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CHI HOLDINGS FOR HIGHLAND WEST TRIP GENERATION ASSESSMENT

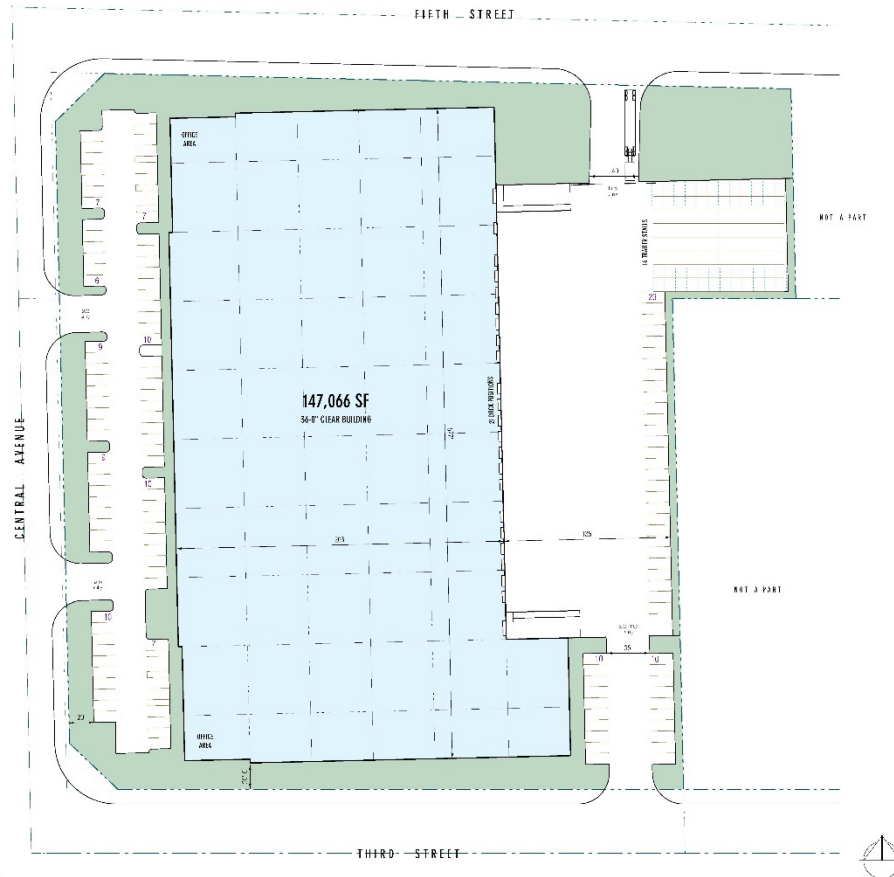
Ms. Deirdre McCollister,

Urban Crossroads, Inc. is pleased to submit this Trip Generation Assessment for the proposed CHI Holdings for Highland West development (**Project**), which is located on the southeast corner of Central Avenue and 5th Street in the City of Highland. It should be noted that this trip generation assessment has been prepared in accordance with the SBCTA's Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (February 2020) (**TIA Guidelines**).

PROPOSED PROJECT

It is our understanding that the Project is to consist of a 147,066 square foot industrial warehouse building (see Exhibit 1). Access is proposed to 5th Street to the north (via 1 driveway), Central Avenue to the west (via 2 driveways), and 3rd Street to the south (via one driveway). The driveways on 5th Street and 3rd Street will serve trucks. The driveways on Central Avenue and the driveway on 3rd Street will provide access to passenger cars.

EXHIBIT 1: PRELIMINARY SITE PLAN



TRIP GENERATION

EXISTING TRAFFIC

The site was occupied by existing uses that are currently active. In an effort to understand the existing traffic associated with the current uses, traffic counts were collected at the driveways on May 4 and May 5, 2022 (Wednesday and Thursday). A summary of the count data collected is shown on Table A-1 of Attachment A. See Attachment A for driveway count data worksheets.

Table 1 below summarizes the average existing trip generation based on the count data collected over two days. The existing site currently generates an average of 149 two-way trips per day, with 13 trips during the AM peak hour and 17 trips during the PM peak hour. Trip generation for the existing use has been reflected in both actual vehicles and passenger car equivalent (PCE) on Table 1. PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in the County Guidelines and with those used for other projects within the County.

TABLE 1: EXISTING TRIP GENERATION

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Actual Vehicles:							
Existing Use							
Passenger Cars:	9	3	12	6	11	17	130
2-axle Trucks:	0	0	0	0	0	0	9
3-axle Trucks:	0	0	0	0	0	0	2
4+-axle Trucks:	0	1	1	0	0	0	8
Total Trucks:	0	1	1	0	0	0	19
Total Trips (Actual Vehicles) ¹	9	4	13	6	11	17	149
Passenger Car Equivalent (PCE):							
Existing Use							
Passenger Cars:	9	3	12	6	11	17	130
2-axle Trucks:	0	0	0	0	0	0	14
3-axle Trucks:	0	0	0	0	0	0	4
4+-axle Trucks:	0	3	3	0	0	0	24
Total Trucks (PCE):	0	3	3	0	0	0	42
Total Trips (PCE) ¹	9	6	15	6	11	17	172

¹ Total Trips = Passenger Cars + Truck Trips.

PROPOSED PROJECT

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 2). 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 147,066 square feet of the proposed Project. A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has also been obtained from the ITE’s latest [Trip Generation Manual](#). 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 2: TRIP GENERATION RATES

Land Use	ITE LU Code	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehousing ³	150	TSF	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

¹ TSF = Thousand Square Feet

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 3. As shown in Table 3, the proposed Project is anticipated to generate a total of 254 two-way trips per day with 24 AM peak hour trips and 24 PM peak hour trips (in actual vehicles). In comparison, the proposed Project is anticipated to generate a total of 392 PCE two-way trips per day with 28 PCE AM peak hour trips and 28 PCE PM peak hour trips (see also Table 3).

TABLE 3: PROPOSED PROJECT TRIP GENERATION SUMMARY

Proposed Land Use	Quantity Units ¹	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Actual Vehicles:								
Warehousing	147.066 TSF							
Passenger Cars:		18	4	22	5	17	22	164
2-axle Trucks:		0	0	0	0	0	0	16
3-axle Trucks:		0	0	0	0	0	0	18
4+-axle Trucks:		1	1	2	1	1	2	56
Total Truck Trips:		1	1	2	1	1	2	90
Proposed Project Total (Actual Vehicles)		19	5	24	6	18	24	254
Passenger Car Equivalent (PCE):								
Warehousing	147.066 TSF							
Passenger Cars:		18	4	22	5	17	22	164
2-axle Trucks (PCE = 1.5):		0	0	0	0	0	0	24
3-axle Trucks (PCE = 2.0):		0	0	0	0	0	0	36
4+-axle Trucks (PCE = 3.0):		3	3	6	3	3	6	168
Total Truck Trips (PCE):		3	3	6	3	3	6	228
Proposed Project Total (PCE)		21	7	28	8	20	28	392

¹ TSF = Thousand Square Feet

TRIP GENERATION COMPARISON

Table 4 shows the trip generation comparison between the existing and proposed use. The resulting net new trips are identified on Table 4. As shown, the Project is anticipated to generate 220 net new two-way trips per day with a net increase of 13 AM peak hour trips and 11 PM peak hour trips (in PCE). Per the City's Guidelines, the trip generation comparison is based on PCE as the existing and proposed uses are truck-intensive uses. Based on the anticipated net new trips, additional off-site intersection operations analysis does not appear necessary based on the City's Guidelines.

TABLE 4: TRIP GENERATION COMPARISON

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Proposed Project							
Passenger Cars:	18	4	22	5	17	22	164
Total Truck Trips (PCE):	3	3	6	3	3	6	228
Total Trips	21	7	28	8	20	28	392
Existing							
Passenger Cars:	9	3	12	6	11	17	130
Total Truck Trips (PCE):	0	3	3	0	0	0	42
Total Trips	9	6	15	6	11	17	172
Net Change							
Passenger Cars:	9	1	10	-1	6	5	34
Total Truck Trips (PCE):	3	0	3	3	3	6	186
Total Trips	12	1	13	2	9	11	220

FINDINGS

The City's Guidelines indicates that any use which can demonstrate, based on the most recent edition of the ITE Trip Generation Manual or other approved trip generation data, trip generation of less than 50 vehicle trips during the peak hours are generally exempt from Traffic Analysis requirements as the project would contribute less than 50 peak hour trips to any off-site intersection. The Project is anticipated to generate fewer than 50 net new peak hour trips (see Table 4). As such, additional traffic analysis is not required for this Project based on the City's Guidelines.

ATTACHMENT A
DRIVEWAY COUNTS FOR HIGHLANDS WEST

TABLE A-1: SUMMARY OF EXISTING COUNT DATA

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Day 1: May 4, 2022							
Passenger Cars:	9	1	10	3	7	10	117
2-axle Trucks:	0	0	0	0	0	0	10
3-axle Trucks:	0	0	0	0	0	0	0
4+-axle Trucks:	0	0	0	0	0	0	8
Total Truck Trips:	0	0	0	0	0	0	18
Total Trips ¹	9	1	10	3	7	10	135
Day 2: May 5, 2022							
Passenger Cars:	9	5	14	9	14	23	141
2-axle Trucks:	0	0	0	0	0	0	7
3-axle Trucks:	0	0	0	0	0	0	3
4+-axle Trucks:	0	2	2	0	0	0	8
Total Truck Trips:	0	2	2	0	0	0	18
Total Trips ¹	9	7	16	9	14	23	159

* Note: data collected on May 4 and May 5, 2022.

¹ Total Trips = Passenger Cars + Total Truck Trips.

