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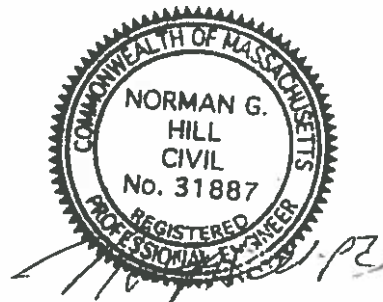
PLANNING BOARD
GRAFTON, MA

EXHIBIT 5

Traffic Impact Statement

**Resinate, Inc.
135 Westboro Road
Grafton, Massachusetts**

December 16, 2019



Norman G. Hill, P.E.

Introduction

This report provides an analysis of the trip generation and parking demand associated with the proposed use to be located at 135 Westboro Road, Grafton, MA. Resonate proposes to operate a marijuana dispensary within the portion of the existing building that is currently a pizza restaurant.

The site is located on the north side of Westboro Road, approximately 1000 feet east of Institute Road. The location of the project with respect to the area's roadway system is shown below.



Locus Plan
1" = 300'

Analysis of Probable Impacts

The focus of this section is to identify the probable impacts the proposed project will have on anticipated traffic conditions.

Trip Generation

The traffic generated by the Resonate facility will follow established patterns with respect to magnitude and distribution. The Institute of Transportation Engineers has published relevant data for the proposed use. The trip generation information provided herein refers to the ITE Trip Generation Manual, 10th Edition.

Existing Trips

The existing building includes 4 tenant spaces that are now or recently occupied by Pecorino's cheese shop, Anzio's pizza shop, indoor mini-golf, and Wicked Twisted Pretzels. These uses most closely resemble the following uses categorized by the ITE. These existing uses are as follows:

- Anzio's pizza shop: Land Use Code 930, Fast Casual Restaurant, 3056 ft² gross floor area
- Wicked Twisted Pretzels: Land Use Code 140, Manufacturing, 3383 ft² gross floor area
- Pecorino's and mini golf space: Land Use Code 820, Shopping Center, 4029 ft² gross floor area

Trip generation rates for each of the existing uses are provided by the ITE. The proposed site generated trips are summarized by use within the following tables:

Trip Generation: ITE Land Use 930, Fast Casual Restaurant : Area = 3056 ft²						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	963	trips/day	50%	50%	482	482
AM Peak Street	6	trips/hour	67%	33%	4	2
PM Peak Street	43	trips/hour	55%	45%	24	19

Trip Generation: Land Use 820, Shopping Center: Area = 4029 ft²						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	152	trips/day	50%	50%	76	76
AM Peak Street	4	trips/hour	62%	38%	2	1
PM Peak Street	15	trips/hour	48%	52%	7	8

Trip Generation: Land Use 140, Manufacturing : Area = 3383 ft²						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	13	trips/day	50%	50%	7	7
AM Peak Street	2	trips/hour	77%	23%	2	0
PM Peak Street	2	trips/hour	31%	69%	1	2

Trip Generation Totals - Existing Uses						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	1129	trips/day	50%	50%	564	564
AM Peak Street	12	trips/hour	67%	33%	8	4
PM Peak Street	61	trips/hour	52%	48%	32	29

Proposed Trips

Resinate will operate a marijuana dispensary at 135 Westboro Road. In addition to the dispensary, the building uses will include the existing Pecorino's cheese shop, the existing Wicked Twisted Pretzels bakery, and an additional tenant space. The ITE has categorized these uses as follows:

- Resinate: Land Use Code 882, Marijuana Dispensary, 3884 ft² gross floor area
- Wicked Twisted Pretzels: Land Use Code 140, Manufacturing, 3383 ft² gross floor area
- Pecorino's and tenant space: Land Use Code 820, Shopping Center, 3201 ft² gross floor area

Trip generation rates for each of the building's uses are provided by the ITE. The proposed site generated trips are summarized by use within the following tables:

Trip Generation: Land Use 882, Marijuana Dispensary : Area = 3884 ft ²						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	981	trips/day	50%	50%	491	491
AM Peak Street	41	trips/hour	56%	44%	23	18
PM Peak Street	85	trips/hour	50%	50%	42	42

Trip Generation: Land Use 820, Shopping Center: Area = 3201 ft ²						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	121	trips/day	50%	50%	60	60
AM Peak Street	3	trips/hour	62%	38%	2	1
PM Peak Street	12	trips/hour	48%	52%	6	6

Trip Generation: Land Use 140, Manufacturing : Area = 3383 ft ²						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	13	trips/day	50%	50%	7	7
AM Peak Street	2	trips/hour	77%	23%	2	0
PM Peak Street	2	trips/hour	31%	69%	1	2

Trip Generation Totals - Proposed Uses						
Weekday	Trip Generation Rate		Enter	Exit	Enter	Exit
Total	1116	trips/day	50%	50%	558	558
AM Peak Street	46	trips/hour	57%	43%	26	19
PM Peak Street	99	trips/hour	49%	51%	49	50

Traffic Volume Increases

Comparisons between the existing and proposed site use trip generation rates are summarized within the following table:

Existing/Proposed Trip Generation Comparison						
Weekday	Existing Trips		Proposed Trips		Difference	% Change
Total	1129	trips/day	1116	trips/day	-13 trips/day	-1.1%
AM Peak Street	12	trips/hour	46	trips/hour	33 trips/hour	273.9%
PM Peak Street	61	trips/hour	99	trips/hour	38 trips/hour	63.2%

Conclusions

This analysis resulted in the following conclusions:

- The total number of trips per day is nearly the same for both the existing and proposed site uses. This is due to the similar daily trip generation rates for the proposed Marijuana Dispensary use and the existing Fast Casual Restaurant.
- The AM and PM peak hour site generated trips will increase due to the differences between the daily distribution of generated trips between the Marijuana Dispensary and Fast Casual Restaurant uses.

Attachments

- ITE Trip Generation Data

Manufacturing (140)

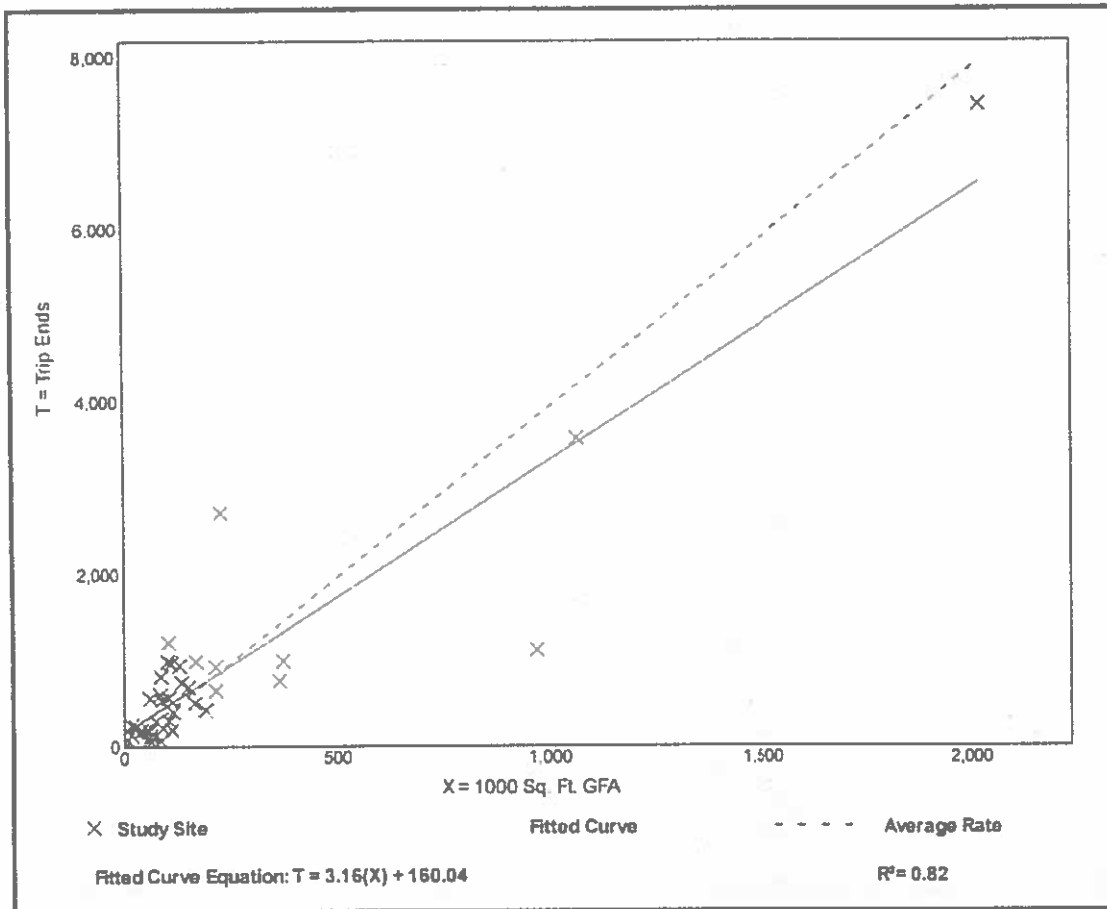
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 39
1000 Sq. Ft. GFA: 209
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.93	0.83 - 49.50	2.62

Data Plot and Equation



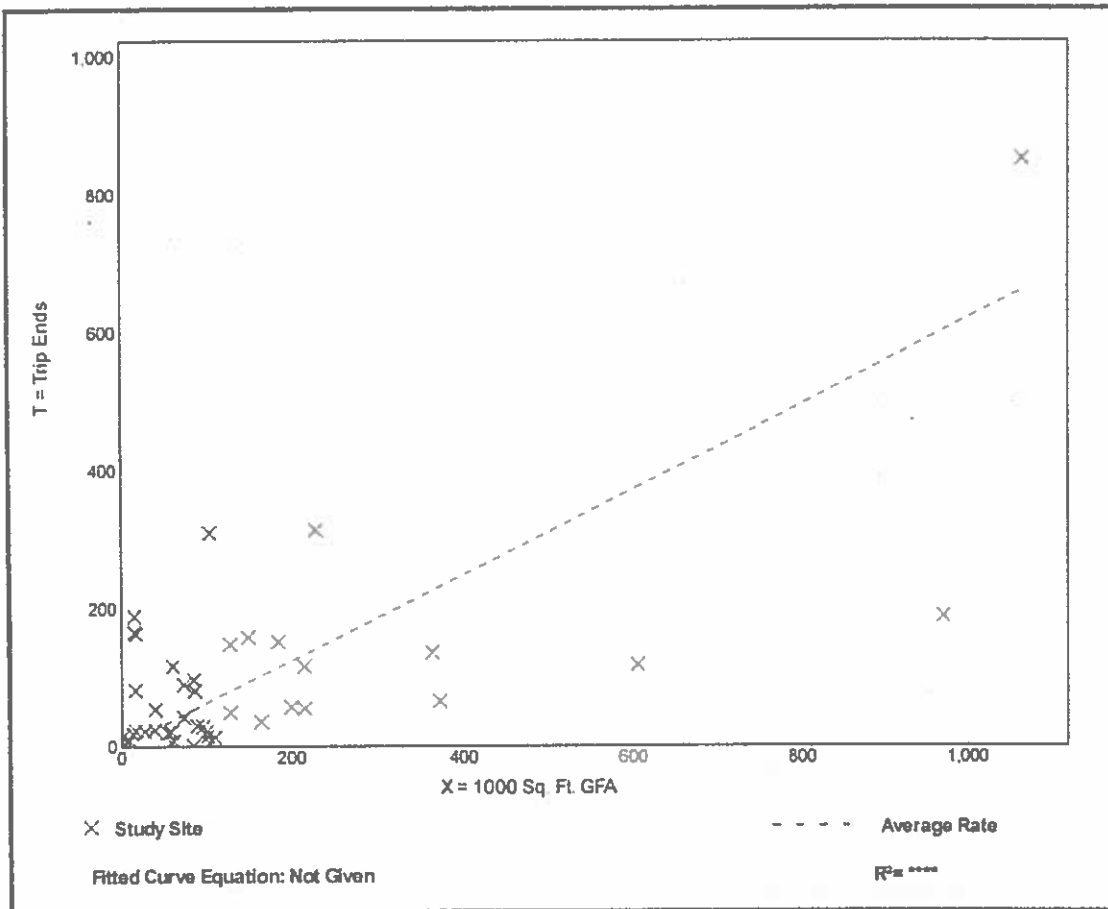
Manufacturing (140)

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: 45
 1000 Sq. Ft. GFA: 149
 Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.62	0.01 - 11.93	1.03

Data Plot and Equation



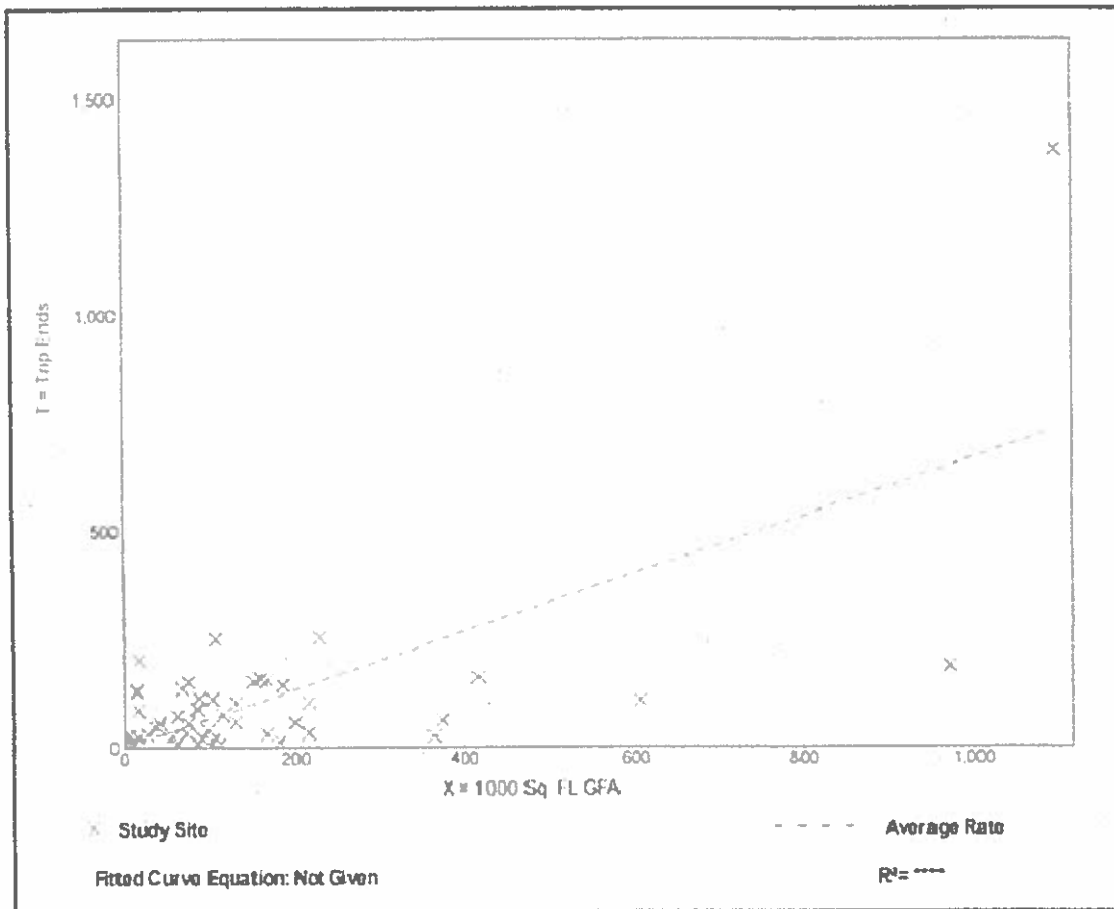
Manufacturing (140)

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: 52
 1000 Sq. Ft. GFA: 152
 Directional Distribution: 31% entering 69% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.67	0.07 - 11.37	0.94

Data Plot and Equation



Shopping Center (820)

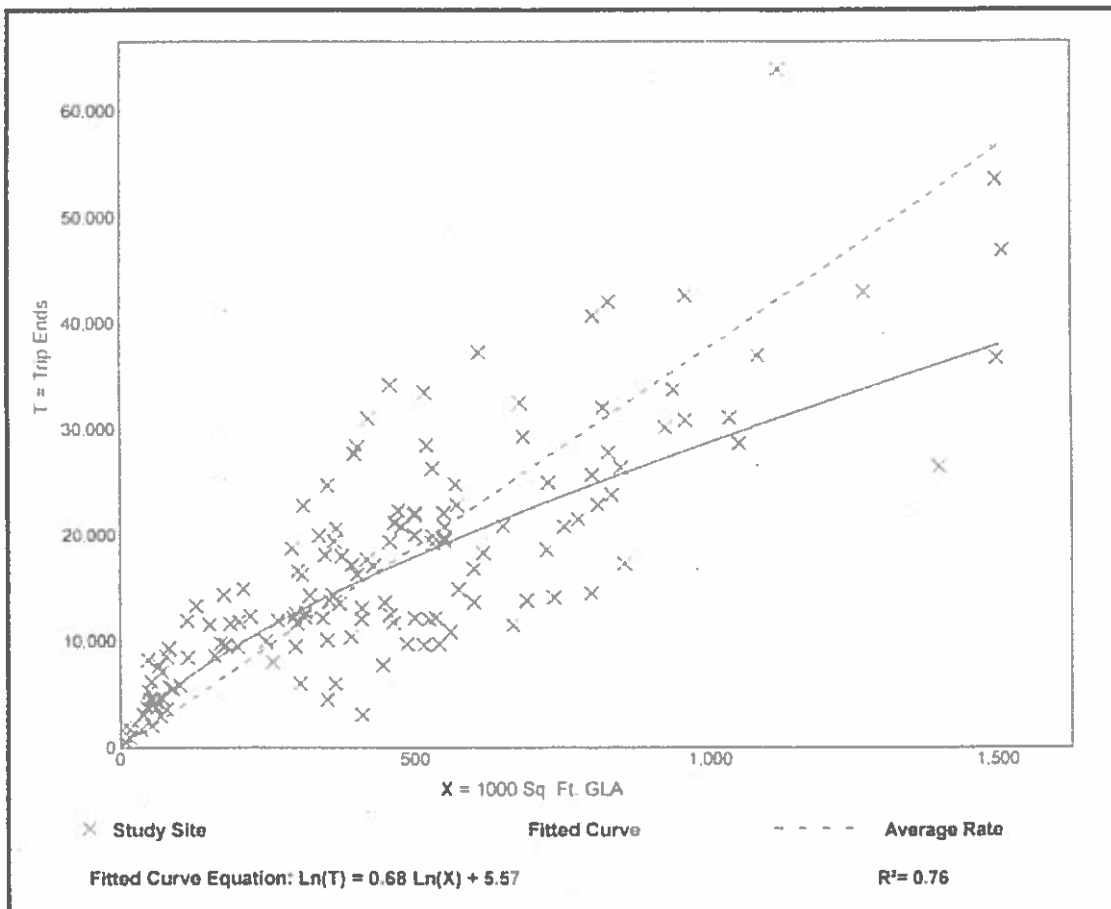
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
1000 Sq Ft GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



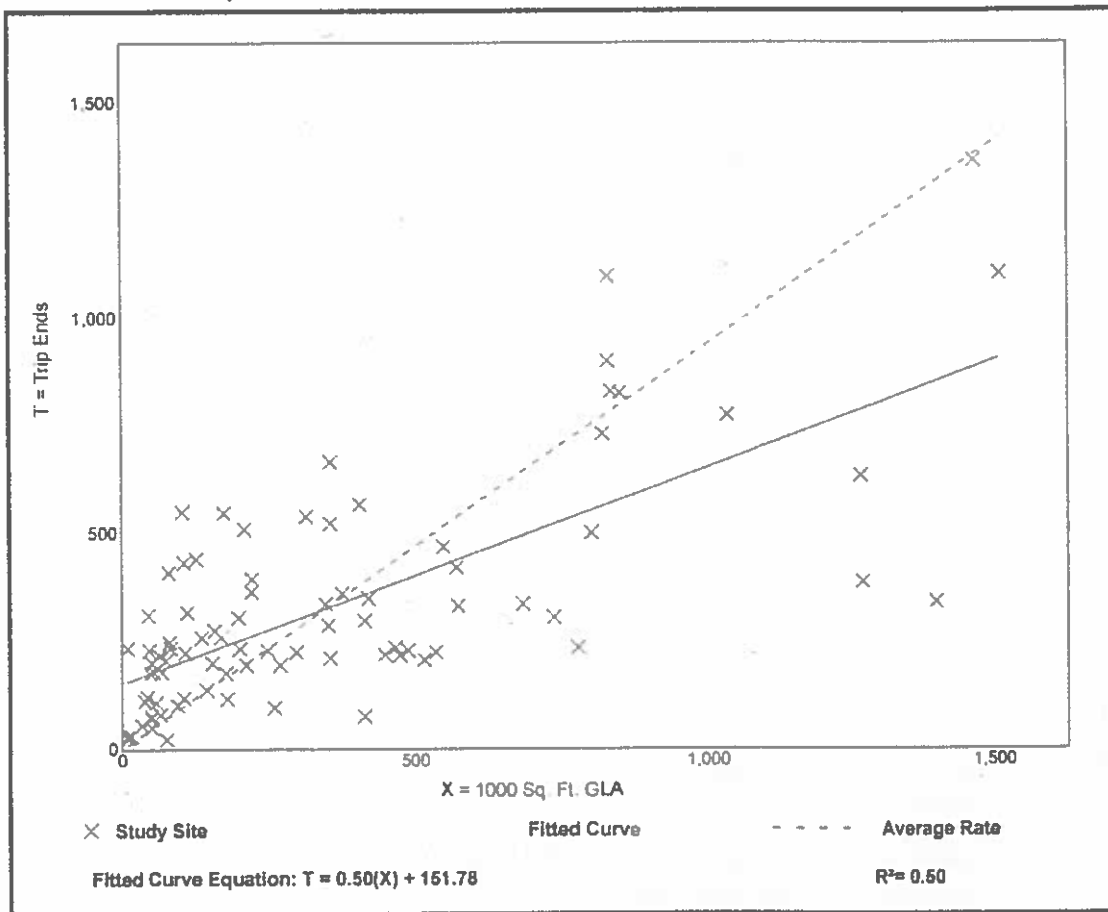
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 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: 84
 1000 Sq. Ft. GLA: 351
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



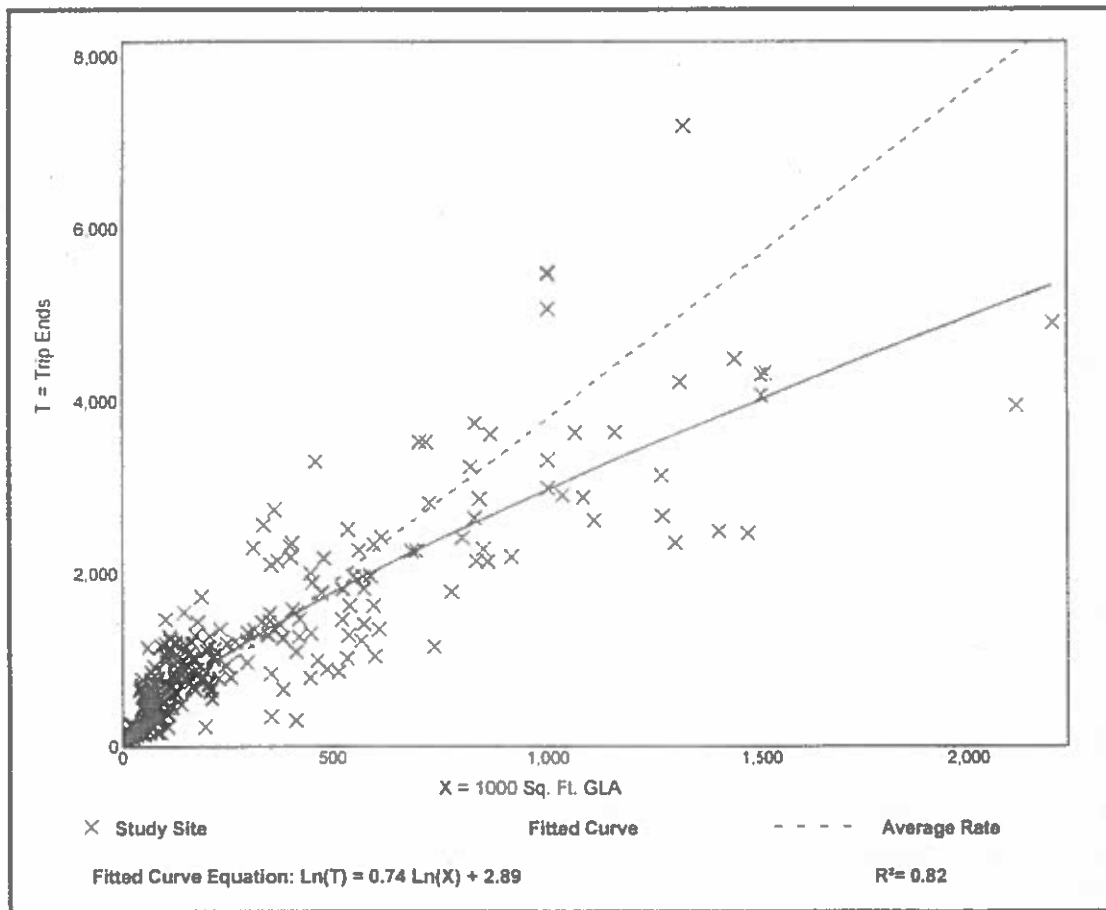
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 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: 261
 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



Marijuana Dispensary (882)

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

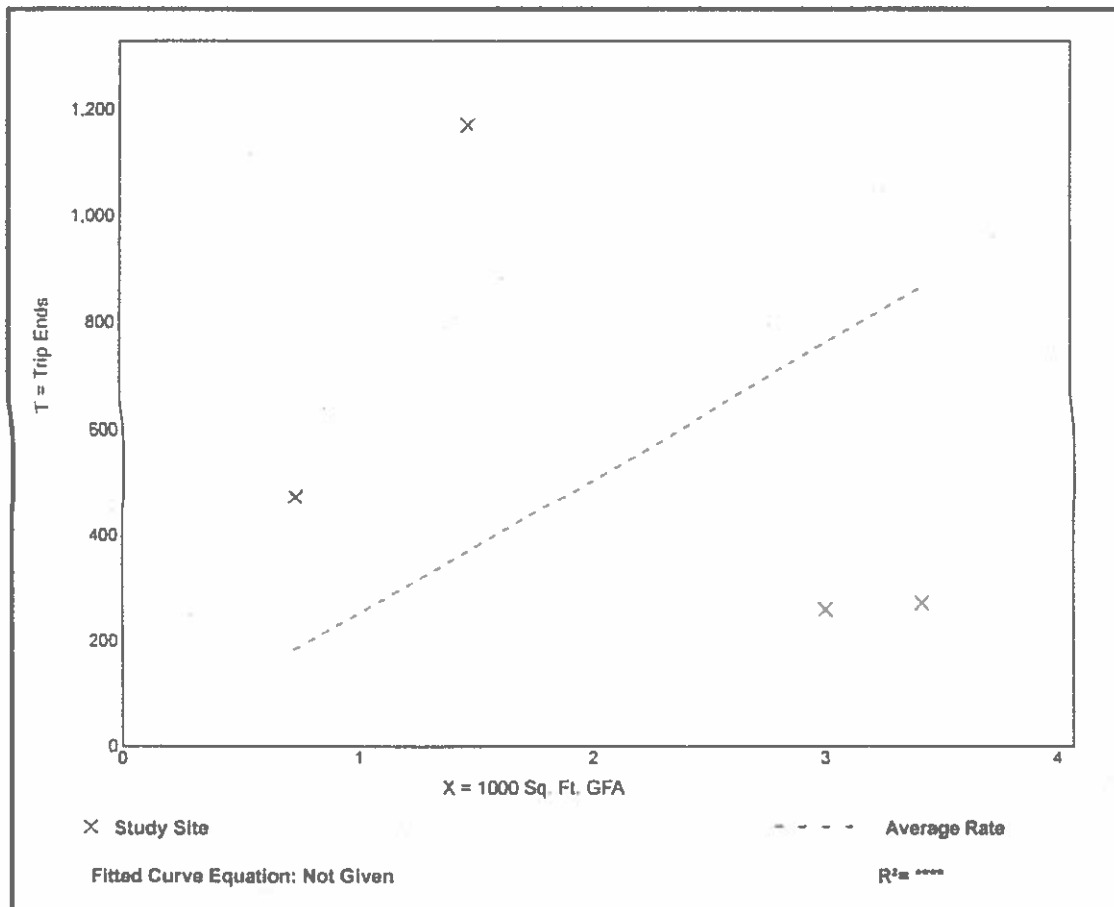
Setting/Location: General Urban/Suburban
Number of Studies: 4
1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
252.70	79.74 - 791.22	336.11

Data Plot and Equation

Caution - Small Sample Size



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.

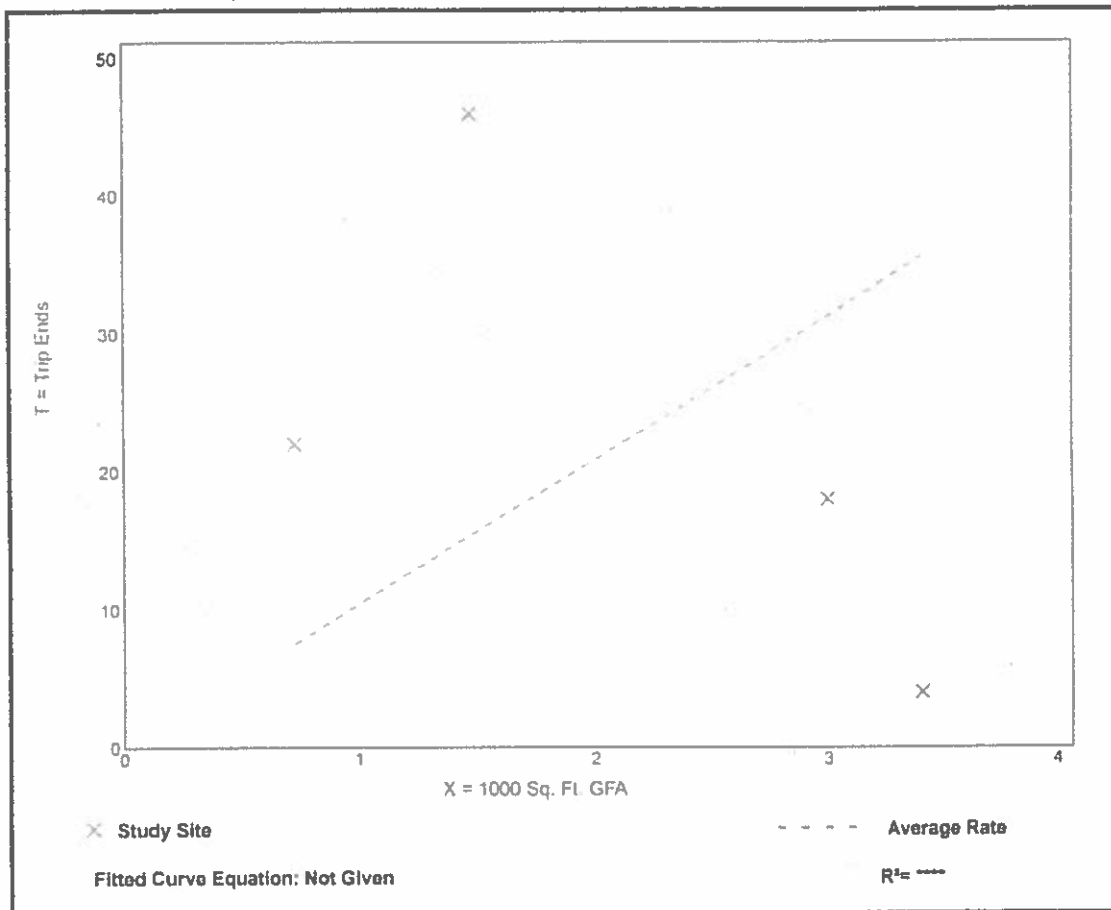
Setting/Location: General Urban/Suburban
 Number of Studies: 4
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.44	1.17 - 31.08	14.00

Data Plot and Equation

Caution - Small Sample Size



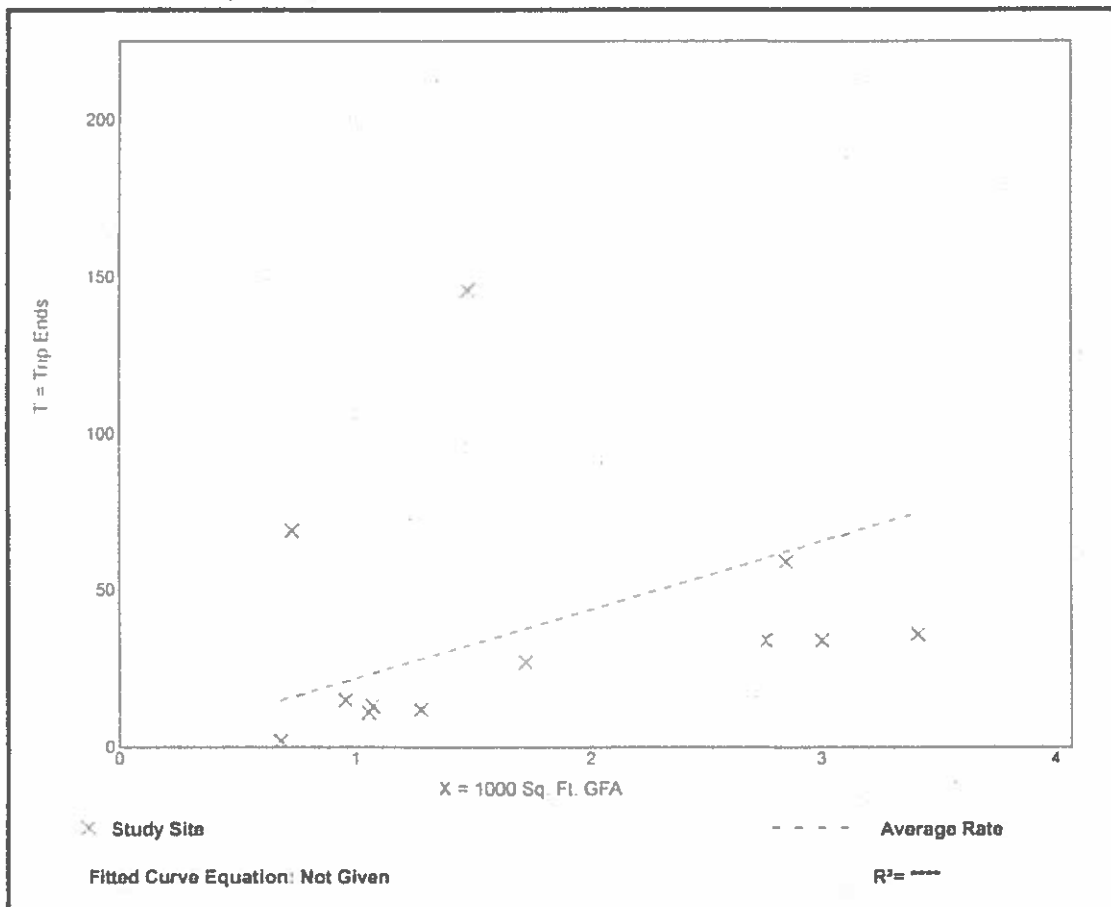
Marijuana Dispensary (882)

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: 12
 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
21.83	2.94 - 98.65	27.36

Data Plot and Equation



Fast Casual Restaurant (930)

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

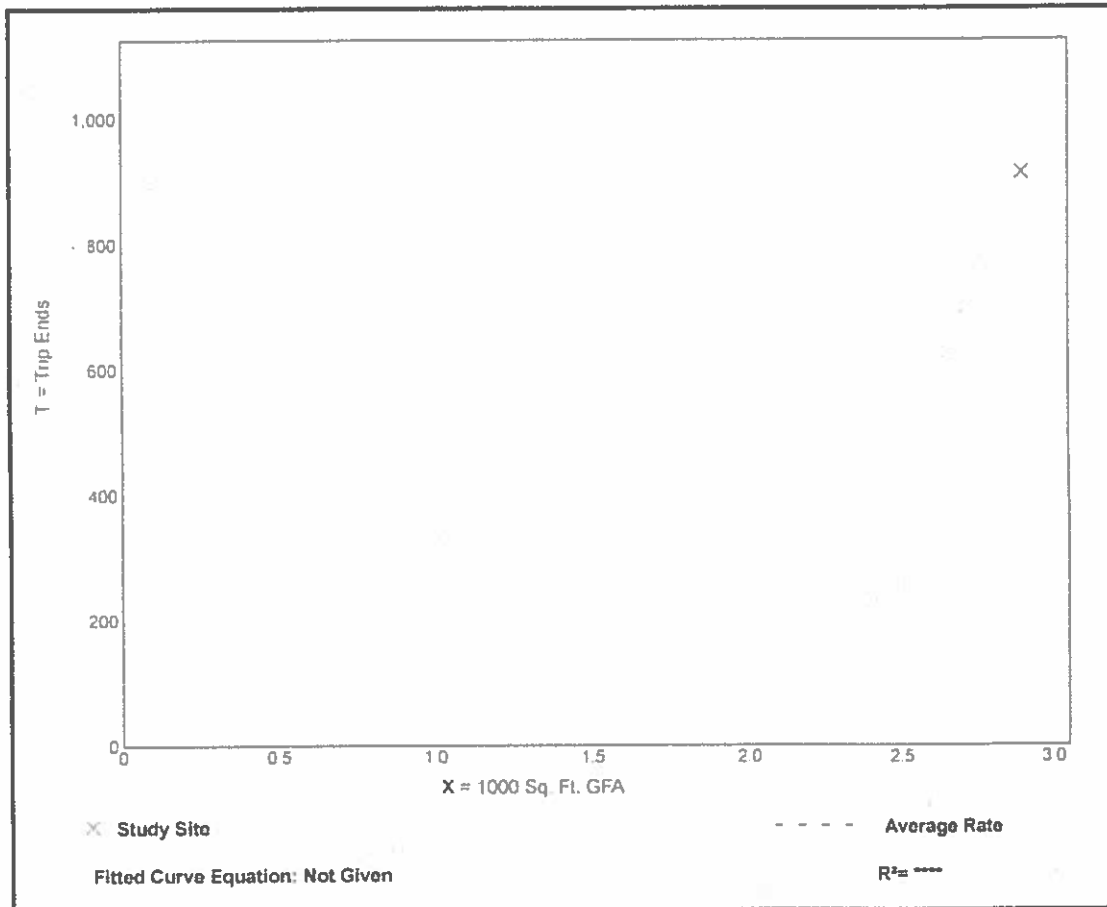
Setting/Location: General Urban/Suburban
Number of Studies: 1
1000 Sq Ft GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
315 17	315 17 - 315 17	.

Data Plot and Equation

Caution – Small Sample Size



Fast Casual Restaurant (930)

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: 15
 1000 Sq. Ft. GFA: 3
 Directional Distribution: 55% entering 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.13	5.94 - 34.83	7.72

Data Plot and Equation

