



181 WEST HIGH STREET  
SOMERVILLE, NJ 08876

908 927 0100p  
908 927 0181f

TRAFFIC IMPACT STATEMENT  
FOR  
LOUD LABS NJ, LLC  
PROPOSED MANUFACTURING BUILDING

BLOCK 35, LOT 3 - BOROUGH OF WOODBURY HEIGHTS  
BLOCK 135.01, LOT 2 - CITY OF WOODBURY  
GLOUCESTER COUNTY, NEW JERSEY

SEPTEMBER 19, 2022

A handwritten signature in black ink, appearing to read 'Elizabeth Dolan', written over a horizontal line.

ELIZABETH DOLAN, P.E.  
NJ LICENSE No. 37071

A handwritten signature in black ink, appearing to read 'Douglas Polyniak', written over a horizontal line.

DOUGLAS POLYNIK, P.E.  
NJ LICENSE No. 44905

## INTRODUCTION

Dolan & Dean Consulting Engineers, LLC (D&D) has prepared this Traffic Impact Statement in support of an application for the re-occupancy of an existing building located at 171 Gantt Avenue in the City of Woodbury, and 207 West Jersey Avenue in the Borough of Woodbury Heights, Gloucester County. The existing approximately 7,350 square foot building was most recently occupied by a print shop. Access is provided via two full-movement driveways along West Jersey Avenue.

Under the redevelopment program, the building will be re-occupied with a manufacturing facility for cannabis products. The facility will have 12 employees. The existing access along West Jersey Avenue will be maintained, and parking will be provided on the concrete parking lot to the north of the building as well as the gravel lot to the south of the building.

D&D has therefore been retained by the applicant to prepare a Traffic Impact Statement to address trip generation characteristics, and to review the site access, on-site circulation, and parking for the proposed cannabis product manufacturing operation.



## EXISTING CONDITIONS

The site is designated as Lot 2 in Block 135.01 in the City of Woodbury, and Lot 3 in Block 35 in the Borough of Woodbury Heights. The site is currently developed with a 7,350 square foot building with frontage along Gantt Avenue and West Jersey Avenue and access provided along West Jersey Avenue.

Gantt Avenue is under municipal jurisdiction. The roadway has a general east/west orientation and runs for approximately 735 feet between South Evergreen Avenue and West Jersey Avenue. The roadway provides one lane in each travel direction and has a posted speed limit of 25 miles per hour in the site vicinity. Limited sidewalk is provided on the south side of the roadway and on-street parking is permitted unless otherwise noted.

West Jersey Avenue is under municipal jurisdiction. The roadway has a general north/south orientation and runs for approximately 4,700 feet from Gantt Avenue until it becomes Princeton Boulevard to the south. The roadway provides one lane in each travel direction and has a posted speed limit of 25 miles per hour in the site vicinity. Sidewalk is provided along the site frontage on the west side of the roadway and on-street parking is permitted unless otherwise noted.

## TRAFFIC CHARACTERISTICS OF THE PROPOSED USE

Traffic projections for the former print shop and proposed manufacturing operations were prepared to evaluate potential increases in peak hour trip generation. Estimates were developed using data published by the Institute of Transportation Engineers (ITE) within the 11<sup>th</sup> Edition of the ITE Trip Generation Manual. To generate traffic projections, Land Use 110 – “General Light Industrial” was utilized for the prior use and Land Use 140 – “Manufacturing” was utilized for the proposed use.

By ITE’s definition, ancillary office area is typically provided at both light industrial and manufacturing facilities. Therefore, the total building area is used when estimating trip generation. The ITE trip generation printouts are appended.

Using the ITE manufacturing rates, the following trip projections are calculated for the proposed manufacturing facility based on the building square footage and the number of anticipated employees:

TABLE I  
TRIP GENERATION PROJECTIONS  
PROPOSED MANUFACTURING BUILDING

TIME PERIOD	7,350 SF			12 EMPLOYEES		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Morning Peak Hour	4	1	5	3	1	4
Evening Peak Hour	1	4	5	1	3	4
24-Hour Weekday	18	18	36	15	15	30

As previously mentioned, the building was previously occupied by a 7,350 square foot print shop. It can be reasonably assumed that the proposed manufacturing use will operate with traffic characteristics like those which existed given the industrial nature of both uses. Table

II shows the overall trip comparison between the existing and proposed uses and the net traffic increases.

TABLE II  
TRIP GENERATION COMPARISON  
EXISTING VS. PROPOSED

LAND USE	SIZE	EMPLOYEES	SF			EMPLOYEES		
			MORNING PEAK HOUR	EVENING PEAK HOUR	24-HOUR WEEKDAY	MORNING PEAK HOUR	EVENING PEAK HOUR	24-HOUR WEEKDAY
Existing	7,350 SF	7	5	5	36	4	3	22
Proposed	7,350 SF	12	5	5	36	4	4	30
Traffic Increase			0	0	0	0	+1	+8

As shown, the proposed use will generate traffic almost identical to the prior use and other potential uses within the industrial-type building, demonstrating the limited traffic impact.

The ITE Manual of Transportation Engineering Studies offers objective guidelines with a specific minimum traffic volume threshold to determine when traffic impact studies would be appropriate for new developments. It is accepted professional practice that minimal traffic increases will not negatively affect a given roadway system and therefore do not require a detailed study to quantify such a conclusion.

The ITE recommends that traffic studies are performed when a development generates 100 or more new trips during an hour. Similarly, NJDOT defines a “significant” traffic increase that warrants a study as 100 or more additional trips in an hour. As noted in Table I, the proposed redevelopment of the site will generate less than 100 trips during the critical peak hours and will generated similar traffic to the prior uses.

The projected volume of traffic is too small to have a significant or measurable impact on the adjacent roadway network. Site traffic falls well below this threshold and generates similar traffic to the prior use, and as a result, the proposed development will not create a negative traffic impact on the adjacent roadway network.



## **SITE PLAN REVIEW**

The following comments address site access and parking as shown on the plan:

- Access will be maintained and provided via the two full-movement driveways along West Jersey Avenue. The northerly access will lead directly to the main parking field. The southerly access will lead to the gravel, rear parking lot.
- Parking will be split between the two existing parking lots. One concrete lot served by the northern driveway, and one gravel lot to the south of the building served by the southern driveway. These two lots will be more than sufficient to accommodate the 12 employees that will be working in the building at one time.
- Delivery drop-off/pick-up can take place at both driveways depending on the delivery. A garage is available to accommodate larger vehicles.

Based on this review, it is concluded that safe and efficient access and circulation can be provided to the site with reasonable and prudent driver behavior. Consequently, from a traffic engineering perspective, the site is particularly well suited for the proposed development and will have no detrimental impact on traffic conditions on the roads surrounding the site.



# TECHNICAL APPENDIX





PROPOSED MANUFACTURING BUILDING  
 BOROUGH OF WOODBURY HEIGHTS  
 CITY OF WOODBURY  
 GLOUCESTER COUNTY, NEW JERSEY

FIGURE I



SITE LOCATION MAP

# General Light Industrial (110)

**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.**

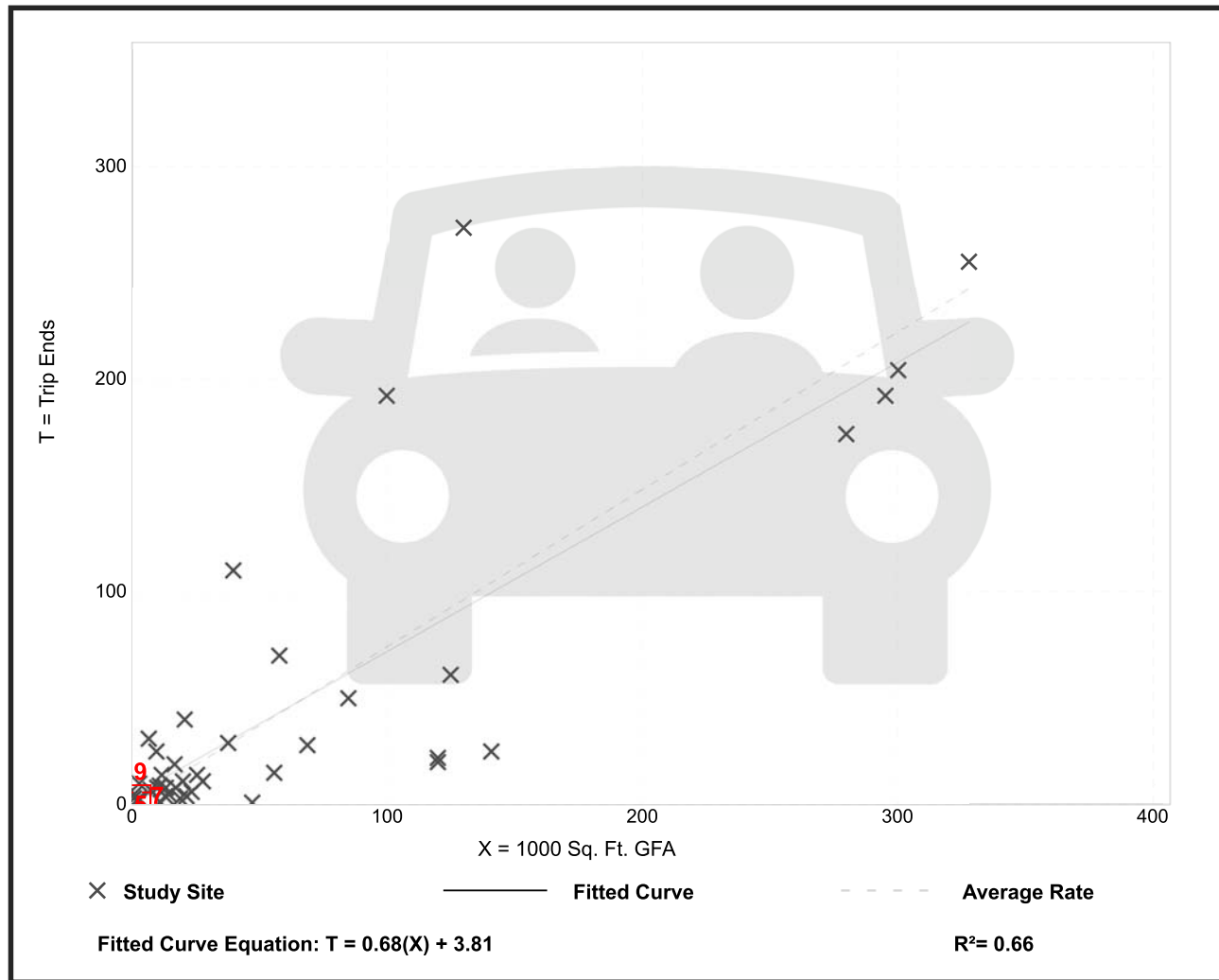
**Setting/Location: General Urban/Suburban**

Number of Studies: 41  
 Avg. 1000 Sq. Ft. GFA: 65  
 Directional Distribution: 88% entering, 12% exiting

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

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

## Data Plot and Equation



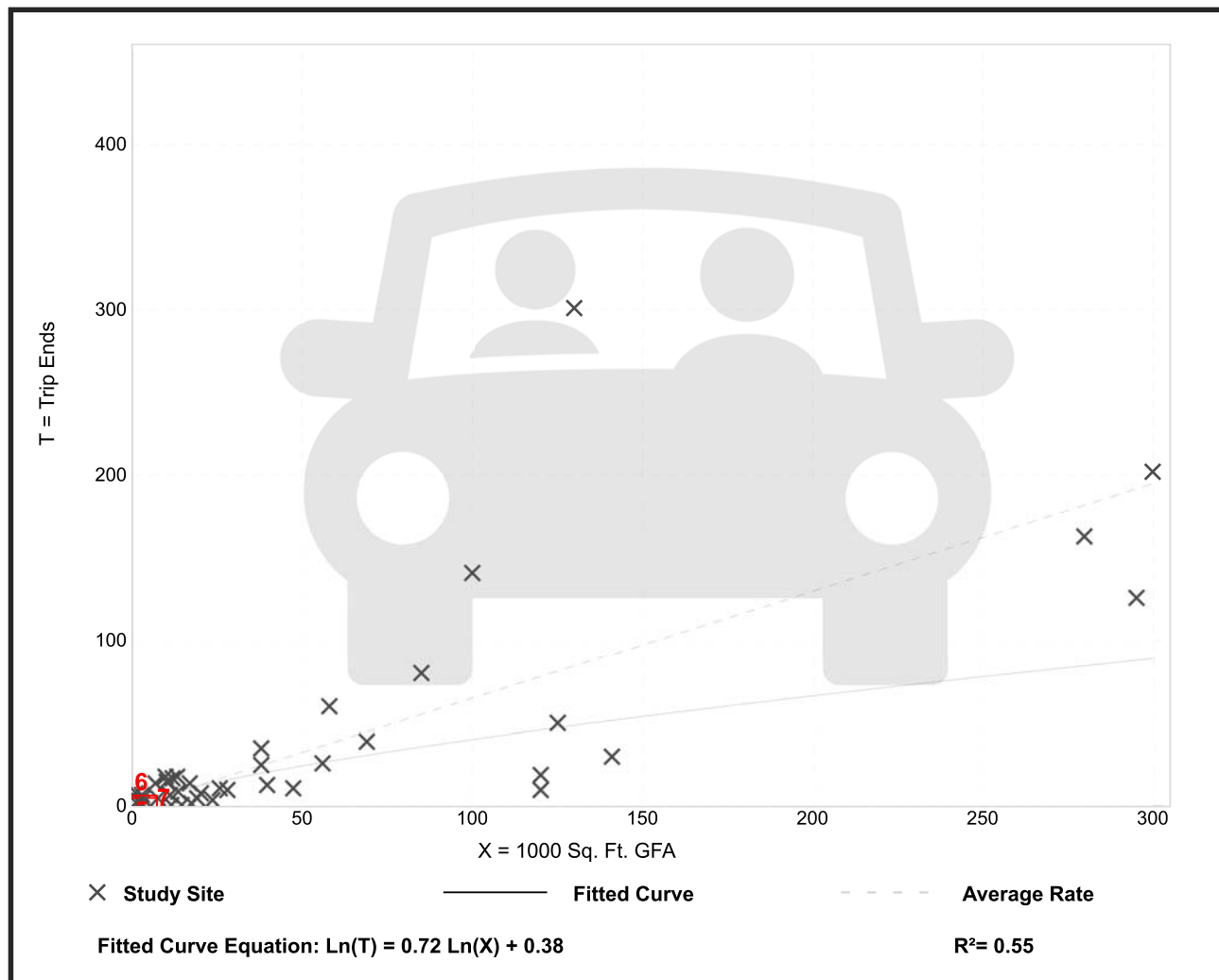
# General Light Industrial (110)

**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: 40  
 Avg. 1000 Sq. Ft. GFA: 58  
 Directional Distribution: 14% entering, 86% exiting

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

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

## Data Plot and Equation



# General Light Industrial (110)

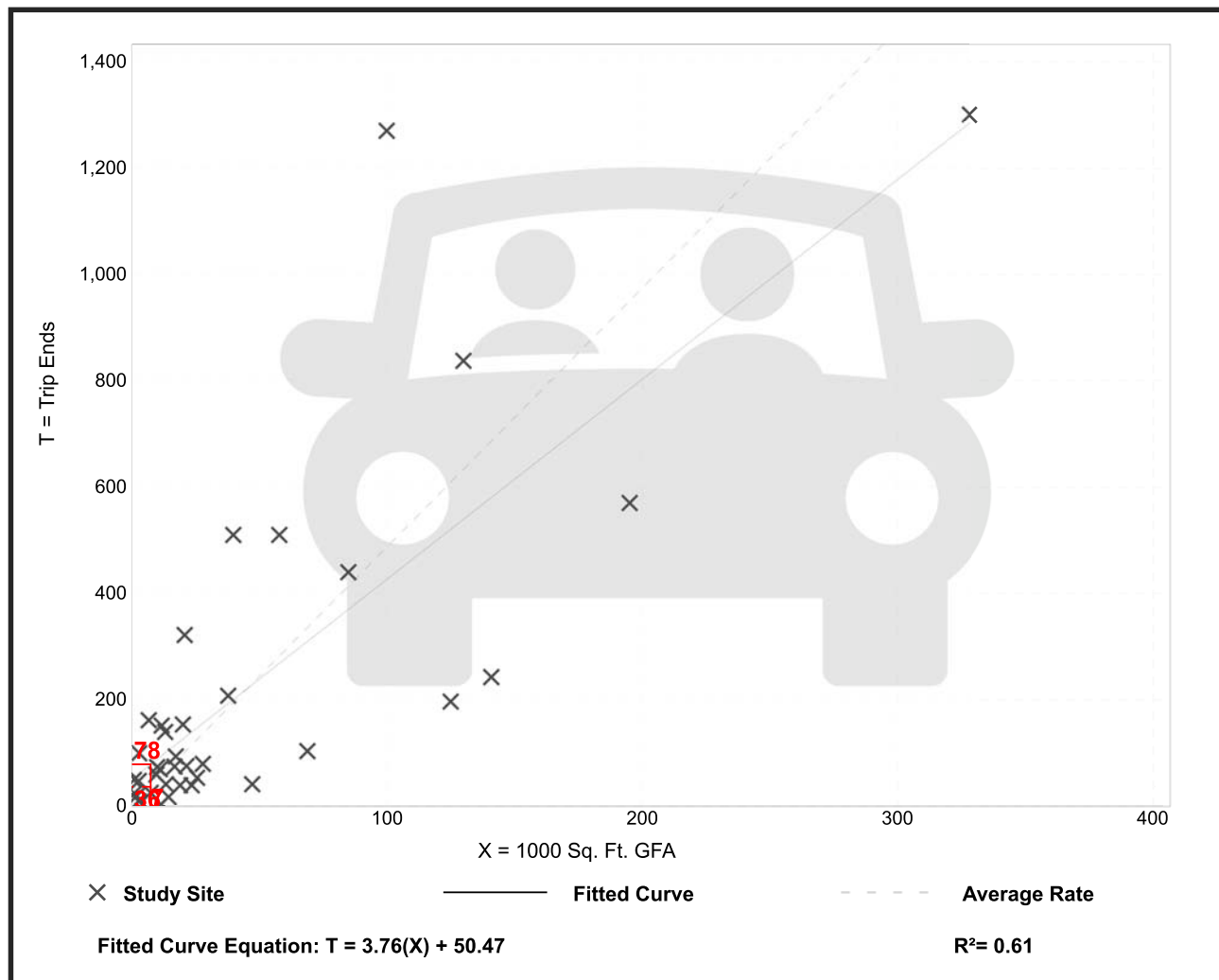
**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 37  
Avg. 1000 Sq. Ft. GFA: 45  
Directional Distribution: 50% entering, 50% exiting

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

Average Rate	Range of Rates	Standard Deviation
4.87	0.34 - 43.86	4.08

## Data Plot and Equation



# General Light Industrial (110)

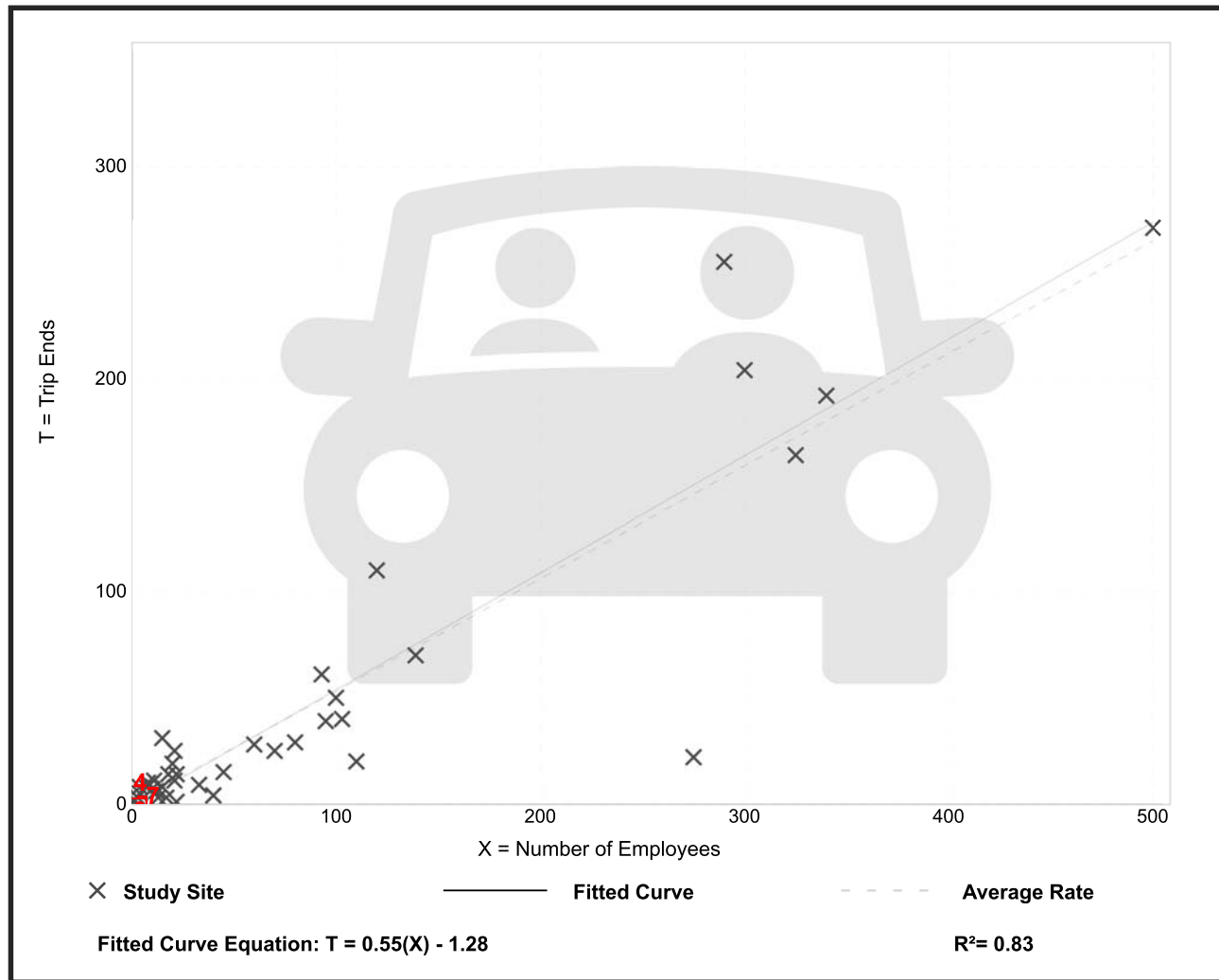
**Vehicle Trip Ends vs: Employees**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

**Setting/Location: General Urban/Suburban**  
 Number of Studies: 41  
 Avg. Num. of Employees: 83  
 Directional Distribution: 83% entering, 17% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.53	0.05 - 2.07	0.27

## Data Plot and Equation



# General Light Industrial (110)

**Vehicle Trip Ends vs: Employees**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

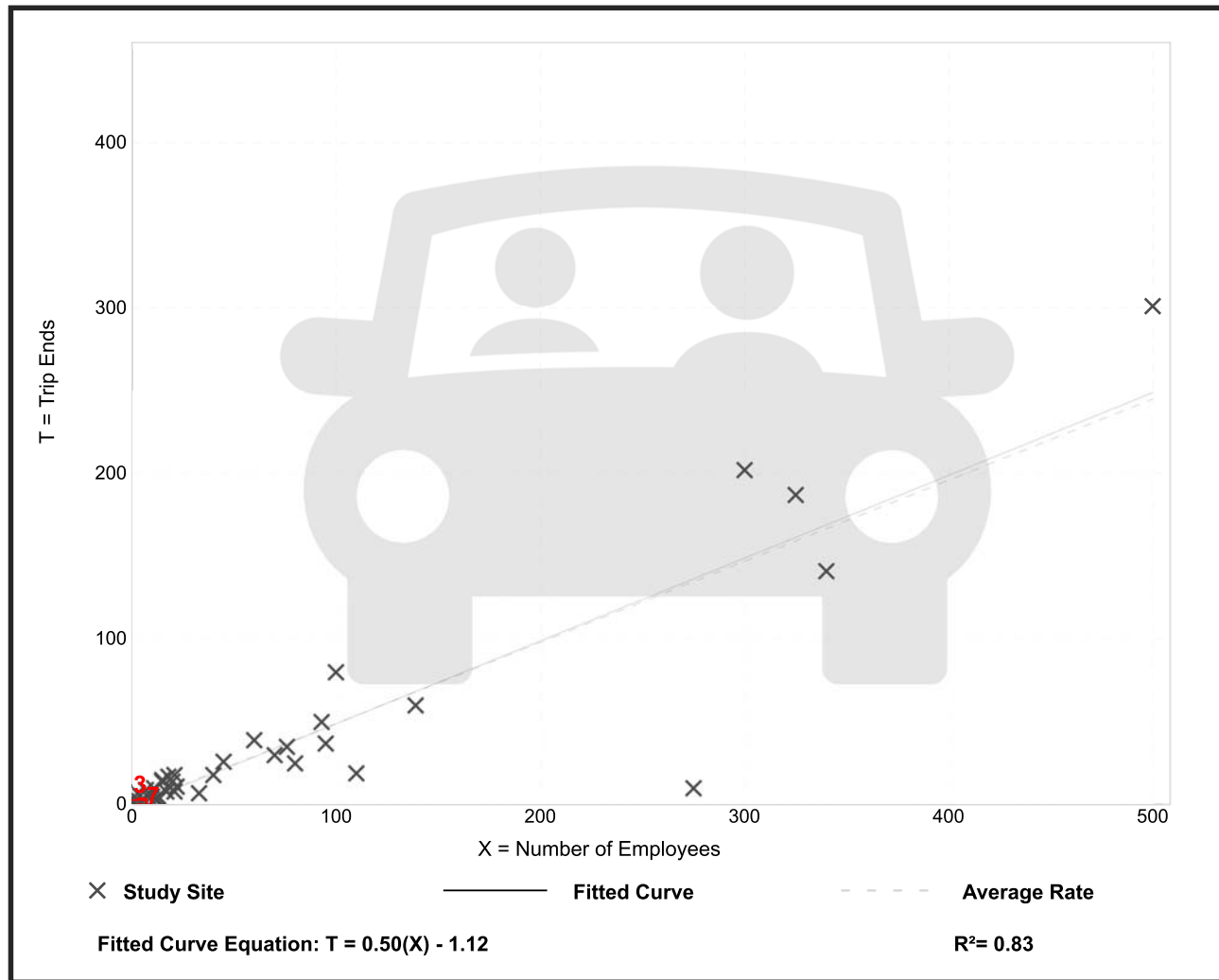
**Setting/Location: General Urban/Suburban**

Number of Studies: 39  
 Avg. Num. of Employees: 75  
 Directional Distribution: 22% entering, 78% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.49	0.04 - 2.33	0.22

## Data Plot and Equation



# General Light Industrial (110)

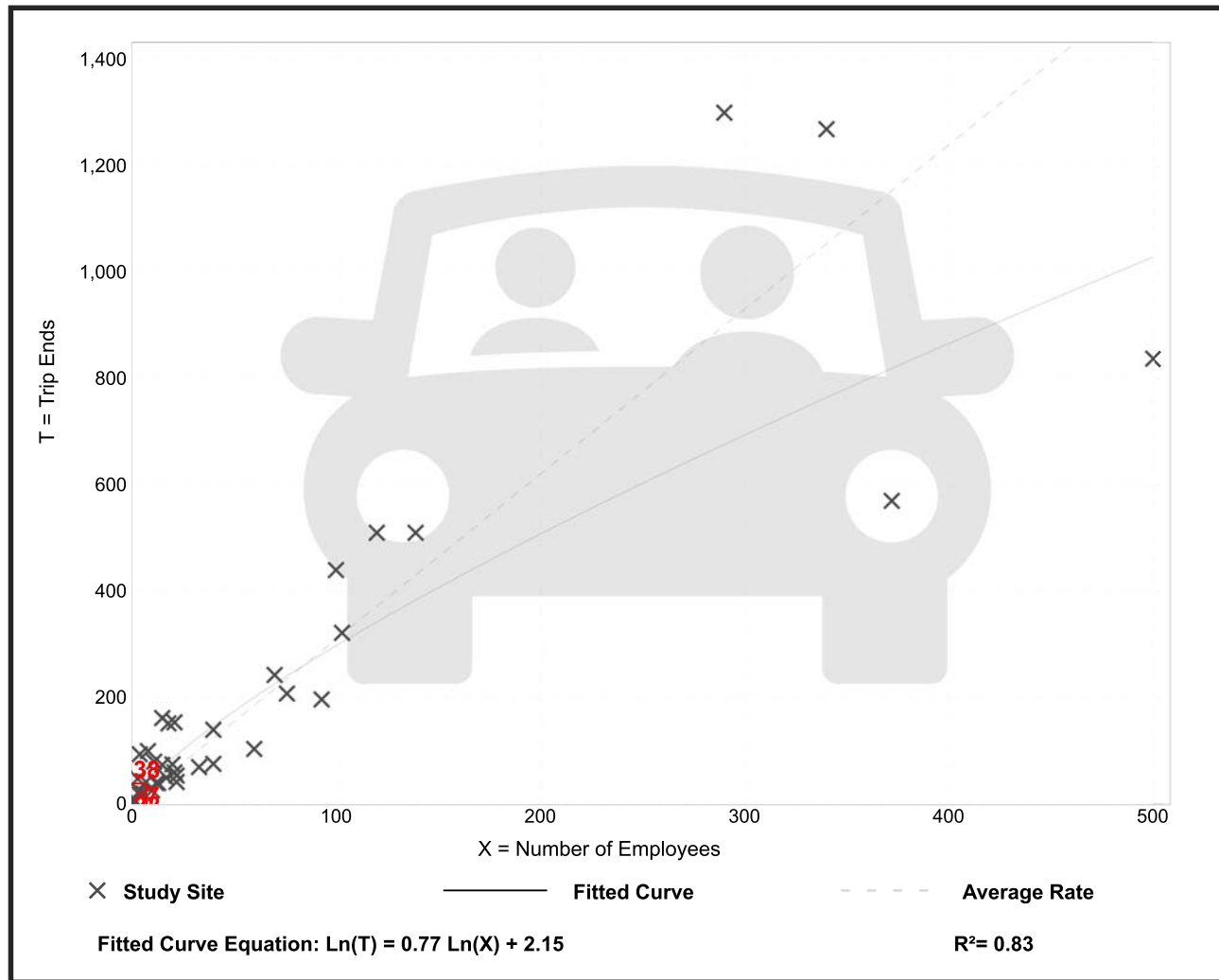
**Vehicle Trip Ends vs: Employees**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 37  
Avg. Num. of Employees: 71  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
3.10	1.53 - 23.50	1.81

## 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.**

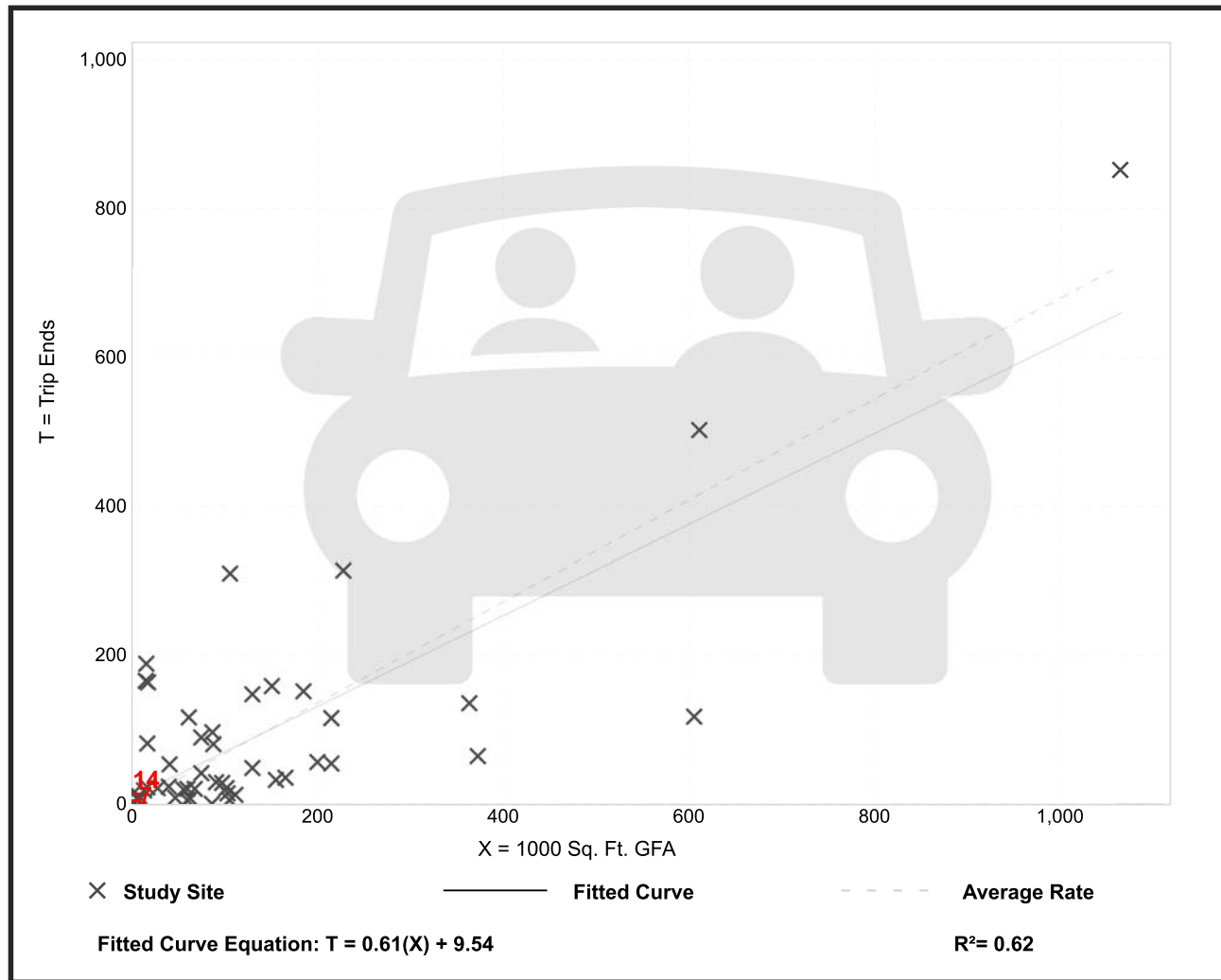
**Setting/Location: General Urban/Suburban**

Number of Studies: 48  
 Avg. 1000 Sq. Ft. GFA: 138  
 Directional Distribution: 76% entering, 24% exiting

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

Average Rate	Range of Rates	Standard Deviation
0.68	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.**

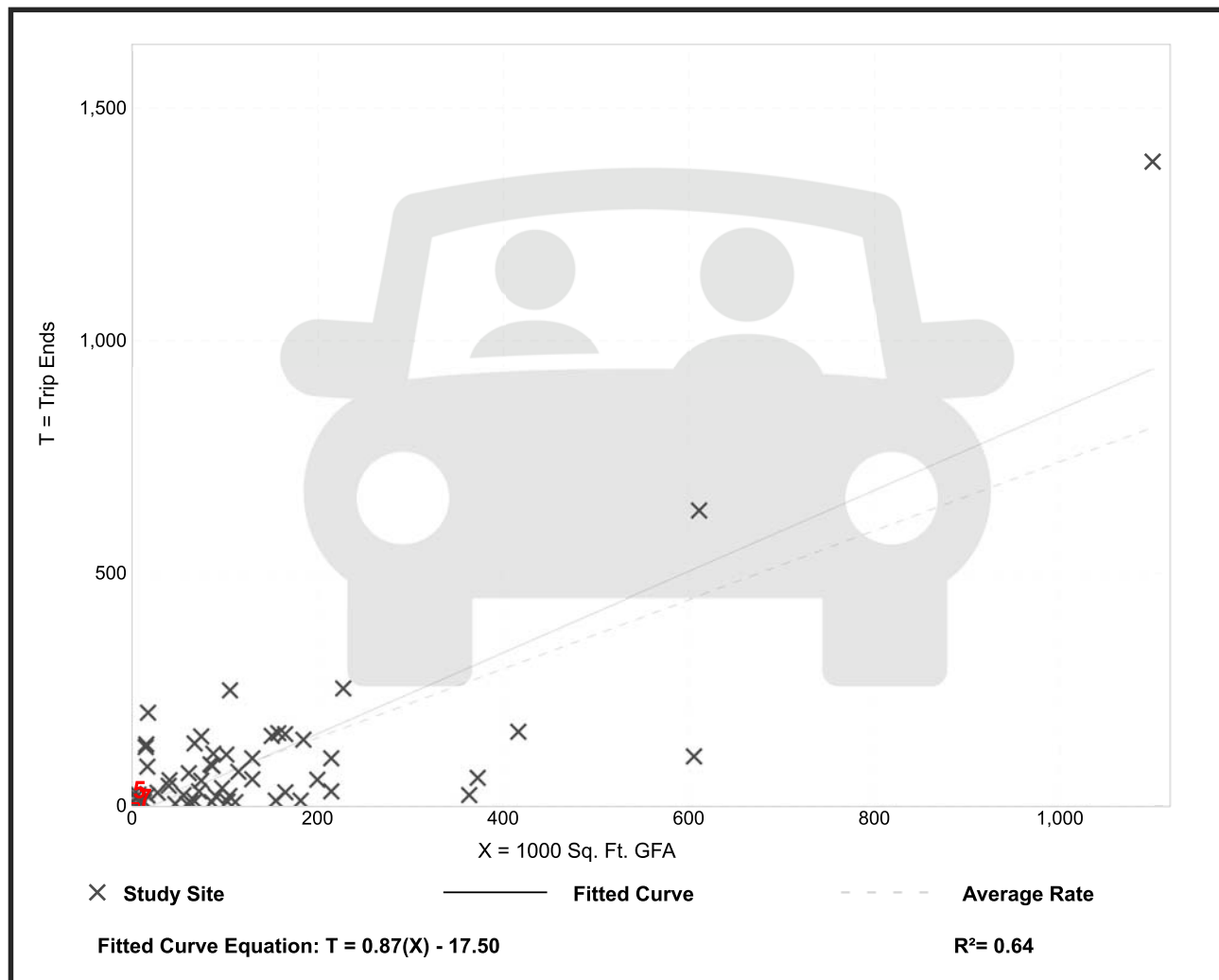
**Setting/Location: General Urban/Suburban**

Number of Studies: 55  
 Avg. 1000 Sq. Ft. GFA: 142  
 Directional Distribution: 31% entering, 69% exiting

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

Average Rate	Range of Rates	Standard Deviation
0.74	0.07 - 11.37	0.93

## Data Plot and Equation



# Manufacturing (140)

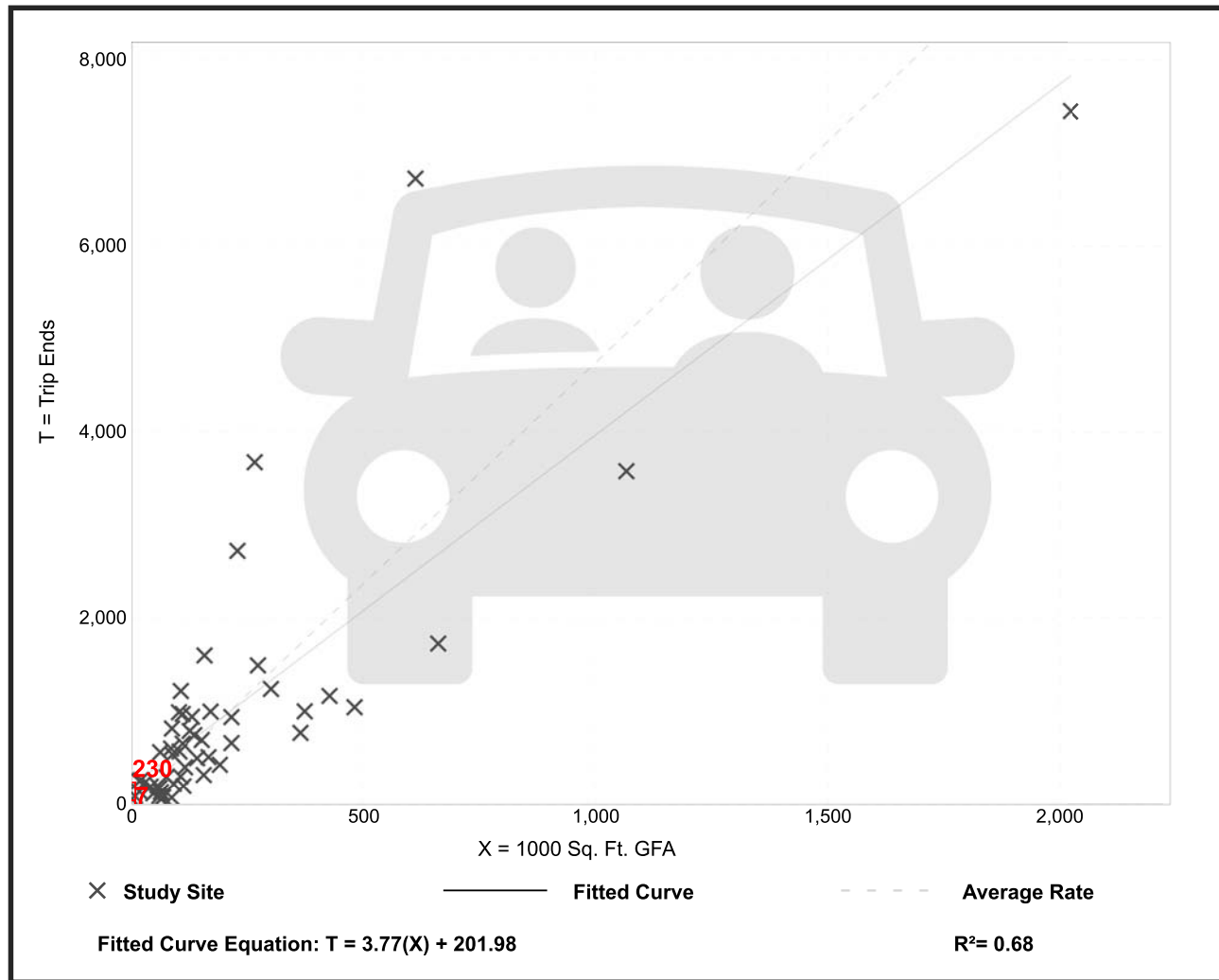
**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 53  
Avg. 1000 Sq. Ft. GFA: 208  
Directional Distribution: 50% entering, 50% exiting

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

Average Rate	Range of Rates	Standard Deviation
4.75	0.83 - 49.50	3.20

## Data Plot and Equation



# Manufacturing (140)

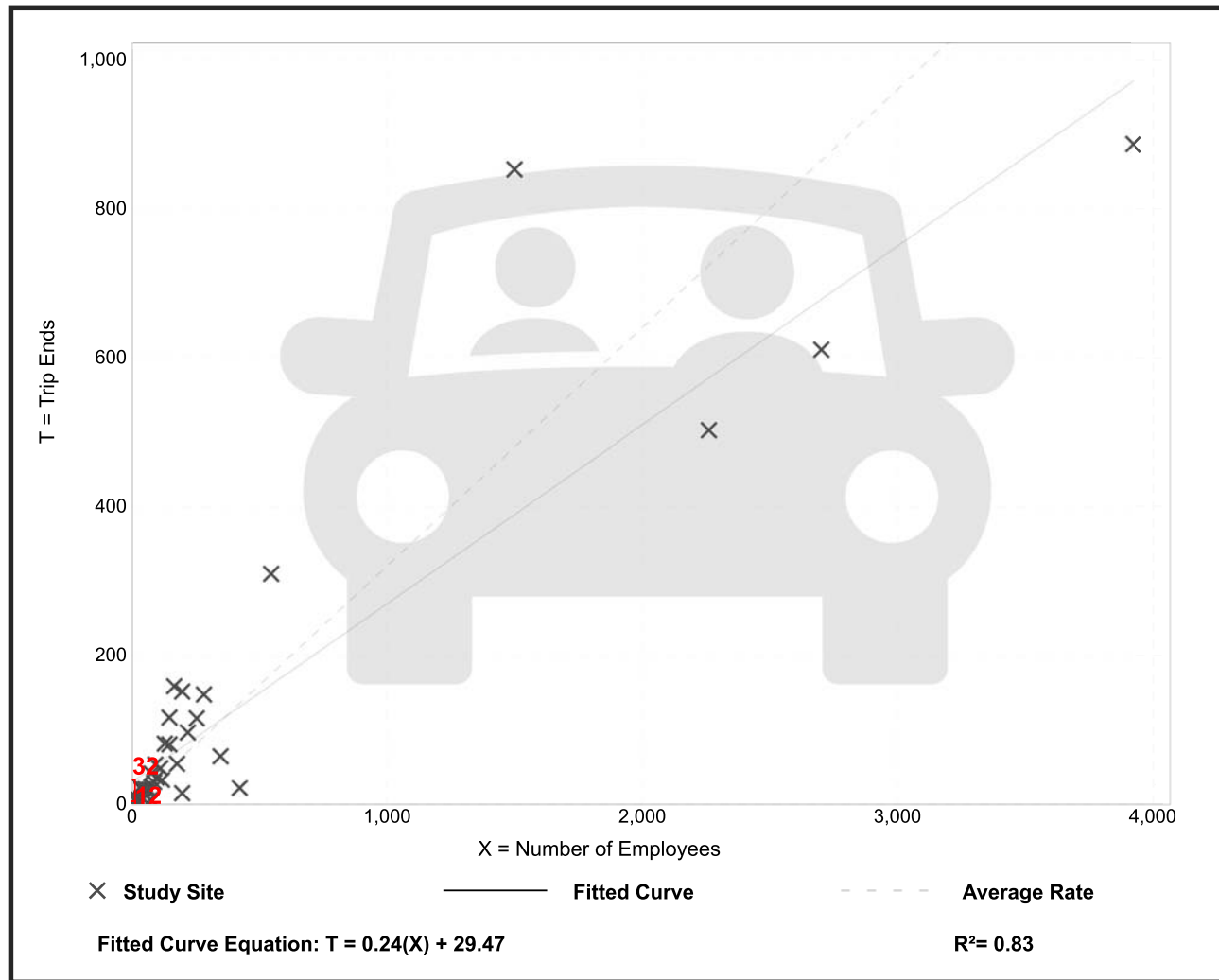
**Vehicle Trip Ends vs: Employees**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

**Setting/Location: General Urban/Suburban**  
 Number of Studies: 37  
 Avg. Num. of Employees: 400  
 Directional Distribution: 73% entering, 27% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.32	0.03 - 0.94	0.18

## Data Plot and Equation



# Manufacturing (140)

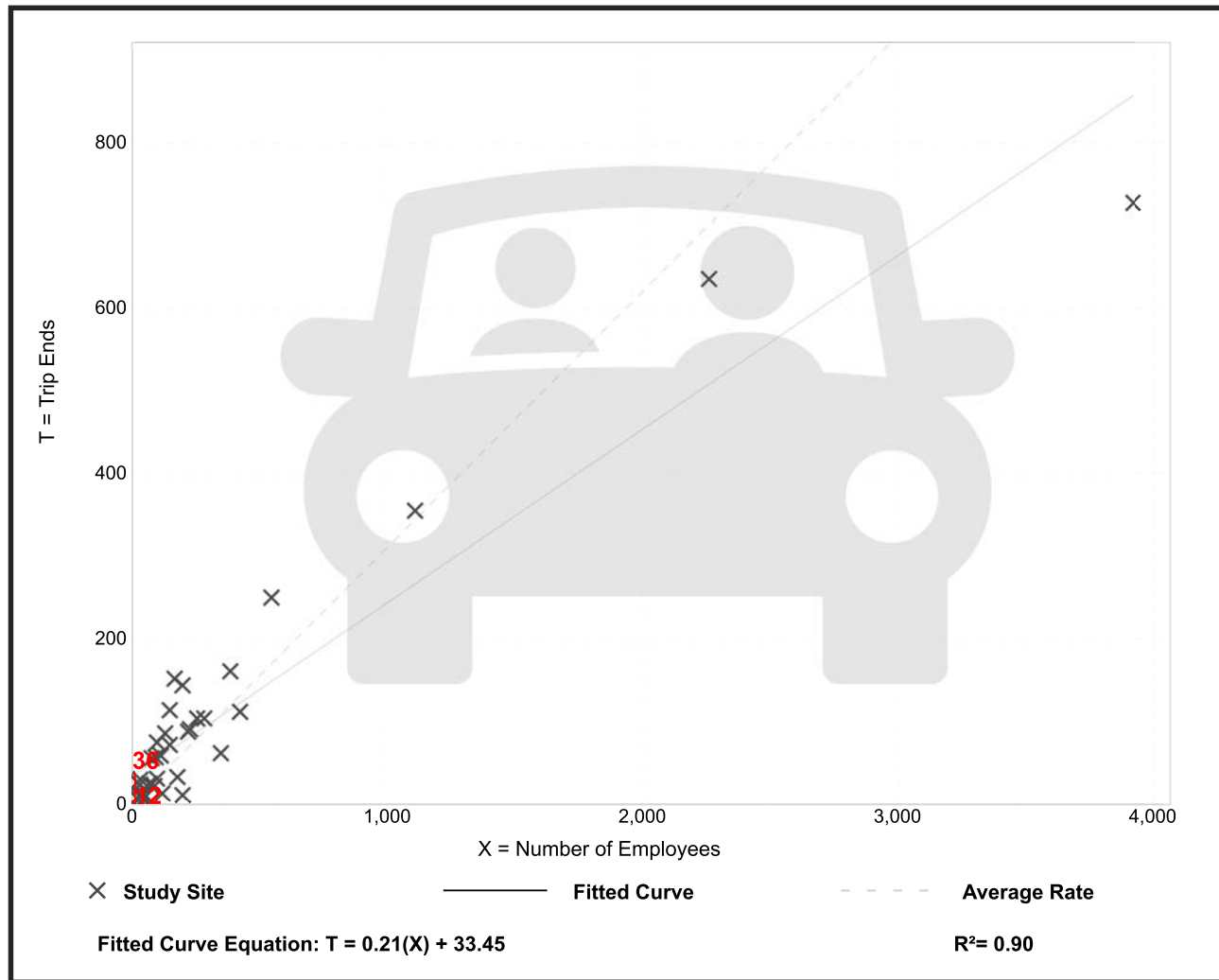
**Vehicle Trip Ends vs: Employees**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

**Setting/Location: General Urban/Suburban**  
 Number of Studies: 37  
 Avg. Num. of Employees: 334  
 Directional Distribution: 37% entering, 63% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.31	0.06 - 1.18	0.17

## Data Plot and Equation



# Manufacturing (140)

**Vehicle Trip Ends vs: Employees**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 53  
Avg. Num. of Employees: 437  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
2.51	1.15 - 8.05	0.96

## Data Plot and Equation

