Appendix R

Alternatives Analyses

October 25, 2022

Mr. Timothy Reeves
Lewis Management Corp.
1156 N. Mountain Avenue
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SUBJECT: WEST CAMPUS UPPER PLATEAU OFF-SITE TRAFFIC NOISE ANALYSIS ALTERNATIVES

Dear Mr. Timothy Reeves:

This letter has been prepared to document the findings for the off-site traffic noise analysis alternatives for the proposed West Campus Upper Plateau (Project) located in the jurisdiction of the March Joint Powers Authority (March JPA). The purpose of this evaluation is to evaluate the off-site traffic noise level impacts associated with two Project alternatives based on a comparison to the *West Campus Upper Plateau Noise and Vibration Impact Analysis*, October 12, 2022, prepared by Urban Crossroads, Inc., referred to hereafter as the "2022 Noise Study."

SUMMARY OF FINDINGS

According to the *West Campus Upper Plateau Trip Generation Evaluation* prepared by Urban Crossroads, Inc. on October 25, 2022, Alternatives 2 and 3 both result in a reduction in trips compared to the 2022 Traffic Study. Table 1 presents a summary of the Project related off-site traffic noise level increases. As shown on Table 1, Segment #13 (Cactus Avenue east of Meridian Parkway) will experience *potentially significant* off-site traffic noise level increases due to the proposed Project, Alternative 2 and Alternative 3 conditions ranging from 3.2 to 4.4 dBA CNEL. This exceeds the incremental noise level increase threshold on Segment #13. Segment #13 is only shown to be *less than significant* for Alternative 2 during long-range horizon year 2045 conditions. All other roadway segments are shown to experience less than significant impacts due to the proposed Project, Alternative 2 and Alternative 3.

ALTERNATIVE 2

This alternative consists of a 70% reduction in square footage to the Business Park land use, excluding the Business Park square footage associated with the Mixed-Use area. The total non-Mixed-Use Business Park square footage for Alternative 2 is 384,121 square feet (a reduction of 896,282 square feet compared to the non-Mixed-Use Business Park square footage from the 2022 Traffic Study). Alternative 2 is anticipated to generate a total of 24,728 trip-ends per day including 1,696 trucks trips.

ALTERNATIVE 3

This alternative consists of a reduction of 244,550 square feet of High-Cube Fulfillment Center use. The total High-Cube Fulfillment Center square footage (within the "Remaining Industrial" category) for Alternative 3 is 481,011 square feet. Alternative 3 is anticipated to generate a total of 34,792 trip-ends per day including 1,960 truck trips.

TABLE 1: OFF-SITE TRAFFIC NOISE LEVEL INCREASE SUMMARY

ID	Road	Segment	Receiving Land Use[1]	Incremental Noise Level Increase (dBA CNEL)[2]											
				Project Alternative				Alternative 2				Alternative 3			
				E	EA	OYC	HY	E	EA	OYC	HY	E	EA	OYC	HY
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Barton St.	n/o Van Buren Blvd.	Sensitive	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	0.6	0.5	0.5	0.4	0.5	0.4	0.4	0.3	0.6	0.4	0.4	0.4
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	1.6	1.4	1.3	1.1	1.3	1.1	1.0	0.9	1.6	1.4	1.3	1.1
7	Day St.	n/o Alessandro Blvd.	Sensitive	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
9	Alessandro Blvd.	w/o Barton St.	Sensitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10	Alessandro Blvd.	e/o Barton St.	Sensitive	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
12	Alessandro Blvd.	w/o Day St.	Sensitive	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	4.4	4.0	4.0	3.4	3.8	3.5	3.5	2.9	4.3	3.9	3.9	3.3
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	0.5	0.4	0.2	0.2	0.4	0.3	0.1	0.2	0.4	0.4	0.2	0.2

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 2: OFF-SITE TRAFFIC NOISE LEVEL INCREASE THRESHOLD SUMMARY

ID	Road	Segment	Receiving Land Use[1]	Limit	Incremental Noise Level Increase Threshold Exceeded?[2]											
					Project Alternative				Alternative 2				Alternative 3			
					E	EA	OYC	HY	E	EA	OYC	HY	E	EA	OYC	HY
1	Alessandro Blvd.	s/o Arlington Av.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
2	Alessandro Blvd.	s/o Canyon Crest Dr.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
3	Trautwein Rd.	n/o Van Buren Blvd.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
4	Barton St.	n/o Van Buren Blvd.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
5	Sycamore Canyon Blvd.	n/o Cottonwood Av.	Non-Sensitive	3.0	No	No	No	No	No	No	No	No	No	No	No	No
6	Meridian Pkwy.	n/o Van Buren Blvd.	Non-Sensitive	3.0	No	No	No	No	No	No	No	No	No	No	No	No
7	Day St.	n/o Alessandro Blvd.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
8	Frederick St.	n/o Cactus Av.	Non-Sensitive	3.0	No	No	No	No	No	No	No	No	No	No	No	No
9	Alessandro Blvd.	w/o Barton St.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
10	Alessandro Blvd.	e/o Barton St.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
11	Alessandro Blvd.	e/o Meridian Pkwy.	Non-Sensitive	3.0	No	No	No	No	No	No	No	No	No	No	No	No
12	Alessandro Blvd.	w/o Day St.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
13	Cactus Av.	e/o Meridian Pkwy.	Non-Sensitive	3.0	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**	**Yes**	**Yes**
14	Cactus Av.	w/o Elsworth St.	Non-Sensitive	3.0	No	No	No	No	No	No	No	No	No	No	No	No
15	Orange Terrace Pkwy.	e/o Trautwein Rd.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
16	Van Buren Blvd.	w/o Wood Rd.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
17	Van Buren Blvd.	e/o Wood Rd.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
18	Van Buren Blvd.	e/o Orange Terrace Pkwy.	Sensitive	1.5	No	No	No	No	No	No	No	No	No	No	No	No
19	Van Buren Blvd.	e/o Meridian Pkwy.	Non-Sensitive	3.0	No	No	No	No	No	No	No	No	No	No	No	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

Alternatives 2 and 3 both result in a reduction in trips compared to the 2022 Traffic Study. The off-site traffic noise analysis demonstrates that off-site traffic noise level impacts for Alternatives 2 and 3 are less that what was previously assessed in the 2022 Noise Study. If you have any questions, please contact me directly at (949) 584-3148.

Respectfully submitted,

URBAN CROSSROADS, INC.

Bill Lawson, P.E., INCE
Principal

October 25, 2022

Mr. Timothy Reeves
Lewis Management Corp.
1156 N. Mountain Avenue
Upland, CA 91785

WEST CAMPUS UPPER PLATEAU TRIP GENERATION EVALUATION

Mr. Timothy Reeves,

This letter has been prepared to document the findings for the trip generation evaluation for the proposed West Campus Upper Plateau (Project) located in the jurisdiction of the March Joint Powers Authority (March JPA). The purpose of this trip generation evaluation is to evaluate the trip generation associated with two Project alternatives and determine if additional traffic analysis is necessary based on a comparison to the West Campus Upper Plateau Traffic Analysis, October 18, 2022, prepared by Urban Crossroads, Inc., referred to hereafter as the "2022 Traffic Study."

SUMMARY OF FINDINGS

Alternatives 2 and 3 both result in a reduction in trips compared to the 2022 Traffic Study. As such, additional traffic analysis is not necessary as the 2022 Traffic Study provides a more conservative analysis of the traffic deficiencies within the study area.

PROJECT OVERVIEW

2022 TRAFFIC STUDY

Consistent with the 2022 Traffic Study, the proposed Project consists of the following uses:

- Building B – 1,250,000 square feet (SF) of high-cube fulfillment center warehouse use
- Building C – 587,000 SF of high-cube fulfillment center warehouse use
- Industrial Area – 725,561 SF of high-cube fulfillment center warehouse use and 500,000 SF of high-cube cold storage warehouse use
- Business Park Area – 1,280,403 SF of business park use
- Mixed Use Area – 160,921 SF of retail use (25%)
- Mixed Use Area – 482,765 SF of business park use (75%)
- 42.20 Acre Active Park (with sports fields)
- 18.08 Acres of Public Park
- The proposed Project also includes an approximately 445-acre Conservation Area that is not anticipated to generate traffic.

ALTERNATIVE 2

This alternative consists of a 70% reduction in square footage to the Business Park land use, excluding the Business Park square footage associated with the Mixed-Use area. The total non-Mixed-Use Business Park square footage for Alternative 2 is 384,121 square feet (a reduction of 896,282 square feet compared to the non-Mixed-Use Business Park square footage from the 2022 Traffic Study).

ALTERNATIVE 3

This alternative consists of a reduction of 244,550 square feet of High-Cube Fulfillment Center use. The total High-Cube Fulfillment Center square footage (within the "Remaining Industrial" category) for Alternative 3 is 481,011 square feet.

TRIP GENERATION

In order to develop the traffic characteristics of the proposed Project and consistent with the 2022 Traffic Study, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021), the High Cube Warehouse Trip Generation Study (WSP, January 2019), and the San Diego Association of Governments (SANDAG) (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002) were used to estimate the Project's trip generation. The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project are shown in Table 1.

2022 TRAFFIC STUDY

Consistent with the 2022 Traffic Study, the proposed land uses are anticipated to generate a total of 35,314 trip-ends per day with 1,761 AM peak hour trips, 3,389 PM peak hour trips, and 1,642 weekend Saturday peak hour trips.

ALTERNATIVE 2

Table 2 provides the trip generation summary for Alternative 2. As shown in Table 2, Alternative 2 is anticipated to generate a total of 24,728 trip-ends per day with 1,263 AM peak hour trips, 2,237 PM peak hour trips, and 1,468 weekend Saturday peak hour trips.

ALTERNATIVE 3

Table 3 provides the trip generation summary for Alternative 3. As shown in Table 3, Alternative 3 is anticipated to generate a total of 34,792 trip-ends per day with 1,730 AM peak hour trips, 3,349 PM peak hour trips, and 1,640 weekend Saturday peak hour trips.

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	Weekday Daily	Saturday Mid-day In	Saturday Mid-day Out	Saturday Mid-day Total
Warehousing[3]	TSF	150	0.115	0.020	0.135	0.317	0.903	1.220	12.440	0.032	0.018	0.050
Passenger Cars (AM = 87.0%; PM = 85.0%; Daily = 73.0%)			0.077	0.018	0.095	0.260	0.920	1.180	11.870	0.026	0.014	0.040
Trucks (AM = 13.0%; PM = 15.0%; Daily = 27.0%)			0.032	0.008	0.040	0.009	0.031	0.040	0.570	0.006	0.004	0.010
2-Axle Trucks (AM-2.17%; PM-2.51%; Daily-4.51%)			0.005	0.001	0.007	0.001	0.005	0.007	0.095	0.001	0.001	0.002
3-Axle Trucks (AM-2.69%; PM-3.11%; Daily-5.59%)			0.007	0.002	0.008	0.002	0.006	0.008	0.118	0.001	0.001	0.002
4-Axle+ Trucks (AM-8.14%; PM-9.39%; Daily-16.90%)			0.020	0.005	0.025	0.006	0.020	0.025	0.357	0.004	0.002	0.006
High-Cube Fulfillment Center Warehouse[3,6]	TSF	--	0.094	0.028	0.122	0.046	0.119	0.165	2.129	0.004	0.002	0.007
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	0.004	0.002	0.006
Trucks (AM = 15.6%, PM = 12.7%, Daily = 17.8%)			0.015	0.004	0.019	0.006	0.015	0.021	0.379	0.001	0.000	0.001
2-4 Axle Trucks			0.006	0.002	0.008	0.003	0.008	0.011	0.162	0.000	0.000	0.000
5+-Axle Trucks			0.008	0.003	0.011	0.003	0.007	0.010	0.217	0.000	0.000	0.000
High-Cube Cold Storage Warehouse (With Cold Storage)[3]	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120	0.003	0.002	0.005
Passenger Cars (AM-73.0%; PM-77.0%; Daily-65.0%)			0.076	0.004	0.080	0.019	0.071	0.090	1.370	0.002	0.001	0.004
2-Axle Trucks (AM-9.37%; PM-7.98%; Daily-12.15%)			0.003	0.007	0.010	0.005	0.005	0.010	0.260	0.000	0.000	0.000
3-Axle Trucks (AM-2.97%; PM-2.53%; Daily-3.85%)			0.001	0.002	0.003	0.002	0.001	0.003	0.083	0.000	0.000	0.000
4-Axle+ Trucks (AM-14.66%; PM-12.49%; Daily-19.01%)			0.005	0.011	0.016	0.008	0.008	0.016	0.407	0.000	0.000	0.001
Trucks (AM = 28.0%, PM = 23.0%, Daily = 35.0%)			0.009	0.021	0.030	0.015	0.015	0.030	0.750	0.001	0.000	0.001
Active Park	AC	--[4]	3.25	3.25	6.50	2.25	2.25	4.50	50.00	4.44	4.81	9.26
Public Park	AC	--[4]	0.33	0.32	0.65	0.23	0.22	0.45	5.00	0.44	0.48	0.93
General Office[5]	TSF	710	Based on the ITE Fitted Curve Equation									
General Office (60.000 TSF)			1.58	0.29	1.87	0.31	1.50	1.81	12.40	0.29	0.24	0.53
General Office (324.121 TSF)			1.25	0.23	1.48	0.23	1.13	1.36	9.96	0.29	0.24	0.53
General Office (144.830 TSF)			1.40	0.25	1.65	0.27	1.29	1.56	11.06	0.29	0.24	0.53
Shopping Plaza (40-150 TSF)	TSF	821	1.07	0.66	1.73	2.54	2.65	5.19	67.52	4.72	4.54	9.26

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

[2] TSF = thousand square feet; AC = Acres

[3] 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.

[4] Trip Generation Source: SANDAG (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002. For Developed and Undeveloped Parks.

[5] Trip generation rates based on the regression equation are not available for the Saturday peak hour, due to limitations in the ITE Trip Generation Manual for ITE Land Use Code 710. As such, the average rate has been utilized.

[6] The ITE Trip Generation Manual, Eleventh Edition (2021), does not provide Saturday trip generation rates for industrial uses. As such, the Saturday peak hour trip generation rates are based on the breakdown of the trip rates, by vehicle type, during the PM peak hour.

TABLE 2: ALTERNATIVE 2 TRIP GENERATION SUMMARY

Land Use[5]	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	Weekday Daily	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total
Building B: High-Cube Fulfillment	1,250.000	TSF										
Passenger Cars:			99	30	129	50	130	180	2,188	5	3	8
Trucks:			18	5	23	7	19	26	474	1	0	1
Total Trips[2]			**117**	**35**	**152**	**57**	**149**	**206**	**2,662**	**6**	**3**	**9**
Building C: High-Cube Fulfillment	587.000	TSF										
Passenger Cars:			47	14	61	24	61	85	1,028	2	1	3
Trucks:			9	3	12	3	9	12	222	0	0	0
Total Trips[2]			**56**	**17**	**73**	**27**	**70**	**97**	**1,250**	**2**	**1**	**3**
High-Cube Cold Storage Warehouse	500.000	TSF										
Passenger Cars:			38	2	40	10	36	46	686	1	1	2
Trucks:			5	11	16	8	8	16	376	0	0	0
Total Trips[2]			**43**	**13**	**56**	**18**	**44**	**62**	**1,062**	**1**	**1**	**2**
Remaining Industrial: High-Cube Fulfillment	725.561	TSF										
Passenger Cars:			58	17	75	29	75	104	1,270	3	2	5
Trucks:			11	3	14	4	11	15	276	0	0	0
Total Trips[2]			**69**	**20**	**89**	**33**	**86**	**119**	**1,546**	**3**	**2**	**5**
Business Park[5]	384.121	TSF										
Office Passenger Cars:	97.236	TSF	122	22	144	22	110	132	968	28	24	52
Office Passenger Cars:	18.000	TSF	28	5	34	6	27	33	224	5	4	9
Business Park Warehouse	268.885	TSF										
Warehouse Passenger Cars:			21	5	26	70	247	317	3,192	7	4	11
Warehouse Trucks:			9	2	11	2	8	10	154	2	1	3
Business Park[5] (Mixed-Use, 75%)	482.765	TSF										
Office Passenger Cars:	144.830	TSF	203	36	239	39	187	226	1,602	41	35	76
Business Park Warehouse	337.936	TSF										
Warehouse Passenger Cars:			26	6	32	88	311	399	4,012	9	5	14
Warehouse Trucks:			11	3	14	3	11	14	194	2	1	3
Total Business Park Trips			**420**	**79**	**500**	**230**	**901**	**1,131**	**10,346**	**94**	**74**	**168**
Retail (Mixed-Use, 25%)												
Passenger Cars:	160.921	TSF	173	106	279	409	426	835	10,866	760	730	1,490
Pass-by Reduction (AM: 0%; PM/Daily: 40%)[4]			0	0	0	-164	-164	-327	-4,348	-304	-292	-596
Total Retail Trips			**173**	**106**	**279**	**245**	**262**	**508**	**6,518**	**456**	**438**	**894**
Active Park	42.20	AC	137	137	274	95	95	190	2,110	187	203	390
Public Park	18.08	AC	6	6	12	4	4	8	90	19	20	39
Total Park Trips			**143**	**143**	**286**	**99**	**99**	**198**	**2,200**	**206**	**223**	**429**
Total Passenger Cars			958	386	1,345	682	1,545	2,228	23,888	763	740	1,503
Internal Trip Reduction[3]			-86	-86	-172	-42	-42	-84	-856	-21	-21	-42
Total Trucks			63	27	90	27	66	93	1,696	5	2	7
Project Total Trips			**935**	**327**	**1,263**	**667**	**1,569**	**2,237**	**24,728**	**747**	**721**	**1,468**

[1] TSF = thousand square feet; AC = Acres

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

[3] Internal trip reduction based on NCHRP 684 Internal Trip Capture Estimation Tool for the passenger car trips and commercial retail.

[4] Pass-by reduction percentage source: ITE Trip Generation Handbook, 3rd Edition (2017).

[5] 2-axle trucks have been evaluated as trucks as opposed to delivery vans or passenger cars.

TABLE 3: ALTERNATIVE 3 TRIP GENERATION SUMMARY

Land Use[5]	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	Weekday Daily	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total
Building B: High-Cube Fulfillment	1,250.000	TSF										
Passenger Cars:			99	30	129	50	130	180	2,188	5	3	8
Trucks:			18	5	23	7	19	26	474	1	0	1
Total Trips[2]			**117**	**35**	**152**	**57**	**149**	**206**	**2,662**	**6**	**3**	**9**
Building C: High-Cube Fulfillment	587.000	TSF										
Passenger Cars:			47	14	61	24	61	85	1,028	2	1	3
Trucks:			9	3	12	3	9	12	222	0	0	0
Total Trips[2]			**56**	**17**	**73**	**27**	**70**	**97**	**1,250**	**2**	**1**	**3**
High-Cube Cold Storage Warehouse	500.000	TSF										
Passenger Cars:			38	2	40	10	36	46	686	1	1	2
Trucks:			5	11	16	8	8	16	376	0	0	0
Total Trips[2]			**43**	**13**	**56**	**18**	**44**	**62**	**1,062**	**1**	**1**	**2**
Remaining Industrial: High-Cube Fulfillment	481.011	TSF										
Passenger Cars:			38	11	49	19	50	69	842	2	1	3
Trucks:			7	2	9	3	7	10	182	0	0	0
Total Trips[2]			**45**	**13**	**58**	**22**	**57**	**79**	**1,024**	**2**	**1**	**3**
Business Park[5]	1,280.403	TSF										
Office Passenger Cars:	324.121	TSF	405	75	480	75	366	441	3,228	93	79	172
Office Passenger Cars:	60.000	TSF	95	17	112	19	90	109	744	17	15	32
Business Park Warehouse	896.282	TSF										
Warehouse Passenger Cars:			69	16	85	233	825	1,058	10,640	23	13	36
Warehouse Trucks:			29	7	36	8	28	36	512	6	3	9
Business Park[5] (Mixed-Use, 75%)	482.765	TSF										
Office Passenger Cars:	144.830	TSF	203	36	239	39	187	226	1,602	41	35	76
Business Park Warehouse	337.936	TSF										
Warehouse Passenger Cars:			26	6	32	88	311	399	4,012	9	5	14
Warehouse Trucks:			11	3	14	3	11	14	194	2	1	3
Total Business Park Trips			**838**	**160**	**998**	**465**	**1,818**	**2,283**	**20,932**	**191**	**151**	**342**
Retail (Mixed-Use, 25%)												
Passenger Cars:	160.921	TSF	173	106	279	409	426	835	10,866	760	730	1,490
Pass-by Reduction (AM: 0%; PM/Daily: 40%)[4]			0	0	0	-164	-164	-327	-4,348	-304	-292	-596
Total Retail Trips			**173**	**106**	**279**	**245**	**262**	**508**	**6,518**	**456**	**438**	**894**
Active Park	42.20	AC	137	137	274	95	95	190	2,110	187	203	390
Public Park	18.08	AC	6	6	12	4	4	8	90	19	20	39
Total Park Trips			**143**	**143**	**286**	**99**	**99**	**198**	**2,200**	**206**	**223**	**429**
Total Passenger Cars			1,336	456	1,792	901	2,417	3,319	33,688	855	814	1,669
Internal Trip Reduction[3]			-86	-86	-172	-42	-42	-84	-856	-21	-21	-42
Total Trucks			79	31	110	32	82	114	1,960	9	4	13
Project Total Trips			**1,329**	**401**	**1,730**	**891**	**2,457**	**3,349**	**34,792**	**843**	**797**	**1,640**

[1] TSF = thousand square feet; AC = Acres

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

[3] Internal trip reduction based on NCHRP 684 Internal Trip Capture Estimation Tool for the passenger car trips and commercial retail.

[4] Pass-by reduction percentage source: ITE Trip Generation Handbook, 3rd Edition (2017).

[5] 2-axle trucks have been evaluated as trucks as opposed to delivery vans or passenger cars.

TRIP GENERATION COMPARISON

Table 4 provides a comparison of the anticipated trip generation from Alternatives 2 and 3 to the 2022 Traffic Study. As shown in Table 4, Alternative 2 is anticipated to result in a reduction of 10,586 trip-ends per day, with a reduction of 498 AM peak hour trips, a reduction of 1,152 PM peak hour trips, and a reduction of174 weekend Saturday peak hour trips.

As shown in Table 4, Alternative 3 is anticipated to result in a reduction of 522 trip-ends per day, with a reduction of 31 AM peak hour trips, a reduction of 40 PM peak hour trips, and a reduction of 2 weekend Saturday peak hour trips.

TABLE 4: TRIP GENERATION COMPARISON

	AM Peak Hour			PM Peak Hour			Weekday	Saturday Peak Hour		
Project	In	Out	Total	In	Out	Total	Daily	In	Out	Total
2022 Traffic Study[1]	1,353	408	1,761	902	2,486	3,389	35,314	844	798	1,642
Alternative 2	935	327	1,263	667	1,569	2,237	24,728	747	721	1,468
Comparison	-418	-81	-498	-235	-917	-1,152	-10,586	-97	-77	-174
2022 Traffic Study[1]	1,353	408	1,761	902	2,486	3,389	35,314	844	798	1,642
Alternative 3	1,329	401	1,730	891	2,457	3,349	34,792	843	797	1,640
Comparison	-24	-7	-31	-11	-29	-40	-522	-1	-1	-2

[1] Trip Generation Source: West Campus Upper Plateau Traffic Analysis, October 18, 2022, prepared by Urban Crossroads, Inc.

CONCLUSION

Alternatives 2 and 3 both result in a reduction in trips compared to the 2022 Traffic Study. As such, additional traffic analysis is not necessary as the 2022 Traffic Study provides a more conservative analysis of the traffic deficiencies within the study area.

If you have any questions or comments, I can be reached at (916) 806-8326.

Respectfully submitted,

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