ATTACHMENT 1

COMPLETED INDUSTRIAL BUILDINGS

Completed Industrial Projects Subject to the Potential Warehouse Tax

IT Reference	Business (DBA Google)	Operation Type	Building SF	Total Lot Acreage	Address	APN (GovClarity)	Owner Name (GovClarity)
25	Whirlpool	Warehouse	1,704,127	83.52	3722 N. Redlands Ave.	303-110-001	DB RREEF PERRIS CA INC
15	General Mills Operation	Distribution	1,545,390	83.15	4120 Indian Ave.	302-050-035	ORE
9	Home Depot Distribution	Distribution	1,364,551	80.02	350 W. Markham St.	302-080-033	
18	Ross Distribution Center	Distribution	1,345,103	83.28	3404 Indian Ave.	303-040-001	
21	NFI	Warehouse	1,319,017	57.79	3700 Indian Ave.	303-070-016	
29	Wayfair, Inc.	Warehouse	1,226,658	59.05	3300 Indian Ave.	303-090-035	Prologis
20	Lowes Distribution Center	Distribution	1,225,387	107.48	3984 Indian Ave.	303-030-019 ;-060-016; 060-010	
28	LockTech		1,200,000	55.26	728 W RIDER ST	303-050-004	Prologis
7	Ferguson Plumbing Supply	Warehouse	1,044,592	32.37	4120 N. Webster Ave.	314-170-019, 20, 21	Ferguson Enterprises LLC
23	Amazon Fulfillment Center LGB9	Warehouse	1,016,030	46.76	4375 N. Perris Blvd.	302-120-024	
11	Home Depot Distribution Center	Distribution	1,000,103	67.45	4565 Redlands Ave.	302-170-014; 017; 302-160-032	Stratford Ranch
3	XPO Logistics	Warehouse	912,338	41.82	4413 Patterson Ave.	314-160-012	Perris, CPT Industrial
51	NFI	Warehouse	864,000	43.64	657 W. Nance St.	302-030-012	IPT Perris DC
	IDI Rider	Warehouse	805,567	39	NE corner of Rider and Redlands	303-170-004, 005, 011 & 014	Rider IDIG Center (IDI)
7	Amazon XRB4	Warehouse	800,218	37.43	4150 Patterson Ave.	314-180-030	Duke Realty
	Home Depot Distribution	Distribution	799,522	55	400 E. Ellis Ave	310-170-006, 007, 008, 310-220-050, & 330-090-027	IDI
22	Wayfair, Inc.	Warehouse	783,407	36.72	3500 Indian Ave.	303-080-019	
16	DMSI Staffing	Warehouse	698,274	35.84	4378 N. Perris Blvd.	302-070-020	Dress, Ross Less
16	Forever 21 & DMSI Warehouse	Warehouse	656,695	30.75	233 W. Markham Str.	302-070-031	Duke Realty LTD Partnership
36	Sketchers	Warehouse	640,000	30	1350 Redlands Ave.	303-130-039	Falcon, Yuriel S
11	Essendant - Perris Distribution Center	Warehouse	599,113	24.92	4555 Redlands Ave.	302-150-030; -160-030	
21	Kenco	Distribution	579,708	28.11	3900 Indian Ave.	303-060-022; 031	Wilshire 3900 Indian Ave Owner LLC
14	Tech Style Fashion	Warehouse	474,000	24.26	290 E. Markham St.	302-110-040	Hart 290 E. Markham
23	GEODIS	Warehouse	456,652	11.2	375 E. Markham St.	302-120-001; 009	Markham, Business East
15	Grainger Warehouse	Warehouse	428,730	16.85	4130 Indian Ave.	302-050-040	
154	Coreslab Structures LA	Truck Activity	413,210	21.08	150 Placentia Ave.	305-040-034, 037, 067	45,157 SF - Coreslab Structures Inc
7	Ryder E-Commerce Fulfillment Node	Warehouse	406,650	21.49	4160 Patterson Ave.	314-180-022	CA Optimus DE LLC
5	KenCo	Warehouse	396,845	23.13	1301 Harley Knox Blvd.	294-210-060	Perris, CPT Gateway
141	IDC Logistics	Warehouse	341,492	16.29	251 E. Rider St	300-250-017	251 Rider St LLC
9	National Retail Transport (NRT)	Warehouse	339,519	13.2	400 Harley Knox Blvd.	302-090-051	BIT Holding Seventy Eight Inc
	Newage Products	Truck Activity	302,333	15.6	3125 Wilson Ave.	300-170-009	
46	PODS Storage	Warehouse	251,366	25.4	1330 Nandina Ave.	294-180-055	Perris, IPT DC
24	Moret Group Distribution	Warehouse	240,247	11.15	353 Perry St.	302-130-042	
169	Peloton	Warehouse	210,900	11.17	4564 Redlands Ave.	302-100-013	Carson-VA, Industrial II
		Warehouse	205,000	11	100 W. Walnut Ave	305-030-041 and 305-030-042	AIREF PERRIS BC LP
10	Restrospec	Warehouse	191,920	9.12	380 W. Markham St	302-080-006	Markham Perris
53	Yakima	Warehouse	187,780	9.12	24455 W NANCE ST	302-030-001	CIVF VI-CAIBO1
	J&R Concrete Products	Truck Activity	177,594	9.06	440 Markham St	009-716-402	Raul, Ramirez
50	Berry Direct & Utopia Distribution	Warehouse	172,645	9.09	501 Harley Knox Blvd.	302-020-030, 31	SCRS, HK
	Firs Industrial	Warehouse	155,000	9.7	3175 Wilson Ave	300-170-008	First Industrial
	All American Asphalt	Truck Activity	154,660	7.89	4770 Indian Ave	302-020-019, 045, 049	DIX Leasing Corp
	APA Stone Supply	Truck Activity	145,642	7.43	1980 Goetz Rd.	330-040-023, 034, 035	Perris, CA Plant
	Rak Logistics - Univeral Shipping	Warehouse	144,000	7.26	131 Perry St	302-060-011, 302-060-026, 302-060-030, 302-060-031	Duke
14	Penske Logistics	Warehouse	120,000	6.85	278 E. Markham St.	302-110-041	
2		Warehouse	100,140	4.74	5100 Western Wy.	294-190-038	
56	Inland Heavy Haul & Transport	Truck Activity	84,681	4.32	1480 Nandina Ave.	294-180-034	16,1000 SF - DMP ENTERPRISES
	GreenRock Materials, Inc.	Truck Activity	84,289	4.3	1420 Nandina Ave.	294-180-039	0 SF - DMP ENTERPRISES
	Transloading Express, Inc.	Truck Activity	83,309	4.25	336 E. Ellis Ave,	310-160-020	2.0000 SF - Evans, Dick G
9	Global Warehouse/ Lecang LLC	Warehouse	82,147	4.2	212 E MARKHAM ST	302-080-034	DG Markham Property
	Corona Stone	Truck Activity	62,095		342 W. Perris St	302-120-025	
	CEMEX	Truck Activity	52,729	2.69	237 S. Perris Blvd	310-022-002 - 007, 016, 017, & 019	Sunbelt Acquistion Inc.
116	StarCrest Products of California	Truck Activity	45,380	14.06	19401 Brennan Ave.	303-020-047	
		Total Square Footage	26,936,628	1495.26			
			26,441,998				
			(494,630)	7			

ATTACHMENT 2

INDUSTRIAL PROJECTS UNDER CONSTRUCTION

Industrial Projects Under Construction Subject to the Potential Warehouse Tax

IT Reference	Business (DBA Google)	Development Status	Building sqft.	Total Lot Acreage	Address	APN (GovClarity)	Owner Name (GovClarity)
	IDI - Rider 4	Vertical Construction	548,019	33	SE Corner of Redlands & Morgan	303-160-002, 003, 007, & 009	IDI - Rider 4
	First Industrial	Vertical Construction	338,000	15	473 Rider (SE Rider & Redlands)	300-210-001,002,003, 004 and 005	First Industrial
	Patriot Ind	Vertical Construction	286,000	15	SW Perris and Morgan		
	Rockfeller Group Indus	Vertical Construction	263,000	11	4400 Patterson Ave	314-110-008, -009, -010, -016, -017, -018, -020, -021, -022, -023, -043, -044, -045, -046, -052, -053, -058, and -059	Rockefeller Group
	Core 5	Vertical Construction	248,000	11.17	SW corner of Rider & Wilson	300-210-011, 012, 013 & 029	Core 5
	Seefried Indus	Vertical Construction	165,000	8	SW Ramona and Brennan	303-020-005, 022, 023, 024 & 025	Seefried Indus
	Phelan / Nance & Webster JP KND2 LLC	Vertical Construction	109,000	10	SW corner of Webster & Nance	302-030-010	Phelan / Nance & Webster JP KND2 LLC
	Engaging 1031 / (Truck Terminal) Bobby Nassir: 400 SF Guard Shack	Vertical Construction	186,219	9.5	N. side of Markham & E. of Perris Blvd	302-110-032; 042	Engaging 1031 / (Truck Terminal) Bobby Nassir
	First Harley Knox Ind	Vertical Construction	154,250	8	NW Harley Knox and Redlan	302-100-029	
	Pheland Indus	Vertical Construction	109,000	10	SW Webster and Nance	302-030-010	
	MS Perris LLC	Vertical Construction	43,000	3	NE corner of Perris and Rider	303-293-005 and 303-293-006	MS Perris LLC
		Total Square Footage	**2,449,488**	**133.35**			
			2,406,488				
			(43,000)	1			

ATTACHMENT 3

INDUSTRIAL PROJECTS ENTITLED

Industrial Projects Entitled / Approved Subject to the Potential Warehouse Tax

IT Reference	DBA (Google)	Development Status	Building sqft.	Total Lot Acreage	Address	APN (GovClarity)	Owner Name (GovClarity)
	IDI Site 2 - Bld 2 of 3 (Total 3,192,567)		1,396,020		SW corner of Mapes & Goetz	330-120-002, 330-120-003, 330-120-015	IDI - Site 2 - Bld
	IDI Site 2 - Bld 1 of 3 (Tolla 3,192,567)		1,385,090		SW corner of Mapes & Goetz	330-120-002, 330-120-003, 330-120-015	IDI - Site 2 - Bld
	IDI Site 3 - Bld 2 of 3 (Total 2,797,522 SF)	Plan Check Approved - Bld 1	1,000,000	50	NE corner of Redland & Ellis	310-170-006, 007, 008, 310-220-050 and 330-090-027	IDI - Site 1
	IDI Site 3 Bld 3 of 3 (Total 2,797,522 SF)	Plan Check Approved - Bld 2	1,000,000	56.2	NE corner of Redland & Ellis	310-170-006, 007, 008, 310-220-050 and 330-090-027	IDI - Site 1
	Ramona Gateway DECA (35K Com)		950,000	42	S Ramaona btw Nevada and Webster	317-120-021, 317-130-017, 021, -025 & -048	Ramona Gateway DECA (35K Com)
	IDI - Site 1		**784,000**	36	SW corner of Mountain & Goetz	**330-070-008**	**IDI - Site 3**
1	Duke @ Patterson and Nance	Plan Check	769,000	36	2100 Patterson Avenu - NE corner of Patterson and Nance	314-153-015 - 040; 314-153 042, 044, 046, 048, & 314-160-012 - 033	Duke Realty
	IDI Site 2 - Bld 3 of 3 (Total 3,192,567)		535,207		SW corner of Mapes & Goetz	330-120-002, 330-120-003, 330-120-015	IDI - Site 2
2	Expressway Industrial (Burger)		304,572	16	SW corner of Ramona and Perris	303-060-020	
3	Lakecreek West	N/A	300,000	20	W. Side of Reldands S. of Rider St	300-250-010, 011, 012, 013, 015 & 016	
5	Lakecreek East		256,000	11	E. Side of Redlands S. of Rider St	300-210-006, -007, -008, 026, -027 and -028	
	Integra		273,000	10	NE corner of Markham & Webster	302-030-005	Integra
	McKay Indus	Plan Check	232,000	13	NE of Ramona and Indian	302-060-041	McKay Indus
6	Oakmont Indus		201,800	10	S. Side of Nance 800' W. Redlands	302-110-002	
2	First Industrial - Wilson		192,623	9.52	W. Side Wilson S of Rider	300-210-014, 015, 023 and 024	
	Seefried Indus		**165,000**	7.58	SW Ramona & Brennan	**303-020-0005, 303-020-022, 303-020-023, 303-020-024 & 303-020-025**	**Seefried Indus**
20	Truck Terminal 2 (Bobby Nassir): 400 SF Guard Shack	400	162,697	8.3	NE corner of Perris & Markham	302-110-021 - 024	In process
	First Harley Knox Ind - First Industrial		154,250	8.1	4744 Redlands Ave	302-100-029	First Harley Knox Ind - First Industrial
	Chartwell Ind	Plan Check	132,485	6	SW corner of Redlands and Rider	300-250-007, 008	Chartwell Ind
	Nance Ind - Proficiency Capital		143,913	6.4	25264 E. Nance St, S. of Harley Knox, E of Las Palmas	302-100-020, 302-100-030, and 031	Nance Ind - Proficiency Capital
	Lakecreek at Harley Knox		143,000	6.93	150 Harley Knox Blvd	300-100-002	Lakecreek at Harley Knox
	Kwaizur Ind	Plan Check	138,000	9	SE Corner of Indian & Harley Knox	302-090-027 and 028	Kwaizur Ind
9	Redlands Indus		113,000	6.2	4862 Placentia Ave *(NE corner of Redlands & Placentia)*	300-210-010 & 022	
10	Westport Industrial		99,000	4.5	NE of Ramona & Brennan	302-260-078, 079, 080 & 081	
11	Markham Industrial/ Dedeau Properties		89,000	4	1010 W Markham St	314-170-009, 010	
12	Wilson Industrial		83,000	4.75	W. of Wilson & North of Placentia	300-210-017-300-0210-025	
		Total Square Footage	**11,002,657**	**381.48**			
			10,731,657				
			(271,000)	**3**			

ATTACHMENT 4

PROJECTS IN PROCESS

Industrial Projects In Process Without a Land Use Change Subject to the Potential Warehouse Ta

Referenc	DBA (Google)	Development Status	Building sqft.	Total Lot Acreage	Address
	Airport Logistics	CEQA EIR; Scoping Mt 2023.11.1; no CEQA submittal to date	742,000	77	S. side of Ellis btw Goetz and Case
	NewCastle Indus	CEQA EIR; Scoping Mt 2023.5.3; not CEQA submittal to date	670,000	35	S. Side of Ellis and 750' E. of Redlands
	Airport Industrial	N/A; No CEQA submittal to date	648,630	37.5	NE Goetz and Mapes
	Prologis Indus	CEQA EIR; Scoping Mt 2023.10.18; CEQA	551,992	30	SW Ramona & Webster
	First Industrial - Harley Knox II	CEQA EIR; no Scoping Mt yet; no CEQA submittal to date	549,796	25.13	NW Harley Knox and Indian
	First March Logistics	CEQA EIR; Scoping Mt. 2022.1.19;	544,372	25.8	W. Side of Natwar 300' N. of Nandina
	Lakecreek Placentia - Cubes	CEQA EIR; Scoping Mt 2023.12.20; CEQA preparation	508,776	25	NE of Placentia and Wilson
	Richland	CEQA addendum EIR; Scoping Mt 2023.10.18	**500,000**	20	SW of Watson & Case
	CH Truck Terminal - 400 SF Guard Shack	CEQA EIR; Scoping Mt 2023.11.1; no CEQA submittal to date	493,186	25.16	SW corner of Case and Ellis
	First Sinclair		**423,224**	19.7	100 W. Sinclair St
	Natwar Ind		420,000	23	W. Side of Natwar 300' N. of Nandina
	Waypoint Commerce		358,000	16.3	Mountain, West of Goetz
	First Industrial		354,000	21.63	NW Harley Knox and Indian
	Michael Goodwin Indst. Realy Trust	CEQA MND; no CEQA submittal to date	345,316	21.63	657 Harley Knox Blvd.
	Blue Indus	CEQA MND; MND being updated	329,500	19	SW corner Trumble and Mapes
	Lakecreek West		300,000	20	W. Side of Reldands S. of Rider St
	RG Indus		263,000	16.1	SW Patterson and Nance
	Lakecreek East		256,000	12.59	E. Side of Redlands S. of Rider St
	Waypoint Commerce (Bld 1)	CEQA EIR; Scoping Mt. 2023.12.6; CEQA public review closed 2023.12.18	204,269	9	S. Side of Mountain & 1,300 W of Goetz
	Oakmont Indus		202,100	9.56	S. Side of Nance 800' W. Redlands
	First Industrial - Wilson		185,000	9.52	W. Side Wilson S of Rider
	Proficiency Capital LLC (Matt Englhard)		**143,913**	6.4	25264 E. Nance Street
	Redlands Indus		**121,100**	6.4	NEC Redlands and Placentia
	Waypoint Commerce (Bld 2)	CEQA EIR; Scoping Mt. 2023.12.6; CEQA public review closed 2023.12.18	155,583	7.17	S. Side of Mountain & 1,300 W of Goetz
	Patterson Business Center	CEQA MND; CEQA public review ends 2024.4.29;	94,453	4.84	W. Side of Patterson; north of Harley Knox
	Potential Remaining Industrial Zoned Land		**785,000**	**40**	
		Total Square Footage	**10,149,210**	**563.43**	
			10,054,757		
			(94,453)	1	

ATTACHMENT 5

STAFF REPORT DATED MAY 14, 2024
(NO ATTACHMENTS INCLUDED)

CITY OF PERRIS

CITY COUNCIL
AGENDA SUBMITTAL

MEETING DATE: May 14, 2024

SUBJECT: Consideration for a Business License Tax for Distribution and Industrial Facilities

REQUESTED ACTION: Discuss and Provide Direction on a Potential Ballot Measure Concerning a Business License Tax for Distribution and Industrial Facilities in the City

CONTACT: Ernie Reyna, Deputy City Manager ER

BACKGROUND/DISCUSSION:

At the April 9, 2024, City Council meeting, Councilman Corona requested staff to bring back a discussion item regarding a business license tax as a general tax for warehouse and industrial uses to possibly place as a measure on this year's November 5 election. Staff was also directed to meet with the following groups to get input on this item: 1) NAOIP (industrial group); 2) Perris Valley Chamber of Commerce (PVCC); 3) Perris Parents for Clean Air; and 4) Center for Community Action and Environmental Justice (CCAEJ).

Last year, the Council directed staff to move forward with placing the warehouse business license tax on the November 2023 ballot as a special tax and to include a consumer price index (CPI) annual adjustment, but the tax measure fell short of the required 2/3 vote (66.67%) needed for the approval of a special tax, but did garner about 52% of the 3,089 total votes, meaning the measure would have passed if it was a general tax.

For this year, the business license tax item was requested to be brought back as a general tax rather than a special tax, as was done in 2023. The difference in the two types of taxes is that a general tax requires a 50% plus 1 approval rate, while the special tax requires a 2/3 approval rate of the voters. In addition, the general tax revenues will go directly into the General Fund, while the special tax revenues would require the City to place the revenues into a Special Revenue fund. Last year's special tax proceeds were purposed for improving the roads in and around the warehouses, including truck routes, arterial street and collector streets. While the intent of this year's general tax proposal is aimed at allocating funding for the same purpose of improving roads, a general tax cannot be restricted for any particular use and can otherwise be used for any city purpose as approved by the City Council.

As part of last year's tax measure discussions at City Council meetings, staff conducted research and provided information on potential revenue measures to help mitigate the cost of repairing and improving damaged roads and infrastructure in the city as a result of truck traffic generated by

warehouses and distribution facilities. The process involved engaging with Wildan Financial Services to conduct an analysis of potential revenue from the implementation of a business license tax on warehouse/distribution businesses. It was then determined that over the course of 30 years, the cost to pay for the damages to the roads would equate to $120,579,463 for truck routes and collectors/arterial, which included repairs such as slurry seals and grind and overlays. The annual yearly cost equated to $4,019,315 and when spread out among completed industrial buildings, buildings under construction, and entitled buildings, the final rate that would be charged upon renewing a business license equated to $.107/square foot.

MEETINGS WITH INTEREST GROUPS

As of the time of this writing, staff has met with various groups to provide information on the warehouse tax should the measure make it forward to the November election including Perris Parents for Clean Air, the CCAEJ, NAIOP, and the PVCC.

On April 22 and 23, City staff met with Perris Parents for Clean Air and the CCAEJ to gather input regarding the tax measure. Some of their suggestions, should the tax measure move forward and be approved by voters, was to have an oversight committee to provide input to the Council on how the tax monies should be spent since this is a general tax. Their concern was that these monies should be spent on items related to the roads around the warehouse and not spent elsewhere such as for public safety. In addition, these two community groups would like to see a tiered system where warehouses located closer to schools and other sensitive locations pay a higher tax than those further away. And finally, the two community groups believe the tax should contain an annual inflator to adjust for rising costs.

Next, on May 2 City Staff met with NAOIP and the PVCC. NAOIP stated they are willing to have a conversation with the City to find a solution to fixing the roads but wants that solution to be equitable where the industrial community is not footing the entire cost as they believe others contribute to the destruction of the roads as well. NAOIP indicated that City staff can use Road Bridge and Benefit District (RBBD) funds to repair the roads, but it was explained that these funds cannot be used for repairing roads and these funds can only be used in certain areas of the city. NAOIP requested that staff investigate truck traffic distribution rates compared to other non-warehouse/non-industrial uses to determine a fair share cost to warehouses. They expressed that placing the entire burden of road maintenance on warehouses only was not equitable. The City Engineer's office reviewed the Institute of Traffic Engineers (ITE) Manual for truck trip distributions and an alternate proposal has been added to the various taxing options. Furthermore, NAIOP expressed that they are not opposed to a fair share with a proper analysis. They indicated that they do not agree with the analysis conducted by Willdan and would like to work with the City to find a better solution.

The PVCC had some input to the discussion with City staff as well. The Chamber was concerned that the warehouse tax would also affect the small manufacturing businesses such as Axis and Silver Creek, as they believe those types of business should not be included in the tax. They also wanted to be sure the tax would be equitable. They felt the tax should be based on the amount of truck traffic the warehouse generated and not how much square footage they occupied. Much like the CCAEJ, the Chamber would also like to see an oversight committee to direct where the funds would go to ensure funds were spent on roads and not elsewhere. A couple of other concerns

included the trickle-down effect the tax could have on consumers, and whether the tax measure must be 30 years, as well as not including an inflator as a CPI could be problematic to the warehouses and affect their business.

UPDATED TARGET REVENUE FOR ROAD REPAIRS

Staff has updated all warehouse buildings information as well as the annual yearly costs for road repairs due to the CPI rate increase this year. The City of Perris currently has approximately 26.9 million square feet of industrial development. Attachment 1 shows a list of the existing warehouses. In addition, there are approximately 2.4 million square feet currently under construction (attachment 2), 11 million square feet of buildings that have been entitled (attachment 3), and another 10.1 million square feet of buildings of projects that are in process (attachment 4). It has been determined that the street system is already showing wear and tear and will need ongoing maintenance. This is due to the use of semi-trucks utilized for these types of operations which have a far greater impact on the roadway system than conventional automobiles. With the additional industrial development under construction and in the pipeline, it is anticipated that additional funding will be needed to fully cover roadway repair maintenance. Each year, the City adopts a five-year Capital Improvement Plan (CIP) that seeks to address some of these issues, but there remains a shortage of funds to improve the streets and local infrastructure.

The table below details the estimated cost of repairs to the city streets over a 30-year period annually and has been adjusted for inflation from 2023 using the consumer price index for all urban consumers (CPI-U), which is designed to measure price changes faced by urban consumers. The information was provided by the City Engineer and as indicated in the table, the City will now need to raise $127,138,987 over a period of 30 years, which includes $26,916,213 for truck routes and $100,222,774 for collector/arterial streets. The annual necessary revenue is now $ 4.2 million.

2023 Table Prior to Inflation Adjustment:

Year	Rehab Cycle	Truck Routes	Collectors/Arterials	Both
4	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
8	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
12	Grind & Overlay	$9,846,328	$36,662,894	$46,509,222
16	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
20	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
24	Grind & Overlay	$9,846,328	$36,662,894	$46,509,222
28	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
30	Remove and Replace	$33,772,905	$125,753,725	$159,526,630
Total w/o R&R		$25,527,517	$95,051,946	$120,579,463
Annual		$850,917	$3,168,398	**$4,019,315**

2024 Table After 5.44% CPI Adjustment:

Year	Rehab Cycle	Truck Routes	Collectors/Arterials	Both
4	Slurry Seal	$1,230,455	$4,581,613	$5,812,068
8	Slurry Seal	$1,230,455	$4,581,613	$5,812,068
12	Grind & Overlay	$10,381,968	$38,657,355	$49,039,324
16	Slurry Seal	$1,230,455	$4,481,613	$5,812,068
20	Slurry Seal	$1,230,455	$4,481,613	$5,812,068
24	Grind & Overlay	$10,381,968	$38,657,355	$49,039,324
28	Slurry Seal	$1,230,455	$4,481,613	$5,812,068
30	Remove and Replace	$35,610,151	$132,594,728	$168,204,879
Total w/o R&R		$26,916,213	$100,222,774	$127,138,987
Annual		$897,207	$3,340,759	**$4,237,966**

BUSINESS LICENSE TAX

Currently, the City of Perris charges $100 per business license (Ordinance No. 1037), and an additional $4 fee for SB 1186, which is to be paid by any applicant for a local business license, permit, or similar instrument when it is issued or renewed. The purpose of the SB 1186 fee is to increase disability access and compliance with construction related accessibility requirements and to develop educational resources for business to facilitate compliance with federal and state disability laws, as specified. The SB 1186 fee is in addition to the regular business license fee.

Like last year, staff is recommending that the business license tax apply to distribution and industrial facilities as defined below:

"Distribution Facility" shall mean a business consisting primarily of receiving, temporarily storing, and subsequently distributing goods, wares, or merchandise of any kind to wholesalers or retailers.

"Industrial Facility" shall mean either (1) a business consisting primarily of indoor or outdoor storage of large trucks, or (2) a business consisting primarily of indoor or outdoor manufacturing activity with large truck activity.

To reach the new target revenue of approximately $4.2 million, staff are presenting four options at various tax rates ranging from $.157 per square foot to .084 per square foot. The tax rates would vary in amounts depending on the types of buildings included in the formula, which could potentially include completed industrial buildings, buildings under construction, entitled buildings, and projects in process. This business license tax was then calculated by dividing the target revenue of $4,237,966 to the applicable warehousing/distribution businesses in which building sizes range from 45,380 square feet up to 1.7 million square feet.

If the industrial developments were to pay any of these tax amounts on an annual basis, the City of Perris would raise enough money each year to fund the necessary amounts needed for street repairs. Based on the table scenario below, a business license tax between $.157 to $.084 per square foot would be required to reach annual revenues of $4,237,966 for necessary road repairs.

The table below shows target revenues and the various square footages presented for the 2023 special tax that was on the November ballot.

	2023 Target Revenue =	**$4,019,315/Year**	
			Proposed
	Type	**Square Footage**	**Tax Rate**
1	Completed Industrial Buildings	25,417,444	**$0.158/sf**
2	Completed Industrial Buildings	25,417,444	
	Buildings Under Construction	3,232,797	
	Total	28,650,241	**$0.140/sf**
3	Completed Industrial Buildings	25,417,444	
	Buildings Under Construction	3,232,797	
	Entitled Buildings	8,933,328	
	Total	37,583,569	**$0.107/sf (staff recommended)**
4	Completed Industrial Buildings	25,417,444	
	Buildings Under Construction	3,232,797	
	Entitled Buildings	8,933,328	
	Projects in Process	9,379,705	
	Total	46,960,274	**$0.086/sf**

The below table for 2024 is based on updates to the various categories of industrial projects and target revenues and revises the per square foot rate to each category accordingly. Additionally, staff is presenting a new set of rate options based upon truck trip generations utilizing warehouse, fulfillment centers, manufacturing, and transload/short term from the ITE manual. This methodology is based on the request from NAIOP to include a fair share distribution of impacts from warehouses and excluding other non-heavy trucks typically used by other types of businesses.

When the four truck percentage categories are combined and added together, they make up 57.9% of the total trip generations and that percentage is being applied to the four rates shown below. These four categories of truck trips are the weighted average of all categories and represent the current warehouse trends. All other categories of truck trips are outside the parameters of the calculation used for the formula and are negligible. It is important to note that if any of these four options is selected to be used as the proposed tax rate, the total amount of target revenue of $4.2M is reduced by 42.1%, or by approximately $1.8M for a new target revenue amount of roughly $2.4M, as shown in the table below.

	Target Revenue =	$4,237,966/Year		$2,428,355/Year
				(Based on Fair Share)
				Warehouse, Fulfillment
			Proposed	Centers, and Manufacturer
	Type	Square Footage	Tax Rate	ITE – 57.9% of Proposed
1	Completed Industrial Buildings	26,936,628	**$0.157/sf**	**$0.091/sf**
2	Completed Industrial Buildings	26,936,628		
	Buildings Under Construction	2,449,488		
	Total	29,386,116	**$0.144/sf**	**$0.083/sf**
3	Completed Industrial Buildings	26,936,628		
	Buildings Under Construction	2,449,488		
	Entitled Buildings	11,002,657		
	Total (2023 Option)	40,388,773	**$0.105/sf**	**$0.061/sf**
4	Completed Industrial Buildings	26,936,628		
	Buildings Under Construction	2,449,488		
	Entitled Buildings	11,002,657		
	Projects in Process	10,149,210		
	Total	50,537,983	**$0.084/sf**	**$0.049/sf**

The tax rate options above would be the maximum rates approved by the voters. The City Council could determine to change the tax amount so long as it does not exceed the maximum approved by the voters.

The table below shows an example of the annual tax payment for various sized buildings using a tax rate of $0.105:

Building Size	Tax Rate	Annual Tax Payment
50,000 sf	$.105/sf	$5,250/year
100,000 sf	$.105/sf	$10,500/year
500,000 sf	$.105/sf	$52,500/year
1 million sf	$.105/sf	$105,000/year

TIMELINE

This year's general election is scheduled for November 5, 2024, and all necessary documentation will need to be forwarded to the Riverside County Registrar of Voters no later than August 9, 2024, to be considered for the election. The next step is to have the City Council give direction to move forward with the business tax revenue measure and provide staff with the preferred building size square footage, tax rate, types of uses and CPI rate in which the tax would apply. Staff will then bring back the necessary resolutions at a future meeting so that the City Council can approve the

resolutions to place the measure on the ballot at a special election to be held on November 5, 2024. The City Council would need to make this decision no later than the July 30, 2024, City Council meeting so all the necessary documentation can be forwarded to the Riverside County Registrar of Voters office by August 9, 2024. To move a general tax forward, the Council will need at least a 4-1 vote to place on the ballot in November.

COSTS

Because this is a general election year, the cost to add the warehouse tax to the ballot would be lower than in 2023. The Registrar of Voters has estimated the cost to add the measure to the ballot at approximately $37,000, as opposed to the $105,000 the ballot cost in 2023. The estimated cost for 2024 is based on $1.00 per voter and is a conservative number should all the qualified voters in Perris come out to vote on this measure. In addition, the City will need to procure a public relations firm to aid City staff with voter information including flyers containing factual information on the revenue measure. The cost of the public relation firm is estimated to be about $45,000, bringing the total cost of this ballot measure to approximately $85,000.

STAFF RECOMMENDATION

Staff is recommending that the City Council review and discuss the information provided on the potential business license tax for distribution and industrial facilities and provide direction as to whether to move forward with placing the measure on the November ballot, including direction on types of uses, tax rate, CPI escalator with or without cap, and/or size of buildings as part of the tax measure.

BUDGET (or FISCAL) IMPACT: The cost to place the warehouse tax on the 2024 ballot, plus outreach using a public relations firm will be approximately $85,000 and would be paid out of the general fund.

Prepared by: Ernie Reyna, Deputy City Manager

REVIEWED BY:

City Attorney _____
Assistant City Manager_____
Deputy City Manager ER

Attachments:

1. Completed Industrial Buildings
2. Industrial Projects Under Construction
3. Industrial Projects Entitled
4. Projects in Process
5. Staff Report Dated May 30, 2023 (Attachments 5 and 6 only)
6. ITE Truck Trip Generation
7. ITE Land Use Descriptions

Consent:
Public Hearing:
Business Item: X
Presentation: .
Other:

ATTACHMENT 6

WRCOG HIGH-CUBE WAREHOSUE TRIP GENERATION STUDY

Western Riverside Council of Governments
Public Works Committee

Staff Report

Subject: High-Cube Warehouse Trip Generation Study

Contact: Jason Pack, Principal, Fehr & Peers, j.pack@fehrandpeers.com, (951) 274-4800

Date: December 14, 2023

Recommended Action(s):

1. Receive and file.

Summary:

WRCOG commissioned a trip generation study in 2018 at local high-cube facilities to verify local trip generation data that was utilized in the previous TUMF Nexus Study update. Since the completion of that effort, a variety of factors have changed in the logistics industry. The most notable event, the COVID pandemic, increased the frequency and magnitude of on-line shopping; it is therefore appropriate to revisit the high-cube warehousing study as part of the current TUMF Nexus Study update. WRCOG retained Fehr & Peers to update the trip generation study with current trip generation information collected at the same locations as 2018.

Purpose / WRCOG 2022-2027 Strategic Plan Goal:

The purpose of this item is to summarize the results of the updated trip generation study. This effort aligns with WRCOG's 2022-2027 Strategic Plan Goal #5 (Develop projects and programs that improve infrastructure and sustainable development in our subregion).

Discussion:

Background

High-cube warehousing (HCW) has been emerging as an important development type in the subregion. Studies such as *Logistics & Distribution: An Answer to Regional Upward Social Mobility* and *Multi-County Goods Movement Action Plan* suggests that this trend is likely to increase over time due to the subregion's relative abundance of suitable sites compared to coastal counties. A recurring analytical problem for the analyses of traffic impacts associated with proposed high-cube warehouses is the lack of reliable data regarding the number and vehicle mix of trips generated by this land development type.

Studies have been conducted to increase the reliability of data on high-cube warehouses. A joint study conducted by the Commercial Real Estate Development Association (formerly known as National Association for Industrial and Office Parks / South Coast Air Quality Management District / Institute of

Transportation Engineers (ITE)) resulted in a consensus on the trip generation rates to be used for the most common type of high-cube facility, a category called "transload and short-term storage." The findings of the joint study generally indicated trip generation rates for this use as being consistent with the trip generation rates for the broader category of high-cube warehouses as described by ITE in the 9th Edition of the Trip Generation Manual. However, the report did not settle the issue of trip generation rates for two other specific types of high-cube warehouses: "The single data points for fulfillment centers and parcel hubs indicate that they have significantly different vehicle trip generation characteristics compared to other HCWs. However, there are insufficient data from which to derive useable trip generation rates."

As a result, WRCOG commissioned a trip generation study in 2018 at local high-cube facilities to verify local trip generation data specifically for fulfillment centers and parcel hubs that were utilized in the previous TUMF Nexus Study update. The frequency and magnitude of on-line shopping has increased, so the prevalence of high-cube warehouses has expanded since 2018. Since the TUMF Nexus Study update is on-going, WRCOG commenced an update of the trip generation study on high-cube warehouses. A memorandum for this update has been attached to this Staff Report.

Present Situation

The update methodology is summarized below.

- Number of sites: The previous study in 2018 reviewed potential candidate sites identified by WRCOG staff. As part of that study, a total of 16 sites were selected for inclusion into the study. Data collection at these same sites were included in this update to understand how trips generated by these high-cube warehousing sites have changed post-pandemic.
- Independent variables: ITEs Trip Generation Manual, which is the accepted manual utilized to generate the number of trips from land uses, measures the size of proposed developments using more than a dozen different independent variables, such as students (for schools) and acres (for parks), and so on. All related categories in both 9th and 10th Editions of the Trip Generation Manual are reported in Square Foot Gross Floor Area (GFA) measured in thousands of square feet, which is also the independent variable used for the TUMF Program. WRCOG provided GFA for all sites and employment data where available.
- The ITE Trip Generation Manual typically reports trip generation rates two ways; namely as the average rate, using the "best fit" mathematical relationship between the number of trips generated and the independent variable. R-squared, also known as the coefficient of determination, is used to measure how well the best fit equations match the surveyed traffic counts. The Trip Generation Manual recommends that the best fit equation only be used when the R2 is greater than or equal to 0.50 and certain other conditions are being met; otherwise, the average rate should be used.

Data Collection: The fulfillment centers and parcel hub sites included in the original study were also analyzed in this update. Traffic counts were collected at all site driveways using video cameras over a 72-hour period (Tuesday through Thursday) in February of 2023. Video collection was determined to be preferable to collection data by means of machine counts, which can be problematic for driveways where vehicles are maneuvering at slow speeds. Video counts provide the ability for human viewers to review the captured footage to classify vehicles into 5 types (car and large 2-axle, 3-axle, 4-axle, and 5+ axle truck). The three-day average was calculated and used for the purposes of this study.

Findings

This study evaluated how trip generation and vehicle mix may have changed in a post-pandemic environment using 2023 data compared to the previously collected 2018 data. The most relevant findings are summarized below:

Fulfillment Centers:

- The daily fleet mix seems to have changed such that there are more heavy vehicles and fewer passenger cars.
- There is reduced trip generation activity during the peak hours with more activity occurring in off-peak periods.
- For two of the larger Fulfillment Centers (Amazon and P&G), employment has decreased by almost 30%.
- It is recommended that WRCOG utilize the average rate of 1.74 trips/thousand square feet (KSF) for Fulfillment Centers.
- Trips, as a whole, from Fulfillment Centers has decreased. The average daily trip rate has decreased from 2.13 trips/KSF in 2018 to 1.74 trips/KSF in 2023. The PM peak hour trip rate has decreased from 0.165 trips/KSF in 2018 to 0.12 trips/KSF in 2023.

Parcel Hubs:

- The updated data showed an opposite trend compared to the Fulfillment Centers, with fewer trucks and an increase in passenger car trips.
- There is concurrence with the 2018 study recommendation that the Parcel Hub data does not provide meaningful information that should be used to establish a local trip generation rate for that land use without additional data collection at other Parcel Hub locations.

All-in-all, the 2023 data supports very similar conclusions from the 2018 study for both the Fulfillment Centers and the Parcel Hub facilities.

Next Steps

The TUMF Fee Calculation Handbook details the methodology for calculating the TUMF obligation for different categories of new development and, where necessary, to clarify the definition and calculation methodology for uses not clearly defined in the respective TUMF ordinances. One of the land uses that requires further clarification is high-cube warehouse. As summarized above, trip generation activity has reduced at the Fulfillment Centers analyzed, which may be considered a high-cube warehouse land use. WRCOG will initiate work on including any necessary changes to how TUMF is calculated for high-cube warehouses in the TUMF Handbook based on the reduced trips observed in this analysis. These changes will be brought forth to this Committee for review when a complete update is conducted at the conclusion of the TUMF Nexus Study update process.

Prior Action(s):

None.

Financial Summary:

Activities related to the cost for this study is included in the Fiscal Year 2023/2024 Agency budget under the TUMF Program (Fund 110).

Attachment(s):

Attachment 1 - High Cube Warehouse Trip Generation Memorandum

FEHR PEERS

Memorandum

Date: Updated November 13, 2023

To: Chris Gray, WRCOG
Chris Tzeng, WRCOG

From: Jason D. Pack, PE

Subject: TUMF High-Cube Warehouse Trip Generation Study Update

OC22-0941

Background

High-cube warehousing is emerging as an important development type in the Inland Empire. Studies such as Logistics & Distribution: *An Answer to Regional Upward Social Mobility*[1] and *Multi-County Goods Movement Action Plan*[2] suggests that this trend is likely to increase over time due to the Inland Empire's relative abundance of suitable sites compared to coastal counties.

A recurring analytical problem for the analyses of traffic impacts associated with proposed high-cube warehouses is the lack of reliable data regarding the number and vehicle mix of trips generated by this land development type. Specifically:

- The *2003 Fontana Truck Trip Generation Study*, which has been used for years by agencies in the Inland Empire, is based on the older type of high-cube warehouse. Newer warehouses generally are larger (often over 1 million square feet), much more automated, and generate far fewer trips per square foot.
- The use of overly-conservative estimates has produced results that were unreasonable when compared to actual field conditions. For example, the Environmental Impact Report (EIR) for the Skechers high-cube warehouse building in Moreno Valley included traffic forecasts that were substantially higher than the actual post-construction trip generation for both cars and trucks. Overstated forecasts are misleading to decision makers and could result in oversized infrastructure that could itself have environmental consequences, creates an undue burden on development, and could even have adverse legal consequences for the agencies involved.

[1] *Logistics & Distribution: An Answer to Regional Upward Social Mobility*, Dr. John Husing for SCAG, June 2004
[2] *Multi-County Goods Movement Action Plan*, Wilbur Smith Associates, August 2008

- In 2011 the Commercial Real Estate Development Association, also known by its former acronym NAIOP, commissioned a trip generation study of high-cube warehouses focused on large highly-automated warehouses in the Inland Empire. NAIOP had hoped that their study, which found trip-gen rates considerably lower than previous studies, would be used in CEQA analyses going forward. However, concerns about potential bias by the sponsoring party have placed into question the validity of the study results. Similarly, a study commissioned by SCAQMD was viewed as possibly having an anti-development bias.
- Finally, in 2015 NAIOP and SCAQMD jointly sponsored a trip-gen study for high-cube warehouses through a respected neutral party, the Institute of Transportation Engineers (ITE). The report for this study, *High-Cube Warehouse Vehicle Trip Generation Analysis*, was completed in 2016.

The joint NAIOP/SCAQMD/ITE study resulted in a consensus on the trip generation rates to be used for the most common type of High-Cube, a category they call "transload and short-term storage". The findings of the joint study generally indicated the trip generation rates for this use as being consistent with the trip generation rates for the broader category of High-Cube Warehouses as described by ITE in the 9th Edition of the *Trip Generation Manual*. However, the report did not settle the issue of trip generation rates for two other specific types of High-Cube Warehouses:

> *"The single data points for fulfillment centers and parcel hubs indicate that they have significantly different vehicle trip generation characteristics compared to other HCWs. However, there are insufficient data from which to derive useable trip generation rates."*

As part of the previous TUMF Nexus Study update in 2018, WRCOG commissioned a trip generation study at local High-Cube facilities to verify local trip generation data that can be utilized in the TUMF study. The results of that effort were documented in the *TUMF High-Cube Warehouse Trip Generation Study Technical Memorandum* (WSP, January 29, 2019) and is presented as **Attachment A**. Since the completion of that effort, a variety of factors have changed in the logistics industry. The most notable event, the COVID pandemic, increased the frequency and magnitude of on-line shopping and it is therefore appropriate to revisit the High-Cube warehousing study as part of the current TUMF update. WRCOG has retained Fehr & Peers to update the WSP 2019 study with current trip generation information collected at the same locations. The purpose of this memorandum is to summarize the results of our efforts.

Methodology

Number of Sites: The previous study reviewed potential candidate sites identified by WRCOG staff. As part of that study, a total of 16 sites were selected for inclusion into the study. Data collection at these same sites were included in this effort to understand how trips generated by these High-Cube warehousing sites have changed post-pandemic.

Independent Variables: ITE's Trip Generation Manual measures the size of proposed developments using more than a dozen different independent variables, such as students (for schools), acres (for parks), etc. All High-Cube related categories in both 9th and 10th Editions of the Trip Generation Manual are reported in Square Foot Gross Floor Area (GFA) measured in thousands of square feet (TSF), which is also the independent variable used for the TUMF program. Some other ITE employment categories use employment as the independent variable, as does SCAG in its Sustainable Communities Strategy. WRCOG provided GFA for all sites and employment data where available.

The ITE *Trip Generation Manual* typically reports trip generation rates two ways; namely as the average rate and using the "best fit" mathematical relationship between the number of trips generated and the independent variable. R-squared, also known as the coefficient of determination, is used to measure how well the best fit equations match the surveyed traffic counts. The *Trip Generation Manual* recommends that the best fit equation only be used when the R^2 is greater than or equal to 0.50 and certain other conditions being met; otherwise, the average rate should be used.

Data Collection

The fulfillment centers and parcel hub sites included in the original study and in this updated assessment are summarized in **Table 1**. Please note that, for site Location 1 (Chino Walmart), an additional building was added to the site that did not exist when the original study was completed. As such, that site's size has changed; while the other locations all remained the same.

Traffic counts were collected at all site driveways using video cameras over a 72-hour period (Tuesday through Thursday) in February of 2023. Video collection was determined to be preferable to collection data by means of machine counts, which can be problematic for driveways where vehicles are maneuvering at slow speeds. Video counts provide the ability for human viewers to review the captured footage to classify vehicles into 5 types (car, large 2-axle, 3-axle, 4-axle, and 5+ axle truck). The three-day average was calculated and used for the purposes of this study. The raw traffic count data is presented as **Attachment B**.

It should be noted that the Walmart fulfillment center site in Chino (Location 1) has expanded since the 2017 study. Two additional buildings have been constructed adjacent to the original building; one a 1,400,000 sq. ft. Walmart fulfillment center and the other a 190,000 sq. ft. facility occupied by Sika Corporation. Since data collected at the Walmart site includes counts to all three buildings, the size of all buildings combined was included in the assessment. Additionally, the building sizes for this complex were estimated since City staff do not have information as it is on state property.

Fulfillment Centers

By Building Size

Exhibit 1 displays a data plot of daily vehicle trips for the 11 fulfillment centers against building size as the independent variable. The average trip generation rate for fulfillments centers (see blue line in Exhibit 1) was found to be 1.74 trips/KSF (1,000 sq. ft.). The overall trip generation is lower than the trip generation collected in the previous study (2.2 trips/KSF) and is closer to the 1.4 trips/KSF found for conventional high-cube warehouses in the ITE/SCAQMD/NAIOP study.

Table 1 – Data Collection Sites and Site Attributes

Site and Location	Building Size (Sq. Ft.)	Number of Employees in 2023[a]
Fulfillment Centers		
1. Walmart: 6750 Kimball Avenue, Chino[c]	2,790,000	n/a
2. Amazon: 24208 San Michele Road, Moreno Valley	1,255,620	3,005
3. Lineage Logistics: 1001 Columbia Avene Riverside	507,050	558
4. P&G: 16110 Cosmos Street, Moreno Valley	1,106,400	650
5. Big 5: 6125 Sycamore Canyon Boulevard, Riverside	953,132	443
6. Nestle USA: 3450 Dulles Drive, Jurupa Valley	764,000	148
7. Home Depot: 11650 Venture Drive, Jurupa Valley	1,114,000	240
8. ACT Fulfillment Center: 3155 Universe Drive, Jurupa Valley	598,000	255
9. Petco: 4345 Parkhurst Street, Jurupa Valley	322,000	180
10. Komer: 11850 Riverside Drive, Jurupa Valley	649,000	113
11. Ross: 3404 Indian Avenue, Perris	1,284,000	n/a
Parcel Hubs		
1. Ryder Ecommerce by Whiplash: 15801 Meridian Parkway, Riverside	477,000	160
2. FedEx: 330 Resource Drive, Bloomington	448,000	n/a
3. FedEx Freight: 12100 Riverside Drive, Jurupa Valley	131,000	516
4. UPS Chain Logistics: 11811/11991 Landon Drive, Jurupa Valley	1,737,000	2,300
5. DHL: 12249 Holly Street North, Riverside	457,120	209[b]

Source: WRCOG Staff
[a] Employment provided by agency staff for each local agency. N/A = Not Available.
[b] Estimated employment based on parking provided.
[c] Includes the 1,200,000 sq. ft. building from the original study plus two additional buildings constructed since then. See text for complete description.

The best fit equation was a logarithmic relationship with R^2 of 0.50. This is shown as a red line in **Exhibit 1a**. An logarithmic relationship, meaning that the larger the building the lower the trip generation rate, is typical of expectations; however, the average rate shows a an improved R^2 of

0.77 and therefore we would recommend use of the average rate. **Exhibit 1b** sumarizes the previous data collected in 2018 for reference.

Exhibit 1a: Data Plot for Daily Total Vehicle Trip Ends against Building Size (Fulfillment Center); 2023 Data

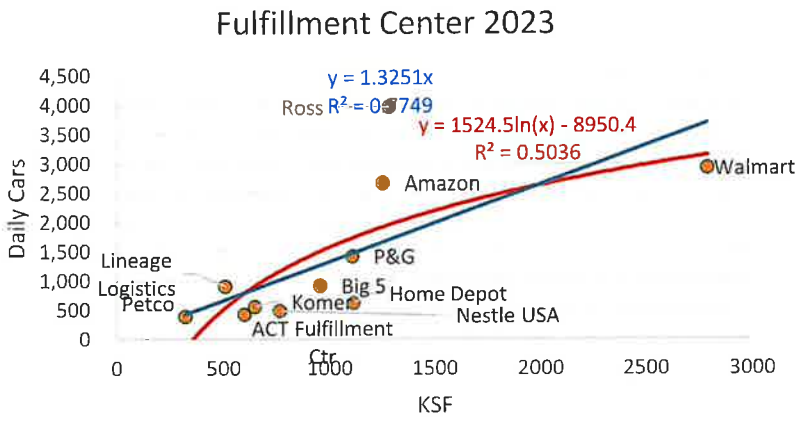


Exhibit 2b: Data Plot for Daily Total Vehicle Trip Ends against Building Size (Fulfillment Center); 2018 Data

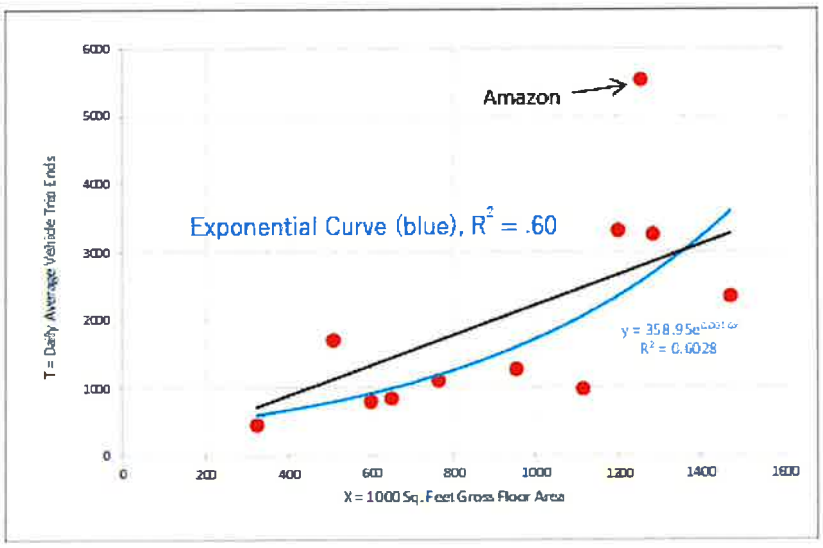


Exhibit 2a takes a deeper look at this by showing the daily vehicle trip generation rates for each of the 11 surveyed fulfillment centers sorted by the smallest to the largest building size from left to right. As shown, small sites tend to generate fewer trips per thousand square feet, but higher percentage of trucks while larger sites tend to generate a higher number of car trips but fewer truck trips. So not only is the overall trip generation rate affected by building size, the vehicle mix is affected as well. **Exhibit 2b** shows the previous data collected in 2018 for reference. Please also note that heavy vehicle trips generally increased at all locations; whereas passenger car trips decreased at many locations and light/medium duty trucks generally didn't vary compared to the 2018 data.

Exhibit 3a, Exhibit 3b, Exhibit 4a, and **Exhibit 4b** show data plots for the AM and PM peak hour vehicle trip ends against building size for both the 2023 data and the 2018 data. The fitted curves had a low R^2 during the AM peak hour and a high R^2 during the PM peak hour. We would recommend use of the average rate for consistency purposes.

Exhibit 5 compares the average trip generation rates of 11 fulfillment centers with the rates found for conventional transload and short-term storage warehouses in the 2016 high-cube warehouse trip generation study[3] by SCAQMD/NAIOP/ITE, the 2018 data from the previous study, and the most recent counts collected. As shown, the fulfillment centers have decreased in the number of vehicle trips generated – but medium- and heavy-duty truck rates have increased compared to the previous data collection effort.

Exhibit 5 also summarizes the AM and PM peak hour trip rates and the daily rates for fulfillment centers based on the findings of this study, and compares the results to rates for conventional transload and short-term storage warehouses.

[3] *High-Cube Warehouse Vehicle Trip Generation Analysis*, Institute of Transportation Engineers, 2016

Exhibit 3a: Daily Vehicle Trip Generation Rates by Building Size for Each Fulfillment Center, 2023 Data

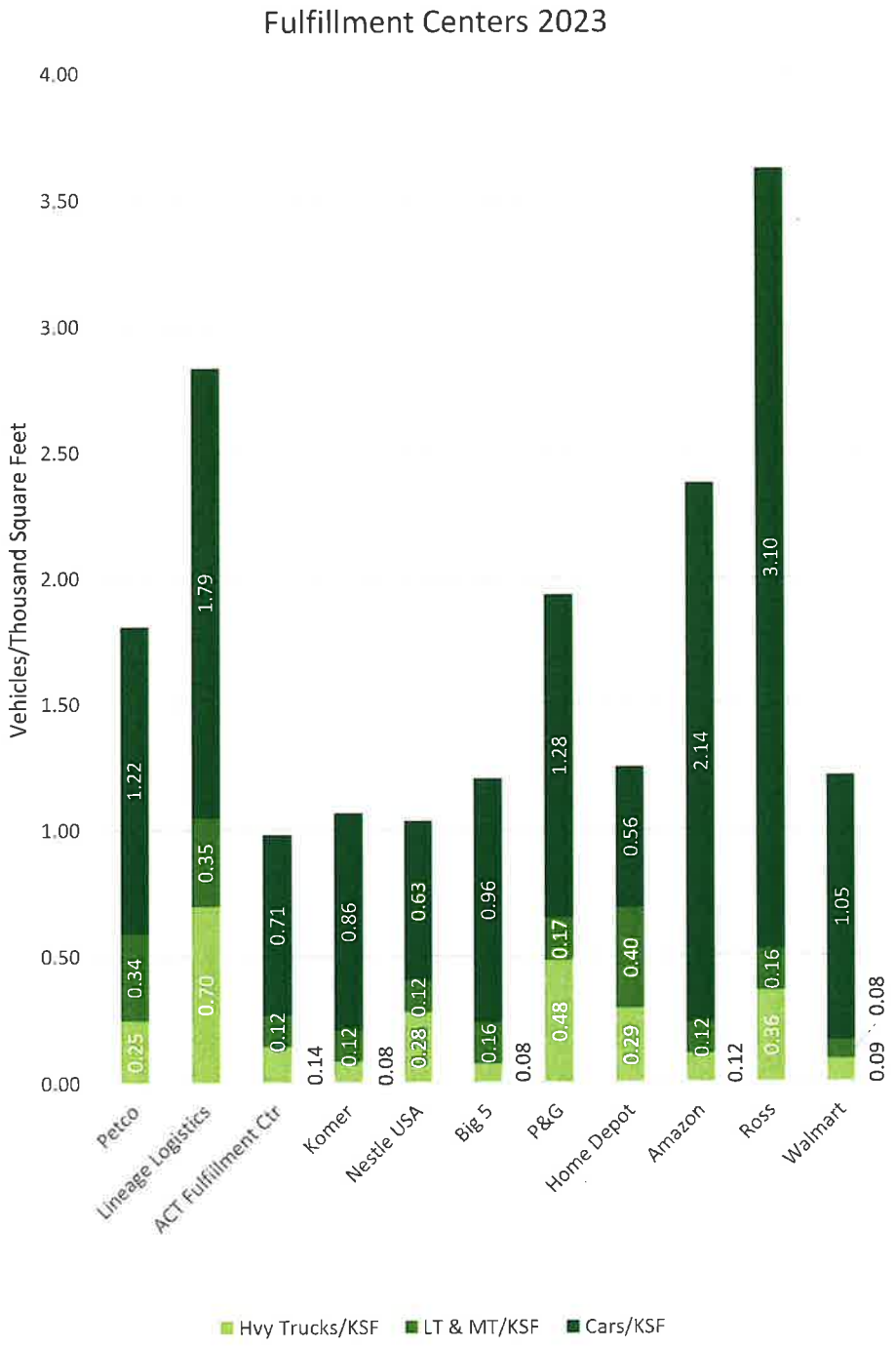


Exhibit 4b: Daily Vehicle Trip Generation Rates by Building Size for Each Fulfillment Center, 2018 Data

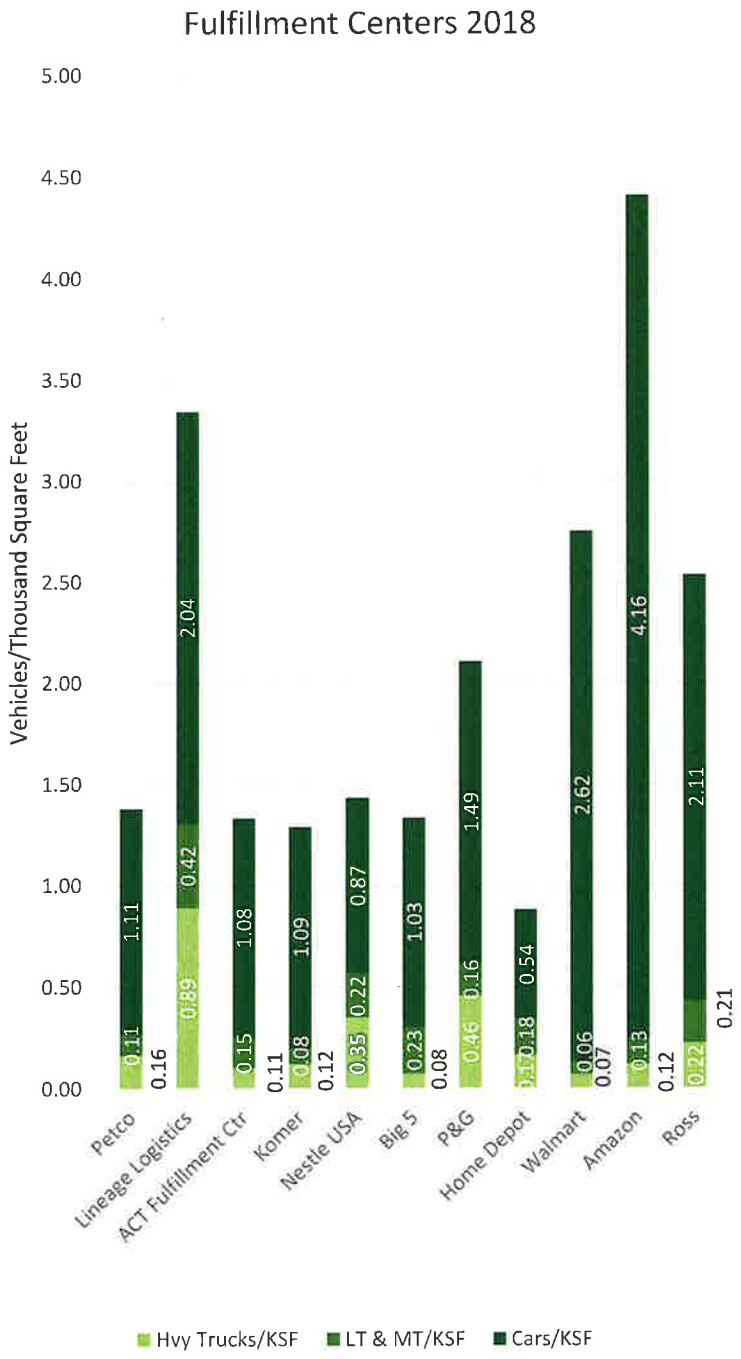


Exhibit 5a: Data Plot for AM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2023 Data

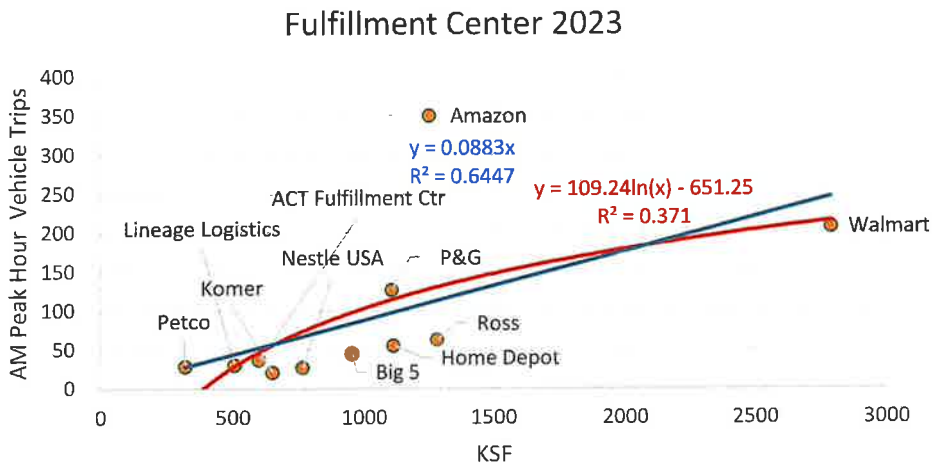


Exhibit 6b: Data Plot for AM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2018 Data

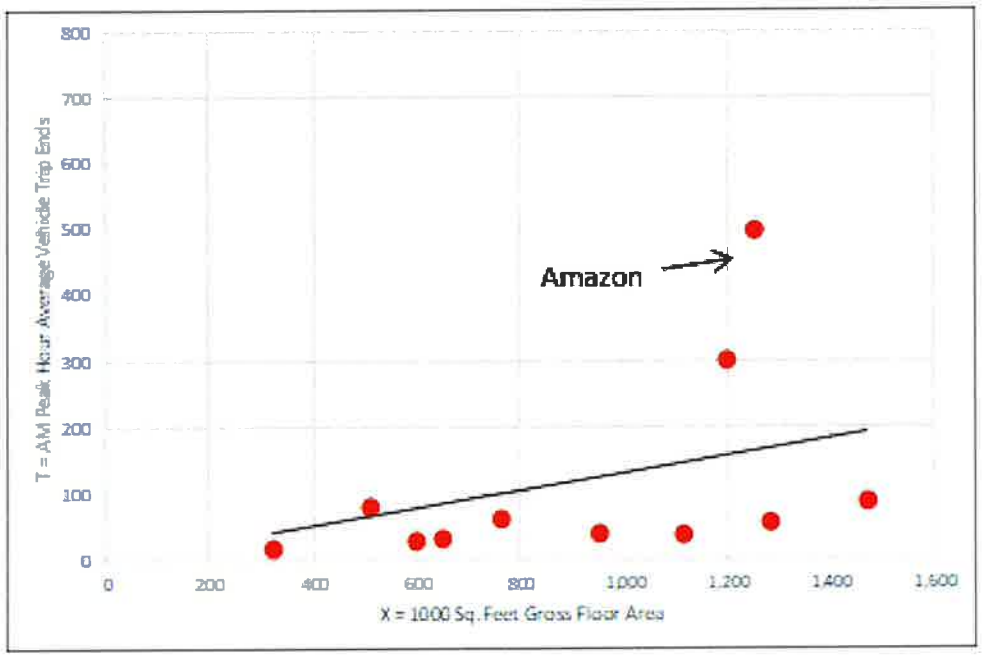


Exhibit 7a: Data Plot for PM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2023 Data

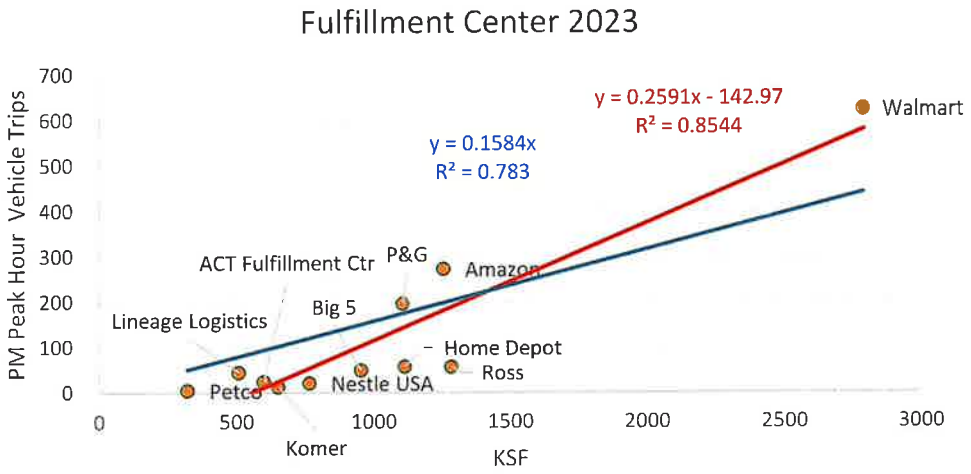


Exhibit 8b: Data Plot for PM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2018 Data

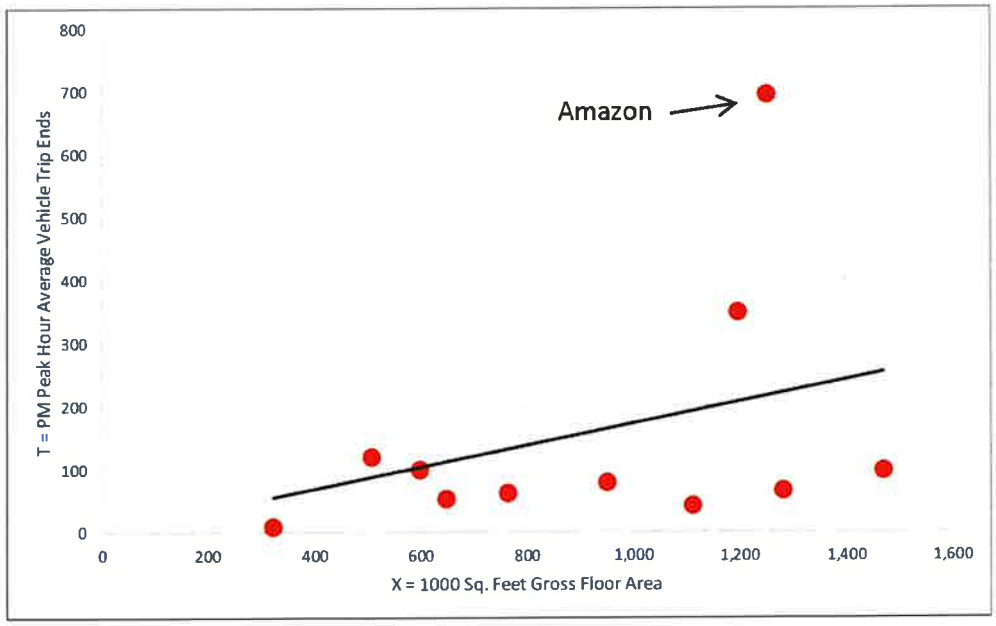


Exhibit 9: Conventional Warehouse vs Fulfillment Centers Trip Generation Rates per 1,000 sq. ft.

	AM				PM				Daily			
	Conventional	2018	2023	% Change	Conventional	2018	2023	% Change	Conventional	2018	2023	% Change
Cars	0.057	0.103	0.062	-40%	0.086	0.144	0.105	-27%	1.000	1.75	1.350	-23%
2-4 Axel Trucks	0.009	0.008	0.008	1%	0.013	0.011	0.006	-42%	0.221	0.162	0.167	3%
5-Axle Trucks	0.015	0.011	0.010	-8%	0.01	0.01	0.010	-2%	0.233	0.217	0.228	5%
Total	0.082	0.122	0.087	-29%	0.108	0.165	0.120	-27%	1.432	2.129	1.744	-18%
% Higher than Conventional		49%	6%			53%	12%			49%	22%	

Notes:
Conventional relates conventional transload and short-term storage warehouses in the 2016 high-cube warehouse trip generation study by SCAQMD/NAIOP/ITE.
2018 relates to data collected in the 2018 WSP study.
2023 relates to data collected as part of this effort.

By Employee

WRCOG staff provided employment numbers for some of the surveyed fulfillment centers which was provided by WRCOG staff in consultations with local agencies. The data provided by WRCOG is provided as **Exhibit 6** below:

Exhibit 6: Employment Information

Location Occupant	2018 Employment Data	2023 Employment Data
Fulfillment/Distribution Centers		
Walmart	500	n/a
Amazon	4,700	3,005
Lineage Logistics	478	558
P&G	1,000	650
Big 5	463	443
Nestle USA	n/a	148
Home Depot	n/a	240
ACT Fulfillment Ctr	n/a	255
Petco	169	180
Komer	235	113
Ross	1,900	n/a
Parcel Hubs		
UPS	n/a	160
FedEx	902	n/a
FedEx Freight	n/a	516
UPS Chain Logistics	n/a	2,300
DHL	n/a	209*

Notes:
n/a = Information not available.
* Employment estimated based on the number of parking spaces.

Exhibit 7a and **Exhibit 7b** shows a data plot showing daily total vehicle trip ends against the number of employees for the 2023 data and the 2018 data, respectively. The best fit equation for the 2023 dataset remains a logarithmic function which had an R^2 of 0.85, indicating a very good fit. The average trip generation rate for fulfillments centers (represented by the blue line in

Exhibit 10a: Data Plot for Daily Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2023 Data

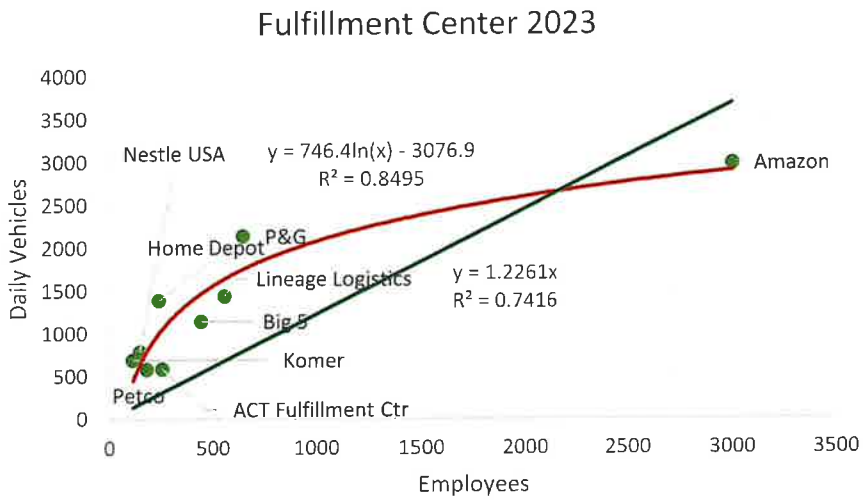


Exhibit 11b: Data Plot for Daily Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2018 Data

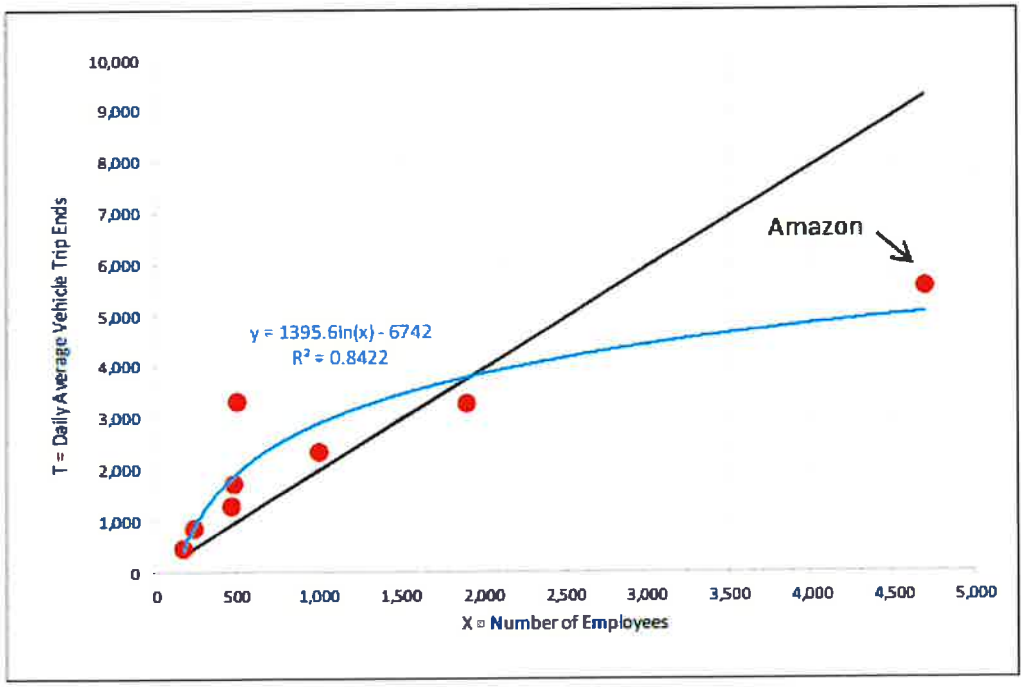


Exhibit 7a) was found to be 1.23 trips/employee, which is lower than the 2 trips/employee collected in the 2018 dataset.

The data plots for the AM and PM peak hour total vehicle trip ends against the number of fulfillment center employees are shown in Exhibits 8a, 8b, 9a, 9b for the 2023 AM, 2018AM, 2023 PM, and 2018 PM datasets; respectively.

Exhibit 12a: Data Plot for AM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2023 Data

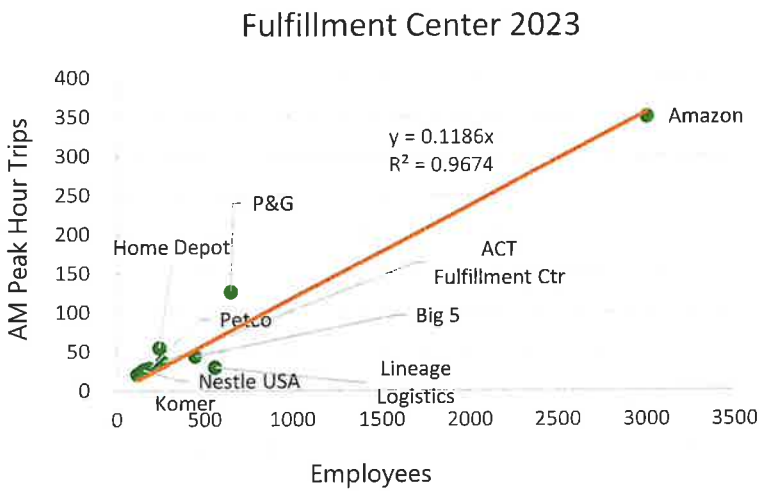


Exhibit 13b: Data Plot for AM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2018 Data

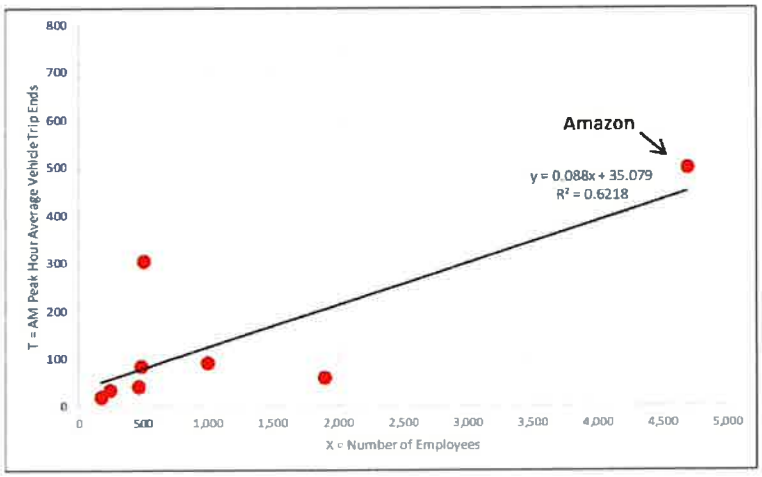


Exhibit 14a: Data Plot for PM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2023 Data

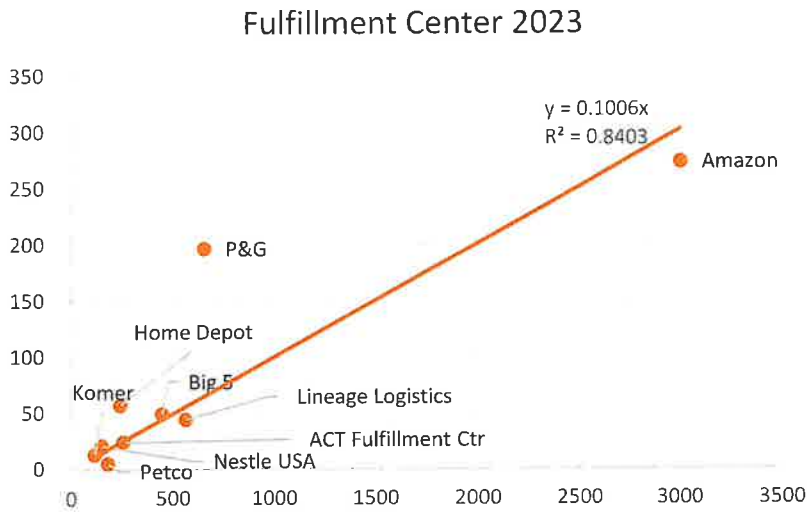


Exhibit 15b: Data Plot for PM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2018 Data

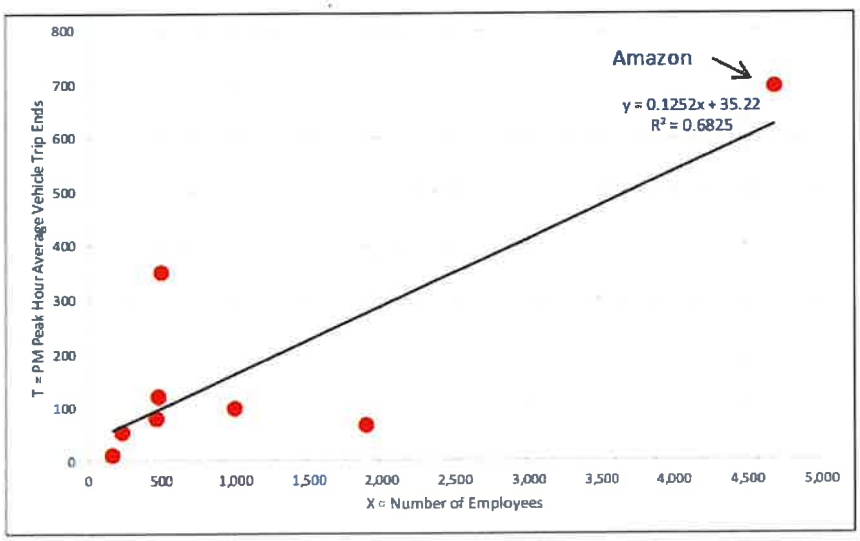


Exhibit 10 summarizes the AM and PM peak hour trip rates and the daily rates for trip generation per employee at fulfillment centers based on the findings of this study. When reviewing trip generation per employee, the updated data generally shows a decrease in car trips per employee but much higher truck trip rates compared to the previous study conclusions.

Exhibit 16: Summary of Trip Generation Rates per Employee for Fulfillment Centers

	AM			PM			Daily		
	2018	2023	% Change	2018	2023	% Change	2018	2023	% Change
Cars	0.102	0.100	-2%	0.139	0.101	-27%	1.673	1.504	-10%
2-4 Axle Trucks	0.006	0.013	120%	0.008	0.009	15%	0.125	0.264	111%
5-Axle Trucks	0.009	0.010	13%	0.008	0.013	58%	0.008	0.334	4073%
Total	0.118	0.123	4%	0.155	0.123	-21%	1.977	2.101	6%

Parcel Hubs

By Building Size

Exhibit 11a and **Exhibit 11b** displays daily vehicle trip generation rates by building size for each of five Parcel Hub sites collected in both 2018 (Exhibit 11b) and 2023 (Exhibit 11a). They are sorted by the smallest to the largest building size from left to right. In this case the small sites generate significantly more trips of every kind than the larger sites, which is the opposite to the pattern observed for fulfillment centers.

Exhibit 17a: Daily Trip Generation Rates at Parcel Hubs

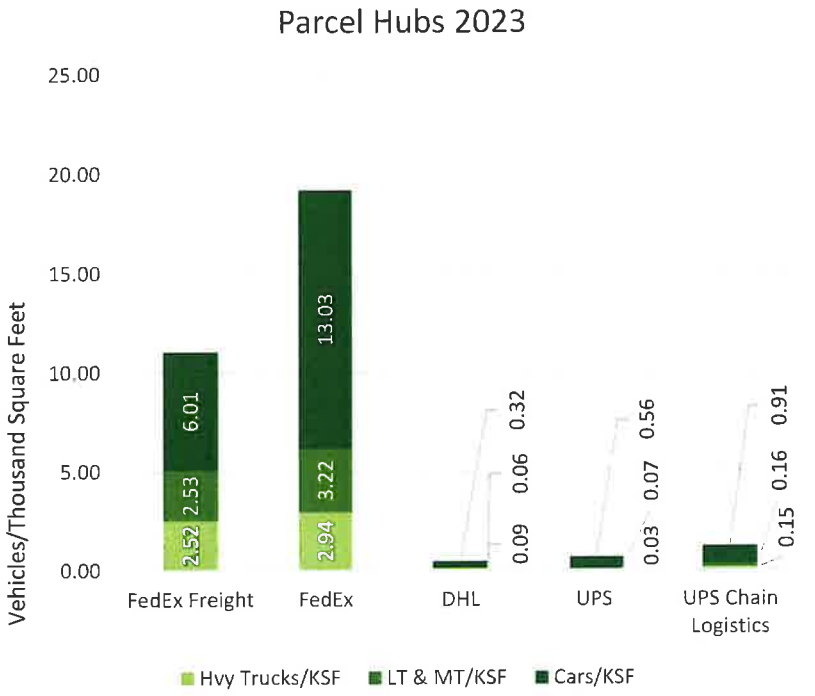


Exhibit 18a: Daily Trip Generation Rates at Parcel Hubs

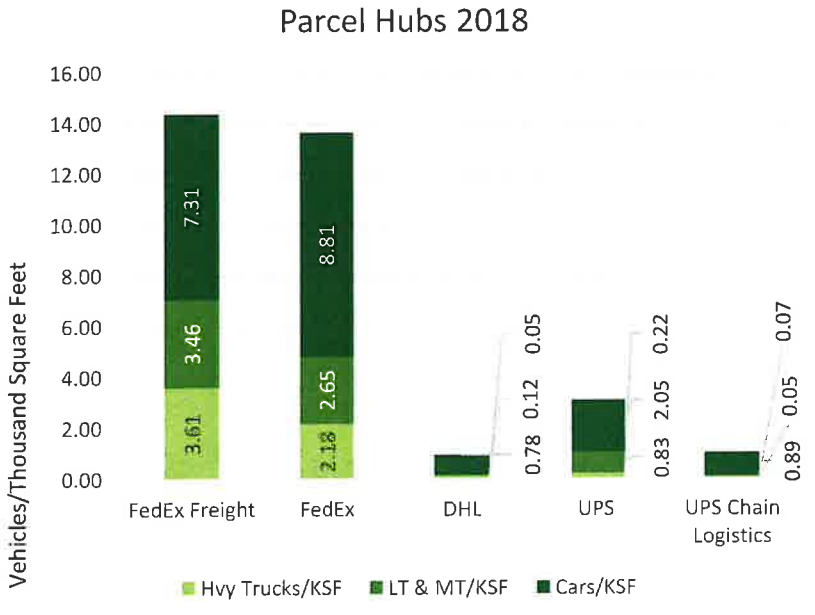


Exhibit 12a shows a data plot of daily vehicle trips of five parcel hubs against building size using the 2023 data. **Exhibit 12b** provides the 2018 data for comparison. As shown, the 2023 data set had a linear best fit; however, the slope of the line is very flat compared to a negative slope estimated in the 2018 dataset. Interestingly, both data sets showed remarkably similar data trends; albeit with different magnitude when compared to the previous dataset. **Exhibit 13** summarizes the trip generation rates by vehicle type for all surveyed Parcel Hub locations for both the 2018 data and the 2023 data. **Exhibit 14** summarizes the overall rate for all locations combined for both the 2018 and 2023 data.

Exhibit 19a: Data Plot for Daily Total Vehicle Trip Ends Against Building Size (Parcel Hubs) – 2023 Data

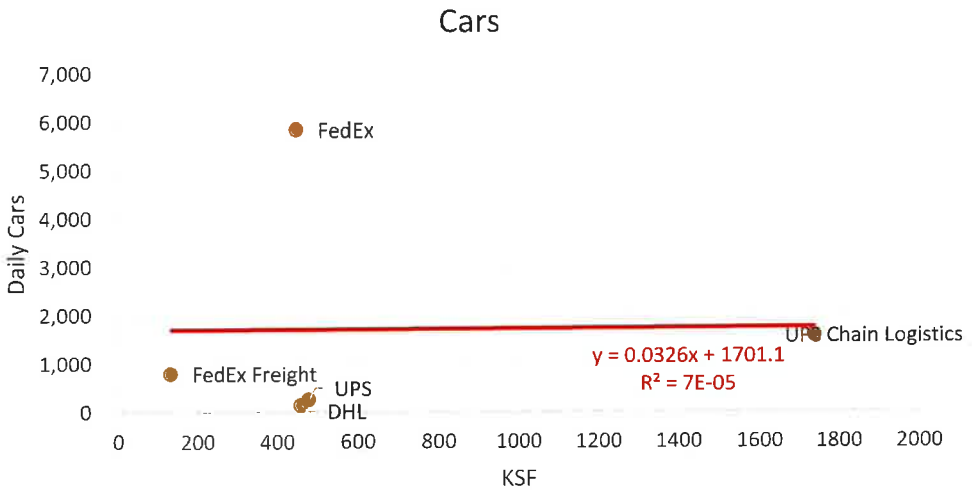


Exhibit 20a: Data Plot for Daily Total Vehicle Trip Ends Against Building Size (Parcel Hubs) – 2023 Data

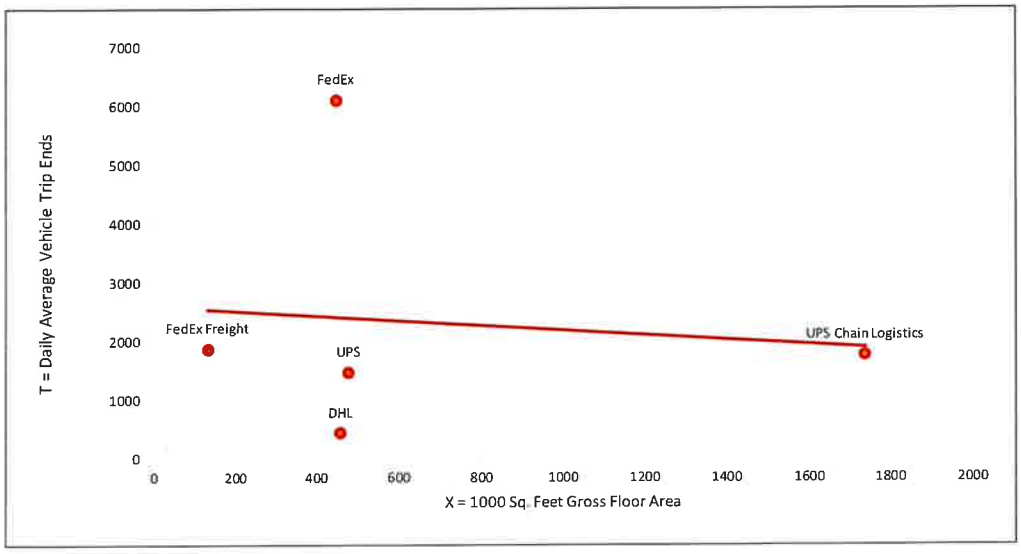


Exhibit 13: Trip Generation Rates per 1,000 sq. ft. for Parcel Hubs by Location – 2018 and 2023 Data

	2018 Data			2023 Data		
	Cars/KSF	Light & Medium Duty Trucks/KSF	Heavy Duty Trucks/KSF	Cars/KSF	Light & Medium Duty Trucks/KSF	Heavy Duty Trucks/KSF
FedEx Freight	7.31	3.46	3.61	6.01	2.53	2.52
FedEx	8.81	2.65	2.18	13.03	3.22	2.94
DHL	0.78	0.05	0.12	0.32	0.06	0.09
UPS	2.05	0.83	0.22	0.56	0.07	0.03
UPS Chain Logistics	0.89	0.07	0.05	0.91	0.16	0.15

Exhibit 14: Summary of Trip Generation Rates per 1,000 sq. ft. for Parcel Hubs – 2018 and 2023 Data

	Daily		
	2018	2023	% Change
Cars	2.39	2.65	11%
2-4 Axle Trucks	0.67	0.65	-3%
5-Axle Trucks	1.19	0.60	-49%
Total	3.59	3.90	9%

The basic premise of the ITE trip generation approach is that the number of trips generated by a project is proportional to its size. Neither the 2018 nor the 2023 datasets reflect this ITE premise in that the 2018 data indicated a negative slope (meaning an opposite relationship between trips and building size) and the 2023 data set showed essentially a flat slope (meaning no relationship between building size and the number of trips. Based on this observation, we would continue to concur with the 2018 study recommendation that the Parcel Hub data does not provide meaningful information that should be used to establish a local trip generation rate for that land use without additional data collection at other Parcel Hub locations.

It should be noted that the dataset did show an interesting trend when comparing between the data sets. For Parcel Hubs, in a post-pandemic setting, passenger car trips increased on average by 11% compared to the 2018 dataset; while 5-axle trucks showed a significant decrease (-49%) in trip rate (2-4 axle trucks remained relatively consistent showing a slight decrease of -3%).

Conclusions

This study evaluated how trip generation and vehicle mix may have changed in a post-pandemic environment using 2023 data compared to the previously collected 2018 data. The most interesting findings while reviewing and comparing the data are summarized below:

Fulfillment Centers

- The daily fleet mix seems to have changed such that there are more heavy vehicles and fewer passenger cars
- There is reduced trip generation activity during the peak hours with more activity occurring in off-peak periods
- For two of the larger Fulfillment Centers (Amazon and P&G), employment has decreased by almost 30%
- It is recommended that WRCOG utilize the average rate of 1.74 trips/KSF for Fulfillment Center

Parcel Hubs

- The updated data showed an opposite trend compared to the Fulfillment Centers, with fewer trucks and an increase in passenger car trips
- There is concurrence with the 2018 study recommendation that the Parcel Hub data does not provide meaningful information that should be used to establish a local trip generation rate for that land use without additional data collection at other Parcel Hub locations

Otherwise, the 2023 data supports very similar conclusions from the 2018 study for both the Fulfillment Centers and the Parcel Hub facilities.

Attachment A – 2019 WSP Study

Technical Memorandum

To: Daniel Ramirez-Cornejo, Program Manager, WRCOG

From: Billy Park, Supervising Transportation Planner, WSP

Subject: **TUMF High-Cube Warehouse Trip Generation Study**

Date: January 29, 2019

Background

High-cube warehousing is emerging as an important development type in the Inland Empire. Studies such as Logistics & Distribution: *An Answer to Regional Upward Social Mobility*[1] and *Multi-County Goods Movement Action Plan*[2] suggests that this trend is likely to increase over time due to the Inland Empire's relative abundance of suitable sites compared to coastal counties.

A recurring analytical problem for the analyses of traffic impacts associated with proposed high-cube warehouses is the lack of reliable data regarding the number and vehicle mix of trips generated by this land development type. Specifically:

- The *2003 Fontana Truck Trip Generation Study*, which has been used for years by agencies in the Inland Empire, is based on the older type of high-cube warehouse. Newer warehouses generally are larger (often over 1 million square feet), much more automated, and generate far fewer trips per square foot.
- The use of overly-conservative estimates has produced results that were unreasonable when compared to actual field conditions. For example, the Environmental Impact Report (EIR) for the Skechers high-cube warehouse building in Moreno Valley included traffic forecasts that were substantially higher than the actual post-construction trip generation for both cars and trucks. Overstated forecasts are misleading to decision makers and could result in oversized infrastructure that could itself have environmental consequences, creates an undue burden on development, and could even have adverse legal consequences for the agencies involved.
- In 2011 the Commercial Real Estate Development Association, also known by its former acronym NAIOP, commissioned a trip generation study of high-cube warehouses focused on large highly-automated warehouses in the Inland Empire. NAIOP had hoped that their study, which found trip-gen rates considerably lower than previous studies, would be used in CEQA analyses going forward. However, concerns about potential bias by the sponsoring party have placed into question the validity of the study results. Similarly, a study commissioned by SCAQMD was viewed as possibly having an anti-development bias.
- Finally, in 2015 NAIOP and SCAQMD jointly sponsored a trip-gen study for high-cube warehouses through a respected neutral party, the Institute of Transportation Engineers (ITE). The report for this study, *High-Cube Warehouse Vehicle Trip Generation Analysis*, was completed in 2016.

The joint NAIOP/SCAQMD/ITE study resulted in a consensus on the trip generation rates to be used for the most common type of high-cube warehouse, a category they call "transload and short-term storage". The findings of the joint study generally indicated the trip generation rates for this use as being consistent with the trip generation rates for the broader category of high-cube warehouses as described by ITE in the 9th Edition of the *Trip*

[1] *Logistics & Distribution: An Answer to Regional Upward Social Mobility*, Dr. John Husing for SCAG, June 2004
[2] *Multi-County Goods Movement Action Plan*, Wilbur Smith Associates, August 2008

Generation Manual. However, the report did not settle the issue of trip generation rates for two other specific types of high-cube warehouses:

> *"The single data points for fulfillment centers and parcel hubs indicate that they have significantly different vehicle trip generation characteristics compared to other HCWs. However, there are insufficient data from which to derive useable trip generation rates."*

The purpose of this technical memorandum is to gather sufficient data to develop reliable trip generation rates for fulfillment centers and parcel hubs for use in traffic impact studies in the Inland Empire.

Methodology

Number of Sites: The study team reviewed ITE's *Trip Generation Handbook 2nd* Edition, Chapter 4 of which describes how to perform a trip generation study that meets ITE's standards (which improves the defensibility of the results if they are used for CEQA analyses). ITE recommends that at least three sites, and preferably five, be surveyed for a given land use category. Based on the review of candidate sites identified by Western Riverside Council of Governments (WRCOG) staff, it was recommended that data be collected at a total of 16 sites for the purposes of this study.

Independent Variables: ITE's Trip Generation Manual measures the size of proposed developments using more than a dozen different independent variables, such as students (for schools), acres (for parks), etc. All High-Cube related categories in both 9th and 10th Editions of the Trip Generation Manual are reported in Square Foot Gross Floor Area (GFA) measured in thousands of square feet (TSF), which is also the independent variable used for the TUMF program. Some other ITE employment categories use employment as the independent variable, as does SCAG in its Sustainable Communities Strategy. WRCOG provided GFA for all sites and employment data for eight fulfillment centers and one parcel hub site.

The ITE *Trip Generation Manual* typically reports trip generation rates two ways; namely as the average rate and using the "best fit" mathematical relationship between the number of trips generated and the independent variable. R-squared, also known as the coefficient of determination, is used to measure how well the best fit equations match the surveyed traffic counts. The *Trip Generation Manual* recommends that the best fit equation only be used when the R^2 is greater than or equal to 0.50 and certain other conditions being met; otherwise the average rate should be used.

Data Collection

WRCOG provided a list of recommended trip generation study sites after reviewing potential sites within the Inland Empire with its member agencies. The list included 11 fulfillment centers and 5 parcel hub sites as follows:

Fulfillment Centers

1. Walmart: 6750 Kimball Ave, Chino, CA 91708
2. Amazon: 24208 San Michele Rd, Moreno Valley, CA 92551
3. Lineage Logistics: 1001 Columbia Ave Riverside, CA 92507
4. P&G: 16110 Cosmos Street, Moreno Valley, CA 92551
5. Big 5: 6125 Sycamore Canyon Blvd, Riverside, CA 92507
6. Nestle USA: 3450 Dulles Drive, Jurupa Valley, CA
7. Home Depot: 11650 Venture Drive, Jurupa Valley, CA
8. ACT Fulfillment Center: 3155 Universe Drive, Jurupa Valley, CA
9. Petco: 4345 Parkhurst Street, Jurupa Valley, CA
10. Komer: 11850 Riverside Drive, Jurupa Valley, CA
11. Ross: 3404 Indian Ave Perris, CA 92571

Parcel Hubs

12. UPS: 15801 Meridian Pkwy, Riverside, CA 92518
13. FedEx: 330 Resource Dr, Bloomington, CA 92316
14. FedEx Freight: 12100 Riverside Drive, Jurupa Valley, CA
15. UPS Chain Logistics: 11811/11991 Landon Drive, Jurupa Valley, CA
16. DHL: 12249 Holly St N, Riverside, CA 92509

Traffic counts were collected at all of these sites. These were 72-hour driveway counts collected using video cameras for three-midweek days starting June 26, 2018. Video collection was determined to be preferable to collection data by means of machine counts, which can be problematic for driveways where vehicles are maneuvering at slow speeds. Video counts provide the ability for human viewers to review the captured footage to classify vehicles into 5 types (car, large 2-axle, 3-axle, 4-axle, and 5+ axle truck). The three-day average was calculated and used for the purposes of this study.

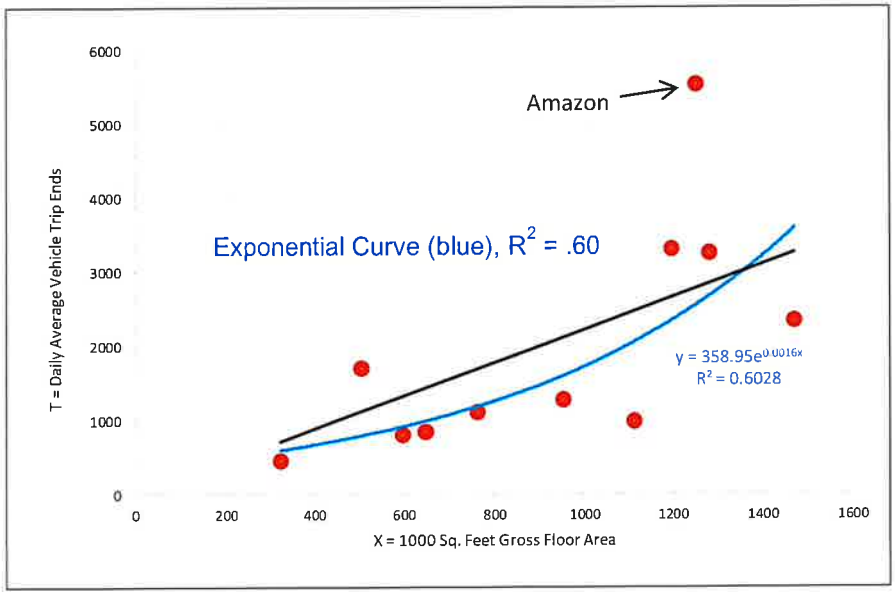
Fulfillment Centers

By Building Size

Exhibit 1 displays a data plot of daily vehicle trips for the 11 fulfillment centers against building size as the independent variable. The average trip generation rate for fulfillments centers (see black line in Exhibit 1) was found to be 2.2 trips/TSF, compared to the 1.4 trips/TSF found for conventional high-cube warehouses in the ITE/SCAQMD/NAIOP study (i.e. about 50% higher).

Exhibit 1 denotes one outlier data point representing the Amazon site in the upper right of the chart. As shown, the average daily trips generated at this facility is over 50% higher than the trips generated at the two sites of similar size (Walmart and Ross), which appears indicative of a greater frequency of same day e-commerce deliveries from Amazon to individual consumers.

Exhibit 1: Data Plot for Daily Total Vehicle Trip Ends against Building Size (Fulfillment Center)



The best fit equation was an exponential relationship with R^2 of 0.60 (i.e. high enough to meet the criteria of acceptability). This is shown as a blue line in Exhibit 1. An exponential relationship, meaning that the larger the building the higher the trip generation rate, is quite unusual.

Exhibit 2 takes a deeper look at this by showing the daily vehicle trip generation rates for each of the 11 surveyed fulfillment centers sorted by the smallest to the largest building size from left to right. As shown, small sites tend to generate fewer trips per thousand square feet, but higher percentage of trucks. On the other hand, largest sites tend to generate a higher number of car trips, but fewer truck trips. So not only is the overall trip generation rate affected by building size, the vehicle mix is affected as well.

Exhibit : ■ Hvy Trucks ☐ Light/Med Trucks ☐ Cars **t Center**

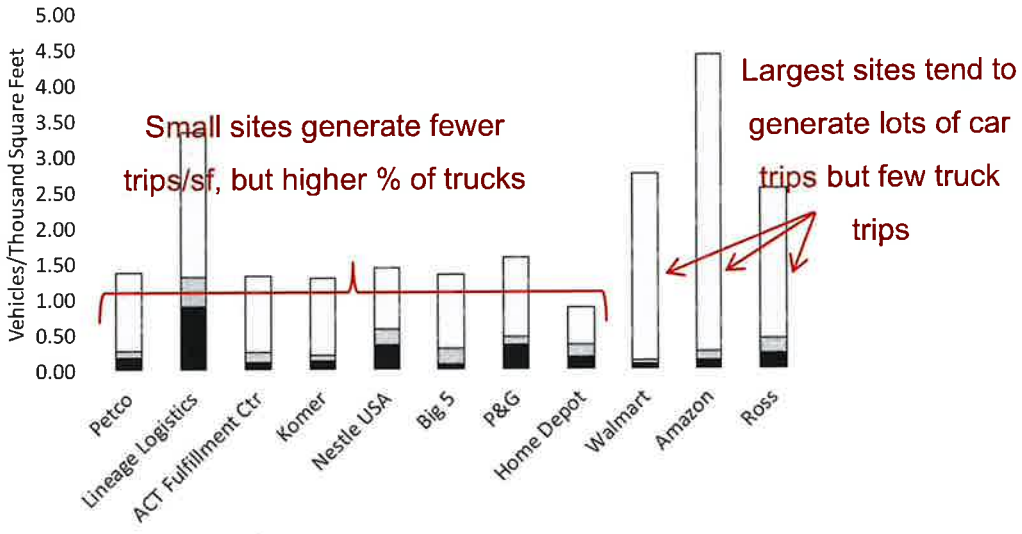


Exhibit 3 and

Exhibit 4 show data plots for AM and PM peak hour vehicle trip ends against building size (respectively). The fitted curves had a low R^2, and so we recommend using the average rate.

Exhibit 3: Data Plot for AM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center)

Amazon →

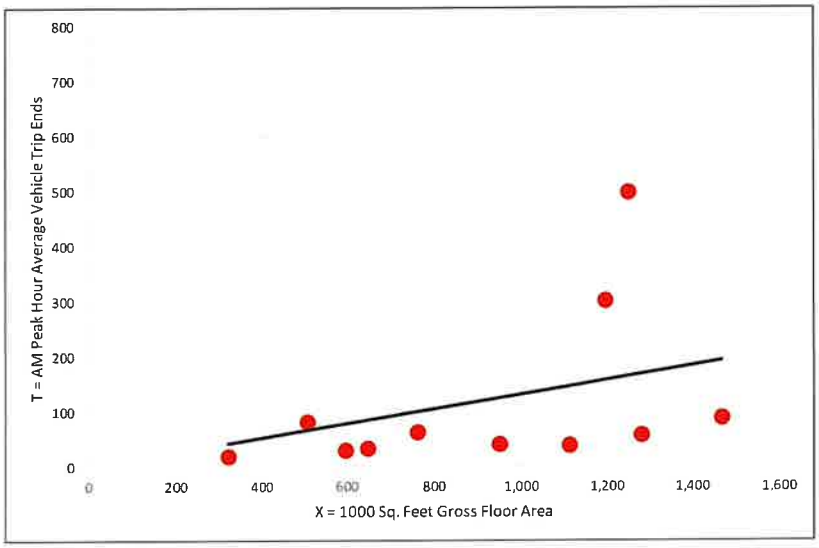


Exhibit 4: Data Plot for PM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center)

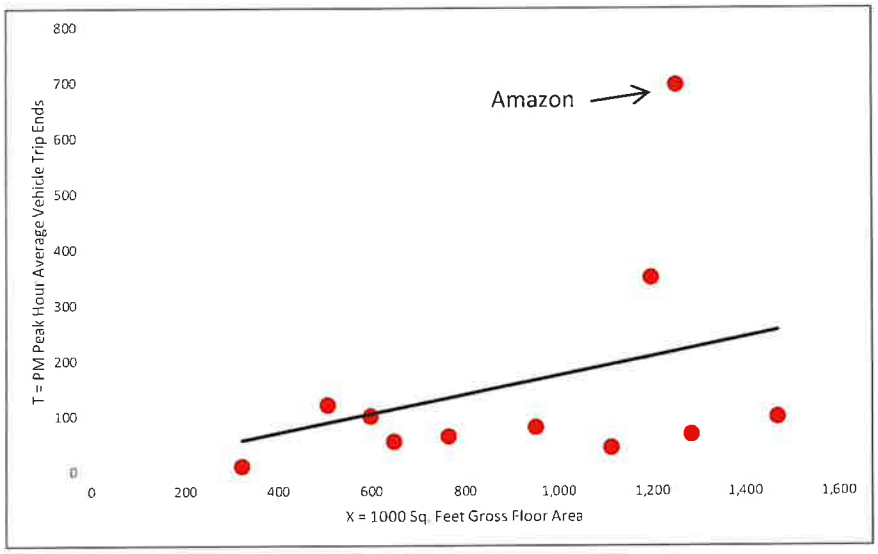
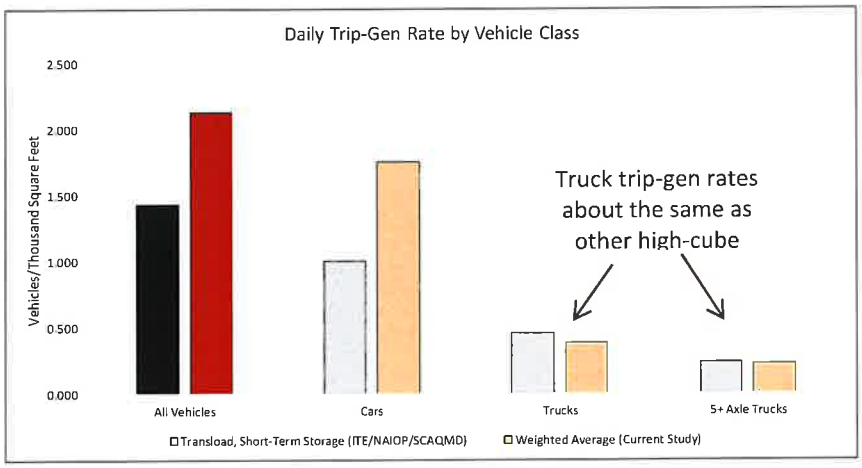


Exhibit 5 compares the average trip generation rates of 11 fulfillment centers with the rates found for conventional transload and short-term storage warehouses in the 2016 high-cube warehouse trip generation study[3] by SCAQMD/NAIOP/ITE. As shown, the fulfillment centers generate more daily vehicle trips than conventional warehouse facilities although trucks are roughly the same. This means that the additional trips by fulfillment centers are entirely due to additional car traffic, which is almost double the rate of car trips generated by conventional warehouses.

Exhibit 5: Conventional Warehouse vs Fulfillment Centers



Visual observation of the fulfillment center sites indicates the higher trip generation rates for cars appears to be mostly due to the use vans and passenger cars as delivery vehicles, particularly for the larger facilities operated by retailers such as Amazon and Walmart.

[3] *High-Cube Warehouse Vehicle Trip Generation Analysis*, Institute of Transportation Engineers, 2016

Exhibit 6 summarizes the AM and PM peak hour trip rates and the daily rates for fulfillment centers based on the findings of this study, and compares the results to rates for conventional transload and short-term storage warehouses.

Exhibit 6: Summary of Trip Generation Rates per Thousand Square Feet of Gross Floor Area for Fulfillment Centers

Vehicle Class	AM Peak Hour		PM Peak Hour		Daily	
	Conventional Warehouse*	Fulfillment Center	Conventional Warehouse	Fulfillment Center	Conventional Warehouse	Fulfillment Center
Cars	0.057	0.103	0.086	0.144	1.000	1.750
2-4 Axle Trucks	0.009	0.008	0.013	0.011	0.221	0.162
5-Axle Trucks	0.015	0.011	0.010	0.010	0.233	0.217
Total	0.082	0.122	0.108	0.165	1.432	2.129
% Higher than Conventional		49%		52%		49%

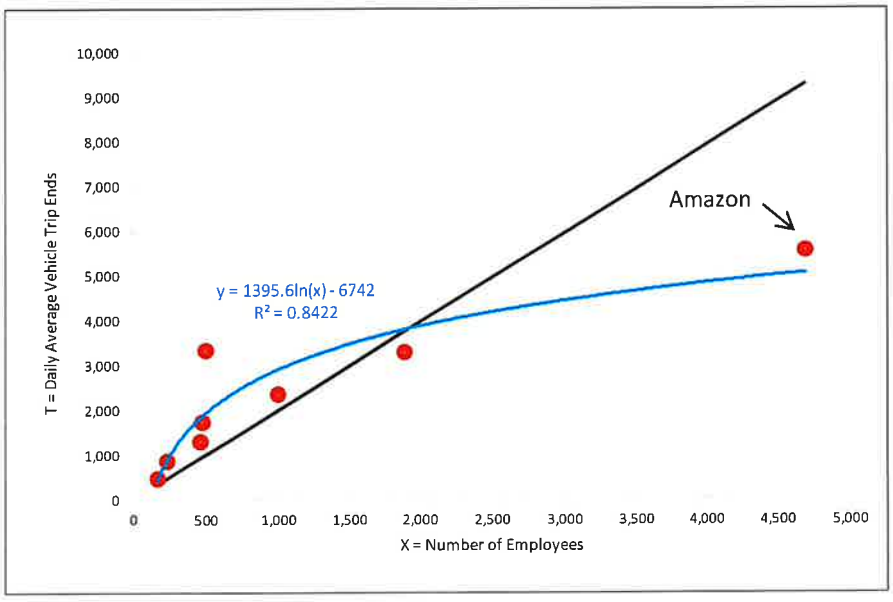
* Transload, Short-Term Storage category in 2016 TIE/ NAIOP/ SCAQMD study

By Employee

The WRCOG contacted the surveyed fulfillment centers and obtained employment data for eight of the eleven sites. Exhibit 7 shows a data plot for those eight sites for daily total vehicle trip ends against the number of employees. The best fit equation was logarithmic function which had an R^2 of 0.84, indicating a very good fit. Notably, the Amazon site, which was an outlier for trip generation based on floor area (see Exhibit 1), correlates more closely to other sites when employment is used instead. The average trip generation rate for fulfillments centers (represented by the black line in Exhibit 7) was found to be 2.0 trips/TSF

No comparison was made to any previous rates per employees because none of the previous high-cube warehouse related trip generation studies included correlation of trips with employment data.

Exhibit 7: Data Plot for Daily Total Vehicle Trip Ends against Employee (Fulfillment Center)



The data plots for the AM and PM peak hour total vehicle trip ends against the number of fulfillment center employees are shown in Exhibit 8 and Exhibit 9. The best fit equations are linear regressions (shown with black lines) which show a good R^2 for both the AM and PM peak periods.

Exhibit 8: Data Plot for AM Peak Hour Total Vehicle Trip Ends against Employee (Fulfillment Center)

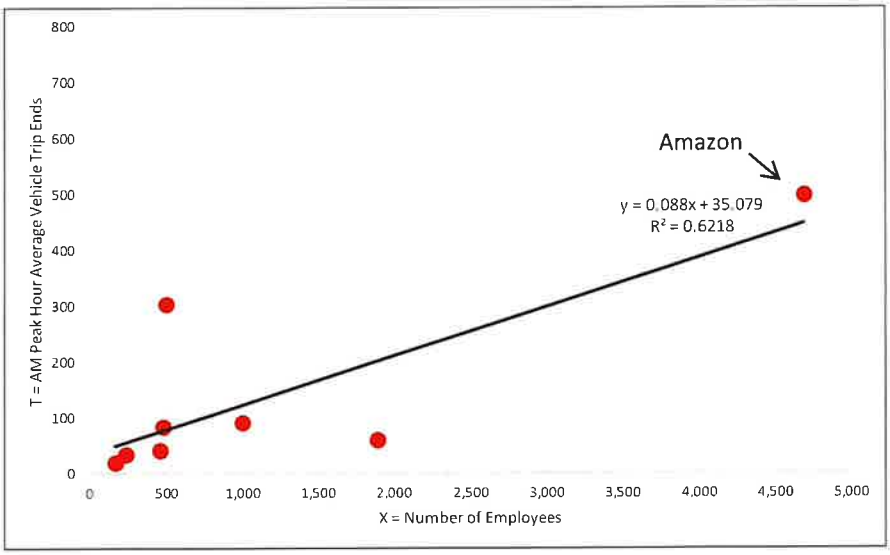


Exhibit 9: Data Plot for PM Peak Hour Total Vehicle Trip Ends against Employee (Fulfillment Center)

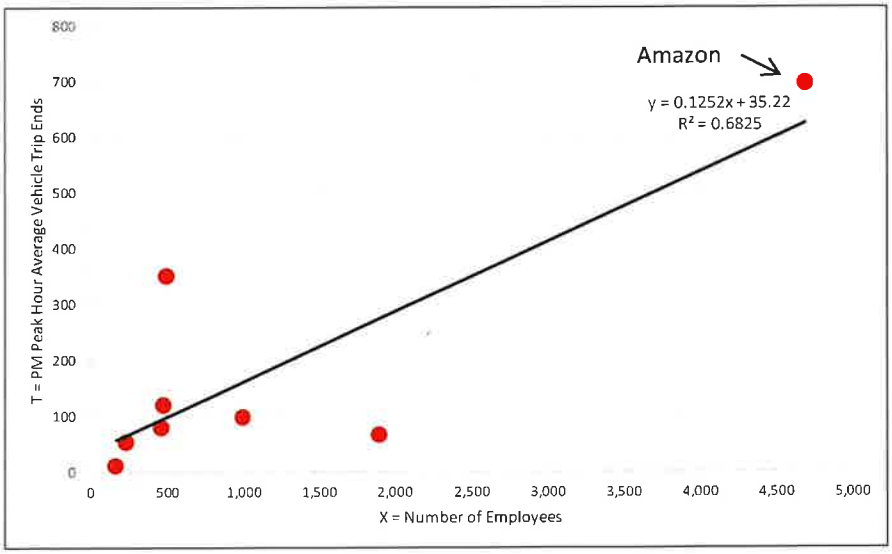


Exhibit 10 summarizes the AM and PM peak hour trip rates and the daily rates for trip generation per employee at fulfillment centers based on the findings of this study.

Exhibit 10: Summary of Trip Generation Rates per Employee for Fulfillment Centers

Vehicle Class	AM Peak Hour	PM Peak Hour	Daily
Cars	0.102	0.139	1.673
2-4 Axle Trucks	0.006	0.008	0.125
5-Axle Trucks	0.009	0.008	0.178
Total	0.118	0.155	1.977

Parcel Hubs

By Building Size

Exhibit 11 displays daily vehicle trip generation rates by building size for each of five parcel hub sites. They are sorted by the smallest to the largest building size from left to right. In this case the small sites generate significantly more trips of every kind than the larger sites, which is the opposite to the pattern observed for fulfillment centers.

Exhibit 11: Daily Trip Generation Rates at Parcel Hubs

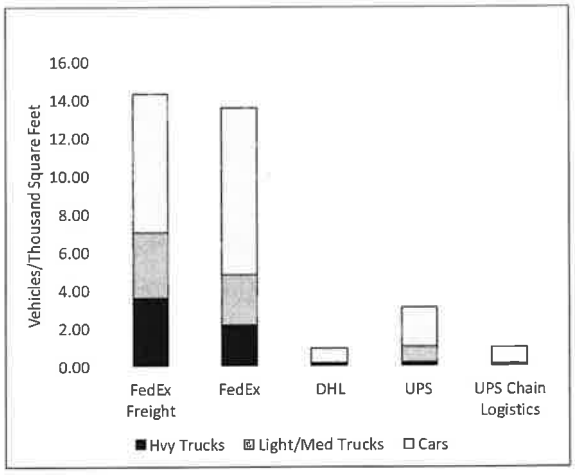


Exhibit 12 shows a data plot of daily vehicle trips of five parcel hubs against building size. As shown, a linear best fit was negative. During the collection of traffic data, construction activity was observed at the FedEx site potentially tainting the validity of these data to represent typical trip generation characteristics. To determine if the trip generation at this site was contributing to the poor data correlation, Exhibit 13 displays the same daily data plot without the FedEx site. The linear best fit shows a positive slope, but remains almost flat effectively indicating no correlation between the daily trips and building size based on the analysis of these sites.

The basic premise of the ITE trip generation approach is that the number of trips generated by a project is proportional to its size. That premise does not hold true for the parcel hubs in this sample and so no meaningful trip generation rates could be determined based on the data collected in support of this study. It should be recognized that a sample size of four or five sites represents the minimum recommended by ITE for valid trip generation studies, and for this reason, it is recommended that additional sites would need to be investigated and included in the data set to develop a more definitive finding on trip generation rates. Furthermore, it may be appropriate to determine the specific function at each site, due to the disparity between the rates observed at the FedEx sites versus the other three sites. It is likely that the function served by the respective sites is significantly different, as reflected in the trip generation rates, thereby necessitating reclassification of these uses for comparative purposes.

Exhibit 12: Data Plot for Daily Total Vehicle Trip Ends against Building Size (Parcel Hubs)

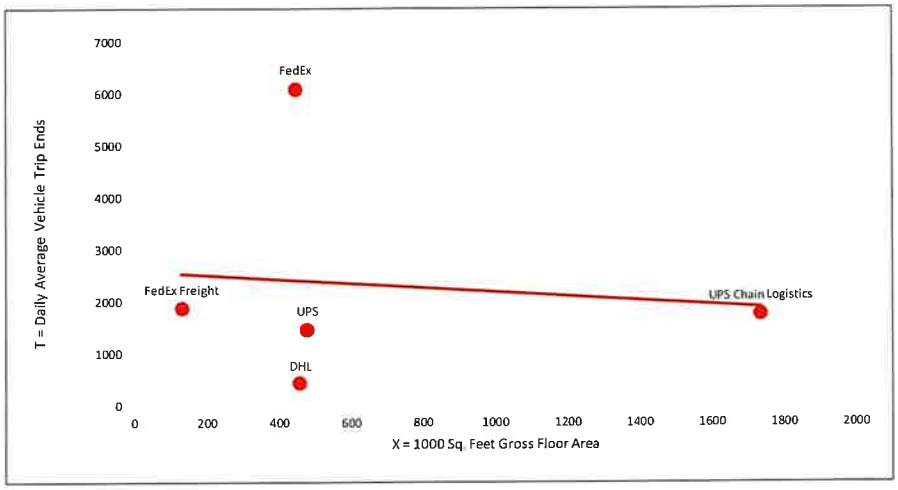
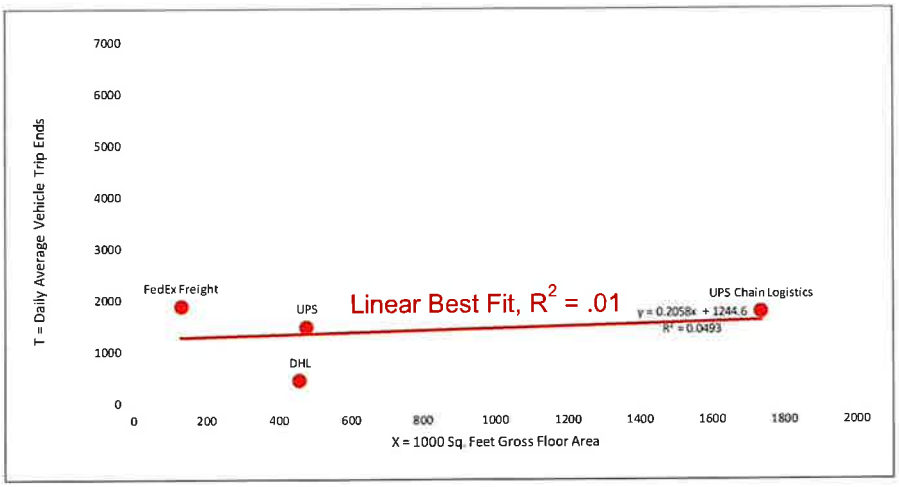


Exhibit 13: Data Plot for Daily Vehicle Trip Ends against Building Size without Construction Site



Conclusions

Our survey of 11 fulfillment centers produced trip generation rates based on the gross floor area of the sites that satisfies ITE's standards for use. The findings of the study indicate that the daily trip generation rates for fulfillment centers is approximately 2.1 trips per thousand square feet of gross floor area, which is roughly 50% higher than the comparable rate for conventional transload and short term storage warehouses previously defined in the ITE *Trip Generation Manual* Version 10. The results of the study further indicate that the higher rates were entirely due to more cars traffic at these sites; the trip generation rates for trucks was found to comparable to those at conventional warehouses.

Employment data were available for eight out of 11 fulfillment center sites. This provided the ability to determine trip generation rates per employee. The study results indicate that that trip generation for fulfillment centers is approximately 2.0 trips per employee. The study also found that the trip generation rate per employee correlated more closely that the trip generation rate per thousand square feet of gross floor area.

The data from the five parcel hubs did not show any statistically meaningful relationship between trips and building size. Therefore, no trip generation rate could be calculated. However, the data collected at these sites may provide a useful basis for further comparison with additional sites to provide more data points for analysis.

ATTACHMENT 7

ITE MANUAL

Land Use: 140
Manufacturing

Description

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions. General light industrial (Land Use 110) and industrial park (Land Use 130) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Minnesota, Missouri, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Vermont, Washington, and West Virginia.

Source Numbers

177, 179, 184, 241, 357, 384, 418, 443, 583, 598, 611, 728, 747, 875, 879, 940, 969, 1067, 1068, 1082

Land Use: 150
Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

Land Use: 154
High-Cube Transload and Short-Term Storage Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. A high-cube warehouse can be free-standing or located in an industrial park.

The HCWs included in this land use include transload and short-term storage facilities. A transload facility has the primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. A transload facility typically has little storage duration, high throughput, and its operations are high efficiency. A short-term HCW is a distribution facility often with custom/special features built into the structure for the movement of large volumes of freight with only short-term storage of products.

Some limited assembly and repackaging may occur within the facility.

A high-cube warehouse may contain a mezzanine. In a HCW setting, a mezzanine is a free-standing, semi-permanent structure that is commonly supported by structural steel columns and that is lined with racks or shelves. The gross floor area (GFA) values for the study sites in the database for this land use do NOT include the floor area of the mezzanine. The GFA values represent only the permanent ground-floor square footage.

The amount of office/employee welfare space that is provided within a HCW can be highly variable but is typically an insignificant portion of the overall building square footage. Within the trip generation database, common values are between 3,000 and 5,000 square feet for a Cold Storage HCW and between 5,000 and 10,000 square feet for Transload, Fulfillment Center, and Parcel Hub HCW (all of which are less than one percent of total GFA for a site). Therefore, for the trip generation data plots, any office space that is part of the normal operation of the warehouse is included in the total GFA.

Warehousing (Land Use 150), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related land uses.

The number of dock doors at a HCW is a potential independent variable. Future data submissions should include that information.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled "High-Cube Warehouse Vehicle Trip Generation Analysis," published in October 2016. The results of this study are posted on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 2000s, and the 2010s in Alberta (CAN), California, Florida, Michigan, New Jersey, Texas, and Washington.

Source Numbers

331, 605, 619, 642, 645, 649, 739, 750, 752, 903, 904, 941, 942, 943, 969

Land Use: 155
High-Cube Fulfillment Center Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. A high-cube warehouse can be free-standing or located in an industrial park.

Warehousing (Land Use 150), high-cube transload and short-term storage warehouse (Land Use 154), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related land uses.

Land Use Subcategory

Each fulfillment center in the ITE database has been categorized as either a sort or non-sort facility. A sort facility is a fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means. A non-sort facility is a fulfillment center that ships large box items that are processed primarily with automation rather than through manual means. Separate sets of data plots are presented for the sort and non-sort fulfillment centers. Some limited assembly and repackaging may occur within the facility.

Additional Data

A high-cube warehouse may contain a mezzanine. In a HCW setting, a mezzanine is a free-standing, semi-permanent structure that is commonly supported by structural steel columns and that is lined with racks or shelves. The gross floor area (GFA) values for the study sites in the database for this land use do NOT include the floor area of the mezzanine. The GFA values represent only the permanent ground-floor square footage.

The amount of office/employee welfare space that is provided within a HCW can be highly variable but is typically an insignificant portion of the overall building square footage. Within the trip generation database, common values are between 3,000 and 5,000 square feet for a Cold Storage HCW and between 5,000 and 10,000 square feet for Transload, Fulfillment Center, and Parcel Hub HCW (all of which are less than one percent of total GFA for a site). Therefore, for the trip generation data plots, any office space that is part of the normal operation of the warehouse is included in the total GFA.

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled "High-Cube Warehouse Vehicle Trip Generation Analysis," published in October 2016. The results of this study are posted on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498.

The sites were surveyed in the 2000s and the 2010s in California, New Jersey, and Texas.

Source Numbers

752, 941, 1001, 1002, 1011

ATTACHMENT 8

WILLDAN REVENUE ANALYSIS 2023

WILLDAN

Draft Memorandum

To: City of Perris

From: James Edison and Carlos Villarreal, Willdan Financial Services

Date: May 19, 2023

Re: DRAFT Revenue Analysis

The City of Perris engaged Willdan Financial Services to provide an analysis of potential revenue from the implementation of a supplemental business license tax on warehouse/distribution businesses. Business license taxes are imposed on businesses operating in the City, as a flat amount per business or some other attribute such as the square footage of the premises of the business.

Table 1 summarizes the results of this analysis, the calculation of which will be further explained below. The important point for Table 1 is to illustrate the implications of the setting of the tax rate and the development that will be completed. The target revenues remain the same, so a lower level of assumed development results in a higher tax. To the extent that calculated development is more than what is developed, on the other hand, the tax revenues will be insufficient to fund the anticipated costs.

Table 1
Summary of Results
Perris Road Maintenance Funding Analysis

Type	Rate (1)	Est. Annual Revenue (2)	Est. Future Annual Revenue (3)	Est. Future Annual Revenue (4)
Existing Development	$0.1581	$4,019,315	$4,530,525	$7,425,930
Existing and Under Construction	$0.1403	$4,019,315	$4,019,315	$6,588,013
Existing, Under Construction and Entitled	$0.1069	$4,019,315	$3,063,955	$5,022,092
Existing, Under Construction, Entitled, and Planned	$0.0856	$4,019,315	$2,452,165	$4,019,315

(1) Rate is per existing or planned square foot of building.
(2) Revenue based on development in rate calculation.
(3) Including entitled and under construction projects.
(4) Including all projects.

Willdan, 2023

Road Maintenance Costs

The City of Perris has experienced significantly increased truck traffic related to the development of industrial space in the City, especially uses such as warehouses and distribution centers that generate large number of truck trips. This in turn has resulted in increased road maintenance costs for the City. The City of Perris Public Works Department has prepared an estimate of life cycle maintenance costs of roads associated with the truck traffic in the City. As shown in Table 2, the truck routes alone cost a total of $25.5 million, or $850,000 annually, and the truck routes and collectors combined cost a total of $120.6 million, or $4.0 million annually.

Table 2
Road Maintenance Costs
Perris Road Maintenance Funding Analysis

Years	Rehab Cycle	Truck Routes	Collectors	Both
4	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
8	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
12	Grind & Overlay	$9,846,328	$36,662,894	$46,509,222
16	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
20	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
24	Grind & Overlay	$9,846,328	$36,662,894	$46,509,222
28	Slurry Seal	$1,166,972	$4,345,232	$5,512,204
30	Remove and Replace	$33,772,905	$125,753,725	$159,526,630
Total without R&R		$25,527,517	$95,051,946	$120,579,463
	Annual	$850,917	$3,168,398	$4,019,315

The City has tracked major industrial projects in the City in past decades to identify industrial projects in the last twenty years to estimate the square footage of buildings that would be subject to a business license tax.

This analysis has a number of limitations. Not included in this analysis is an examination of what development is actually on the parcels zoned industrial, for example, and the projects used to estimate the business license tax are not an exhaustive list of projects that would be subject to the tax. The calculations in this analysis are an estimate of future revenue, and the City and Willdan believe that they are approximately correct but not exactly.

In the event that the City decides to proceed with the business license tax City staff will refine the analysis to determine exactly what parcels or businesses apply. The City must define which parcels are subject to the tax. For example, the tax may be levied on all industrial zoned parcels, or only those zoned for warehouse/distribution uses.

Table 3 details the results of this analysis. As shown on Table 3, Willdan and the City have identified 25.4 million square feet of existing industrial development. It is important to note,

as described above, that these figures are estimates but appear to be roughly correct. Table 3 also includes a calculation of the total completed, entitled, and planned projects. Including all projects, the total square footage is 47 million.

Table 3
Industrial Square Footage
Perris Road Maintenance Funding Analysis

Category	Building SF
Completed Projects	25,417,444
Completed and Under Construction	28,650,241
Completed, Under Construction and Entitled Projects	37,583,569
All Projects (1)	46,960,274

(1) Includes planned projects.

Source: City of Perris

Willdan 2023

Tax Calculation

Based on the development estimates above, Willdan calculated the tax rates that would be sufficient to fund the annual road maintenance costs detailed in Table 2, depending on how much development is concluded in the calculation. Table 4 details the results of this analysis.

Table 4
Business License Tax Revenue Calculation
Perris Road Maintenance Funding Analysis

Development	Target Revenue	SF	Rate
Completed	$4,019,315	25,417,444	$0.1581
Plus Under Construction	$4,019,315	28,650,241	$0.1403
Plus Entitled	$4,019,315	37,583,569	$0.1069
Plus Planned	$4,019,315	46,960,274	$0.0856

Source: City of Perris

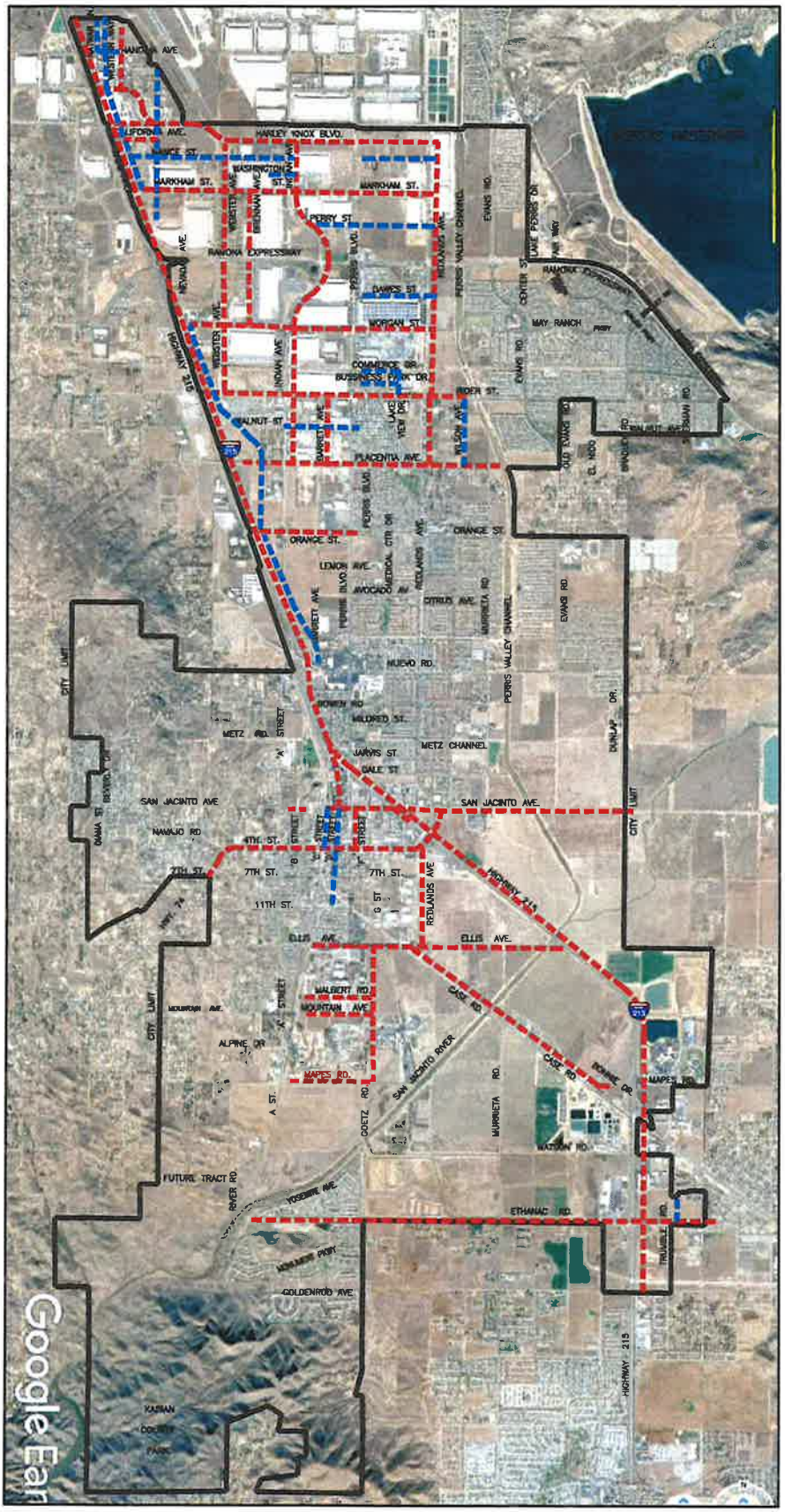
Willdan 2023

As an illustrative example, a 300,000 square foot industrial building would pay a business license tax of between $26,000 and $47,000 annually at the tax rates indicated in Table 4. These figures are meant as an illustrative range of taxes that could be adopted and are not necessary for the establishment of the tax, which requires an election as discussed elsewhere.

ATTACHMENT 9

MAP OF TRUCK ROUTES, ARTERIALS, AND COLLECTOR STREETS

CITY OF PERRIS TRUCK ROUTES



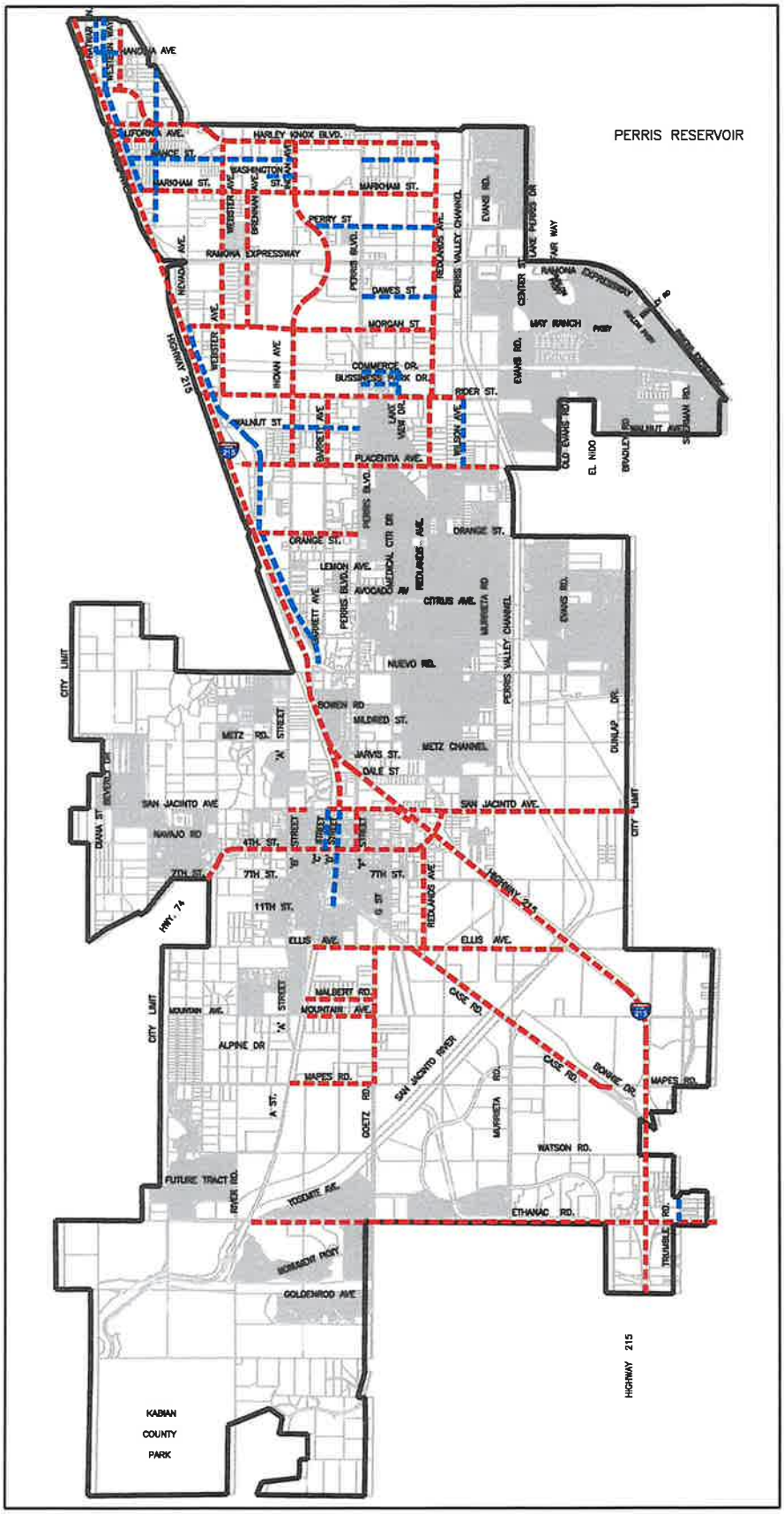
LEGEND:

ARTERIALS/TRUCK ROUTES

COLLECTORS

PERRIS CITY LIMITS

CITY OF PERRIS TRUCK ROUTES



LEGEND:

ARTERIALS / TRUCK ROUTES

COLLECTORS

PERRIS CITY LIMITS