

<http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498>

ITE Study indicating the finding within for inclusion into ITE Trip Generation 10<sup>th</sup> edition

Point of interest (nugget of information within):

Trip Generation factor in the XLS spreadsheet I had for 8<sup>th</sup> edition indicated a factor of 1.44 used in the math.

Here's a table from the ITE research (pg 13 Table 5):

**Table 5. Weighted Average Rates for Daily Trips at High-Cube Warehouses**

Type of High-Cube Warehouse	Weighted Average for Daily Trips per 1,000 GSF <sup>10</sup>			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (91)	1.432	1.000	0.454	0.233
Cold Storage (9)	2.115	1.282	0.836	0.749
Fulfillment Center (1)	8.178	7.461	0.717	0.242
Parcel Hub (1)	10.638	6.631	4.007	0.982
<i>ITE Trip Generation Manual – 9<sup>th</sup> Edition</i>	1.68	--	--	--

Note: The values in parentheses represent the number of data collection sites for HCW type.

Note the table above used 1.68 for the base number instead of 1.44.

I replaced 1.44 with 1.68 below:

<b>Instructions:</b>		<b>Trip Generation Rates from the 8th Edition ITE Trip Generation Report</b>									
Enter Numbers into the "Expected Units" in the Corresponding Yellow Column		NA: Not Available DU: Dwelling Unit Occ.Room: Occupied Room					KSF <sup>2</sup> : Units of 1,000 square feet Fuel Position: # of vehicles that could be fueled simultaneously				
Description / ITE Code	Units	Rate Weekday Daily Traffic	PM Peak Period Rate	% PM In	% PM Out	Expected Units (independent variable)	Calculated Daily Trips	PM Peak Trips - Total	PM In	PM Out	
High-Cube Warehouse 152	KSF <sup>2</sup>	1.00	0.10	33%	67%	505.0	040	51	17	34	
High-Cube Warehouse 152	Employees	NA	0.66	35%	65%	505.0	0	333	117	217	

Now look at worst-case scenario if tenant is a Parcel Hub with a 10.68 base number:

<b>Instructions:</b>		<b>Trip Generation Rates from the 8th Edition ITE Trip Generation Report</b>									
Enter Numbers into the "Expected Units" in the Corresponding Yellow Column		NA: Not Available DU: Dwelling Unit Occ.Room: Occupied Room					KSF <sup>2</sup> : Units of 1,000 square feet Fuel Position: # of vehicles that could be fueled simultaneously				
Description / ITE Code	Units	Rate Weekday Daily Traffic	PM Peak Period Rate	% PM In	% PM Out	Expected Units (independent variable)	Calculated Daily Trips	PM Peak Trips - Total	PM In	PM Out	
High-Cube Warehouse 152	KSF <sup>2</sup>	10.68	0.10	33%	67%	505.0	5,393	51	17	34	
High-Cube Warehouse 152	Employees	NA	0.66	35%	65%	505.0	0	333	117	217	

5393 trips-per-day, that's a lot more than the 320 that was brought up as the number being used by the developers...

Also, Page 17 Table 7:

**Table 7. Weighted Average Rates for PM Peak Hour Trips at High-Cube Warehouses**

Type of High-Cube Warehouse	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (95)	0.108	0.086	0.023	0.010
Cold Storage (9)	0.129	0.087	0.042	0.031
Fulfillment Center (1)	1.979	1.944	0.035	0.013
Parcel Hub (1)	0.803	0.568	0.235	0.009
ITE Trip Generation Manual – 9 <sup>th</sup> Edition	0.12	--	--	--

Note: The values in parentheses represent the number of data collection sites for HCW type.

Now look at the Excel lines with those numbers changed also: Worst-Case:

<b>Instructions:</b> Enter Numbers Into the "Expected Units" in the Corresponding Yellow Column 340x139		<b>Trip Generation Rates from the 8th Edition ITE Trip Generation Report</b>								
		NA: Not Available DU: Dwelling Unit Occ.Room: Occupied Room			KSF <sup>2</sup> : Units of 1,000 square feet Fuel Position: # of vehicles that could be fueled simultaneously					
Description / ITE Code	Units	Rate Weekday Daily Traffic	PM Peak Period Rate	% PM In	% PM Out	Expected Units (independent variable)	Calculated Daily Trips	PM Peak Trips - Total	PM In	PM Out
High-Cube Warehouse 152	KSF <sup>2</sup>	10.68	0.80	33%	67%	505.0	5,393	406	134	272
High-Cube Warehouse 152	Employess	NA	0.66	35%	65%	505.0	0	333	117	217

Page 19: "RECOMMENDATIONS: The preceding analysis of available HCW trip generation data identified significant weaknesses in the ability to forecast vehicle trips with confidence."

AND REPORT WAS DONE BY ITE!!! They see the weakness is lumping all types of warehousing together for trying to estimate traffic!

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