Appendix I:
Traffic Supporting Information

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I.1 - Trip Generation Assessment

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URBAN CROSSROADS

urbanxroads.com

April 26, 2022

Mr. Jason Brandman
First Carbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602

SUBJECT: RAMONA EXPRESSWAY & BRENNAN AVENUE WAREHOUSE (DPR 22-00010) TRIP GENERATION ASSESSMENT

Dear Mr. Jason Brandman:

Urban Crossroads, Inc. is pleased to provide the following Trip Generation Assessment for Ramona Expressway & Brennan Avenue Warehouse development which is located on the southwest corner of Brennan Avenue and Ramona Expressway in the City of Perris. The purpose of this work effort is to determine whether additional traffic analysis is necessary for the proposed Project based on the City of Perris's Transportation Impact Analysis Guidelines for CEQA (dated May 12, 2020) (**City Guidelines**).

PROPOSED PROJECT

The Project is proposed to consist of a 165,371 square foot warehouse building (see Exhibit 1). As such, the trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual (11th Edition, 2021) for the proposed warehousing use (ITE Land Use Code 150) (see Table 1). The following summarizes the proposed land use and vehicle mix:

- Warehousing – ITE Land Use Code 150 has been used to derive site specific trip generation estimates for the proposed Project. The vehicle mix has also been obtained from the ITE's latest Trip Generation Manual. This Trip Generation Manual provides rates that result in the following vehicle mix: AM Peak Hour: 88.2% passenger cars and 11.8% trucks; PM Peak Hour: 83.3% passenger cars and 16.7% trucks; Weekday Daily: 64.9% passenger cars and 35.1% trucks. The truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (SCAQMD) recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

TABLE 1: TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	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 Vehicle Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars (AM=88.2%, PM=83.3%, Daily=64.9%)			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (AM=1.97%, PM=2.79%, Daily=5.86%)			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks (AM=2.44%, PM=3.46%, Daily=7.27%)			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks (AM=7.39%, PM=10.45%, Daily=21.97%)			0.007	0.006	0.013	0.010	0.009	0.019	0.376
Passenger Car Equivalent (PCE) Trip Generation Rates[4]									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.005	0.003	0.008	0.150
3-Axle Trucks (PCE = 2.0)			0.004	0.004	0.008	0.006	0.006	0.012	0.248
4+-Axle Trucks (PCE = 3.0)			0.021	0.017	0.038	0.030	0.026	0.056	1.127

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

[3] Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

[4] PCE factors: 2-axle = 1.5; 3-axle = 2.0; 4+-axle = 3.0.

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project in actual and passenger car equivalent (PCE) vehicles are shown on Table 2. As shown in Table 2, the proposed Project is anticipated to generate a total of 286 two-way trips per day with 27 AM peak hour trips and 29 PM peak hour trips (in actual vehicles). In comparison, the proposed Project is anticipated to generate a total of 438 PCE two-way trips per day with 33 PCE AM peak hour trips and 37 PCE PM peak hour trips.

TABLE 2: PROPOSED PROJECT TRIP GENERATION SUMMARY

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:									
Warehousing	165.371	TSF							
Passenger Cars:			20	5	25	6	19	25	184
2-axle Trucks:			0	0	0	0	0	0	18
3-axle Trucks:			0	0	0	0	1	1	22
4+-axle Trucks:			1	1	2	2	1	3	62
Total Truck Trips (Actual Vehicles):			1	1	2	2	2	4	102
Total Trips (Actual Vehicles)[2]			**21**	**6**	**27**	**8**	**21**	**29**	**286**
Passenger Car Equivalent (PCE):									
Warehousing	165.371	TSF							
Passenger Cars:			20	5	25	6	19	25	184
2-axle Trucks:			0	0	0	1	0	1	26
3-axle Trucks:			1	1	2	1	1	2	42
4+-axle Trucks:			3	3	6	5	4	9	186
Total Truck Trips (PCE):			4	4	8	7	5	12	254
Total Trips (PCE)[2]			**24**	**9**	**33**	**13**	**24**	**37**	**438**

[1] TSF = thousand square feet

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

TRIP GENERATION FINDINGS

The proposed Project is anticipated to generate fewer than 50 peak hour trips and fewer than 500 two-way trips per day (both for actual vehicles and in PCE). Per the City's Guidelines, no additional traffic operations analysis is necessary.

TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding land uses, and the proximity to the regional freeway system.

The trip distribution pattern for truck traffic is also influenced by the local truck routes. Given these differences, separate trip distributions were generated for both passenger cars and truck trips. The Project passenger car and truck trip distribution patterns are graphically depicted on Exhibits 2 and 3, respectively. Note that Ramona Expressway is not a City truck route. All trucks will need to utilize the

access on Brennan Avenue to access Morgan Street to the south. From Morgan Street, trucks will likely access Indian Avenue to access the new Placentia Avenue interchange which is anticipated to open in Summer 2022. Northbound trucks can also utilize Indian Avenue to head north to Harley Knox Boulevard.

SITE ACCESS RECOMMENDATION

The following recommendations are based on the minimum improvements needed to accommodate site access for the proposed Project. The site adjacent recommendations are shown on Exhibit 4.

Recommendation 1 – Driveway 1 & Ramona Expressway – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the northbound approach and a northbound right turn lane. The eastbound right turn volume at this driveway would not exceed 20 inbound passenger cars (in the AM peak hour) and would not warrant a dedicated right turn lane. In addition, the eastbound curb-adjacent lane is 20-feet in width and could accommodate a defacto right turn lane at this driveway. Access at the intersection would be controlled to right-in/right-out access only for passenger cars via the existing raised median.

Recommendation 2 – Brennan Avenue & Driveway 2 – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the eastbound approach and an eastbound shared left-right turn lane. No additional lane improvements are proposed along Brennan Avenue to facilitate site access.

Recommendation 3 – Modify the existing curb-and-gutter to accommodate site access at Driveway 1 on Ramona Expressway and Driveway 2 on Brennan Avenue.

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Perris sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

If you have any questions, please contact me directly at (949) 861-0177.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Charlene So, PE
Principal

EXHIBIT 1: PRELIMINARY SITE PLAN

EXHIBIT 2: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION

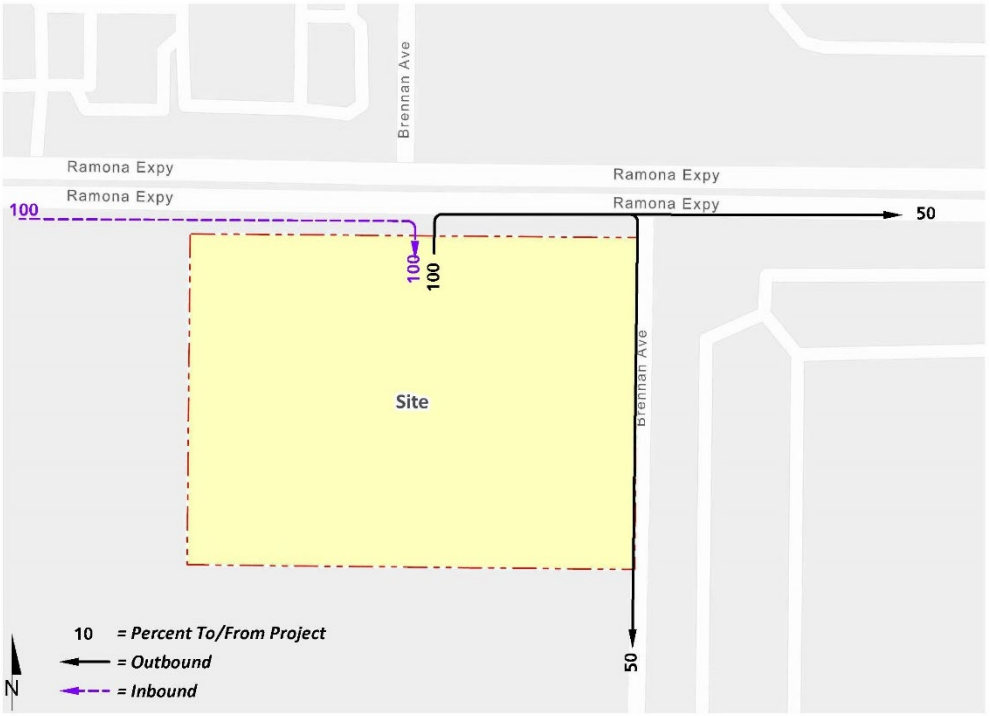


EXHIBIT 3: PROJECT (TRUCK) TRIP DISTRIBUTION

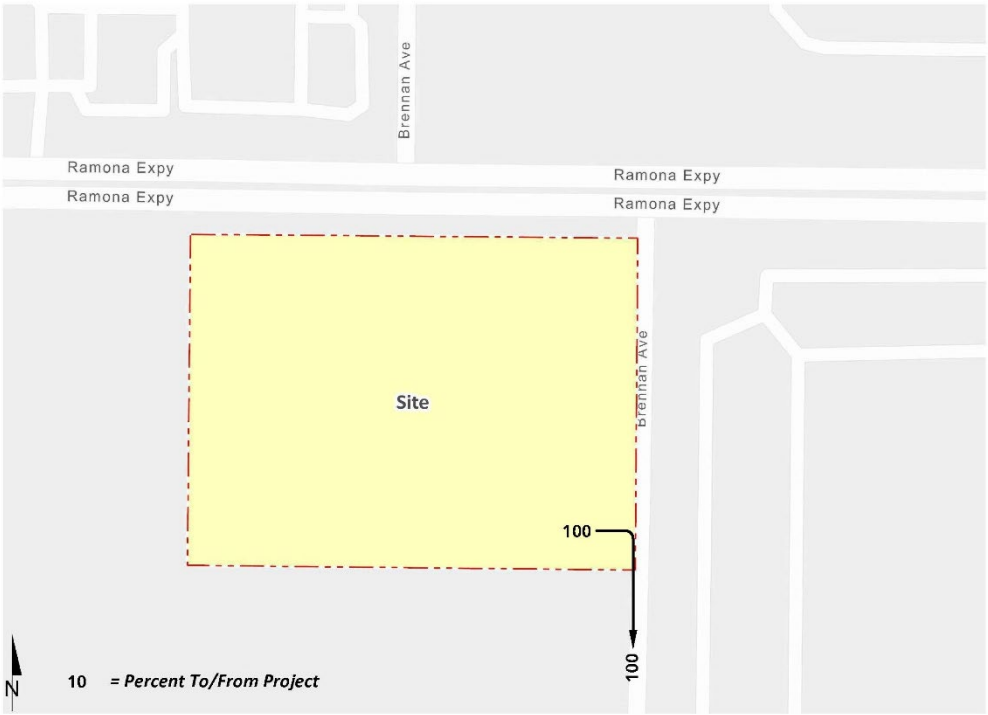
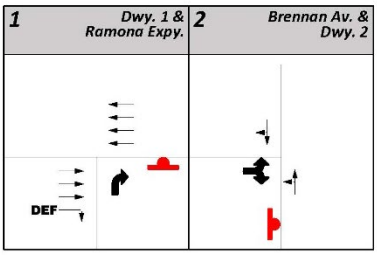


EXHIBIT 4: SITE ACCESS RECOMMENDATIONS



= Stop Sign Improvement
= Existing Lane
= Lane Improvement
DEF = Defacto Right Turn

I.2 - Vehicle Miles Traveled Screening Evaluation

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April 26, 2022

Mr. Jason Brandman
FirstCarbon Solutions
250 Commerce, Suite 250
Irvine CA 92602

SUBJECT: RAMONA EXPRESSWAY & BRENNAN WAREHOUSE VEHICLE MILES TRAVELED (VMT) SCREENING EVALUATION

Dear Mr. Jason Brandman:

The following Vehicle Miles Traveled (VMT) Screening Evaluation has been prepared for the proposed Ramona Expressway & Brennan Warehouse (**Project**), which is located on the southwest corner of Brennan Avenue and Ramona Expressway in the City of Perris.

PROJECT OVERVIEW

It is our understanding that the Project is proposed to consist of a 165,371 square foot warehouse building (See Attachment A).

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. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) (**Technical Advisory**) (1). Based on OPR's Technical Advisory, the City of Perris adopted their Transportation Impact Analysis Guidelines for CEQA (May 2020) (**City Guidelines**) (2). The adopted City Guidelines have been utilized to prepare this VMT analysis.

VMT SCREENING EVALUATION

City's Guidelines list standardized screening methods for project level VMT analysis that can be used to identify when a proposed land use development project is anticipated to result in a less than significant impact thereby eliminating the need to conduct a full VMT analysis. City of Perris VMT screening methods, as described within the City Guidelines, are listed below::

- Affordable Housing
- High Quality Transit Areas (HQTA) Screening

- Local-Serving Land Use
- Low VMT Area
- Net Daily Trips Less than 500 ADT

As stated by the City Guidelines, land use development projects need only meet one of the above screening criteria to result in a less than significant impact.

AFFORDABLE HOUSING

The City Guidelines state, if a project consists of 100% affordable housing, then the presumption can be made that it will have a less than significant impact on VMT. The Project does not intend to develop any residential uses.

Affordable Housing screening criteria not met.

HIGH QUALITY TRANSIT AREAS (HQTA) SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2]) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

1. Has a Floor Area Ratio (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
4. Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The City Guidelines provides a map of HQTA areas within the City of Perris. The Project is located within ½ mile of Perris Blvd. However, further review of the secondary criteria such as having a FAR of 0.75 or less, excludes the Project from qualifying for HQTA screening.

HQTA screening criteria is not met.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

LOCAL-SERVING LAND USE

As identified in the City Guidelines, Local serving land uses provide more opportunities for residents and employees to shop, dine, and obtain services closer to home and work. Local serving uses can also include community resources that may otherwise be located outside of the city or local area. By improving destination proximity, local serving uses lead to shortened trip lengths and reduced VMT. The City Guidelines provide a list of applicable local serving retail categories below 50,000 square feet. As the Project does not propose to develop any local serving land uses, the Project does not meet this screening criteria.

Local-Serving Land Use screening criteria is not met.

LOW VMT AREA SCREENING

The City Guidelines states, "Projects that locate in areas with low VMT, and that incorporate similar features (i.e., land use type, access to the circulation network, etc.), will tend to exhibit similarly low VMT." It is our understanding that the City of Perris utilizes its own VMT scoping form to identify areas of low VMT. The scoping form uses the sub-regional Riverside County Transportation Analysis Model (RIVTAM) to measure VMT performance within individual traffic analysis zones (TAZ's) within the Western Riverside Councils of Governments (WRCOG) region. The Project's physical location based on the WRCOG web-based screening tool is used to determine the TAZ in which the Project resides. The TAZ identification number is then selected within the scoping form. Finally, the VMT generated by the existing TAZ as compared to the City's impact threshold of "VMT per employee that is less than or equal to the Citywide average." The TAZ containing the proposed Project was selected and the scoping form identified VMT per employee. Based on the scoping form results, the Project is not located within a low VMT generating zone (See Attachment B).

Low VMT Area screening criteria is not met.

NET DAILY TRIPS LESS THAN 500 ADT

The City Guidelines identify projects that generate less than 500 average daily trips (ADT) would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT**.** Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021 (3). The Project is anticipated to generate 286 daily vehicle trip-ends per day. Therefore, the Project generates daily vehicle trips below the 500 daily vehicle trip threshold. (See Attachment C)

Net Daily Trips Less than 500 ADT screening criteria is met.

CONCLUSION

In summary, our review of applicable VMT screening criteria as presented in the City Guidelines, the proposed Project meet the Net Daily Trips Less than 500 ADT screening criteria; no further VMT analysis required.

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

Respectfully submitted,

URBAN CROSSROADS, INC.

Alexander So
Senior Associate

REGISTERED PROFESSIONAL ENGINEER
CHARLENE HWANG SO
No. TR 2414
TRAFFIC
STATE OF CALIFORNIA

Charlene So, PE
Principal

REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **City of Perris.** *Transportation Analysis Guidelines for CEQA.* City of Perris : s.n., May 2020.
3. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.

ATTACHMENT A
PRELIMINARY SITE PLAN


Brennan Ave
Driveway 1
(Passenger Cars Only)
Ramona Expy
Ramona Expy
Ramona Expy
Ramona Expy
165,371 SF
20 DOCK DOORS
Brennan Ave
Driveway 2
(Trucks Only)
N
Driveway
(Full Access)
(Right-In/Right-Out)

ATTACHMENT B
PERRIS SCOPING FORM

City of Perris
www.cityofperris.org

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. PR21-05273

Project Name: Ramona Expressway & Brennan Avenue Warehouse

Project Location: Southwest corner of Brennan Avenue & Ramona Expressway

Project Description: 165,371 square foot warehouse

(Please attach a copy of the project Site Plan)

Current GP Land Use: PVCC-SP - LI **Proposed GP Land Use:** PVCC-SP - LI

Current Zoning: PVCC-SP - LI **Proposed Zoning:** PVCC-SP - LI

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:	
B. Is the Project within 1/2 mile of qualifying transit?	**YES**	**X**	**NO**		Attachments:	
C. Is the Project a local serving land use?	**YES**		**NO**	**X**	Attachments:	
D. Is the Project in a low VMT area?	**YES**		**NO**	**X**	Attachments:	
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**	**X**	**NO**		Attachments:	

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	**VMT Rate for Project TAZ**[1]		**Type of Project**	
3767	**6.96**	VMT/Capita	Residential:	
	12.02	VMT/Employee	Non-Residential:	**X**

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021

Project Trip Generation: **286** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO		% Trip Credit:	
Pass-By Trip Credit:	YES		NO		% Trip Credit:	
Affordable Housing Credit:	YES		NO		% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO		Trip Credit:	

Net Project Daily Trips: **286** **Average Daily Trips (ADT)** Attachments:

Does project trip generation warrant an LOS evaluation outside of CEQA?	**YES**		**NO**	**X**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?

A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Less Than Significant

B. Is mitigation required?

If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	**N/A**	**N/A**
B. Unmitigated Project TAZ VMT Rate:	**N/A**	**N/A**

C. Percentage Reduction Required to Achieve the Citywide Average VMT: **N/A**

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**

Project Location Setting	**Suburban**

	VMT Reduction Mitigation Measure:	**Estimated VMT Reduction (%)**
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	**N/A**	**N/A**	

F. Is the project pressumed to have a less than significant impact with mitigation? **N/A**

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		**Developer/Applicant**	
Company:	Urban Crossroads, Inc.	**Company:**	First Carbon Solutions (representative)
Contact:	Charlene So	**Contact:**	Jason Brandman
Address:	1133 Camelback St. #8329, Newport Beach, CA	**Address:**	250 Commerce, Suite 250, Irvine, CA 92602
Phone:	949-861-0177	**Phone:**	
Email:	cso@urbanxroads.com	**Email:**	jbrandman@fcs-intl.com
Date:	4/22/2022	**Date:**	4/22/2022

Approved by:

Perris Planning Division	**Date**	**Perris City Engineer**	**Date**

ATTACHMENT C
PROJECT TRIP GENERATION

TABLE 1: PROJECT TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	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
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2-Axle Trucks (AM=1.97%, PM=2.79%, Daily=5.86%)			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks (AM=2.44%, PM=3.46%, Daily=7.27%)			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks (AM=7.39%, PM=10.45%, Daily=21.97%)			0.007	0.006	0.013	0.010	0.009	0.019	0.376

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

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[4] PCE factors: 2-axle = 1.5; 3-axle = 2.0; 4+-axle = 3.0.

TABLE 2: PROJECT TRIP GENERATION SUMMARY

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:								
Warehousing	165.371 TSF							
Passenger Cars:		20	5	25	6	19	25	184
2-axle Trucks:		0	0	0	0	0	0	18
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4+-axle Trucks:		1	1	2	2	1	3	62
Total Truck Trips (Actual Vehicles):		1	1	2	2	2	4	102
Total Trips (Actual Vehicles)[2]		**21**	**6**	**27**	**8**	**21**	**29**	**286**

[1] TSF = thousand square feet

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