

**TRAFFIC ASSESSMENT**

**FOR**

**SHIV PRASAD, LLC**

**BLOCK 40, LOTS 3 AND 11.01  
WOODBURY HEIGHTS BOROUGH, GLOUCESTER COUNTY, NEW JERSEY**

**CES-2946-01**

**January 2023**



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# 1. INTRODUCTION

## 1.1. Scope of Study

Consulting Engineer Services (CES) has prepared this Traffic Assessment for a proposed retail cannabis dispensary on Elm Avenue (CR 652) in Woodbury Heights. This assessment includes a description of existing and proposed site conditions, trip generation for the existing and proposed development, and the development's relative impact on traffic conditions in the area.

## 1.2. Site Description

The subject site is identified as Block 40, Lot 3 & Lot 11.01 in Woodbury Heights Borough, Gloucester County, New Jersey, containing 0.5± acres. It is located on the south side of Elm Avenue (CR 652), just east of Mantua Pike (NJ 45). See Figure 1 in Appendix A for a Location Map.

The site contains a 3,364 SF bank with a drive-through which is currently vacant. Existing land uses in the vicinity of the site are primarily commercial/retail. The existing lot has a full movement driveway on Elm Avenue and shared access to Mantua Pike (NJ 45) through the adjacent lot, Hollywood Café & Sports Bar.

As shown on the Site Plan (Figure 4 in Appendix A), the applicant proposes to reuse the existing 3,364 SF building on the site for a retail cannabis dispensary. The site is in the Highway Commercial (HC) zoning district, and the proposed dispensary is a permitted conditional use (per ordinance 20-2022). No changes are proposed to the existing access points

## 1.3. Existing Transportation System Inventory

The following is a description of the roadways adjacent to the site. Data sources include the current 2019 New Jersey Department of Transportation (NJDOT) Straight Line Diagram (included in Appendix A), field survey data, available maps, and aerial imagery.

Mantua Pike (NJ 45)

Mantua Pike (NJ 45) is a four-lane divided bituminous roadway under the jurisdiction of the New Jersey Department of Transportation (NJDOT). In the vicinity of the site, the roadway is classified as an Urban Principal Arterial and the posted speed limit is 45 miles per hour (mph). NJ 45 generally travels north and south, extending from Crescent Boulevard (NJ 130) in Westville Borough, Gloucester County, to West Broadway (NJ 49) in Salem City, Salem County.

Elm Avenue (CR 652)

Elm Avenue (CR 652) is a two-lane bituminous roadway under the jurisdiction of Gloucester County. In the vicinity of the site, the roadway is classified as an Urban Minor Arterial and the posted speed limit is 35 miles per hour (mph). CR 652 generally travels east and west, extending from Mantua Pike (NJ 45) to Glassboro Road (CR 553) in Woodbury Heights.

## 2. TRAFFIC ASSESSMENT

Trips for the proposed cannabis dispensary were calculated based on the current ITE *Trip Generation, 11<sup>th</sup> Edition*, September 2021, utilizing the land use “Marijuana Dispensary” (LUC 882) and trips for the existing bank were calculated utilizing the land use “Drive-In Bank” (LUC 912), with the 3,364 SF building area rounded up to 3,400 SF. See Appendix B for ITE trip generation data sheets and calculations. Table 1 (below) provides a summary of site traffic volumes for the existing and proposed land uses.

**TABLE 1: Site Traffic Peak Hour Volume Comparison**

	<u>Existing</u> <i>Drive-In Bank</i> 3,400 SF	<u>Proposed</u> <i>Marijuana Dispensary</i> 3,400 SF	<u>Increase</u>
AM Peak Hr (vph)	34	36	2
PM Peak Hr (vph)	71	64	-7
SAT Peak Hr (vph)	90	98	8

Comparing the trips for the existing bank with the proposed cannabis dispensary, we note that the proposed facility is estimated to generate a maximum of 8 additional trips during the worst-case AM, PM, and SAT peak hours. We also note that NJDOT defines a “significant increase in traffic” as an increase of 100 or more trips during any peak hour. Therefore, the change in land use will not have a significant impact on traffic conditions in the area.

### **3. CONCLUSIONS**

As noted within this report, the change in use from the existing bank to the proposed cannabis dispensary is expected to create a negligible change in the AM, PM, and SAT peak hour site traffic volumes. Therefore, the proposed project will not have a substantial impact on traffic operations during peak hour periods, and improvements are not necessary to safely and efficiently accommodate the site traffic.

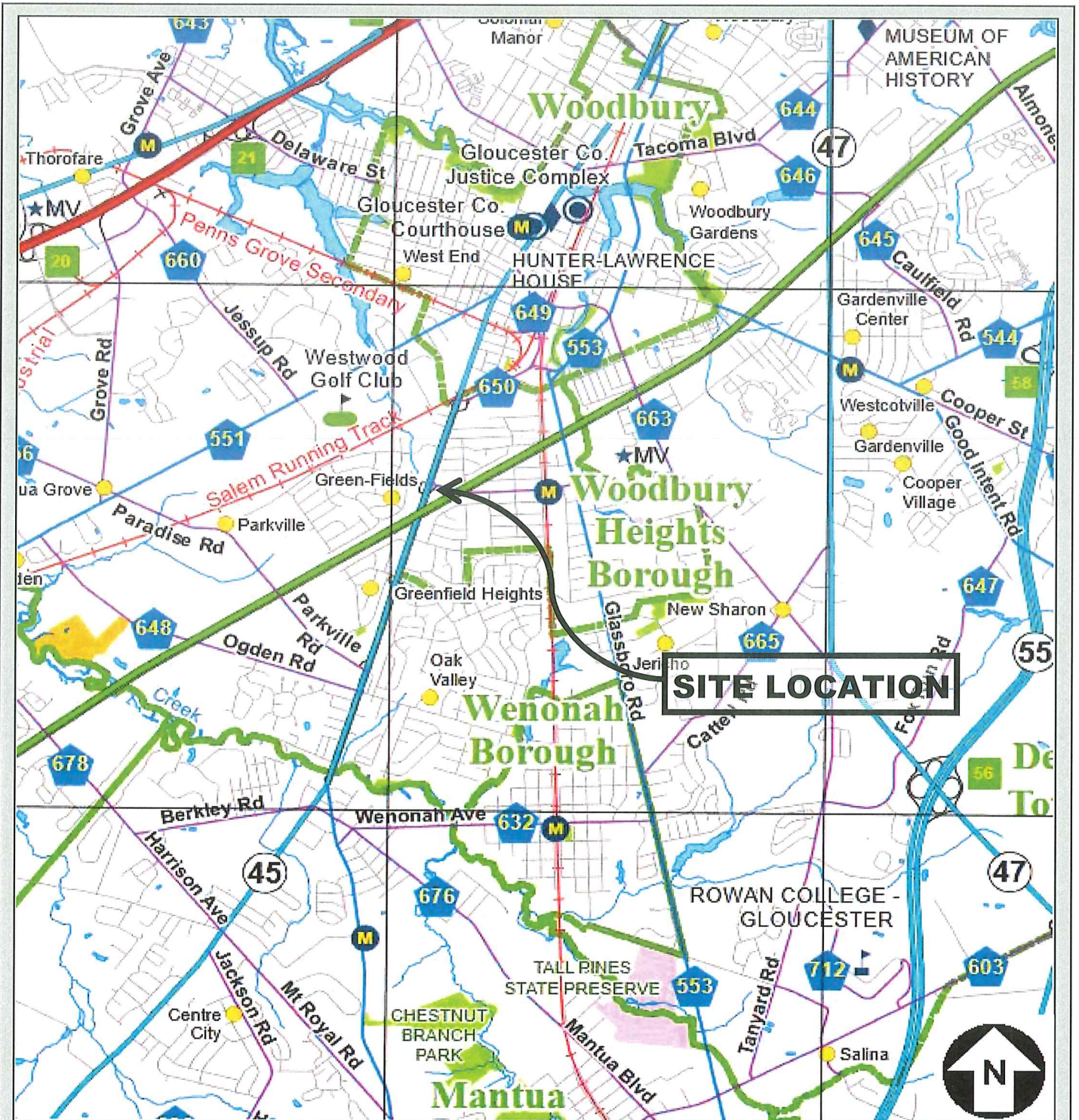




*Appendix A*

*FIGURES*





## Location Map

Source: <http://www.state.nj.us/transportation/gis/map.shtm>

**Woodbury Heights Cannabis**  
Woodbury Heights Borough, Gloucester County, New Jersey

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DWG. #	<b>1</b>
SCALE:	N.T.S.
DATE:	Jan-23
C.E.S. #	2946-01



**Mile Posts: 23.000 - 26.000**

**NJ 45 (South to North)**



Street Name	Units in miles
23.000 THIRD AVE	23.000
23.05 FOURTH AVE	23.05
23.11 FIFTH AVE	23.11
23.19 SIXTH AVE	23.19
23.24 OGDEN	23.24
23.34 PARKVILLE	23.34
23.82 RIVERIA DR	23.82
23.88 COLLEGE BLVD	23.88
24.08 BISCAYNE BLVD	24.08
24.23 NEW JERSEY	24.23
24.40 GRISCOM LN	24.40
24.62 BUDD BLVD	24.62
24.74 SHIVERS AVE	24.74
24.80 GREENWOOD AVE	24.80
24.93 S EVERGREEN AVE	24.93
24.97 RAILROAD AVE	24.97
25.10 REID ST	25.10
25.20 STUART ST	25.20
25.25 PACKARD AVE	25.25
25.36 BELLEVUE AVE	25.36
25.42 NELSON AVE	25.42
25.49 SALEM AVE	25.49
25.55 COURTLAND ST	25.55
25.69 BARBER	25.69
25.72 HOPKINS ST	25.72
25.75 ABERDEEN PL	25.75
25.83 E CURTIS AVE	25.83
25.96 NEWTON AVE	25.96
26.000 BROAD STREET	26.000

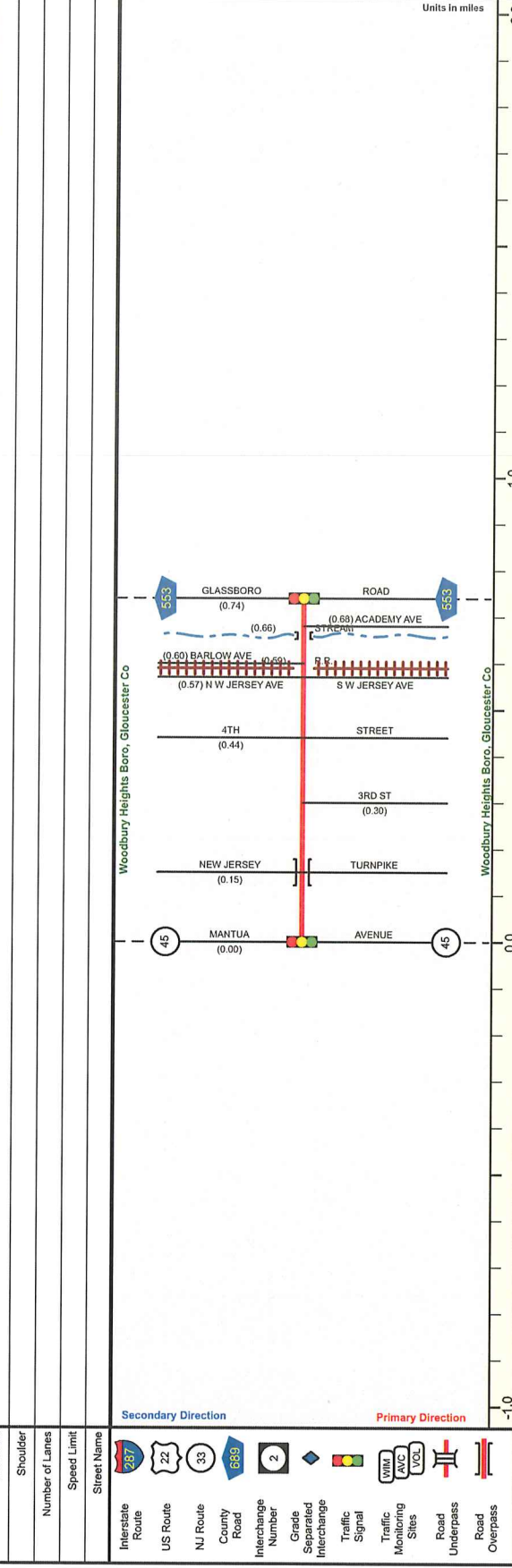
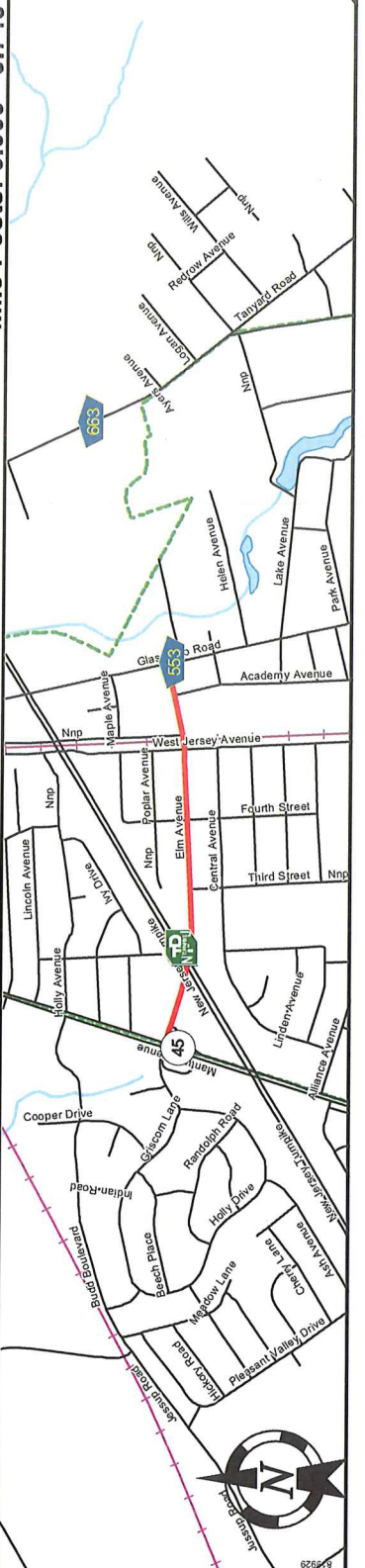
Street Name	Jurisdiction	Functional Class	Federal Aid - NHS Sy	Control Section	Speed Limit	Number of Lanes	Med. Type	Med. Width	Pavement	Shoulder	Traffic Volume	Traffic Sta. ID	Structure No.	Enlarged Views
Mantua Avenue	N.J.D.O.T.	Urban Principal Arterial	NHS	0809	50	2	Positive	18	Curbed		22,650(2017)	4410720	M00223R	See Enlarged View #28A
Broad Street	Woodbury City, Gloucester Co			0810	25	2	Painted/Unprotected	12			16,353(2017)	7559302		See Enlarged View #28B

**SRI = 00000045** Date last inventoried: March 2017



Mile Posts: 0.000 - 0.740

GLoucester County 652 (West to East)



Street Name	Elm Avenue
Jurisdiction	County
Functional Class	Urban Minor Arterial
Federal Aid - NHS Sy	STP
Control Section	
Speed Limit	35
Number of Lanes	2
Med. Type	None
Med. Width	0
Pavement	22
Shoulder	6
Traffic Volume	4
Traffic Sta. ID	5.159 (2016)
Structure No.	7-4-653
Enlarged Views	M02470

SRI = 08000652

Date last inventoried: May 2011





*Appendix B*

*TRIP GENERATION*



# Trip Generation

## Existing

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**Bank with Drive-Through**                      **3,400 square feet gross floor area**

- Trip Generation Reference: *ITE Trip Generation, 11<sup>th</sup> Edition*  
Land Use Code 912 - Drive-In Bank

### Weekday AM Peak Hour Adjacent Street

Average Rate:	9.95	trips per 1000 SF	ITE
Total Number of Trips:	34		
58%	Enter = 20		
42%	Exit = 14		

### Weekday PM Peak Hour Adjacent Street

Average Rate:	21.01	trips per 1000 SF	ITE
Total Number of Trips:	71		
50%	Enter = 36		
50%	Exit = 35		

### Saturday Peak Hour of Generator

Average Rate:	26.35	trips per 1000 SF	ITE
Total Number of Trips:	90		
51%	Enter = 46		
49%	Exit = 44		



# Land Use: 882

## Marijuana Dispensary

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### Description

A marijuana dispensary is a stand-alone facility where cannabis is sold to patients or retail consumers in a legal manner. Marijuana cultivation and processing facility (Land Use 190) is a related land use.

### Additional Data

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

The sites were surveyed in the 2010s in California, Colorado, Massachusetts, and Oregon.

### Source Numbers

867, 893, 919, 1041, 1059

# Marijuana Dispensary (882)

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: 6

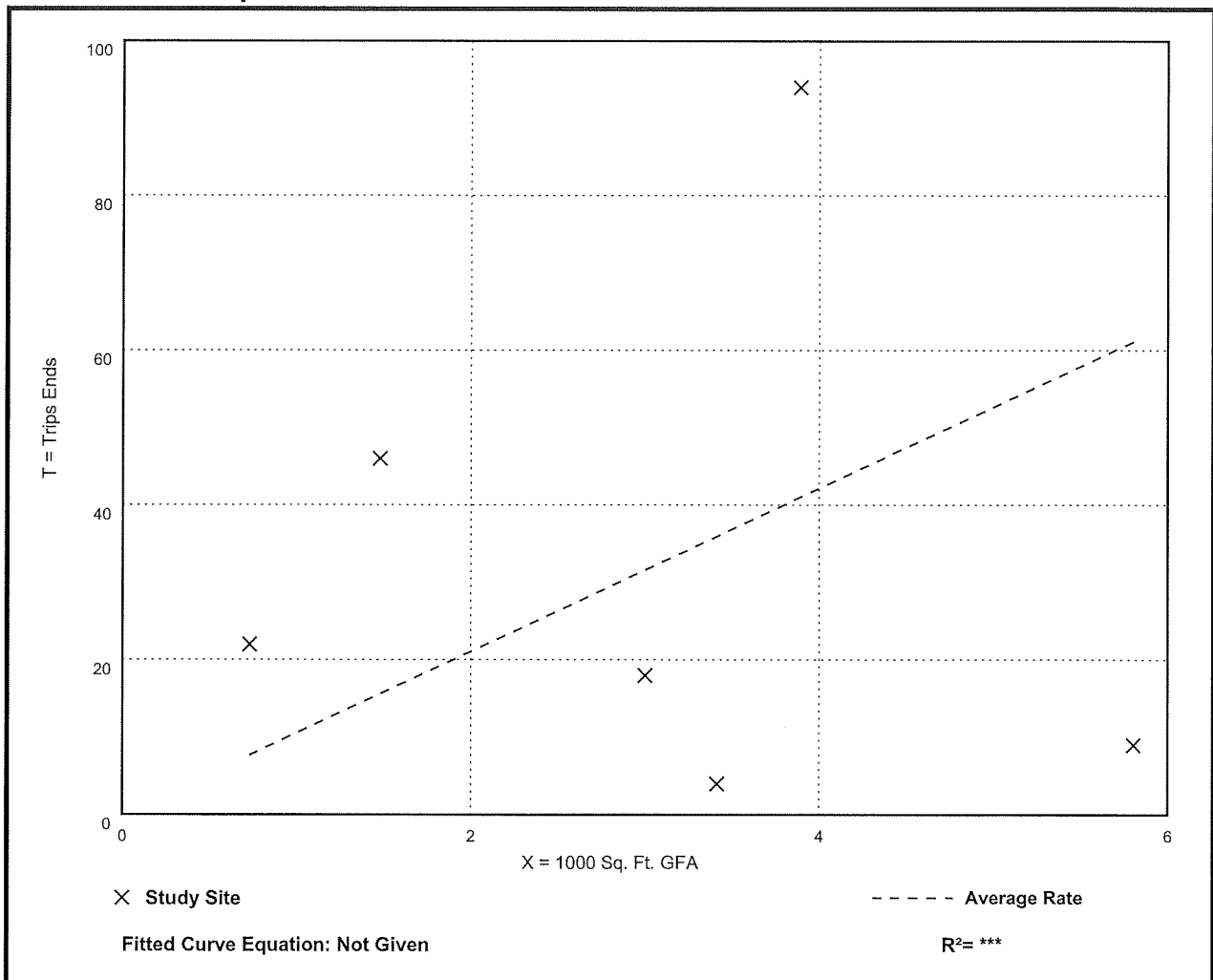
Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 52% entering, 48% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.54	1.17 - 31.08	12.69

## Data Plot and Equation



# Marijuana Dispensary (882)

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: 16

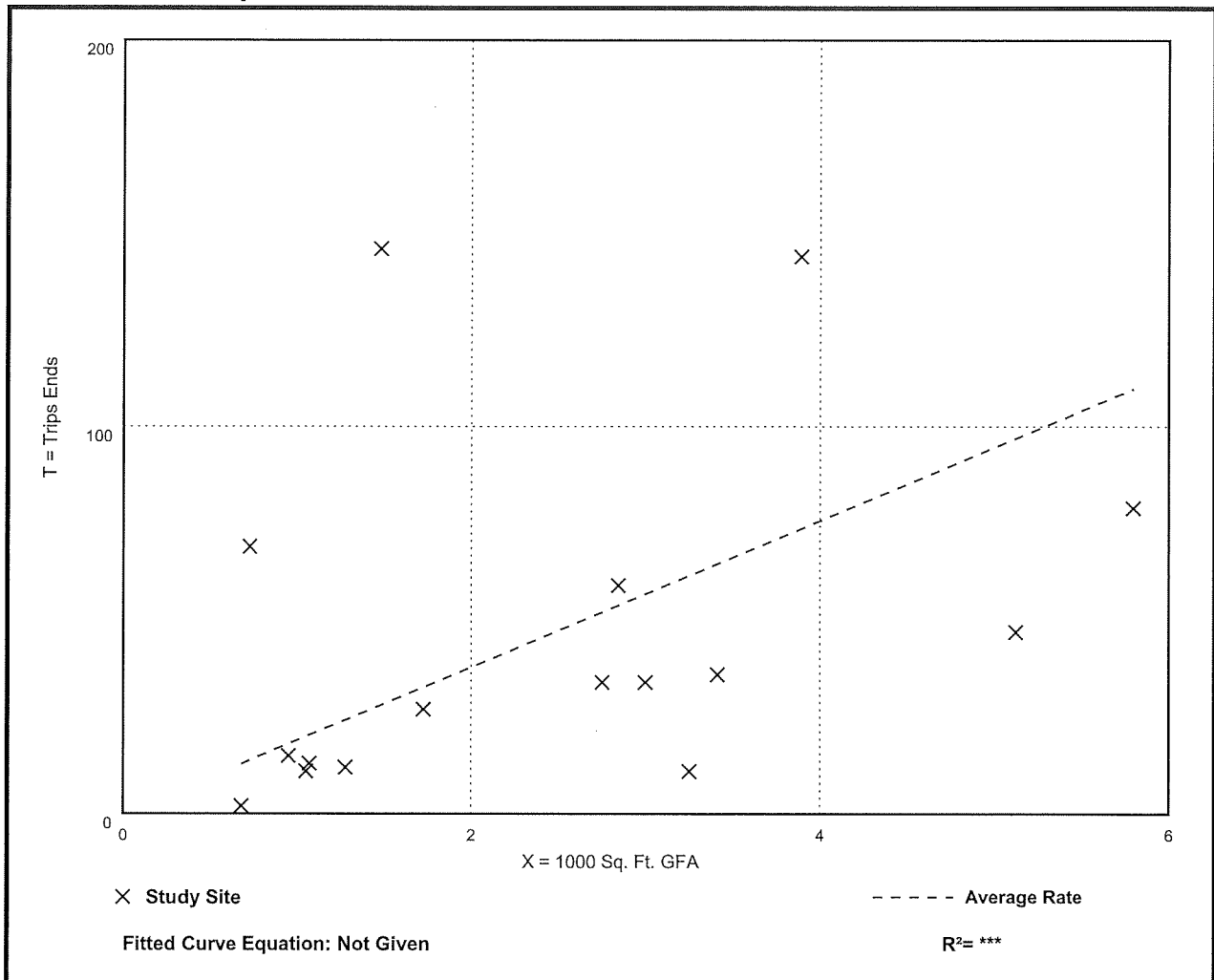
Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
18.92	2.94 - 98.65	21.73

## Data Plot and Equation



# Marijuana Dispensary (882)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 5

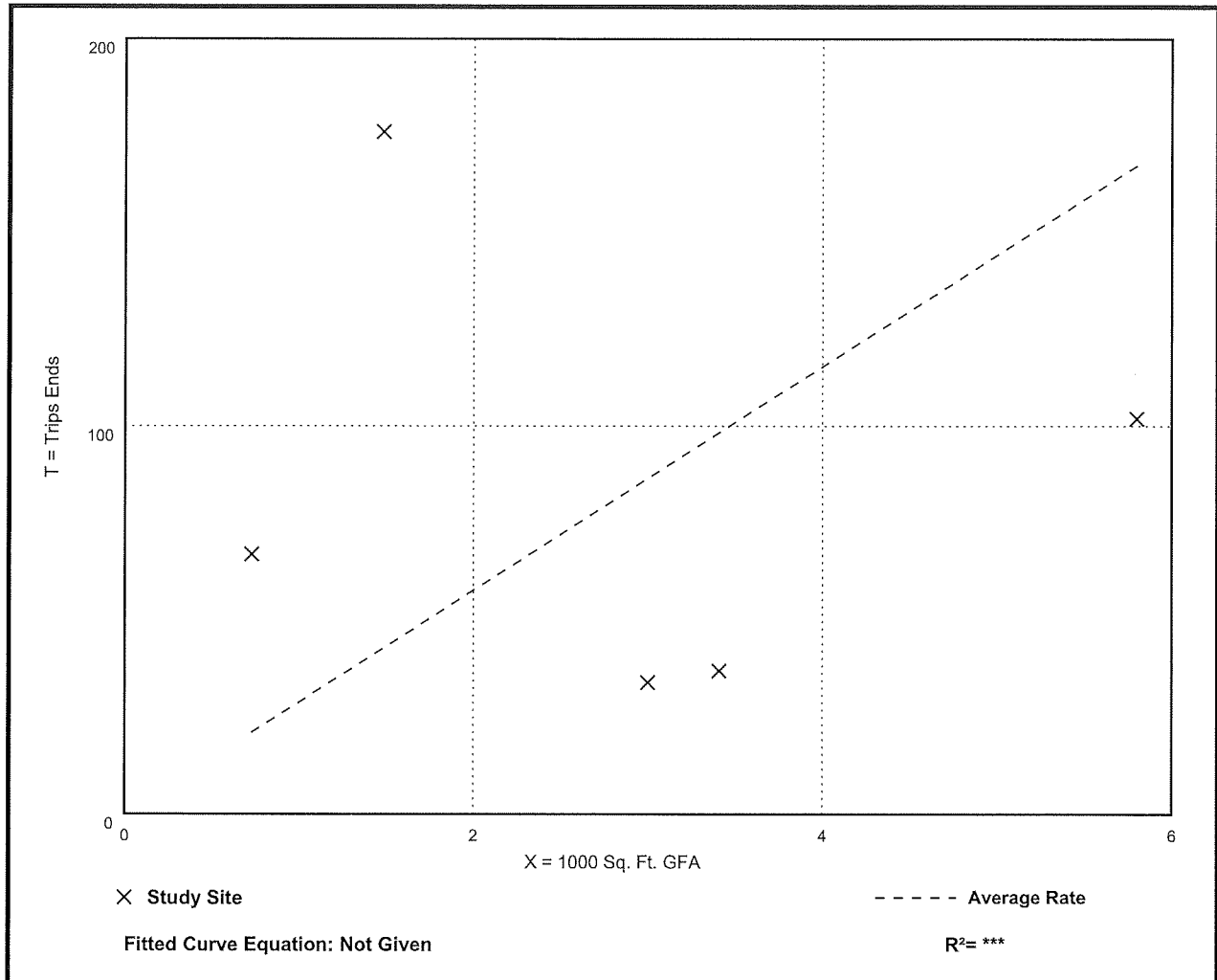
Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
28.85	10.85 - 118.92	39.14

## Data Plot and Equation





# Land Use: 912

## Drive-in Bank

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### Description

A bank is a financial institution that can offer a wide variety of financial services. A drive-in bank provides banking services for a motorist through a teller station. A drive-in bank may also serve patrons who walk into the building. The drive-in lanes may or may not provide an automatic teller machine (ATM). Walk-in bank (Land Use 911) is a related use.

### Additional Data

The independent variable—drive-in lanes—refers to all lanes at a banking facility used for financial transactions, including ATM-only lanes.

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

The sites were surveyed in the 2000s and the 2010s in Colorado, Kentucky, Minnesota, Nebraska, New Jersey, New York, Oregon, Pennsylvania, Texas, Vermont, Virginia, Washington, and Wisconsin.

***To assist in the future analysis of this land use, it is important that Friday data be collected and reported separately from weekday data. It is also important to specify the date and month of the data collection period and the number of drive-through lanes that are open at the time of the study.***

### Source Numbers

535, 539, 553, 555, 573, 577, 600, 624, 626, 629, 630, 637, 656, 657, 710, 724, 728, 866, 869, 883, 884, 927, 935, 961, 1047



# Drive-in Bank (912)

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: 44

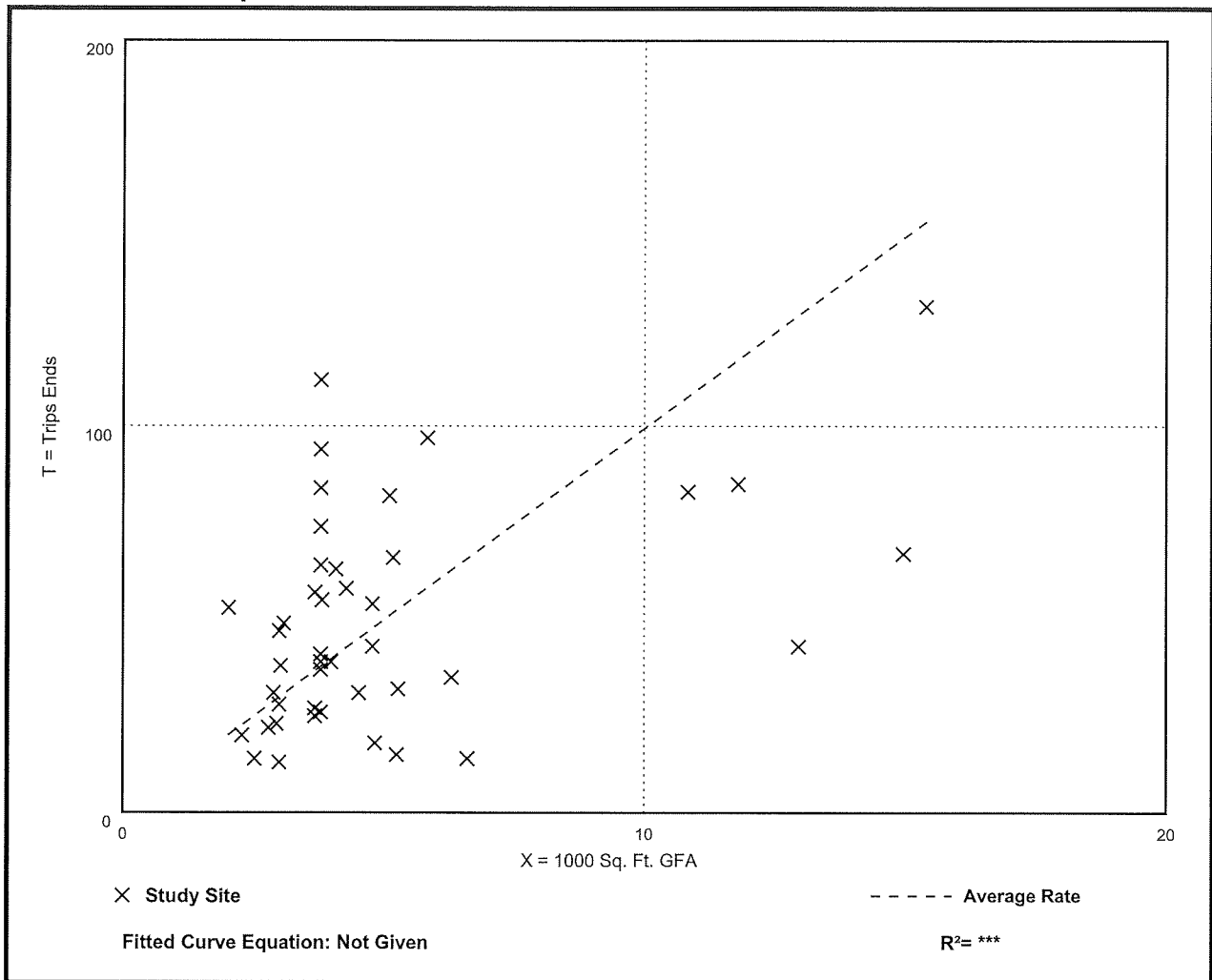
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 58% entering, 42% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.95	2.12 - 29.47	6.00

## Data Plot and Equation



# Drive-in Bank (912)

**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: 114

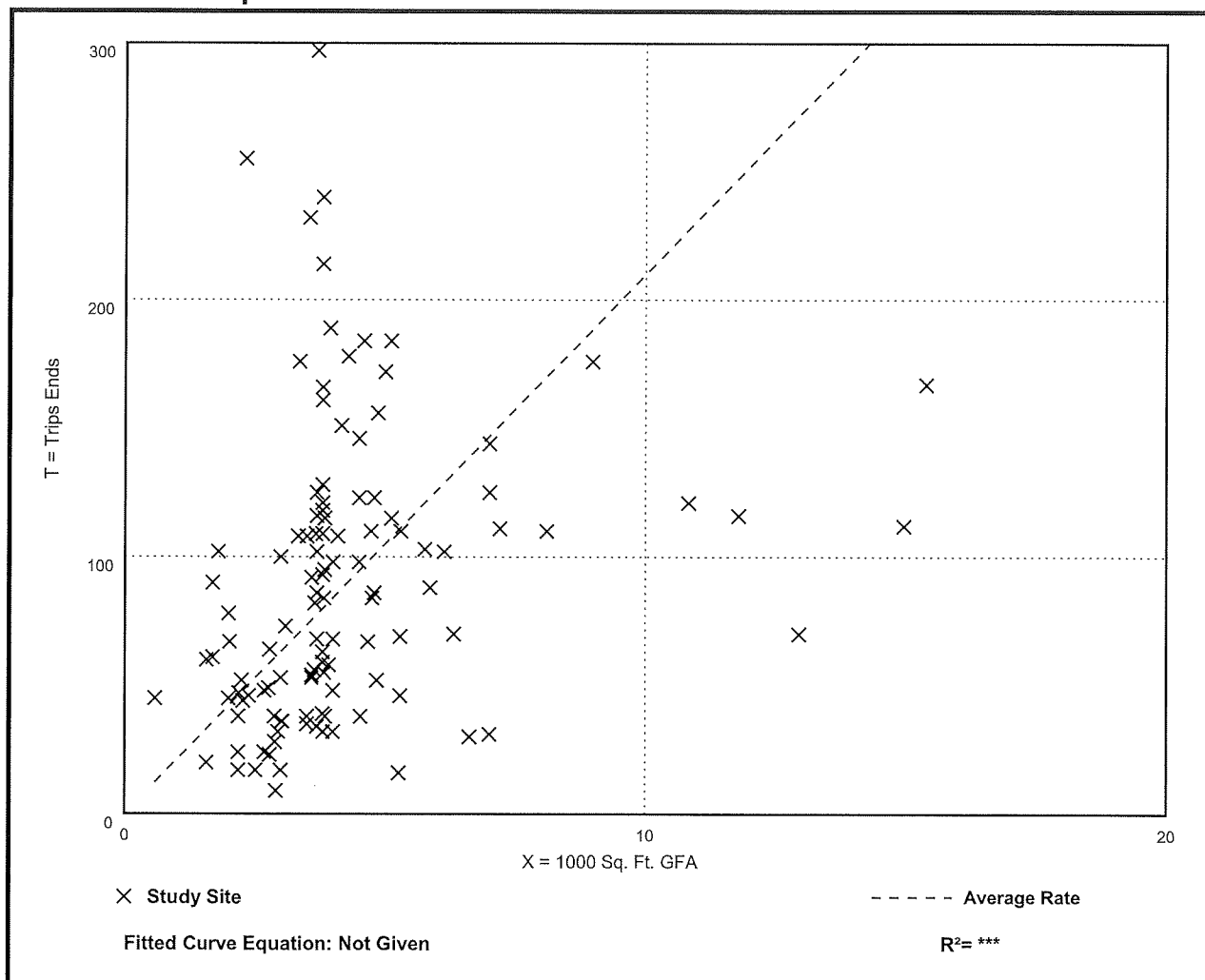
Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.01	3.04 - 109.91	15.13

## Data Plot and Equation



# Drive-in Bank (912)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

**Setting/Location: General Urban/Suburban**

Number of Studies: 41

Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
26.35	7.18 - 107.00	15.32

## Data Plot and Equation

