Western Riverside Council of Governments
Planning Directors Committee

AGENDA

Thursday, December 14, 2023
9:30 AM

Western Riverside Council of Governments
3390 University Avenue, Suite 200
Riverside, CA 92501

<u>Remote Meeting Locations</u>:

Corona City Hall
400 S. Vicentia Avenue
Planning & Development Conference Room
Corona, CA 92882

County of Riverside
4080 Lemon Street, 12th Floor
Riverside, CA 92501

March Joint Powers Authority
14285 Meridian Parkway, Suite 140
Riverside, CA 92518

City of Perris
City Hall
101 N D Street
Perris, CA 92570

Committee members are asked to attend this meeting in person unless remote accommodations have previously been requested and noted on the agenda. The below Zoom link is provided for the convenience of members of

the public, presenters, and support staff.

Public Zoom Link
Meeting ID: 827 4503 4670
Passcode: 383887
Dial in: 669 900 9128 U.S.

In compliance with the Americans with Disabilities Act and Government Code Section 54954.2, if special assistance is needed to participate in the Planning Directors Committee meeting, please contact WRCOG at (951) 405-6702. Notification of at least 48 hours prior to meeting time will assist staff in assuring that reasonable arrangements can be made to provide accessibility at the meeting. In compliance with Government Code Section 54957.5, agenda materials distributed within 72 hours prior to the meeting which are public records relating to an open session agenda item will be available for inspection by members of the public prior to the meeting at 3390 University Avenue, Suite 200, Riverside, CA, 92501.

In addition to commenting at the Committee meeting, members of the public may also submit written comments before or during the meeting, prior to the close of public comment to lfelix@wrcog.us.

Any member of the public requiring a reasonable accommodation to participate in this meeting in light of this announcement shall contact Lucy Felix 72 hours prior to the meeting at (951) 405-6702 or lfelix@wrcog.us. Later requests will be accommodated to the extent feasible.

The Committee may take any action on any item listed on the agenda, regardless of the Requested Action.

1. CALL TO ORDER (Joe Perez, Chair)

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. PUBLIC COMMENT

At this time members of the public can address the Committee regarding any items within the subject matter jurisdiction of the Committee that are not separately listed on this agenda. Members of the public will have an opportunity to speak on agendized items at the time the item is called for discussion. No action may be taken on items not listed on the agenda unless authorized by law. Whenever possible, lengthy testimony should be presented to the Committee in writing and only pertinent points presented orally.

5. CONSENT CALENDAR

All items listed under the Consent Calendar are considered to be routine and may be enacted by one motion. Prior to the motion to consider any action by the Committee, any public comments on any of the Consent Items will be heard. There will be no separate action unless members of the Committee request specific items be removed from the Consent Calendar.

A. Action Minutes from the October 12, 2023, Planning Directors Committee Meeting

Requested Action(s):
1. Approve the Action Minutes from the October 12, 2023, Planning Directors Committee meeting.

6. REPORTS / DISCUSSION

Members of the public will have an opportunity to speak on agendized items at the time the item is called for discussion.

A. High-Cube Warehouse Trip Generation Study

Requested Action(s):
1. Receive and file.

B. Prohousing Designation Feasibility Analysis

Requested Action(s): 1. Receive and file.

C. Affordable Housing Financing

Requested Action(s): 1. Receive and file.

7. REPORT FROM THE DEPUTY EXECUTIVE DIRECTOR
Chris Gray

8. ITEMS FOR FUTURE AGENDAS
Members are invited to suggest additional items to be brought forward for discussion at future Committee meetings.

9. GENERAL ANNOUNCEMENTS
Members are invited to announce items / activities which may be of general interest to the Committee.

10. NEXT MEETING
The next Planning Directors Committee meeting is scheduled for Thursday, February 8, 2024, at 9:30 a.m., in WRCOG's office at 3390 University Avenue, Suite 200, Riverside.

11. ADJOURNMENT

Planning Directors Committee

Action Minutes

1. CALL TO ORDER

The meeting of the WRCOG Planning Directors Committee meeting was called to order by Chair Joe Perez at 9:33 a.m. on October 12, 2023, at the WRCOG office, 3390 University Avenue, Citrus Conference Room, Riverside.

2. PLEDGE OF ALLEGIANCE

Chair Perez led the Committee members and guests in the Pledge of Allegiance.

3. ROLL CALL

- City of Banning - Adam Rush
- City of Beaumont - Carole Kendrick
- City of Calimesa - Kelly Lucia
- City of Jurupa Valley - Joe Perez
- City of Menifee - Cheryl Kitzerow
- City of Moreno Valley - Sean Kelleher
- City of Murrieta - David Chatangarangsu*
- City of Norco - Alma Robles*
- City of Riverside - Judy Eguez
- City of San Jacinto - Kevin White
- City of Wildomar - Matt Bassi
- March Joint Powers Authority (JPA) - Jeff Smith
- Riverside Transit Agency (RTA) - Jennifer Nguyen

* Arrived after Roll Call

Absent:

- City of Canyon Lake
- City of Corona
- City of Eastvale
- City of Hemet
- City of Lake Elsinore
- City of Perris
- City of Temecula
- County of Riverside
- Western Water

4. PUBLIC COMMENTS

There were no public comments.

5. CONSENT CALENDAR

RESULT:	**APPROVED AS RECOMMENDED**
MOVER:	Murrieta
SECONDER:	Banning
AYES:	Banning, Beaumont, Calimesa, Jurupa Valley, Menifee, Moreno Valley, Murrieta, Norco, Riverside, San Jacinto, March JPA, RTA
ABSTAIN:	Wildomar

A. Action Minutes from the August 10, 2023, Planning Directors Committee Meeting

Action:

1. Approved the action minutes from the August 10, 2023, Planning Directors Committee meeting.

6. REPORTS / DISCUSSION

A. Demographic Changes in Western Riverside County

Action:

1. Received and filed.

B. VMT Mitigation Program Update

Action:

1. Received and filed.

C. Analysis of Retail and Service Trends in the TUMF Program

Action:

1. Received and filed.

7. REPORT FROM THE DEPUTY EXECUTIVE DIRECTOR

Chris Gray, Deputy Executive Director, reported that in December, staff will be reporting on REAP 1.0 activities, as well as an update on the Prohousing Designation feasibility study, and the Industrial Trip Generation analysis. In December 2023 and February, 2024, there will be a round table discussion on ADU's, and a report on Affordable Housing Financing. Finally, a legislative update will be provided in February.

8. ITEMS FOR FUTURE AGENDAS

There were no items for future agendas.

9. GENERAL ANNOUNCEMENTS

Committee member David Chatangarangsu stated that there is a challenge that has been accepted by

the Supreme Court regarding how impact fees are calculated. This would potentially undo 30 years of settled methodology on how impact fees are levied. It will be heard in early 2024.

Mr. Gray added that this case is in Shasta County, and our legal counsel will keep an eye on it.

10. NEXT MEETING

The next Planning Directors Committee meeting is scheduled for Thursday, December 14, 2023, at 9:30 a.m., in WRCOG's office.

11. ADJOURNMENT

The meeting was adjourned at 10:38 a.m.

Western Riverside Council of Governments
Planning Directors 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 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 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 Commercial Real Estate Development Association (formerly known as National Association for Industrial and Office Parks (NAIOP) / South Coast Air Quality Management District (SCAQMD) / Institute of

Transportation Engineers (ITE) study 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 was 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 utilized a methodology that 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: ITE's 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 (TSF), 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 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 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:

This item is for informational purposes only; therefore, there is no fiscal impact.

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

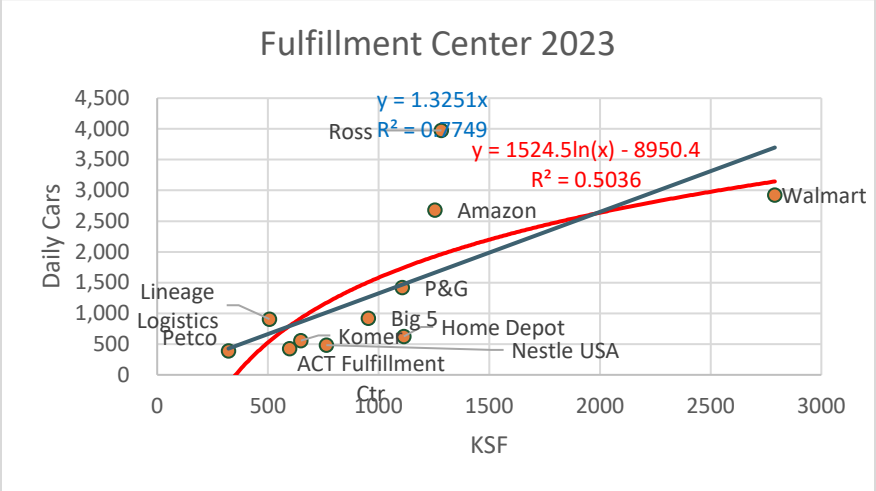


Exhibit 2b: Data Plot for Daily Total Vehicle Trip Ends against Building Size (Fulfillment Center); 2018 Data

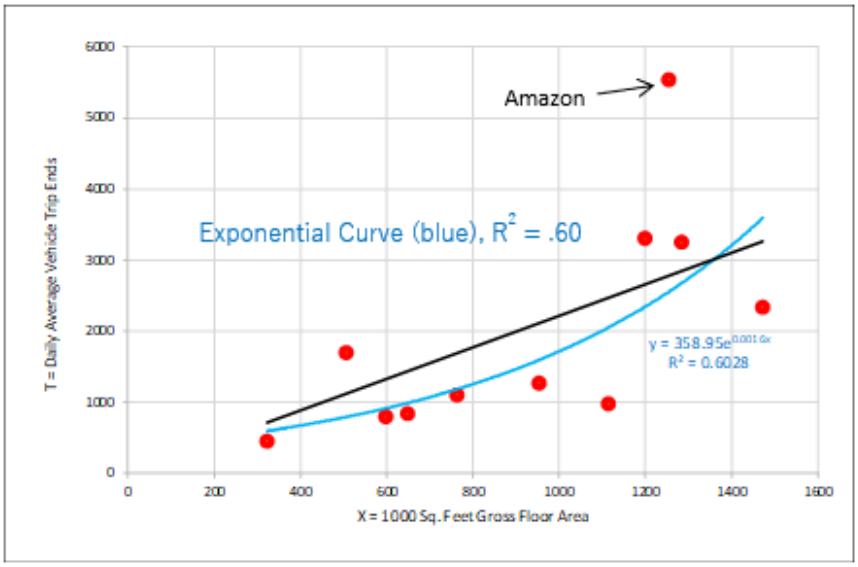


Exhibit 2a takes a deeper look at this by showing the daily vehicle trip generation rates for each of the 11 surveyed fulfillment centers sorted by the smallest to the largest building size from left to right. As shown, small sites tend to generate fewer trips per thousand square feet, but higher percentage 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

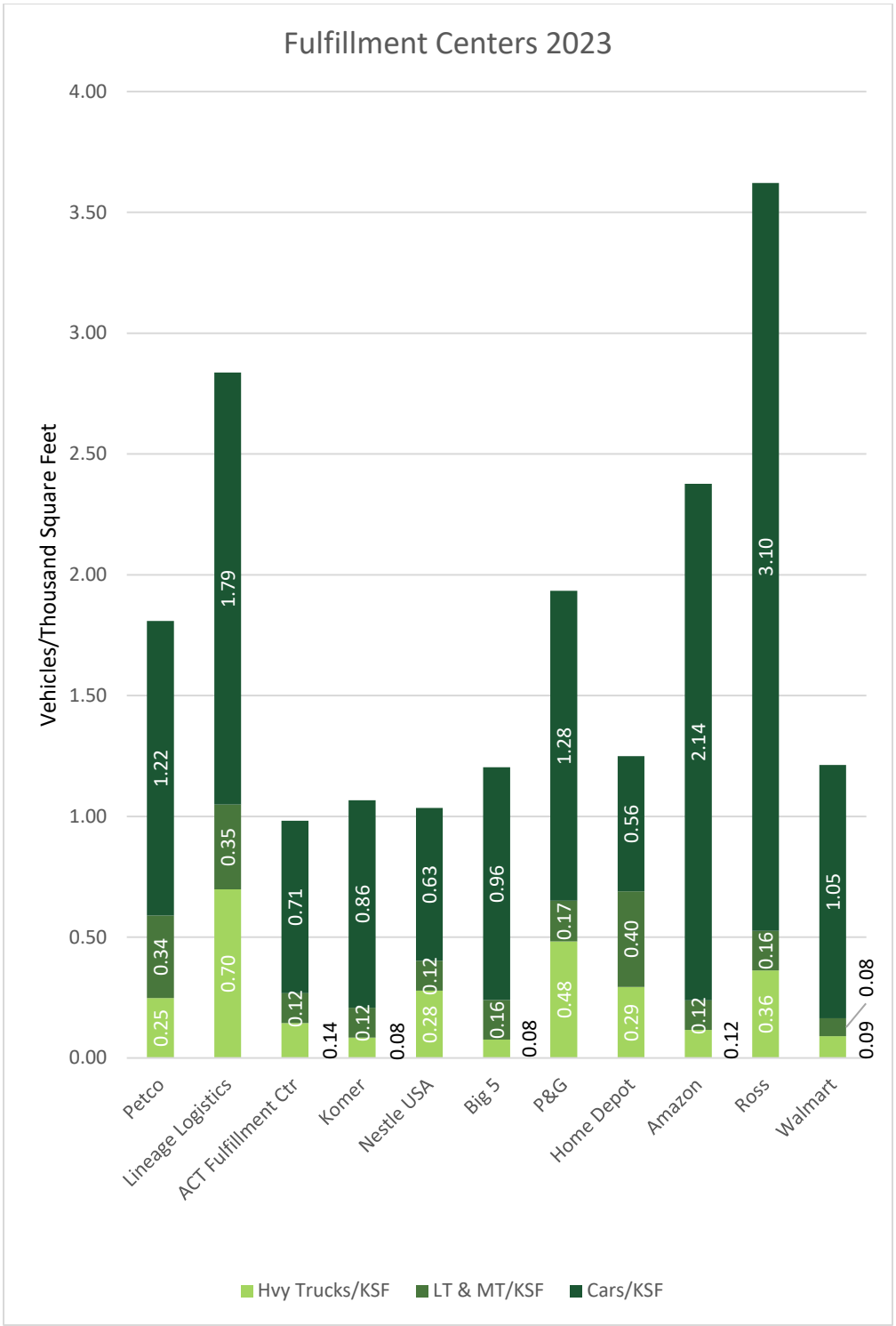


Exhibit 4b: Daily Vehicle Trip Generation Rates by Building Size for Each Fulfillment Center, 2018 Data

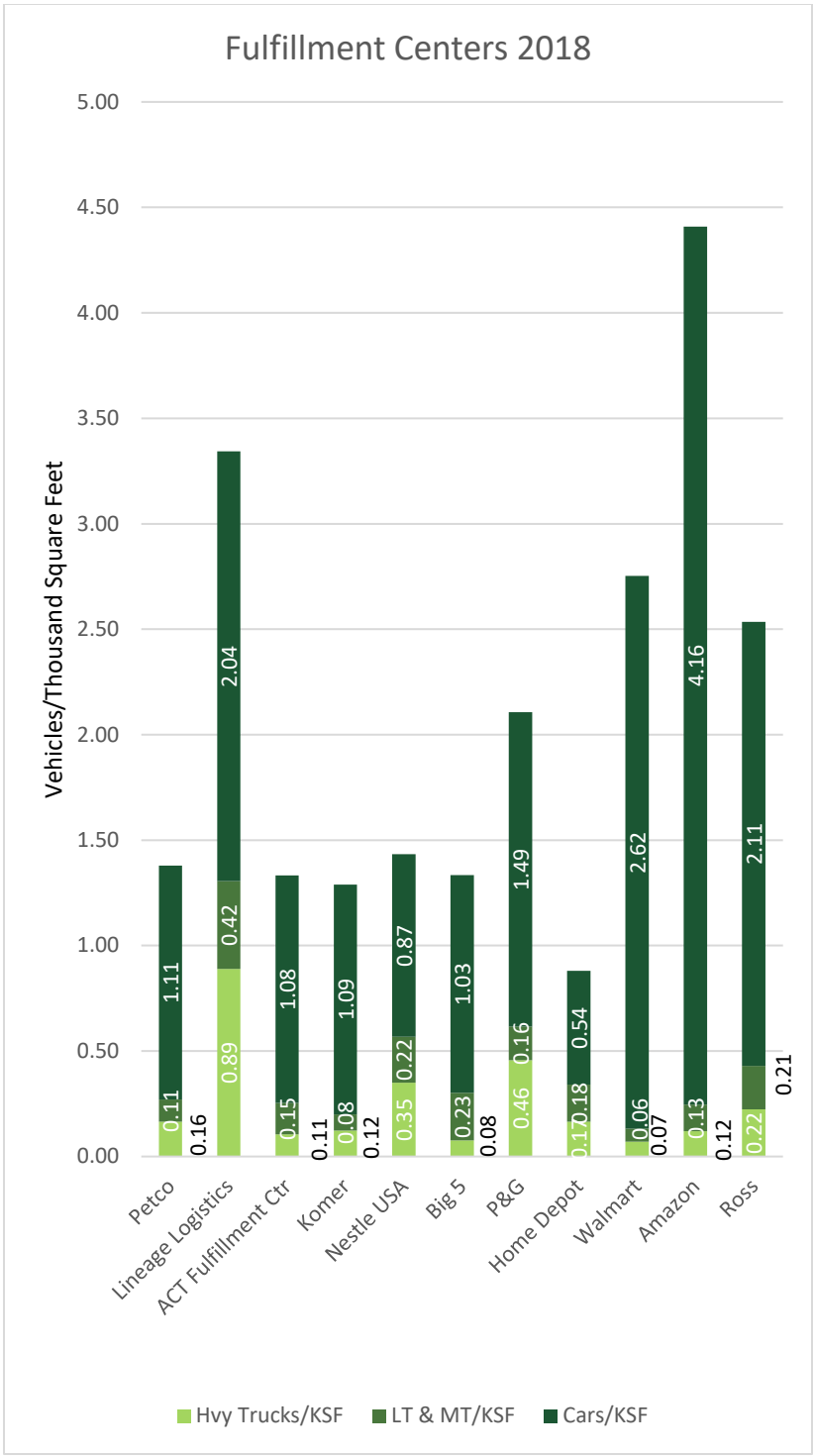


Exhibit 5a: Data Plot for AM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2023 Data

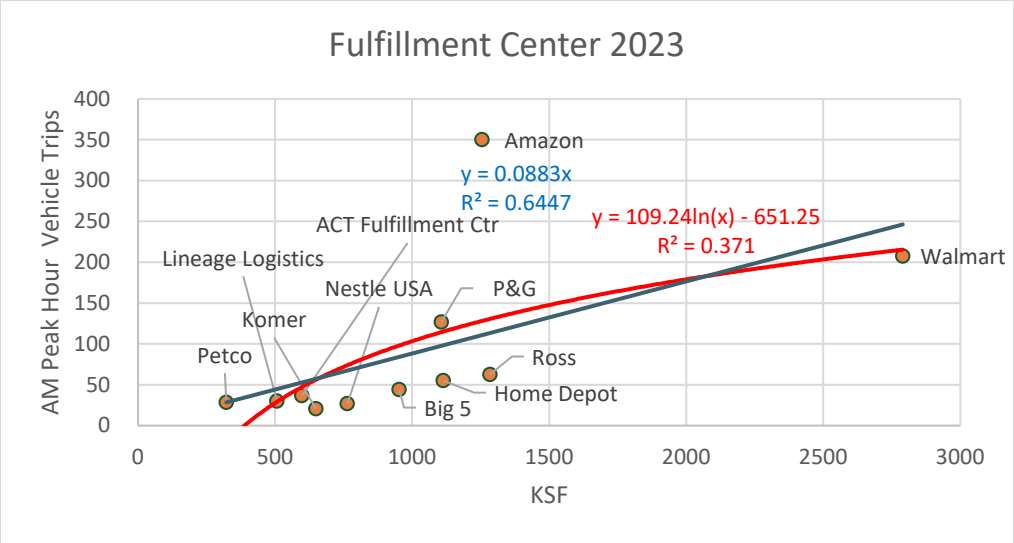


Exhibit 6b: Data Plot for AM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2018 Data

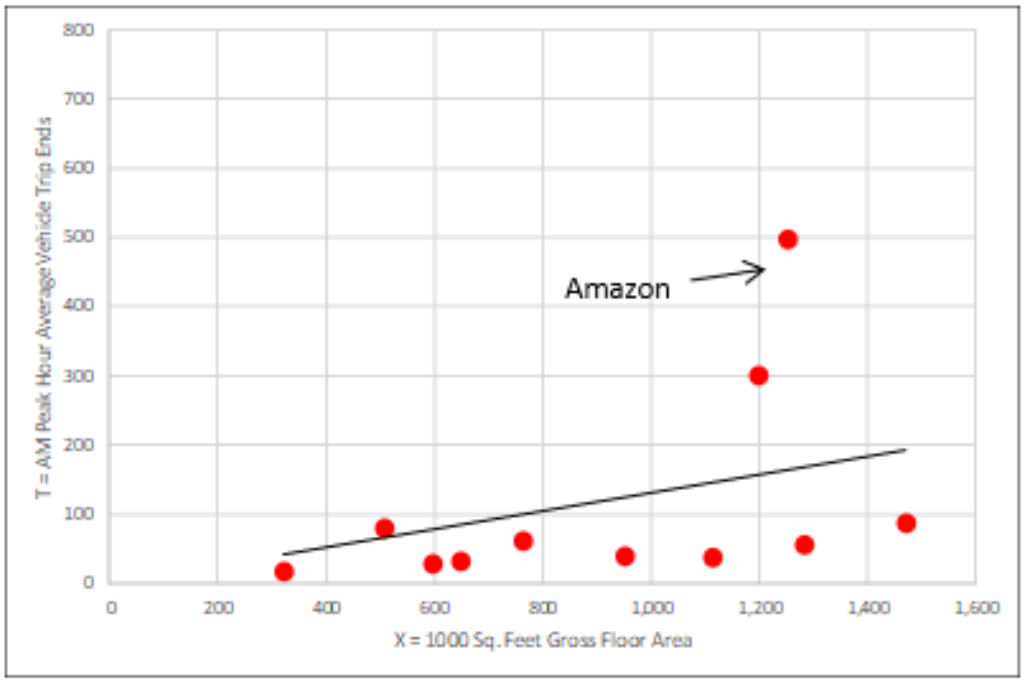


Exhibit 7a: Data Plot for PM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2023 Data

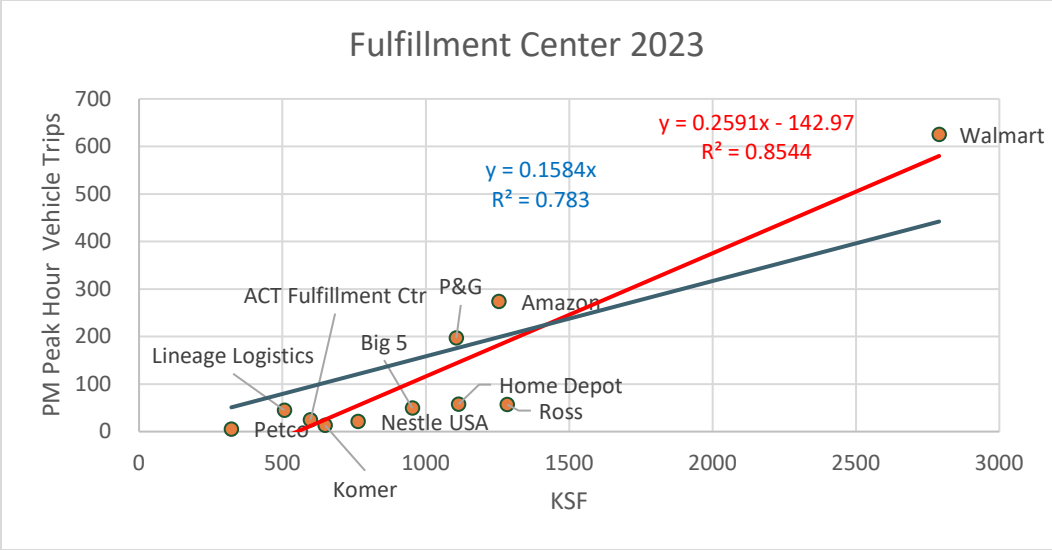


Exhibit 8b: Data Plot for PM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center), 2018 Data

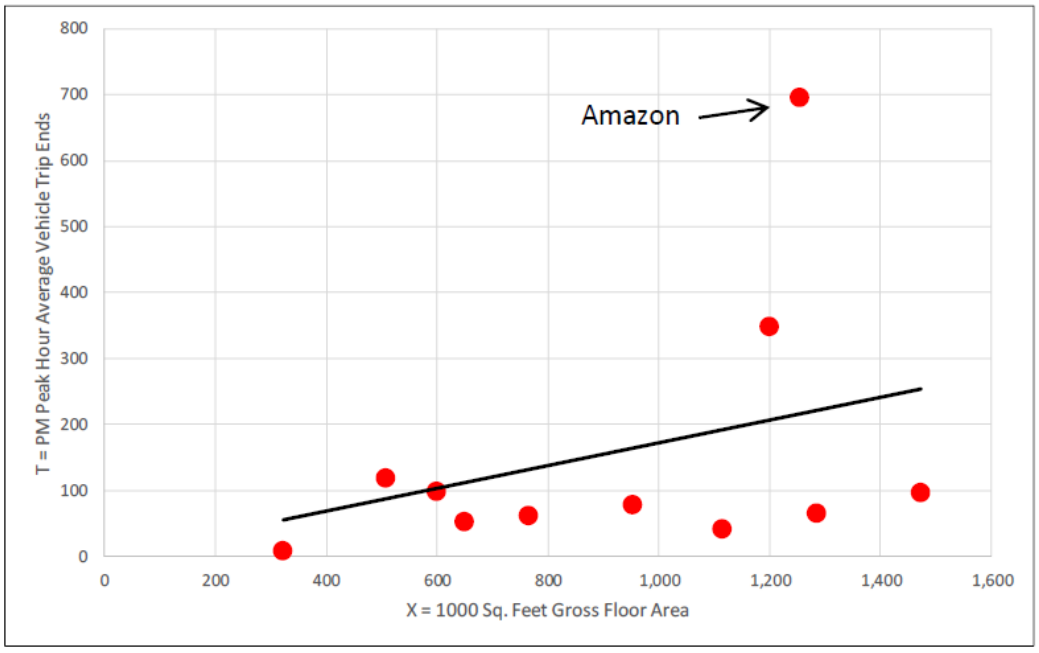


Exhibit 9: Conventional Warehouse vs Fulfillment Centers Trip Generation Rates per 1,000 sq. ft.

	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

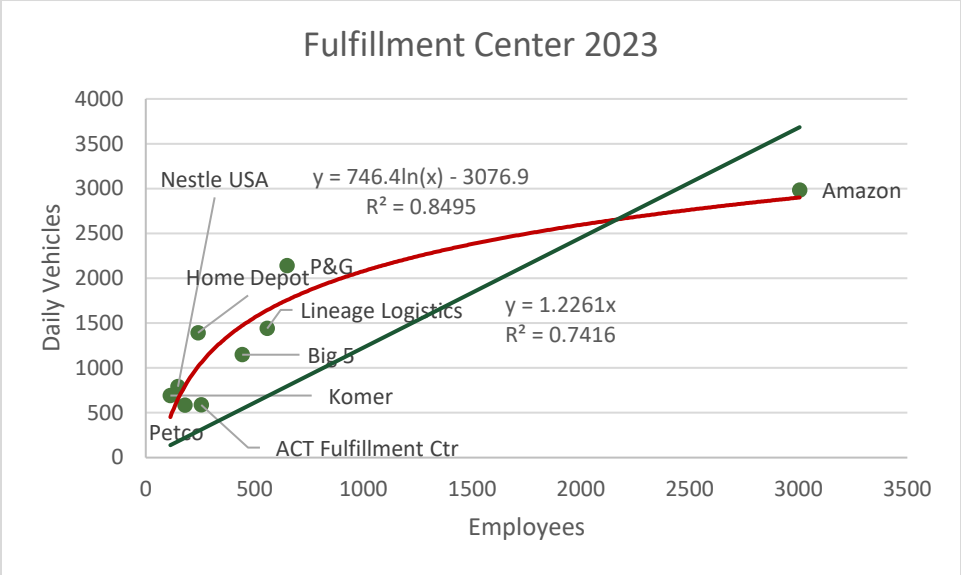


Exhibit 11b: Data Plot for Daily Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2018 Data

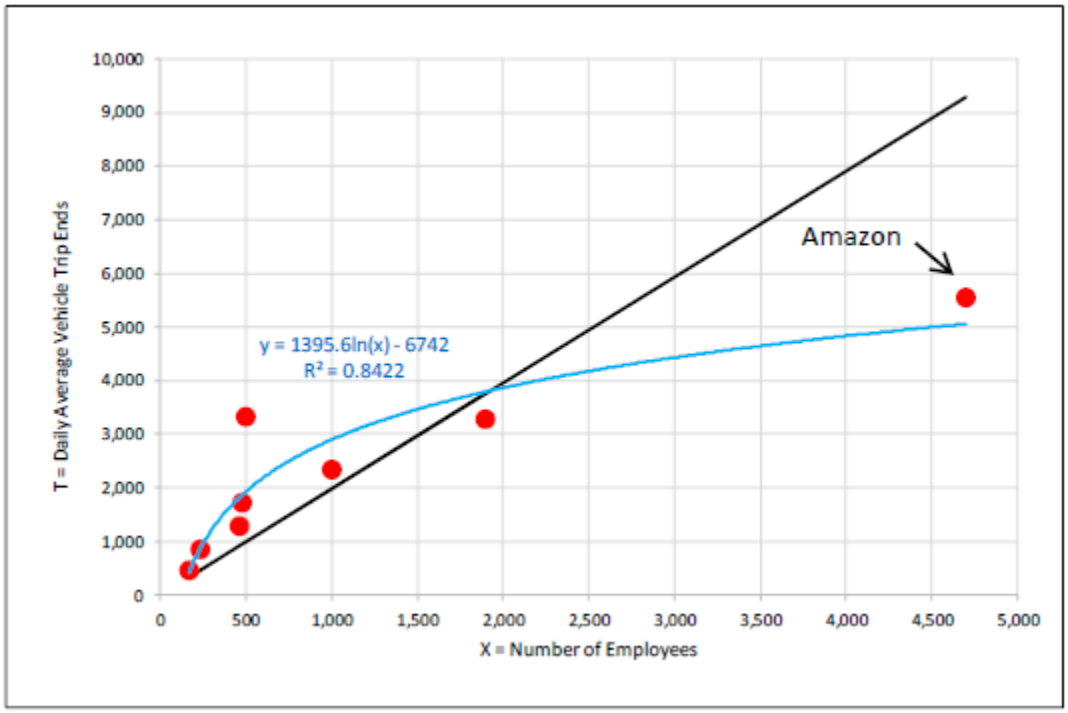


Exhibit 7a) was found to be 1.23 trips/employee, which is lower than the 2 trips/employee collected in the 2018 dataset.

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

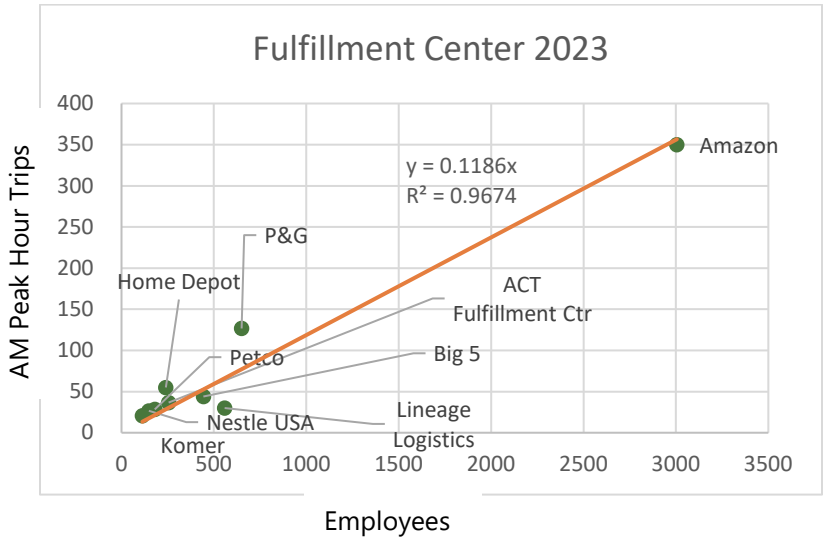


Exhibit 13b: Data Plot for AM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2018 Data

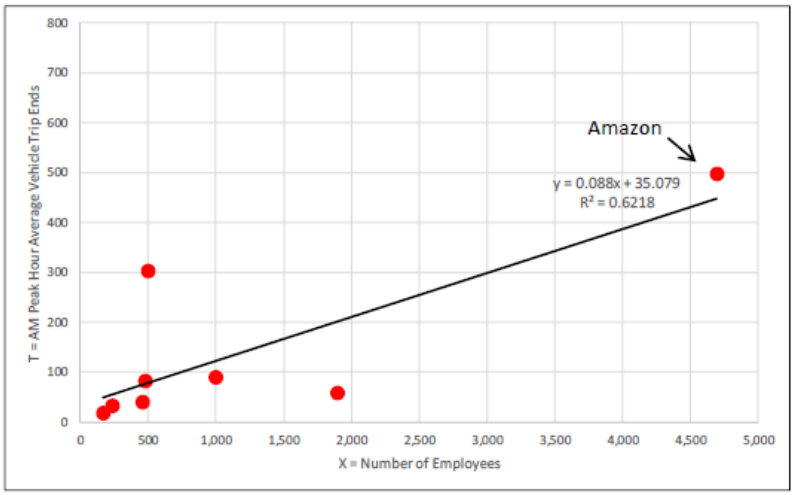


Exhibit 14a: Data Plot for PM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2023 Data

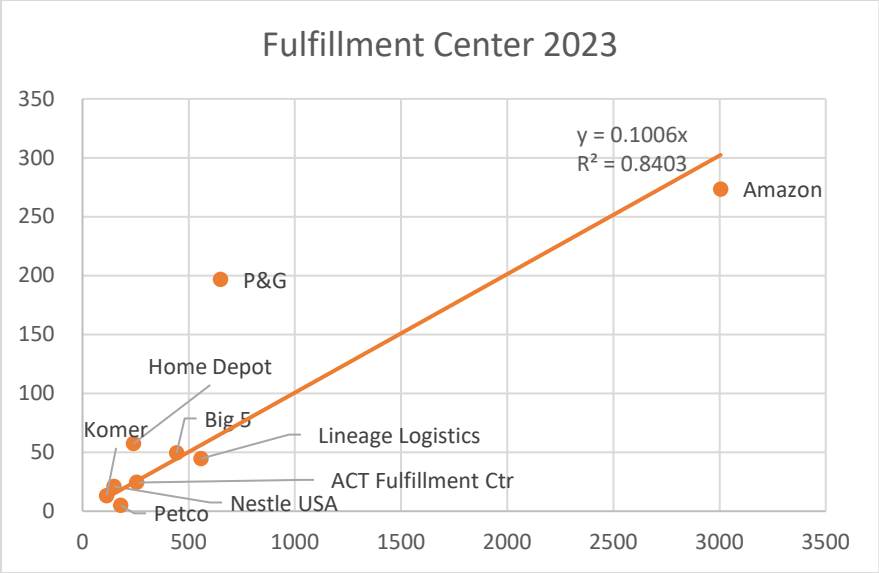


Exhibit 15b: Data Plot for PM Peak Hour Total Vehicle Trip Ends Against Employee (Fulfillment Center) – 2018 Data

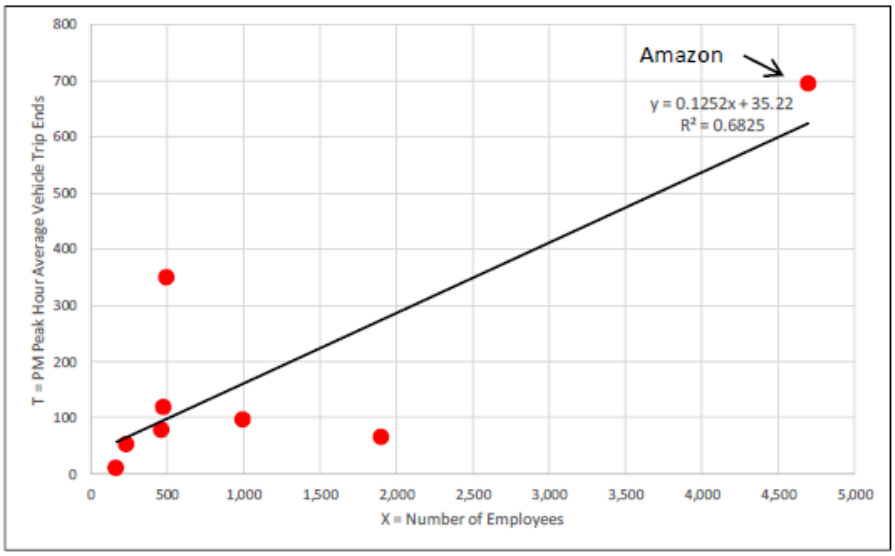


Exhibit 10 summarizes the AM and PM peak hour trip rates and the daily rates for trip generation per employee at fulfillment centers based on the findings of this study. When reviewing trip generation per employee, the updated data generally shows a decrease in car trips per employee but much higher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

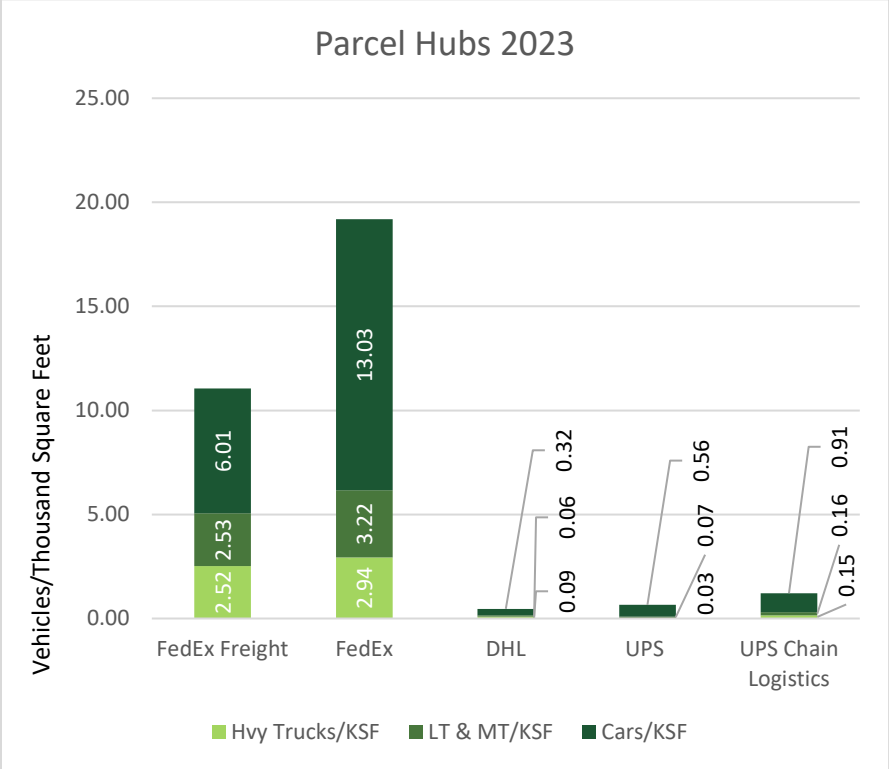


Exhibit 18a: Daily Trip Generation Rates at Parcel Hubs

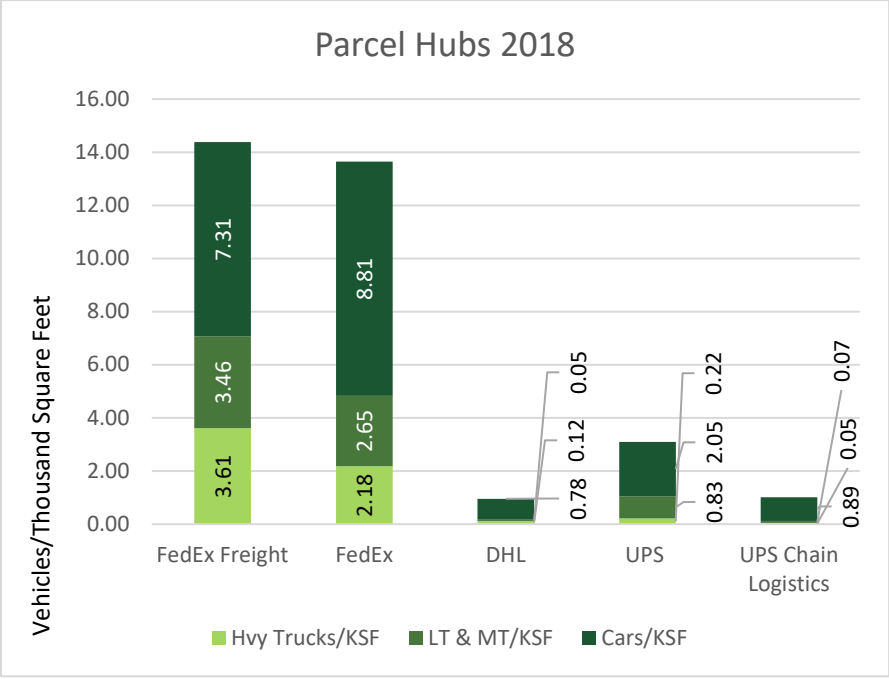


Exhibit 12a shows a data plot of daily vehicle trips of five parcel hubs against building size using the 2023 data. **Exhibit 12b** provides the 2018 data for comparison. As shown, the 2023 data set had a linear best fit; however, the slope of the line is very flat compared to a negative slope estimated 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

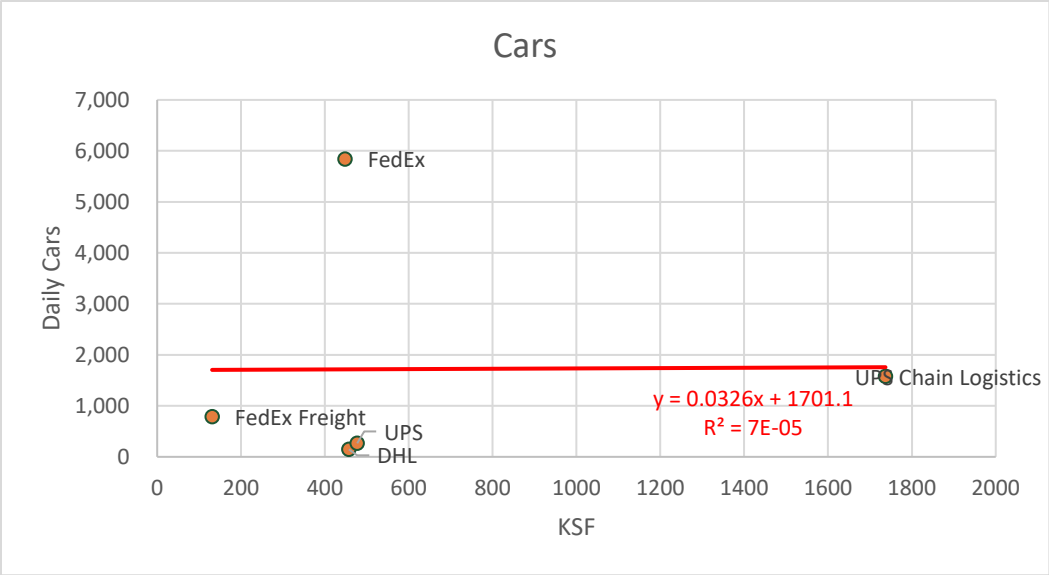


Exhibit 20a: Data Plot for Daily Total Vehicle Trip Ends Against Building Size (Parcel Hubs) – 2023 Data

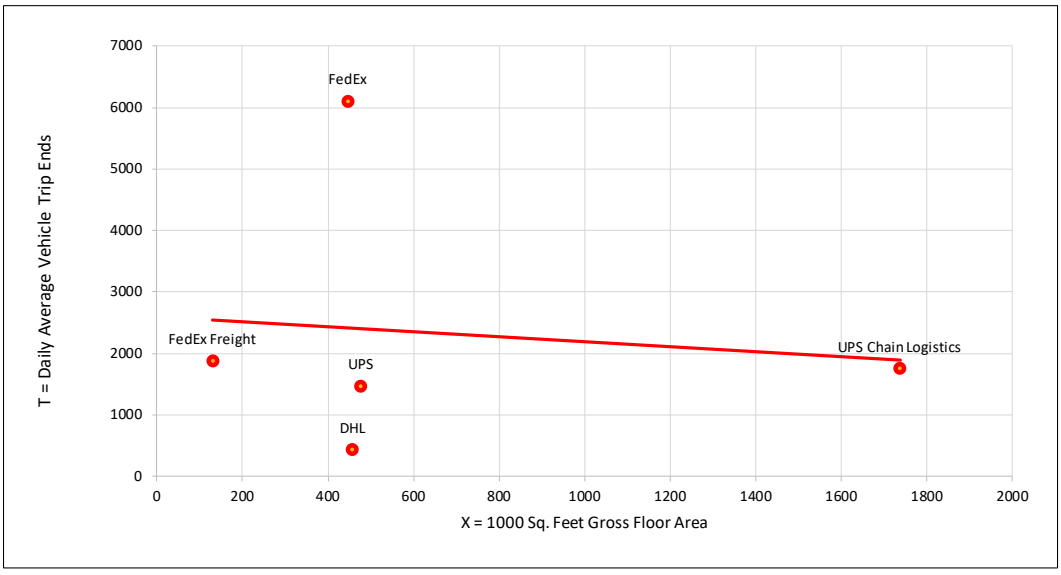


Exhibit 13: Trip Generation Rates per 1,000 sq. ft. for Parcel Hubs by Location – 2018 and 2023 Data

	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.

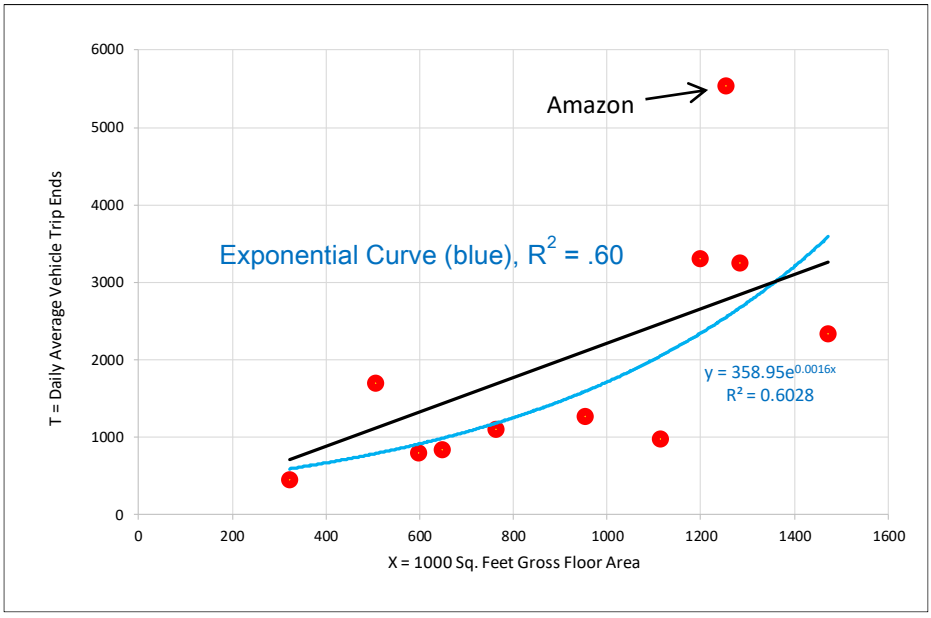
Fulfillment Centers

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).

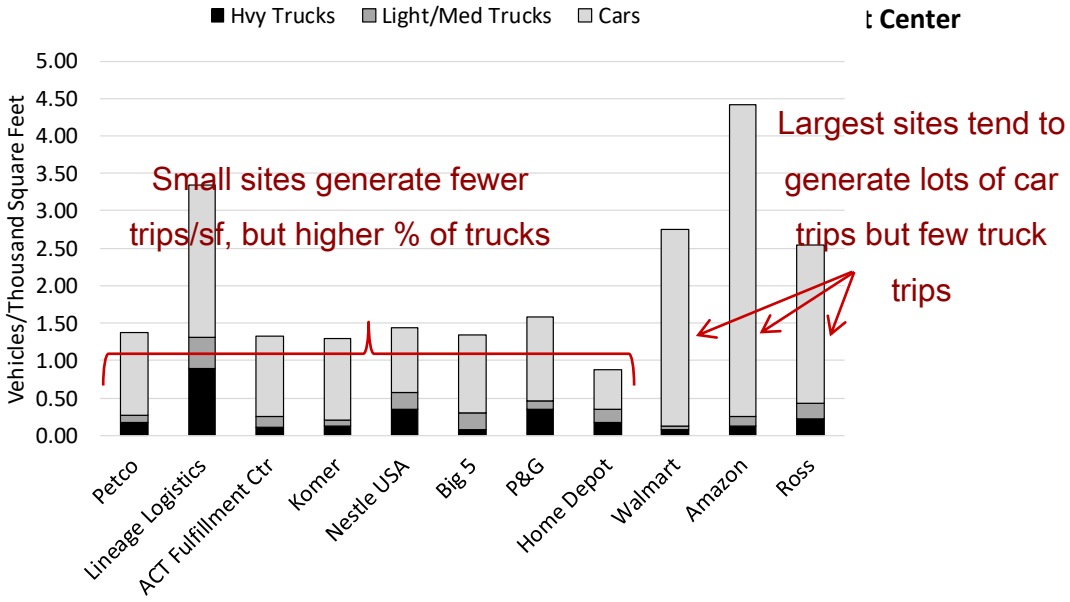
Exhibit 1 denotes one outlier data point representing the Amazon site in the upper right of the chart. As shown, the average daily trips generated at this facility is over 50% higher than the trips generated at the two sites of similar size (Walmart and Ross), which appears indicative of a greater frequency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

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 →

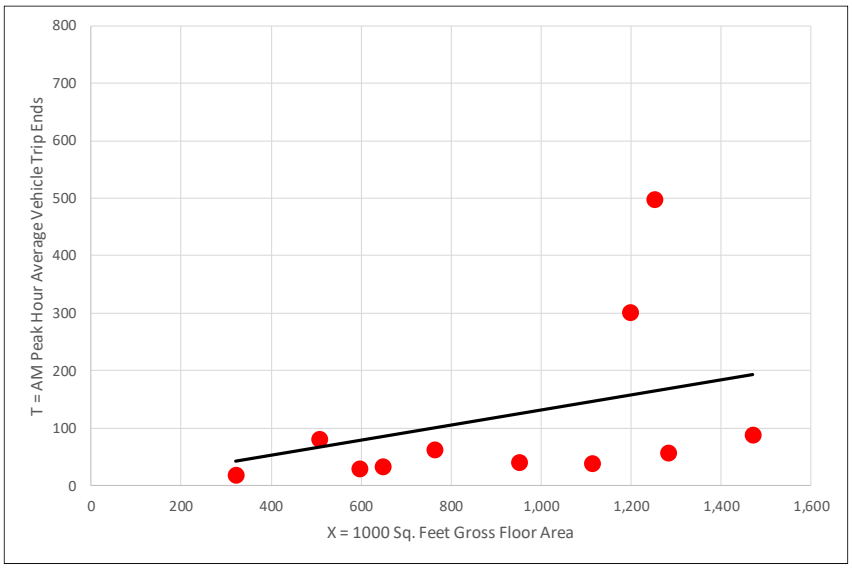


Exhibit 4: Data Plot for PM Peak Hour Vehicle Trip Ends against Building Size (Fulfillment Center)

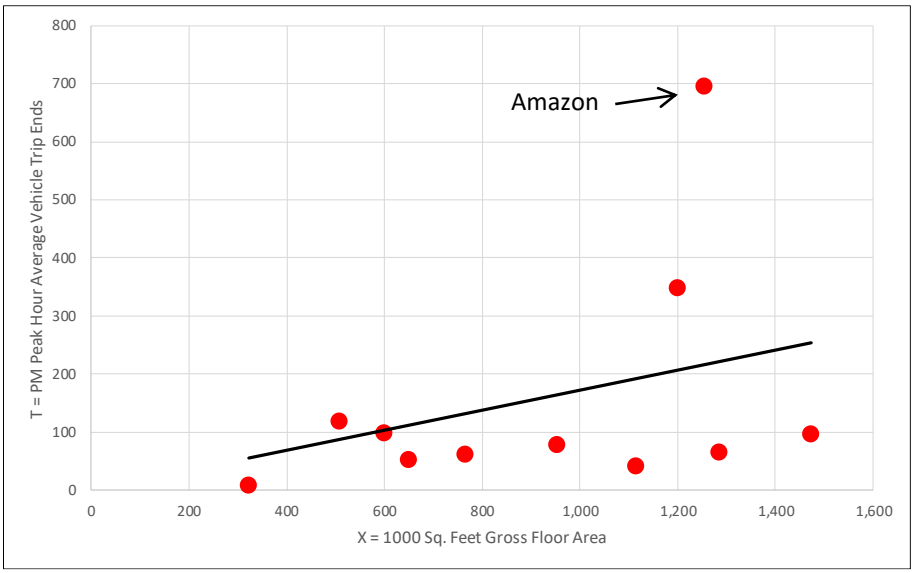
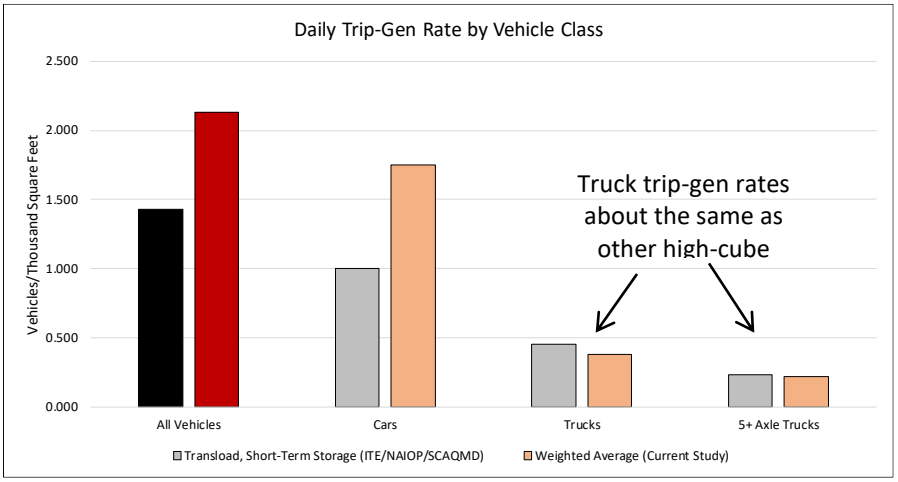


Exhibit 5 compares the average trip generation rates of 11 fulfillment centers with the rates found for conventional transload and short-term storage warehouses in the 2016 high-cube warehouse trip generation study[3] by SCAQMD/NAIOP/ITE. As shown, the fulfillment centers generate more daily vehicle 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%

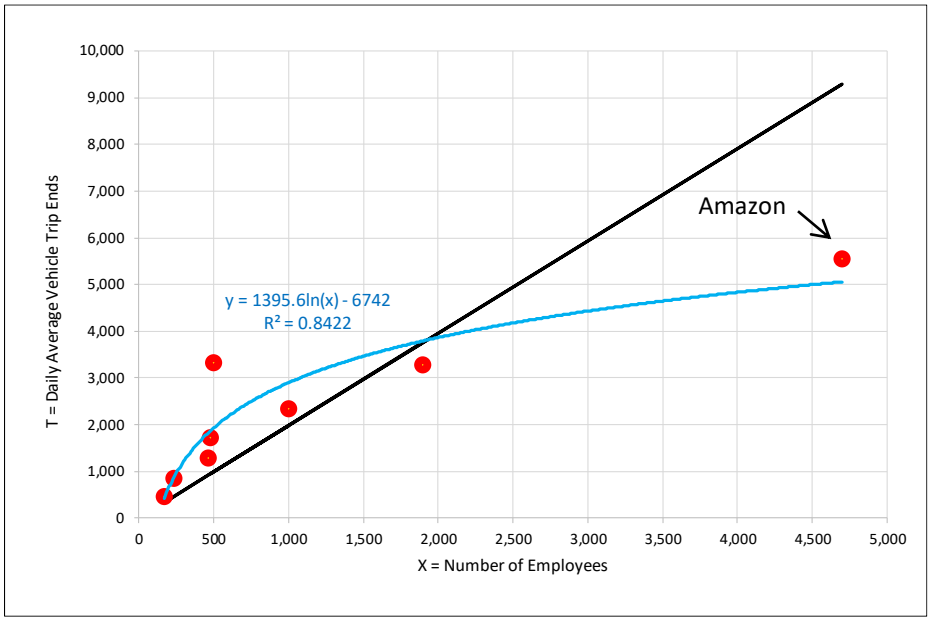
* Transload, Short-Term Storage category in 2016 TIE/ NAIOP/ SCAQMD study

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)

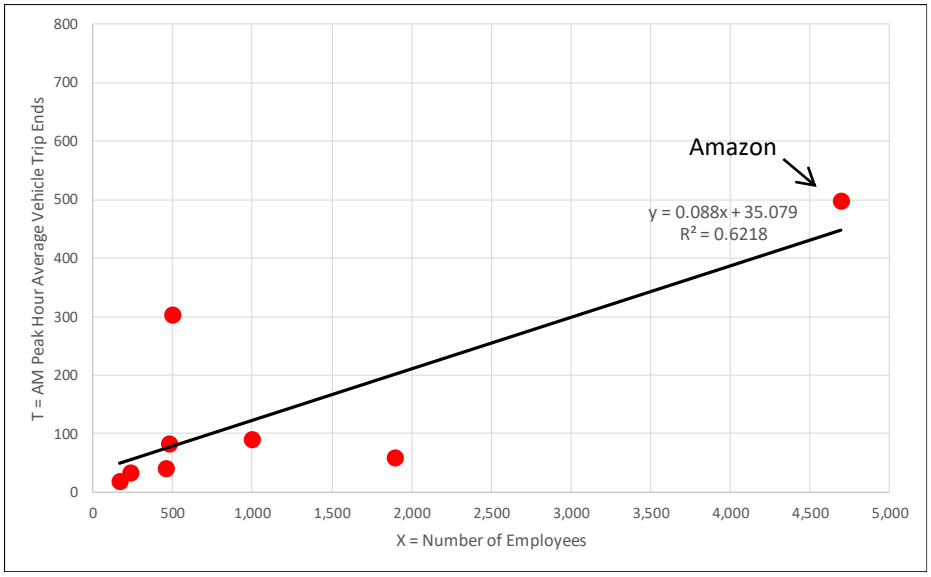


Exhibit 9: Data Plot for PM Peak Hour Total Vehicle Trip Ends against Employee (Fulfillment Center)

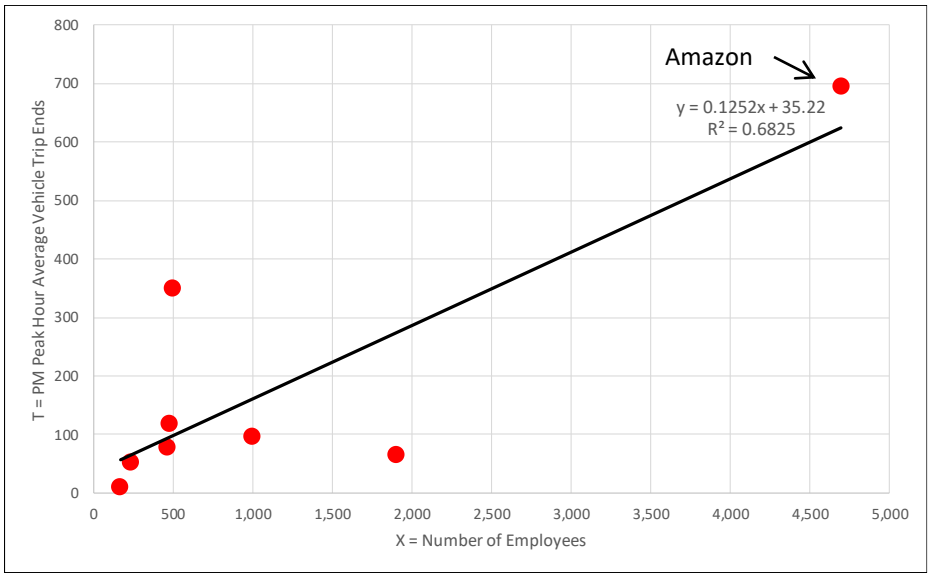


Exhibit 10 summarizes the AM and PM peak hour trip rates and the daily rates for trip generation per employee at fulfillment centers based on the findings of this study.

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

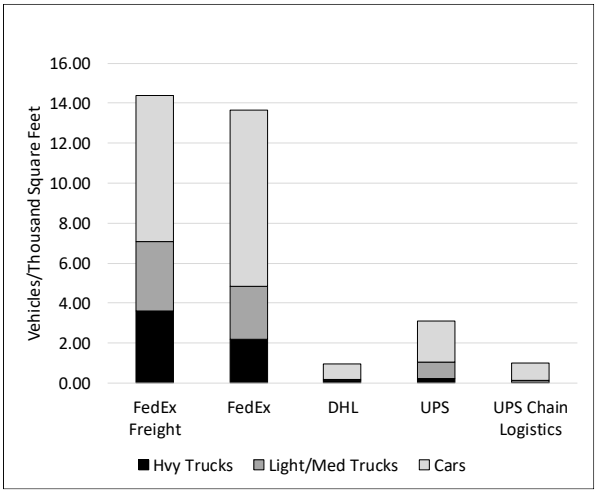


Exhibit 12 shows a data plot of daily vehicle trips of five parcel hubs against building size. As shown, a linear best fit was negative. During the collection of traffic data, construction activity was observed at the FedEx site potentially tainting the validity of these data to represent typical trip 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)

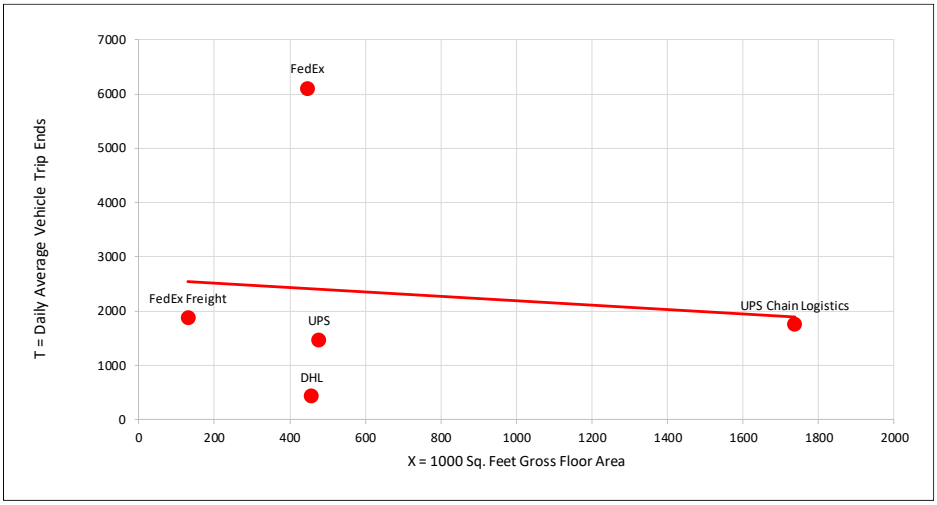
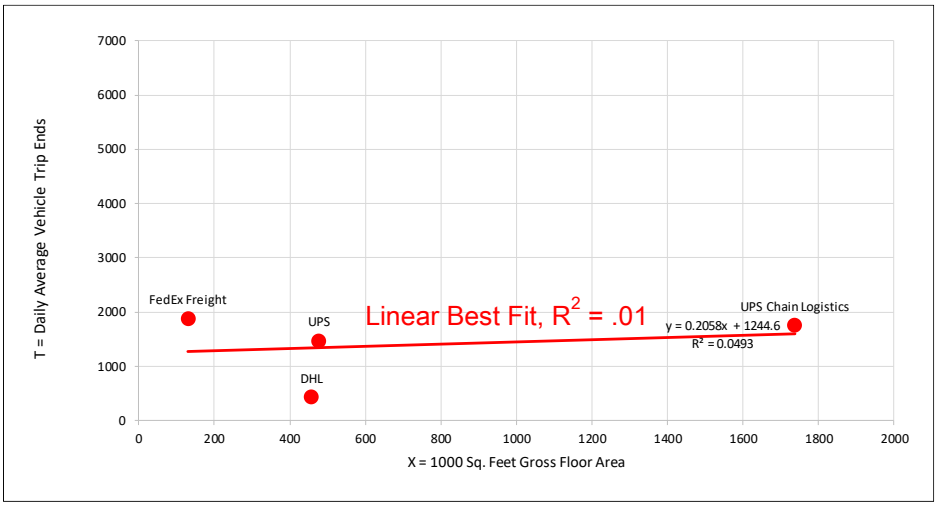


Exhibit 13: Data Plot for Daily Vehicle Trip Ends against Building Size without Construction Site



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 B – Raw Traffic Counts

Project Folder Counts Link
Google Map Link

Location #	Location Name	Type	Daily/AM/PM	Driveway 1 IN Vehicle Class						Driveway 1 OUT Vehicle Class						Driveway 2 IN Vehicle Class						Driveway 2 OUT Vehicle Class					
				1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total
1	Walmart Fulfillment Center	Fulfillment Center	Daily	564	8	3	8	28	611	449	7	1	4	14	475	234	8	1	1	4	249	66	3	1	3	7	80
			AM	38	0	0	0	4	42	3	0	0	1	1	88	13	0	0	0	0	13	1	0	0	0	0	2
			PM	91	0	1	1	0	93	86	0	0	1	1	88	29	0	0	0	0	30	5	0	1	0	0	6
2	ONT6 Amazon Warehouse	Fulfillment Center	Daily	0	0	0	0	0	0	1	0	0	0	0	2	40	0	1	0	0	42	6	0	1	0	0	7
			AM	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0
			PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
3	Lineage logistics	Fulfillment Center	Daily	109	2	0	0	0	111	256	4	0	0	2	261	217	12	73	0	178	480	70	10	76	0	174	331
			AM	2	0	0	0	0	2	2	0	0	0	0	2	3	2	0	0	9	14	0	0	5	0	2	7
			PM	2	0	0	0	0	2	6	0	0	0	0	6	7	0	5	0	4	17	3	0	1	0	9	13
4	P&G	Fulfillment Center	Daily	8	12	75	0	269	365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			AM	1	0	3	0	17	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			PM	0	0	4	0	6	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Big 5 Distribution Center	Fulfillment Center	Daily	1	0	0	0	0	1	342	1	0	0	0	343	452	2	0	0	0	454	112	1	0	0	0	113
			AM	0	0	0	0	0	0	5	0	0	0	0	5	28	0	0	0	0	28	0	0	0	0	0	1
			PM	0	0	0	0	0	0	36	0	0	0	0	36	3	0	0	0	0	3	7	0	0	0	0	7
6	Nestle USA Distribution Center	Fulfillment Center	Daily	0	1	0	0	0	1	37	8	26	9	104	185	202	4	0	0	1	207	199	4	0	0	0	203
			AM	0	0	0	0	0	0	0	1	1	1	4	7	6	0	0	0	0	6	2	0	0	0	0	3
			PM	0	0	0	0	0	0	1	0	1	0	6	9	1	0	0	0	0	1	5	0	0	0	0	5
7	The Home Depot Distribution Center	Fulfillment Center	Daily	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	ACT Fulfillment - Corporate Office	Fulfillment Center	Daily	0	0	0	0	0	0	0	0	0	0	0	0	131	3	0	0	0	134	131	3	0	0	0	134
			AM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	6	2	1	0	0	0	2
			PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	13	0	0	0	0	13
9	Petco Animal Supplies - Mira Loma Distribution Center	Fulfillment Center	Daily	152	1	0	0	0	153	153	1	0	0	0	154	44	23	6	25	40	138	44	21	7	26	40	138
			AM	10	0	0	0	0	10	1	0	0	0	0	1	3	1	0	2	5	11	0	1	1	2	2	6
			PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	2	0	0	1	0	3
10	Komar Distribution Services (facility 1)	Fulfillment Center	Daily	225	22	17	4	25	293	225	15	11	11	30	293	53	0	0	0	0	53	53	0	0	0	0	53
			AM	10	1	1	0	1	13	1	0	1	1	2	5	2	0	0	0	0	2	1	0	0	0	0	1
			PM	2	0	1	1	1	5	5	1	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0
11	Ross Distribution Center	Fulfillment Center	Daily	378	0	0	0	0	378	471	0	0	0	0	471	1,592	3	1	0	0	1,596	3	0	0	0	0	3
			AM	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	26	0	0	0	0	0	0
			PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0
12	UPS Riverside	Parcel Hub	Daily	40	1	0	0	0	42	33	3	0	1	0	37	61	10	1	2	6	81	48	8	2	2	5	65
			AM	2	0	0	0	0	2	1	0	0	0	0	1	5	1	0	0	0	6	0	1	0	0	0	1
			PM	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	2	3	0	0	1	0	4
13	FedEx 330 Resource Dr	Parcel Hub	Daily	10	0	1	0	3	15	62	148	325	126	628	1,289	72	144	505	145	679	1,545	16	1	2	0	4	23
			AM	0	0	0	0	0	0	2	5	10	3	29	49	10	8	29	2	23	71	3	0	0	0	0	3
			PM	0	0	0	0	0	0	0	2	16	6	16	40	4	28	17	8	29	86	1	0	0	0	0	1
14	Fedex Freight	Parcel Hub	Daily	390	8	60	106	154	718	397	7	44	106	177	731												
			AM	16	1	3	0	7	26	16	0	5	1	7	29												
			PM	17	0	0	22	0	40	16	1	1	5	1	24												
15	UPS Supply Chain Logistics	Parcel Hub	Daily	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	DHL Supply Chain - Recruiting Center	Parcel Hub	Daily	25	5	2	4	20	55	27	6	1	5	21	58	49	2	0	0	0	52	46	1	0	0	0	47
			AM	6	0	0	0	1	7	0	0	0	0	2	2	1	0	0	0	0	2	1	0	0	0	0	1
			PM	0	0	0	1	1	2	1	0	0	0	1	2	0	0	0	0	0	0	1	0	0	0	0	1

Location #	Daily/AM/PM	Driveway 3 IN Vehicle Class						Driveway 3 OUT Vehicle Class						Driveway 4 IN Vehicle Class						Driveway 4 OUT Vehicle Class					
		1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total
1	Daily	378	8	8	10	23	427	588	7	6	9	30	640	67	11	32	4	62	176	162	23	25	8	81	299
	AM	19	1	1	0	1	22	3	1	0	0	0	4	5	1	1	0	2	10	0	1	0	0	4	6
	PM	53	1	1	0	2	57	176	0	0	1	3	181	5	0	3	0	3	11	64	1	1	0	8	73
2	Daily	127	0	0	0	0	128	184	1	0	0	0	184	0	0	0	0	0	0	88	1	0	0	0	89
	AM	61	0	0	0	0	61	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
	PM	7	0	0	0	0	7	27	0	0	0	0	27	0	0	0	0	0	0	12	0	0	0	0	12
3	Daily	129	0	0	0	0	130	125	0	0	0	0	126	0	0	0	0	0	0	0	0	0	0	0	0
	AM	3	0	0	0	0	3	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
	PM	2	0	0	0	0	2	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
4	Daily	53	0	0	0	0	53	53	0	0	0	0	53	0	0	0	0	0	0	652	2	0	0	0	654
	AM	2	0	0	0	0	2	2	0	0	0	0	2	0	0	0	0	0	0	65	0	0	0	0	65
	PM	3	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	65	0	0	0	0	65
5	Daily	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Daily	43	11	26	4	107	192	1	0	1	0	1	3												
	AM	1	1	1	0	8	11	0	0	0	0	0	0												
	PM	1	0	2	1	4	7	0	0	0	0	0	0												
7	Daily	69	58	124	29	167	448	68	64	127	29	161	449	246	4	0	0	0	251	240	5	0	0	0	244
	AM	2	5	5	2	7	21	2	7	6	2	7	24	9	0	0	0	0	9	1	0	0	0	0	1
	PM	4	2	7	1	9	23	3	2	6	1	11	23	2	0	0	0	0	2	9	0	0	0	0	9
8	Daily	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Daily	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Daily	0	0	0	0	0	0	0	0	0	0	0	0												
	AM	0	0	0	0	0	0	0	0	0	0	0	0												
	PM	0	0	0	0	0	0	0	0	0	0	0	0												
11	Daily	1	0	0	0	0	1	1,512	4	1	0	0	1,517	10	15	75	1	243	344	9	13	97	1	222	342
	AM	0	0	0	0	0	0	11	0	0	0	0	11	0	1	4	0	6	11	0	1	1	0	11	14
	PM	0	0	0	0	0	0	19	0	0	0	0	19	0	1	2	0	12	15	1	1	7	0	10	18
12	Daily	28	0	0	0	0	29	48	0	0	0	1	49	3	0	0	0	0	4	3	0	1	0	0	4
	AM	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
13	Daily	1,108	13	5	0	2	1,128	1,093	13	5	0	2	1,113	218	0	0	0	0	218	214	0	0	0	0	214
	AM	42	0	0	0	1	43	27	0	0	0	1	28	6	0	0	0	0	6	7	0	0	0	0	7
	PM	7	2	1	0	0	10	29	2	1	0	0	31	3	0	0	0	0	3	4	0	0	0	0	4
14	Daily																								
	AM																								
	PM																								
15	Daily	194	2	1	0	0	197	195	2	1	0	0	198	203	20	33	6	81	343	183	14	30	7	83	317
	AM	25	0	0	0	0	25	2	0	0	0	0	2	19	1	2	0	3	25	5	1	1	0	6	13
	PM	3	0	0	0	0	3	17	0	0	0	0	17	6	0	1	1	5	13	17	1	2	0	1	21
16	Daily																								
	AM																								
	PM																								

Location #	Daily/AM/PM	Driveway 5 IN Vehicle Class						Driveway 5 OUT Vehicle Class						Driveway 6 IN Vehicle Class						Driveway 6 OUT Vehicle Class					
		1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total
1	Daily	159	5	1	0	1	166	95	2	0	0	0	98	81	1	0	0	0	82	81	1	0	0	0	82
	AM	14	0	0	0	0	15	1	0	0	0	0	1	2	0	0	0	0	2	2	0	0	0	0	2
	PM	6	1	0	0	0	7	22	0	0	0	0	22	29	0	0	0	0	29	29	0	0	0	0	29
2	Daily	834	2	0	0	0	837	683	2	0	0	0	684	345	0	0	0	0	345	249	1	0	0	0	250
	AM	130	0	0	0	0	131	16	0	0	0	0	16	106	0	0	0	0	106	6	0	0	0	0	6
	PM	46	0	0	0	0	46	90	0	0	0	0	90	32	0	0	0	0	32	38	0	0	0	0	38
3	Daily																								
	AM																								
	PM																								
4	Daily	0	0	0	0	0	0	0	0	0	0	0	0	644	2	0	0	0	646	0	0	0	0	0	0
	AM	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	26	0	0	0	0	0	0
	PM	0	0	0	0	0	0	0	0	0	0	0	0	107	0	0	0	0	107	0	0	0	0	0	0
5	Daily	0	0	0	0	0	0	0	0	0	0	0	0	5	13	33	36	31	118	6	24	32	16	41	118
	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	4	0	1	1	3	1	6
	PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	1	0	0	1
6	Daily																								
	AM																								
	PM																								
7	Daily	0	0	0	0	0	0	0	0	0	0	0	0												
	AM	0	0	0	0	0	0	0	0	0	0	0	0												
	PM	0	0	0	0	0	0	0	0	0	0	0	0												
8	Daily	81	13	20	4	40	158	83	13	10	8	46	160												
	AM	13	1	2	0	2	18	6	1	0	0	3	10												
	PM	1	0	1	0	0	2	5	0	1	1	1	8												
9	Daily																								
	AM																								
	PM																								
10	Daily																								
	AM																								
	PM																								
11	Daily																								
	AM																								
	PM																								
12	Daily																								
	AM																								
	PM																								
13	Daily	137	0	0	0	0	137	611	2	0	0	0	613	1,387	4	0	0	0	1,391	909	1	0	0	0	910
	AM	7	0	0	0	0	7	19	0	0	0	0	19	52	0	0	0	0	52	40	0	0	0	0	40
	PM	3	0	0	0	0	3	18	0	0	0	0	18	25	0	0	0	0	25	32	0	0	0	0	32
14	Daily																								
	AM																								
	PM																								
15	Daily	371	52	12	10	52	497	389	58	13	15	48	523	19	2	0	0	0	20	21	1	0	0	0	22
	AM	71	1	0	1	5	78	5	0	1	0	1	7	5	0	0	0	0	5	1	0	0	0	0	1
	PM	5	2	1	1	3	12	76	5	0	2	5	88	0	0	0	0	0	0	3	0	0	0	0	3
16	Daily																								
	AM																								
	PM																								

Location #	Daily/AM/PM	Driveway 7 IN Vehicle Class						Driveway 7 OUT Vehicle Class						Driveway 8 IN Vehicle Class						Driveway 8 OUT Vehicle Class					
		1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total
1	Daily																								
	AM																								
	PM																								
2	Daily	6	18	59	3	66	151	6	19	43	4	79	150	1	0	0	0	0	1	111	0	0	0	0	111
	AM	0	2	1	0	5	7	0	0	2	0	3	5	0	0	0	0	0	0	1	0	0	0	0	1
	PM	0	1	2	0	2	5	0	2	1	0	5	8	0	0	0	0	0	0	7	0	0	0	0	7
3	Daily																								
	AM																								
	PM																								
4	Daily	0	0	0	0	0	0	8	10	81	2	265	367												
	AM	0	0	0	0	0	0	0	0	2	0	9	11												
	PM	0	0	0	0	0	0	0	0	2	0	9	11												
5	Daily																								
	AM																								
	PM																								
6	Daily																								
	AM																								
	PM																								
7	Daily																								
	AM																								
	PM																								
8	Daily																								
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13	Daily																								
	AM																								
	PM																								
14	Daily																								
	AM																								
	PM																								
15	Daily																								
	AM																								
	PM																								
16	Daily																								
	AM																								
	PM																								

Location #	Daily/AM/PM	Driveway 9 IN Vehicle Class						Driveway 9 OUT Vehicle Class						Driveway 10 IN Vehicle Class						Driveway 10 OUT Vehicle Class						Cars	2-Axle	3-Axle	4-Axle	5-Axle	Total
		1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total						
1	Daily																									2,925	83	79	47	250	3,384
	AM																									101	5	4	1	12	207
	PM																									597	2	6	3	18	625
2	Daily	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2,682	43	105	6	145	2,982
	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	337	3	3	0	7	350
	PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	261	3	3	0	7	273
3	Daily																									907	29	149	0	354	1,439
	AM																									12	2	5	0	11	30
	PM																									25	1	6	0	13	45
4	Daily																									1,418	27	157	2	534	2,139
	AM																									95	1	5	0	25	127
	PM																									180	0	7	0	15	197
5	Daily																									918	40	65	52	72	1,147
	AM																									34	3	2	3	2	44
	PM																									46	0	1	0	2	49
6	Daily																									483	27	54	13	213	790
	AM																									10	2	2	1	11	27
	PM																									7	0	3	1	9	21
7	Daily																									624	131	251	58	328	1,392
	AM																									14	12	11	3	14	55
	PM																									18	3	14	2	20	57
8	Daily																									427	32	30	11	86	587
	AM																									26	2	2	0	6	37
	PM																									20	1	2	1	1	24
9	Daily																									392	47	13	51	80	582
	AM																									14	2	1	3	7	28
	PM																									3	1	0	1	1	5
10	Daily																									557	38	28	15	55	692
	AM																									15	1	2	1	3	21
	PM																									7	1	1	1	3	13
11	Daily																									3,975	35	173	3	465	4,651
	AM																									38	2	6	0	17	63
	PM																									24	1	9	0	22	57
12	Daily																									265	23	5	6	12	311
	AM																									11	2	0	0	0	13
	PM																									10	0	1	1	1	12
13	Daily																									5,838	326	844	272	1,317	8,597
	AM																									215	14	40	4	54	327
	PM																									124	34	34	14	45	252
14	Daily																									787	15	104	212	331	1,449
	AM																									31	1	8	2	13	55
	PM																									33	1	2	27	1	64
15	Daily																									1,576	150	89	39	264	2,118
	AM																									133	3	4	1	16	157
	PM																									128	8	4	3	14	157
16	Daily																									146	14	3	9	40	213
	AM																									9	1	0	0	3	12
	PM																									2	0	0	1	1	5

Western Riverside Council of Governments
Planning Directors Committee

Staff Report

Subject: **Prohousing Designation Feasibility Analysis**

Contact: **David Suls, AICP, Assistant Vice President & Land/Urban Planning Lead, WSP, david.suls@wsp.com, (619) 525-8382**

Date: **December 14, 2023**

Recommended Action(s):

1. Receive and file.

Summary:

The item is reserved for a presentation from David Suls, WSP Assistant Vice President & Land/Urban Planning Lead, to review the results of the Prohousing Designation Feasibility Analysis and provide an update on next steps.

Purpose / WRCOG 2022-2027 Strategic Plan Goal:

The purpose of this item is to share results of the Prohousing Designation Feasibility Analysis so cities understand what the likelihood of a successful Prohousing Designation application submittal would be, as well as understand next steps towards a successful application. This presentation and information aligns with WRCOG's 2022-2027 Strategic Plan Goal #2 (Identify and help secure grants and other potential funding opportunities for projects and programs that benefit member agencies).

Discussion:

Background

WRCOG is utilizing Regional Early Action Planning (REAP) grant funding to help jurisdictions apply for the Prohousing Designation. The Prohousing Designation is a program administered by the California Department of Housing and Community Development that aims to increase the availability of housing statewide by providing incentives to cities and counties in the form of additional points or other preference in the scoring of competitive housing, community development, and infrastructure programs. To receive the designation, a jurisdiction must complete an application detailing its existing and proposed Prohousing policies and programs. Jurisdictions deemed Prohousing by the State receive additional points or other preference in the scoring of competitive housing, community development, and infrastructure programs.

During the period between August 21, 2023, to September 28, 2023, WSP consultants conducted

interview calls with 13 participating WRCOG member agencies. Based on interviews and additional background research, WSP generated an estimate of each agency's score. The attached memo shows scores of low, medium, or high based on the total available points for each category of the application and the estimated points the city might receive in each category. The memo includes a list of possible actions jurisdictions can take to receive more points on the application. Participating WRCOG member agencies include the cities of: Banning, Beaumont, Calimesa, Corona, Eastvale, Hemet, Jurupa Valley, Menifee, Murrieta, Norco, San Jacinto, Temecula, and Wildomar. The attached memo details the process and results of this feasibility analysis in addition to recommendations on next steps.

Prior Action(s):

None.

Financial Summary:

Transportation & Planning Department activities are included in the Agency's adopted Fiscal Year 2023/2024 Budget under the Transportation Department in the General Fund (110). This item is covered by REAP funding that has been approved by SCAG; this funding source is identified in the Fiscal Year 2023/2024 Budget.

Attachment(s):

Attachment 1 - WRCOG Prohousing Feasibility Analysis Memo

Attachment

Draft Prohousing Designation Feasibility Analysis Memo

MEMO

TO: WRCOG

FROM: WSP

SUBJECT: **Contract # 2022-65-1400-006 Western Riverside Council of Governments Agreement for On-Call Professional Services**

DATE: **November 17, 2023**

As part of our PM/CM Services contract for the above referenced contract, WSP USA, Inc. (WSP) was requested by WRCOG to provide an analysis on the feasibility of each participating member jurisdiction in attaining the Prohousing Designation. This memo details the process and results of this feasibility analysis in addition to recommendations on next steps.

BACKGROUND

The Prohousing Designation Program provides incentives to cities and counties in the form of additional points or other preference in the scoring of competitive housing, community development, and infrastructure programs. The application works as a scorecard with four categories containing subcategories with a policy description and number of points. An applicant goes through the scorecard and attaches policies (enacted or proposed) that fit the description of each subcategory. The applicant then adds up all their points, as well as any enhancement factors. An applicant must receive 30 or more points to receive the Prohousing Designation.

During the period between August 21st to September 28th, 2023, WSP consultants conducted interview calls with 13 participating WRCOG member jurisdictions. Consultants created a set of questions, based on the categories in the Prohousing Designation Application. These questions were designed to gauge each participating jurisdiction's Prohousing policies and estimate how many points they could receive in each category and total. Based on interview answers consultants generated an estimate of each jurisdiction's score. Consultants assigned each category with low, medium, or high based on the total available points for each category and the estimated points each city might receive in each category. Additionally, consultants developed a list of possible actions jurisdictions can take to receive more points on the application.

Participating WRCOG Jurisdictions include: Murrieta, Banning, Menifee, San Jacinto, Norco, Beaumont, Wildomar, Corona, Eastvale, Temecula, Hemet, Calimesa, Jurupa Valley.

RESULTS

The jurisdictions that have a high likelihood of receiving 30 points as-is include Murrieta, Banning, Corona, Temecula, Hemet, Jurupa Valley
The jurisdictions that would not likely get to 30 points unless they took action include Menifee, Norco, Beaumont, Wildomar, Calimesa.
The jurisdictions that would not likely get to 30 points unless significant action was taken include Eastvale and San Jacinto.

The table below summarizes the findings for each Jurisdiction, based on category and overall.

	Category 1	Category 2	Category 3	Category 4	Overall
Temecula	Medium	Medium	Medium	Medium	High
Murrieta	Low	Medium	Medium	Low	High
Banning	Low	Medium	Medium	Low	High
Corona	Low	High	Low	Low	High
Hemet	Low	Medium	Medium	Low	High
Jurupa Valley	Low	Medium	Medium	Low	High
Menifee	Low	Medium	Medium	Low	Medium
Norco	Low	Low	High	Low	Medium
Beaumont	Low	Medium	Low	Low	Medium
Wildomar	Low	Medium	Low	Low	Medium
Calimesa	Low	Medium	Medium	Low	Medium
Eastvale	Low	Low	Low	Low	Low
San Jacinto	Low	Low	Low	Low	Low

OTHER FINDINGS

Below is a list of notable findings:

- Temecula had the most Prohousing policies and scored the highest.
- Murrieta described other ways in which the City is supporting housing development, for example with dedicated staff and trainings offered to the staff. Additionally, the City has a Housing Planner funded by a LEAP grant.
- Hemet's multigenerational developments provide an interesting case study and example of innovative housing types.
- Most cities follow State Law (do not exceed) and therefore do not qualify for several points in Category 1.
- Most cities' Housing Elements identify housing capacities over their RHNA allocation.

- Most cities do not have many policies when it comes to affordable housing and therefore score low in Category 4.
- Many cities do not have any public land, or very little, and therefore miss out on points associated with the Surplus Land Act.

ACTION ITEMS

Based on knowledge of the Prohousing Designation Application, as well as information provided during the interview, consultants created a list of actions Jurisdictions could take in order to receive more points on the Prohousing Designation Application.

Category 2 has opportunities for cities to get more points through administrative actions. Actions taken here that could get cities more points include:

- Creating a standardized application form for all entitlement applications.
- Posting on the city's webpage updates on project permit approvals.
- A permit process that takes less than 4 months (on the city's side) and a timeline/documentation of this.

Category 3 also has opportunities for cities to get more points through actions with shorter timeframes for implementation. Actions taken here that could get cities more points include:

- A dedicated webpage or PDF describing resources for permitting and financing for ADUs.
- Pre-approved prototype plans for ADUs and/or duplexes.
- Creating on-street parking for bicycles.
- Promoting innovative housing types. This could be a webpage that describes different kind of innovative housing types and where they are allowed in the city.

HCD PROPOSED CHANGES TO APPLICATION

HCD has proposed changes to the Prohousing Designation that are important to acknowledge. Below is a link to HCD's website as well as a summary of these proposed changes.

https://www.hcd.ca.gov/planning-and-community-development/prohousing-designation-program

- Changes to the Program include specifying procedures for:
    - Submitting applications for a Prohousing Designation
    - Reviewing and scoring these application
    - Designating jurisdictions as Prohousing
    - Monitoring jurisdictions' compliance with the Program
    - Revoking noncompliant jurisdictions' Prohousing Designations
    - Public participation processes
- The changes will also establish clear provisions for the effective date of the permanent regulations and the subsequent sunset of the emergency regulations.
- What these changes mean and why it is in a jurisdictions' best interest to submit sooner than later

- Changes are meant to clarify and define terms and processes to help applicants better understand the process and regulations
- Some changes will make it harder to receive points in certain subsections
- For example: for category 1F, the proposed changes will require that jurisdictions now eliminate, not merely reduce, parking requirements for residential development in order to receive the 2 points in this subcategory.

NEXT STEPS

- Jurisdictions should consider implementing one or more of the action items above.
- City planning departments should consider writing a Prohousing Designation application in-house or with outside assistance.

Western Riverside Council of Governments
Planning Directors Committee

Staff Report

Subject: **Affordable Housing Financing**

Contact: **Daniel Bringhurst, President, The Euergetes Group, daniel.bringhurst@theegroup.org, (626)506-1959**

Date: **December 14, 2023**

Recommended Action(s):

1. Receive and file.

Summary:

This item is reserved for a presentation from Daniel Bringhurst, The Euergetes Group President, on affordable housing financing and the impact of loans and grants.

Purpose / WRCOG 2022-2027 Strategic Plan Goal:

The purpose of this item is to share information related to affordable housing. This presentation and information aligns with WRCOG's 2022-2027 Strategic Plan Goal #5 (Develop Projects and Programs That Improve Infrastructure and Sustainable Development in our Region).

Discussion:

Background

This presentation is to aid in the pursuit of making more affordable housing available. Financial structures for creating affordable housing are the focus of this presentation. The financial structure of creating affordable housing affects availability in two areas: (1) population reach, and (2) overall cost. High level information will be presented using different financial structures. Controlling ordinances are included to show how these financial structures maintain compliance. Effects on population reach and overall cost are examined to provide actionable data.

Prior Action(s):

None.

Financial Summary:

This item is for information purposes only; therefore, there is no fiscal impact.

Attachment(s):

None.