TripLen To	17.017643	18.107377
HBW TripLen Intra	0	0
HBW TripLen All	17.017643	18.107377
HB VMT From	0	0
HB VMT To	776.518857	882.411452
HB VMT Intra	0	0
HB VT From	0	0
HB VT To	50.930215	53.792974
HB VT Intra	0	0
HB TripLen From	0	0
HB TripLen To	15.246722	16.403842
HB TripLen Intra	0	0
HB TripLen All	15.246722	16.403842
NHB VMT From	160.802832	182.415328
NHB VMT To	59.80254	82.133547
NHB VMT Intra	2.690646	2.567345
NHB VT From	15.74543	16.832343
NHB VT To	5.125522	6.199812
NHB VT Intra	0.894503	0.853512
NHB TripLen From	10.212667	10.837192
NHB TripLen To	11.667599	13.247747
NHB TripLen Intra	3.007979	3.007979
NHB TripLen All	10.908581	11.812333
Total PA VMT From	160.802832	182.415328
Total PA VMT To	836.321397	964.544999
Total PA VMT Intra	2.690646	2.567345
Total PA VT From	15.74543	16.832343
Total PA VT To	56.055738	59.992786
Total PA VT Intra	0.894503	0.853512
Total PA TripLen From	10.212667	10.837192
Total PA TripLen To	14.919461	16.077683
Total PA TripLen Intra	3.007979	3.007979
Total PA TripLen All	14.024543	15.063428