ITE Institute of Transportation Engineers

Trip Generation Data Form (Part I)

Land Use/Building Type:[1] Shopping Center		ITE Land Use Code: 820	
Source:		Source No. (by ITE):	
Name of Development: Rozelle Office Park		Day of the Week:	
City: Keller	State/Province: TX	Zip/Postal Code:	Day: Month: Year:
Country: United States		Metropolitan Area:	Dallas / Fort Worth, TX

1. For fast-food land use, please specify if hamburger- or nonhamburger-based.

Location Within Area:

☐ (1) CBD
☐ (2) Urban (Non-CBD)
☒ (3) Suburban (Non-CBD)
☐ (4) Suburban CBD
☐ (5) Rural
☐ (6) Freeway Interchange Area (Rural)
☐ (7) Not Given

Independent Variable: (include data for as many as possible)[2]	Actual	Estimated		Actual	Estimated
____ (1) Employees (#)	☐	☐	____ (10) Parking Spaces (#)	☐	☐
____ (2) Persons (#)	☐	☐	____ (11) Occupied Beds (#)	☐	☐
____ (3) Units (#)	☐	☐	____ (12) Seats (#)	☐	☐
____ (4) Occupied Units (#)	☐	☐	____ (13) Servicing Positions/Vehicle Fueling Positions	☐	☐
11,900 (5) Building Area (gross sq. ft.) (% of development occupied ____)	☐	☒	____ (14) Shopping Center % Out-parcels/pads	☐	☐
____ (6) Net Rentable Area (sq. ft.)	☐	☐	____ (15) AM Peak Hour Volume of Adjacent Street Traffic	☐	☐
____ (7) Gross Leasable Area (sq. ft.)	☐	☐	____ (16) PM Peak Hour Volume of Adjacent Street Traffic	☐	☐
____ (8) Occupied Gross Leasable Area (sq. ft.)	☐	☐	____ (17) Other ____	☐	☐
____ (9) Acres	☐	☐	____ (18) Other ____	☐	☐

Detailed Description of Development:[3]

2. Definitions for several independent variables can be found in the *Trip Generation User's Guide*.
3. Please provide all pertinent information that helps to describe the subject project. If necessary, attach a detailed report.

Other Data:

Vehicle Occupancy (#)
____ AM ____ PM
Percent by Transit:
____ AM % ____ PM %
Percent by Carpool/Vanpool:
____ AM % ____ PM %

____ 24-hour %
____ 24-hour %
____ 24-hour %

Full-time Employees by Shift:

First Shift:	Start Time	End Time	Employees (#)
Second Shift:	Start Time	End Time	Employees (#)
Third Shift:	Start Time	End Time	Employees (#)

Parking Cost on Site: Hourly ____ Daily ____

Transportation Demand Management (TDM) Information:

At the time of this study, was there a TDM program (that may have impacted the trip generation characteristics of this site) under way?

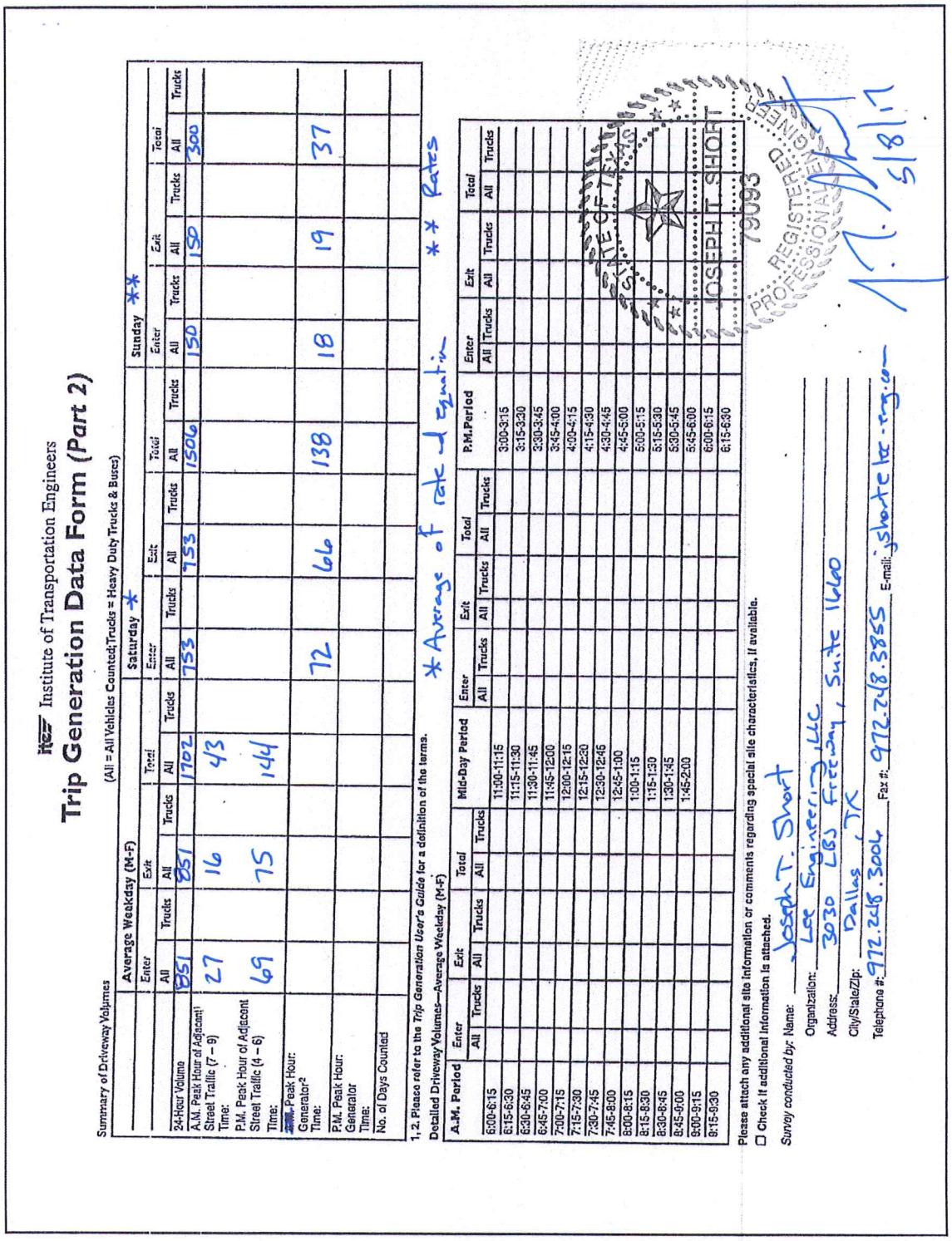
☒ No
☐ Yes (If yes, please check appropriate boxes/boxes, describe the nature of this TDM program(s) and provide a source for any studies that may help quantify this impact. Attach additional sheets if necessary)

☐ (1) Transit Service
☐ (2) Carpool Programs
☐ (3) Vanpool Programs
☐ (4) Bicycle/Pedestrian Facilities and Site Improvements
☐ (5) Employer Support Measures
☐ (6) Preferential HOV Treatments
☐ (7) Transit and Ridesharing Incentives
☐ (8) Parking Supply and Pricing Management
☐ (9) Tolls and Congestion Pricing
☐ (10) Variable Work Hours/Compressed Work Weeks
☐ (11) Telecommuting
☐ (12) Other ____

Please Complete Form on Other Side

Part A – Street System Improvements

FIGURE 4.01 – Trip Generation Data Form (Part 1)



Institute of Transportation Engineers

Trip Generation Data Form (Part 2)

(All = All Vehicles Counted; Trucks = Heavy Duty Trucks & Buses)

Summary of Driveway Volumes

	Average Weekday (M-F)						Saturday *						Sunday **					
	Enter		Exit		Total		Enter		Exit		Total		Enter		Exit		Total	
	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks	All	Trucks
24-Hour Volume	851		851		1702		753		753		1506		150		150		300	
A.M. Peak Hour of Adjacent Street Traffic (7 – 9) Time:	27		16		43													
P.M. Peak Hour of Adjacent Street Traffic (4 – 6) Time:	69		75		144													
A.M. Peak Hour Generator[2] Time:							72		66		138		18		19		37	
P.M. Peak Hour Generator Time:																		
No. of Days Counted																		

1, 2. Please refer to the *Trip Generation User's Guide* for a definition of the terms.

* Average of rate & equation ** Rates

Detailed Driveway Volumes—Average Weekday (M-F)

A.M. Period	Enter		Exit		Total		Mid-Day Period	Enter		Exit		Total		P.M. Period	Enter		Exit		Total	
	All	Trucks	All	Trucks	All	Trucks		All	Trucks	All	Trucks	All	Trucks		All	Trucks	All	Trucks	All	Trucks
6:00-6:15							11:00-11:15							3:00-3:15						
6:15-6:30							11:15-11:30							3:15-3:30						
6:30-6:45							11:30-11:45							3:30-3:45						
6:45-7:00							11:45-12:00							3:45-4:00						
7:00-7:15							12:00-12:15							4:00-4:15						
7:15-7:30							12:15-12:30							4:15-4:30						
7:30-7:45							12:30-12:45							4:30-4:45						
7:45-8:00							12:45-1:00							4:45-5:00						
8:00-8:15							1:00-1:15							5:00-5:15						
8:15-8:30							1:15-1:30							5:15-5:30						
8:30-8:45							1:30-1:45							5:30-5:45						
8:45-9:00							1:45-2:00							5:45-6:00						
9:00-9:15														6:00-6:15						
9:15-9:30														6:15-6:30						

Please attach any additional site information or comments regarding special site characteristics, if available.

☐ Check if additional information is attached.

Survey conducted by: Name: Joseph T. Short

Organization: LSE Engineering, LLC

Address: 3030 LBJ Freeway, Suite 1400

City/State/Zip: Dallas, TX

Telephone #: 972.248.3800 Fax #: 972.248.3855 E-mail: jshort@lse-eng.com

STATE OF TEXAS JOSEPH T. SHORT 79093 REGISTERED PROFESSIONAL ENGINEER

1.17.18

Part A – Street System Improvements

FIGURE 4.02 – Trip Generation Data Form (Part 2)

Specialized Land Use Data

Two studies provided data on outdoor shopping centers in Illinois and Alberta, Canada. The trip generation characteristics of these sites varied from the other stores in this land use; therefore, the information collected for these facilities is presented in the following tables and was excluded from the data plots.

Independent Variable	Average Trip Generation Rate	Size of Independent Variable	Number of Studies	Directional Distribution
1,000 Square Feet Gross Leasable Area				
Weekday	66.64	797	2	Not available
Weekday A.M. Peak Hour of Adjacent Street Traffic	3.27	797	2	Not available
Weekday P.M. Peak Hour of Adjacent Street Traffic	5.46	797	2	Not available

Sources: 446, 702

Source Numbers

1, 2, 3, 4, 5, 6, 13, 14, 18, 19, 22, 26, 40, 42, 48, 49, 54, 59, 60, 61, 64, 65, 72, 73, 75, 76, 77, 78, 79, 87, 89, 90, 98, 99, 100, 105, 110, 124, 156, 159, 172, 186, 193, 194, 195, 196, 197, 198, 199, 202, 204, 211, 213, 260, 263, 269, 295, 299, 300, 301, 304, 305, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 358, 365, 376, 385, 390, 400, 404, 414, 420, 423, 428, 437, 440, 442, 444, 446, 507, 562, 563, 580, 598, 629, 658, 702, 715, 728

Shopping Center
(820)

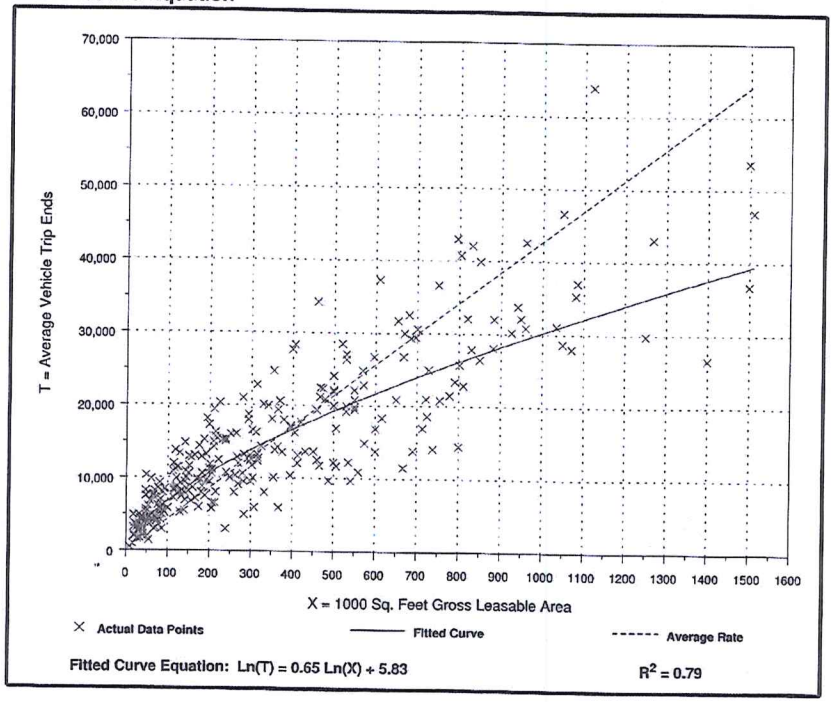
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Weekday

Number of Studies: 302
Average 1000 Sq. Feet GLA: 331
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
42.70	12.50 - 270.89	21.25

Data Plot and Equation



Fitted Curve Equation: $Ln(T) = 0.65\ Ln(X) + 5.83$

$R^2 = 0.79$

Shopping Center
(820)

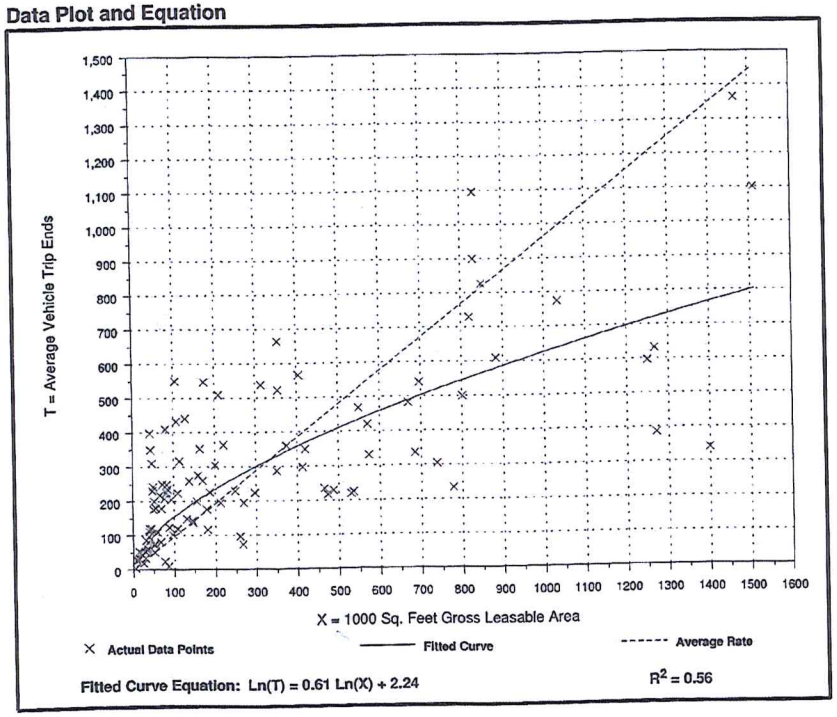
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 104
Average 1000 Sq. Feet GLA: 310
Directional Distribution: 62% entering, 38% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
0.96	0.10 - 9.05	1.31

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.61 Ln(X) + 2.24

R^2 = 0.56

Shopping Center
(820)

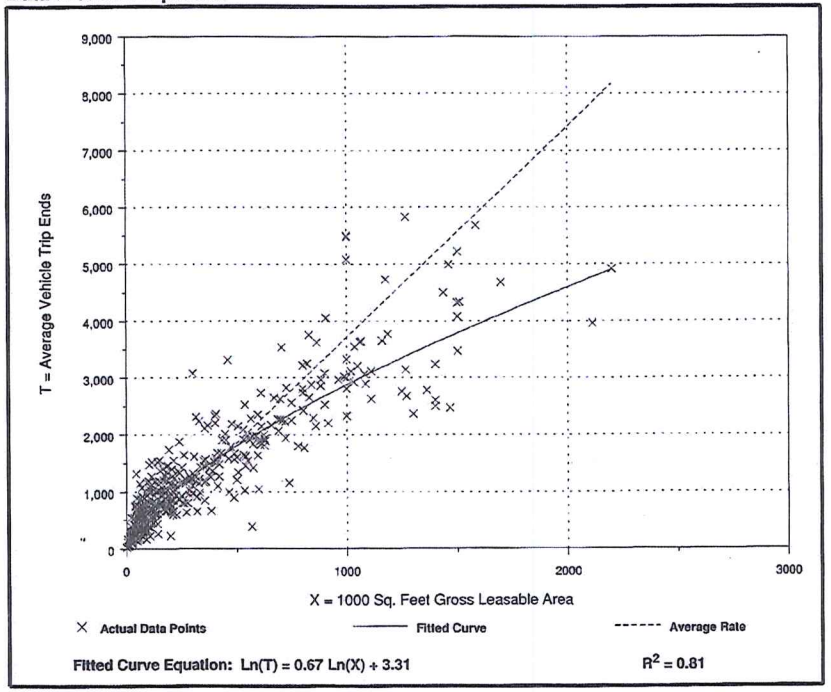
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 426
Average 1000 Sq. Feet GLA: 376
Directional Distribution: 48% entering, 52% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
3.71	0.68 - 29.27	2.74

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.67 Ln(X) + 3.31

R^2 = 0.81

Shopping Center
(820)

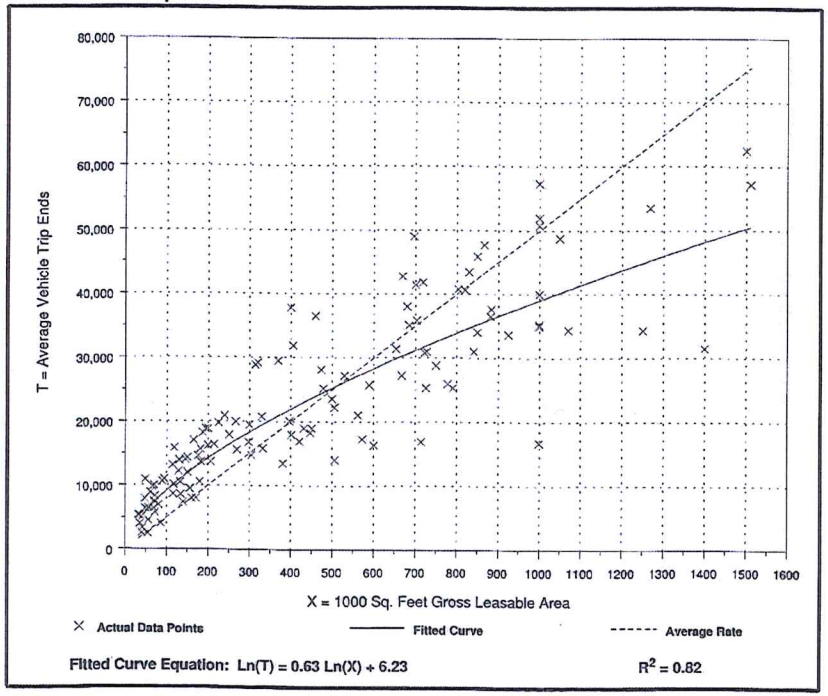
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Saturday

Number of Studies: 123
Average 1000 Sq. Feet GLA: 450
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
49.97	16.70 - 227.50	22.62

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.63 Ln(X) + 6.23 R^2 = 0.82

Shopping Center
(820)

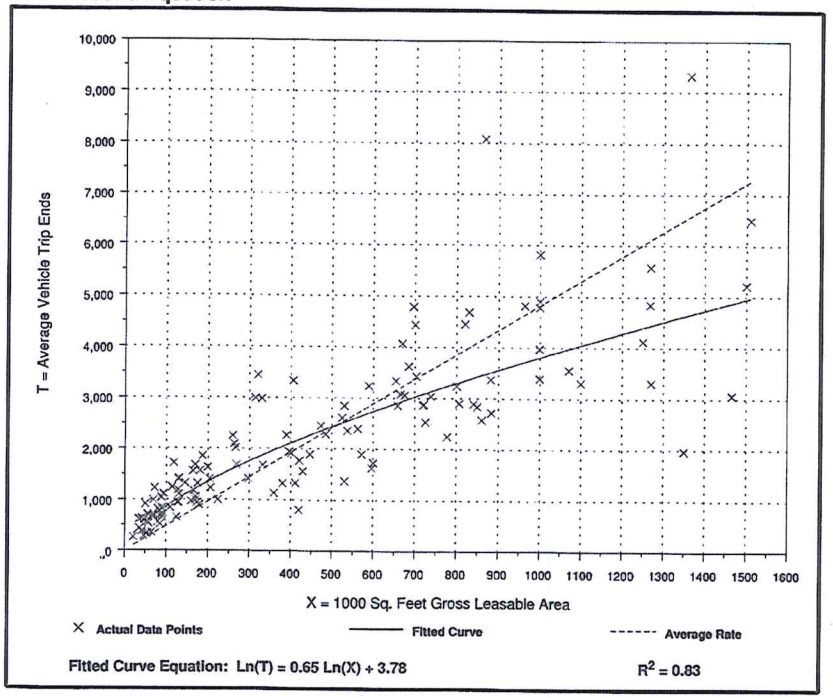
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Saturday,
Peak Hour of Generator

Number of Studies: 128
Average 1000 Sq. Feet GLA: 458
Directional Distribution: 52% entering, 48% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
4.82	1.46 - 18.32	3.10

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.65 Ln(X) + 3.78 R^2 = 0.83

Shopping Center
(820)

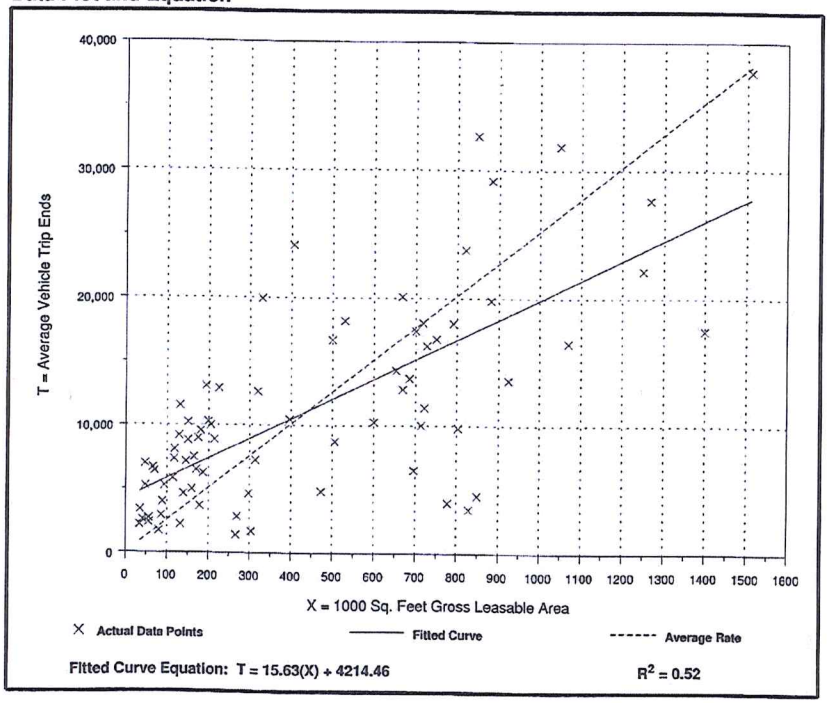
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Sunday

Number of Studies: 77
Average 1000 Sq. Feet GLA: 439
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
25.24	4.15 - 148.15	17.23

Data Plot and Equation



Fitted Curve Equation: T = 15.63(X) + 4214.46

$R^2 = 0.52$

Shopping Center
(820)

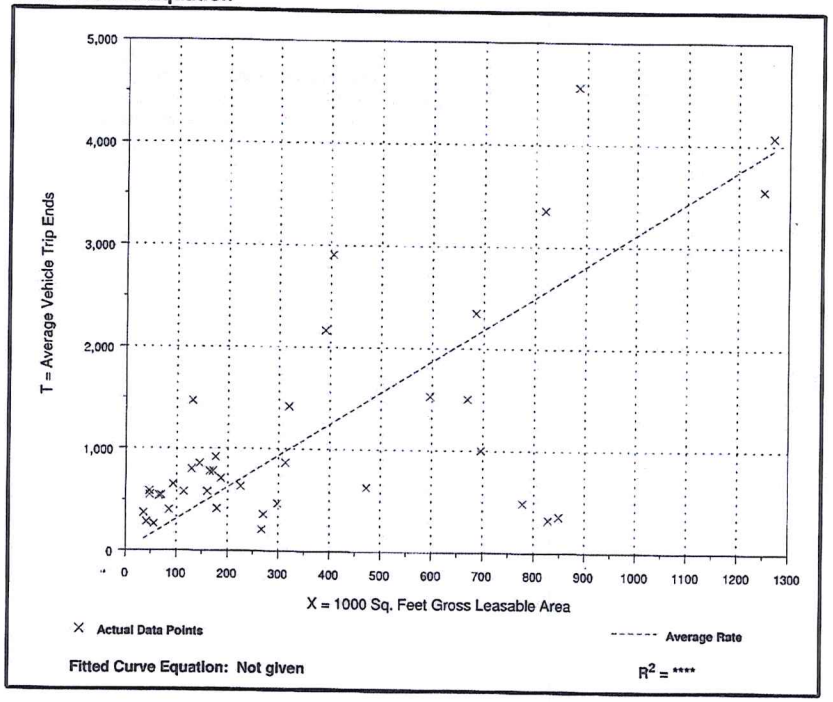
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area
On a: Sunday,
Peak Hour of Generator

Number of Studies: 39
Average 1000 Sq. Feet GLA: 369
Directional Distribution: 49% entering, 51% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
3.12	0.39 - 12.40	2.78

Data Plot and Equation



Fitted Curve Equation: Not given

$R^2 = ****$