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TRAFFIC GENERATION STATEMENT

PROJECT BULLET
PORT ST. LUCIE, FLORIDA

Prepared for:

Cheney Brothers, Inc.
1 Cheney Way
Riviera Beach, Florida 33404

Job No. 21-086

Date: September 14, 2021
Revised: December 20, 2021

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LICENSE
No. 74006
DEC 20 2021
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Bryan G. Kelley, P.E.
FL Reg. No. 74006

1.0 SITE DATA

The subject parcel is located east of Village Parkway and south of Paar Drive in the City of Port St. Lucie, Florida and contains approximately 55.3 acres. The proposed plan of development on the currently unimproved parcel is to consist of a 367,427 S.F. distribution center and 155,100 S.F. future expansion. Site access is proposed via a full access driveway connection to SW Anthony F. Sansone Sr. Boulevard. For additional information on site layout, please refer to the Site Plan prepared by HJA Design Studio. Note the site is part of the overall Southern Grove DRI and therefore traffic concurrency is vested.

2.0 TRAFFIC GENERATION

The proposed traffic generation for the site has been calculated in accordance with the rates provided in the ITE Trip Generation Manual, 10th Edition as shown on Table 1, Table 2, and Table 3 attached with this report. ITE Land Use Code # 157 (High-Cube Cold Storage Warehouse) was determined to be the most applicable land use. Table 1 shows the daily traffic generation associated with the existing use. Tables 2 and 3 show the A.M. and P.M. peak hour traffic generation, respectively. The traffic generation associated with the proposed development and future expansion may be summarized as follows:

Proposed Development

Weekday Daily Traffic Generation	=	1,108 tpd
A.M. Peak Hour Traffic Generation	=	57 pht (44 In/13 Out)
P.M. Peak Hour Traffic Generation	=	63 pht (18 In/45 Out)

3.0 ACCESS MANAGEMENT

It is anticipated that a majority of the traffic will be arriving and departing to the south to arrive at I-95 via Becker Road. A Turning Movement Worksheet has been prepared and is attached with this report as Figure 1. Although the A.M. peak hour, P.M. peak hour and Daily traffic volumes are relatively low, a high percentage of the vehicles are expected to be tractor trailers. It is therefore proposed to construct an exclusive right turn lane, south approach on SW Anthony F. Sansone Sr. Boulevard at the project entrance. The applicant is also coordinating with the design consultant for the SW Anthony F. Sansone Sr. Boulevard road design to incorporate an exclusive left turn lane or a continuous left turn lane (3-lane section) to better accommodate tractor trailer turning movements on the two-lane roadway. The future outparcel to the north will have its own driveway connection to SW Anthony F. Sansone Sr. Boulevard. Turn lane requirements for the outparcel will be determined when a development plan for the site is prepared.

In the morning, office, warehouse, and over the road (OTR) personnel will arrive at the site. During the afternoon, office, warehouse, and OTR personnel leave and delivery trucks return from their deliveries. In the evening, additional personnel arrive to begin pulling orders and load delivery trucks. From midnight to 6:00 A.M. the delivery trucks depart and the cycle repeats each weekday. The A.M. peak hour is typically the highest traffic impact followed by mid-afternoon.

4.0 CONCLUSION

The attached tables document the daily, A.M. peak hour and P.M. peak hour traffic generation for the proposed development consisting of a 367,427 S.F. distribution center and 155,100 S.F. future expansion. The proposed development will generate 1,108 daily trips, 57 A.M. peak hour trips, 63 P.M. peak hour trips on a regular weekday. Traffic concurrency for this site is vested through the overall Southern Grove DRI.

PROJECT BULLET

08/31/2021
Revised: 12/20/2021

PROPOSED DEVELOPMENT

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips	Pass-by %	Pass-by Trips	Net Trips
High-Cube Cold Storage Warehouse	157	522,527	S.F.	2.12			1,108		0	1,108	0%	0	1,108
			Grand Totals:				**1,108**	**0.0%**	**0**	**1,108**	**0%**	**0**	**1,108**

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
High-Cube Cold Storage Warehouse	157	522,527	S.F.	0.11	0.77	0.23	44	13	57	0.0%	0	0	0	44	13	57	0%	0	44	13	57
			Grand Totals:				**44**	**13**	**57**	**0.0%**	**0**	**0**	**0**	**44**	**13**	**57**	**0%**	**0**	**44**	**13**	**57**

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
High-Cube Cold Storage Warehouse	157	522,527	S.F.	0.12	0.28	0.72	18	45	63	0.0%	0	0	0	18	45	63	0%	0	18	45	63
			Grand Totals:				**18**	**45**	**63**	**0.0%**	**0**	**0**	**0**	**18**	**45**	**63**	**0%**	**0**	**18**	**45**	**63**

Notes:
Directional distribution percentages not available for ITE Land Use Code #157. Therefore, the directional distribution percentages from ITE Land Use Code #154 "High-Cube Transload and Short-Term Storage Warehouse" was used.

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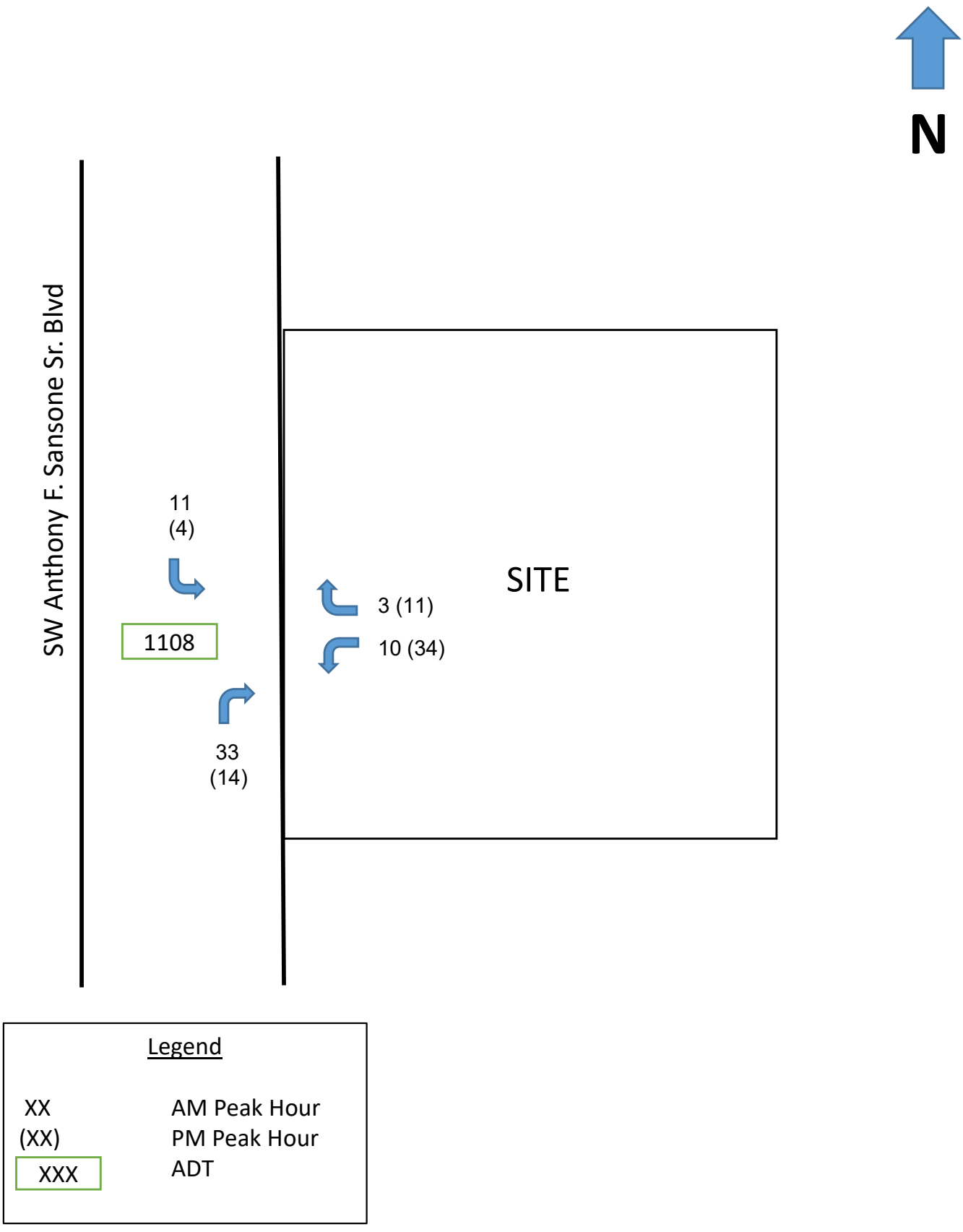

Figure 1 – Turning Movement Worksheet
Project Bullet
Project # 21-086

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Land Use: 157
High-Cube Cold 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. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. Warehousing (Land Use 150), high-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), and high-cube parcel hub warehouse (Land Use 156) are related land uses.

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 have been incorporated into the 10th Edition *Trip Generation Manual* and are published on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498 where the study is posted.

The sites were surveyed in the 2000s and the 2010s in California.

Source Numbers

619, 941, 942, 943

High-Cube Cold Storage Warehouse
(157)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

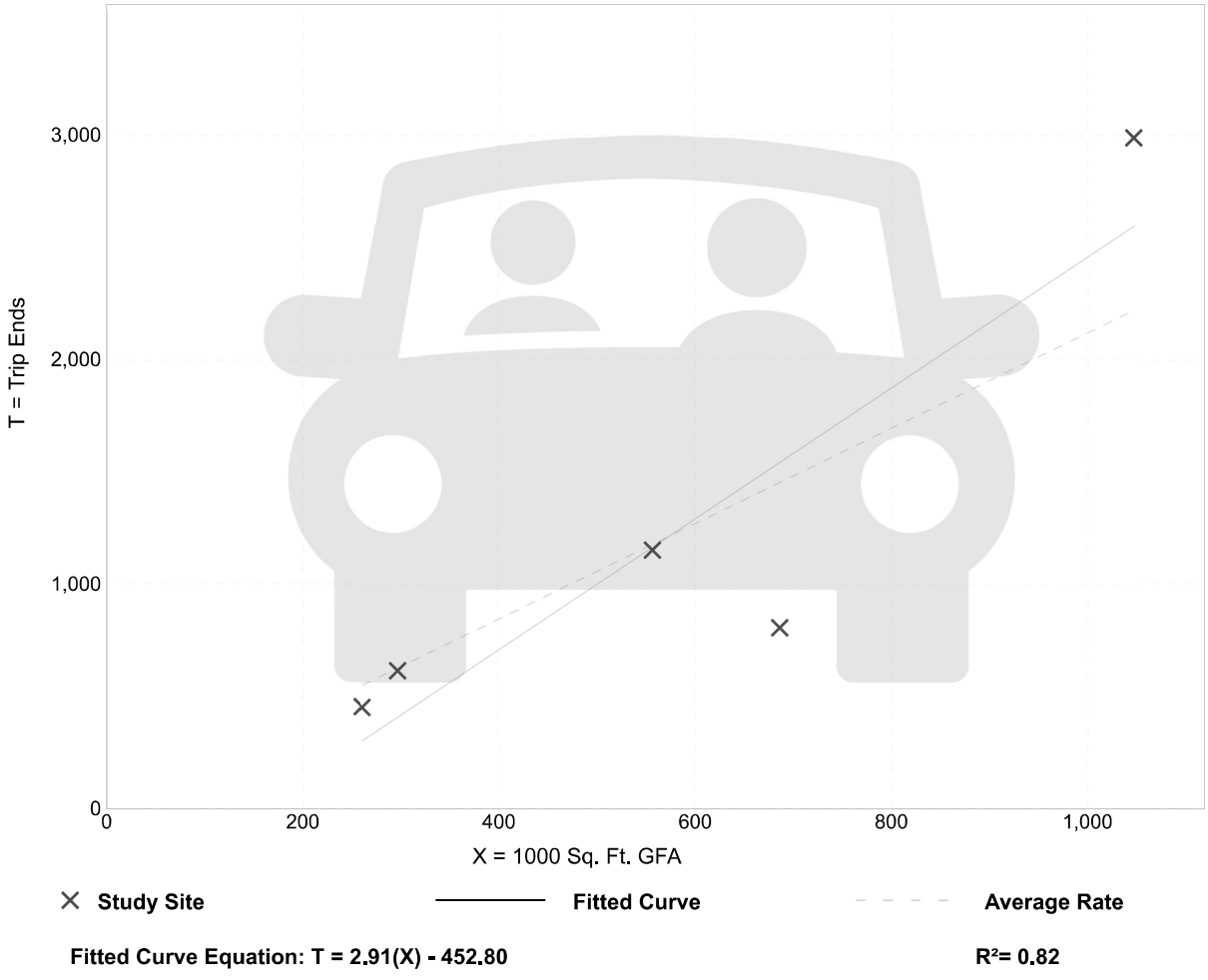
Setting/Location: **General Urban/Suburban**
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 569
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.12	1.18 - 2.85	0.73

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 2.91(X) - 452.80

R^2= 0.82

High-Cube Cold Storage Warehouse
(157)

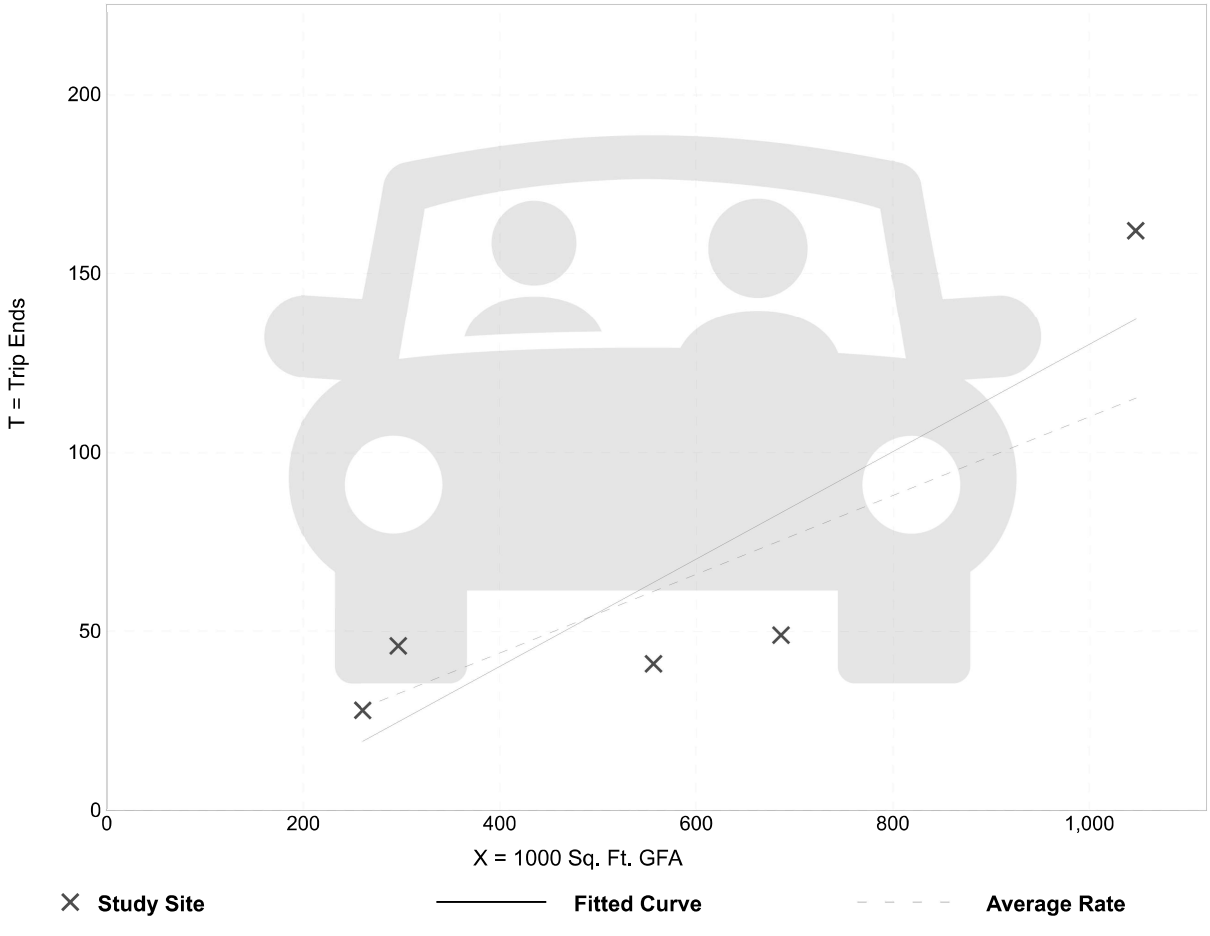
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 569
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.11	0.07 - 0.15	0.04

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 0.15(X) - 19.75

R^2= 0.76

High-Cube Cold Storage Warehouse
(157)

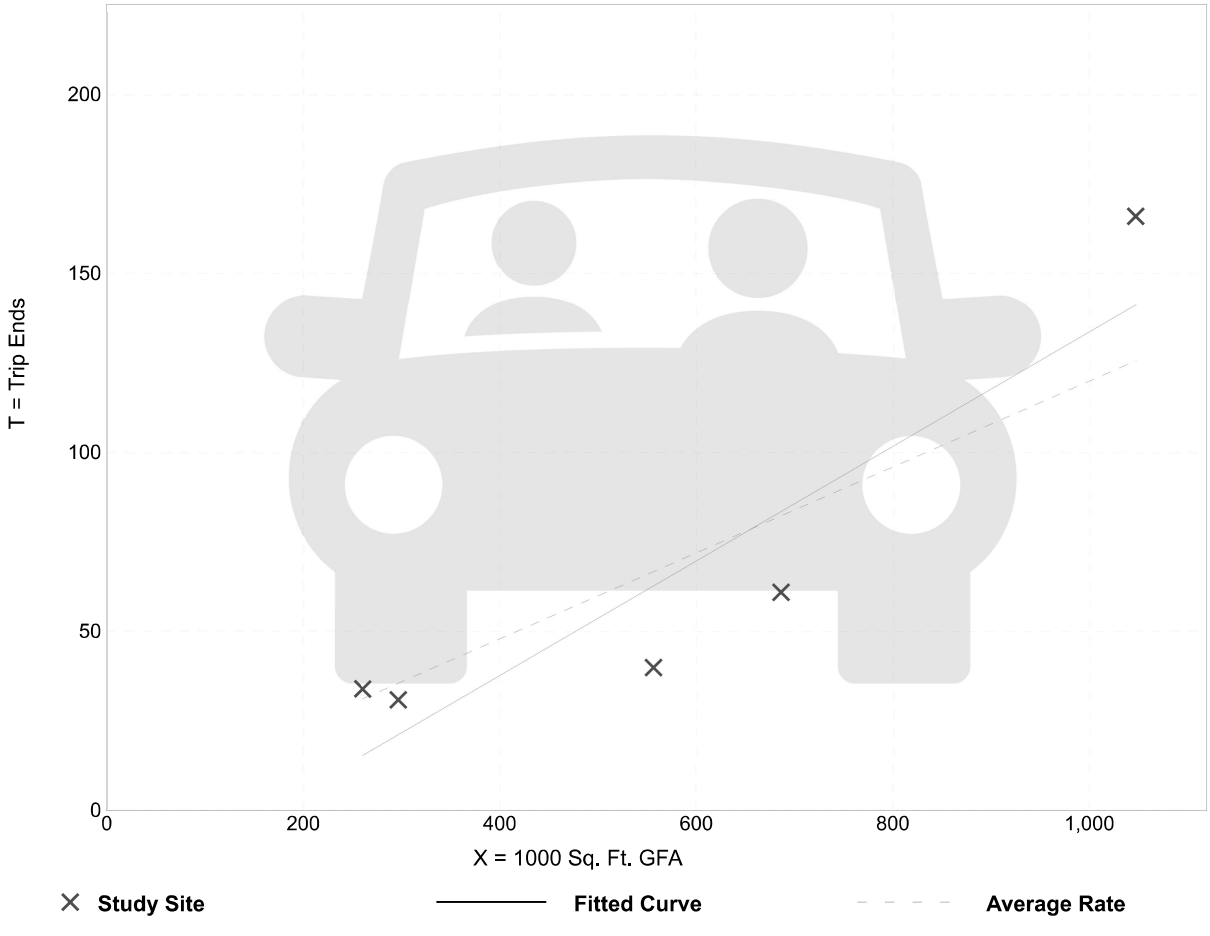
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 569
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.07 - 0.16	0.04

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 0.16(X) - 26.24

R^2= 0.84