

**DATE:** January 22, 2024  
**TO:** Tracy Zinn, T&B Planning, Inc.  
**FROM:** Connor Paquin, Urban Crossroads  
**JOB NO:** 15091-09 TG Letter

## **MEAD VALLEY COMMERCE CENTER SUPPLEMENTAL TRIP GENERATION ASSESSMENT**

This letter has been prepared to evaluate the trip generation of the proposed Project, assuming the Cold Storage Warehouse portion of the proposed Project is eliminated, with the remaining square footage evaluated as High-Cube Fulfillment Center Warehouse use. The revised trip generation has been compared to the trip generation from the Mead Valley Commerce Center (PPT220050) Traffic Analysis, May 17, 2023, prepared by Urban Crossroads, Inc., hereafter referred to as the "2023 Traffic Study."

### **SUMMARY OF FINDINGS**

Based on a comparison of the trip generation to the 2023 Traffic Study, the revised Project is not anticipated to increase or decrease the trip-ends per day. The revised Project is anticipated to increase 3 AM peak hour trips and 7 PM peak hour trips. However, this increase in trips is not anticipated to substantially affect the operations analysis as evaluated in the 2023 Traffic Study. Generally, the threshold for the measurable amount of traffic that is anticipated to affect the operations of intersections is 50 vehicles, per industry standard. Since the revised Project not anticipated to increase the trips by 50 or more during the peak hours, no changes to the 2023 Traffic Study are necessary as the revised Project is not anticipated to change the findings of the 2023 Traffic Study.

### **PROJECT OVERVIEW**

The proposed Project from the 2023 Traffic Study consisted of a 1,003,510 square foot warehouse building and an active park of up to 14.94 acres. For the purposes of the 2023 Traffic Study, the warehouse building has been evaluated assuming 852,984 square feet (or 85% of the overall building square footage) of High-Cube Fulfillment Center Warehouse use (based on the WSP trip generation rates) and 150,526 square feet of High-Cube Cold Storage Warehouse use (remaining 15% of the overall building square footage).

The proposed Project has been modified to include 1,003,510 square feet of High-Cube Fulfillment Center Warehouse use (based on the WSP trip generation rates) and an active park of up to 14.94 acres (no change from 2023 Traffic Study). No High-Cube Cold Storage Warehouse use is proposed as part of the revised Project.

## TRIP GENERATION

### 2023 TRAFFIC STUDY

the traffic characteristics of the proposed project, trip-generation statistics published in the High Cube Warehouse Trip Generation Study (WSP, January 2019) and the Institute of Transportation Engineers (ITE) Trip Generation Manual (11<sup>th</sup> Edition, 2021) were used to estimate the Project's trip generation. As discussed previously, the trip generation from the 2023 Traffic Study for the industrial component has been evaluated assuming 852,984 square feet of High-Cube Fulfillment Center Warehouse use and 150,526 square feet of High-Cube Cold Storage Warehouse use. The trip generation summary from the 2023 Traffic Study is provided in Table 1 for actual vehicles. As shown in Table 1, the proposed Project as evaluated in the 2023 Traffic Study is anticipated to generate 2,886 trip-ends per day, with 150 AM peak hour trips and 218 PM peak hour trips (in actual vehicles).

**TABLE 1: 2023 TRAFFIC STUDY TRIP GENERATION SUMMARY (ACTUAL VEHICLES)**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
<b>Actual Vehicles:</b>								
High-Cube Cold Storage (15%)	150,526 TSF							
Passenger Cars:		11	1	12	3	11	14	206
2-axle Trucks:		0	1	1	1	1	2	40
3-axle Trucks:		0	0	0	0	0	0	12
4+-axle Trucks:		1	2	3	1	1	2	62
Total Truck Trips (Actual Vehicles):		1	3	4	2	2	4	114
Total Trips (Actual Vehicles) <sup>2</sup>		12	4	16	5	13	18	320
High-Cube Fulfillment (85%)	852,984 TSF							
Passenger Cars:		68	20	88	34	88	122	1,494
2-4axle Trucks:		3	3	6	4	5	9	138
5+-axle Trucks:		5	5	10	4	5	9	186
Total Truck Trips (Actual Vehicles):		8	8	16	8	10	18	324
Total Trips (Actual Vehicles) <sup>2</sup>		76	28	104	42	98	140	1,818
Active Park	14.94 Acres							
Passenger Cars		15	15	30	30	30	60	748
Trucks		94	36	130	67	129	196	2,448
Total Trips (Actual Vehicles) <sup>2</sup>		9	11	20	10	12	22	438
<b>Total Trips (Actual Vehicles)<sup>2</sup></b>		<b>103</b>	<b>47</b>	<b>150</b>	<b>77</b>	<b>141</b>	<b>218</b>	<b>2,886</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

## **REVISED PROJECT**

The proposed Project has been modified to include 1,003,510 square feet of High-Cube Fulfillment Center Warehouse use (based on the WSP trip generation rates) and an active park of up to 14.94 acres. This revision removes the Cold Storage Warehouse use from the Project. Trip generation rates for the proposed Project are provided in Table 2 for actual vehicles and are consistent with the rates utilized in the 2023 Traffic Study.

**TABLE 2: TRIP GENERATION RATES**

Land Use <sup>1</sup>	Units <sup>2</sup>	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
High-Cube Fulfillment Center Warehouse <sup>4</sup>	TSF	--	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars (AM-84.4%, PM-87.3%, Daily-82.2%)			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (AM-6.6%, PM-6.7%, Daily-7.6%)			0.004	0.004	0.008	0.005	0.006	0.011	0.162
5+-Axle Trucks (AM-9.0%, PM-6.0%, Daily-10.2%)			0.005	0.006	0.011	0.005	0.005	0.010	0.217
Soccer Complex	Fields	488	0.60	0.39	0.99	10.84	5.59	16.43	71.33

<sup>1</sup> Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

<sup>2</sup> TSF = thousand square feet

<sup>3</sup> Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.

Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

<sup>4</sup> Vehicle Mix Source: High Cube Warehouse Trip Generation Study, WSP, January 29, 2019.

Inbound and outbound split source: ITE Trip Generation Manual, Eleventh Edition (2021) for ITE Land Use Code 154.

The trip generation summary for the revised Project is provided in Table 3 for actual vehicles. As shown in Table 3, the revised Project is anticipated to generate 2,886 trip-ends per day, with 153 AM peak hour trips and 225 PM peak hour trips (in actual vehicles).

## **TRIP GENERATION COMPARISON**

The difference in trips from the revised Project to the 2023 Traffic Study is provided in Table 4 for actual vehicles. As shown in Table 4, the revised Project generates no addition or reduction in trip-ends per day (no change to 2023 Traffic Study), with an increase in 3 AM peak hour trips and 7 PM peak hour trips (in actual vehicles).

**TABLE 3: REVISED PROJECT TRIP GENERATION SUMMARY (ACTUAL VEHICLES)**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
<b>Actual Vehicles:</b>								
High-Cube Fulfillment (100%)	1,003.510 TSF							
Passenger Cars:		80	24	104	40	104	144	1,756
2-4axle Trucks:		4	4	8	5	6	11	164
5+-axle Trucks:		5	6	11	5	5	10	218
Total Truck Trips (Actual Vehicles):		9	10	19	10	11	21	382
Total Trips (Actual Vehicles) <sup>2</sup>		89	34	123	50	115	165	2,138
Active Park	14.94 Acres	15	15	30	30	30	60	748
Passenger Cars		95	39	134	70	134	204	2,504
Trucks		9	10	19	10	11	21	382
<b>Total Trips (Actual Vehicles)<sup>2</sup></b>		<b>104</b>	<b>49</b>	<b>153</b>	<b>80</b>	<b>145</b>	<b>225</b>	<b>2,886</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

**TABLE 4: TRIP GENERATION COMPARISON**

Project	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
<b>2023 Traffic Study</b>							
Passenger Cars:	94	36	130	67	129	196	2,448
Trucks (Actual Vehicles):	9	11	20	10	12	22	438
<b>Total:</b>	<b>103</b>	<b>47</b>	<b>150</b>	<b>77</b>	<b>141</b>	<b>218</b>	<b>2,886</b>
<b>Revised Project</b>							
Passenger Cars:	95	39	134	70	134	204	2,504
Trucks (Actual Vehicles):	9	10	19	10	11	21	382
<b>Total:</b>	<b>104</b>	<b>49</b>	<b>153</b>	<b>80</b>	<b>145</b>	<b>225</b>	<b>2,886</b>
<b>Difference in Trips</b>							
Passenger Cars:	1	3	4	3	5	8	56
Trucks (Actual Vehicles):	0	-1	-1	0	-1	-1	-56
<b>Total:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>0</b>

## CONCLUSION

Based on a comparison of the trip generation to the 2023 Traffic Study, the revised Project is not anticipated to increase or decrease the trip-ends per day. The revised Project is anticipated to increase 3 AM peak hour trips and 7 PM peak hour trips. However, this increase in trips is not anticipated to substantially affect the operations analysis as evaluated in the 2023 Traffic Study. Generally, the threshold for the measurable amount of traffic that is anticipated to affect the operations of intersections is 50 vehicles, per industry standard. Since the revised Project not anticipated to increase the trips by 50 or more during the peak hours, no changes to the 2023 Traffic Study are necessary as the revised Project is not anticipated to change the findings of the 2023 Traffic Study.

If you have any questions, please contact us directly at [cpaquin@urbanxroads.com](mailto:cpaquin@urbanxroads.com).