

TECHNICAL MEMORANDUM

June 25, 2024

Project# 293110.013

To: Bridget Kean, Assistant Director of Planning

City of Port St. Lucie

121 SW Port St. Lucie Blvd

Port St. Lucie, FL 34984

From: Kok Wan Mah, PE

RE: P24-057 - Glades WWTP Future Land Use Amendment

Introduction

Kittelson has been retained by the City of Port St. Lucie to conduct traffic engineering and transportation planning services on behalf of the proposed future land use change for the property immediately north of the Glades Wastewater Treatment Plant. The proposed future land use comprehensive plan amendment (CPA) will change the future land use designation of a 150.37-acre property from Utility (U) use to Light Industrial (LI). The subject property is located generally on the west side of McCarty Road and south of Williams Road on the north side of the Glades Wastewater Treatment Plant on approximately 150.37 acres. The parcel IDs for the property include 3317-111-0000-000-3 (142.73 ac) and 3317-121-0000-000-4 (7.64 ac). The site location is shown in **Figure 1**.

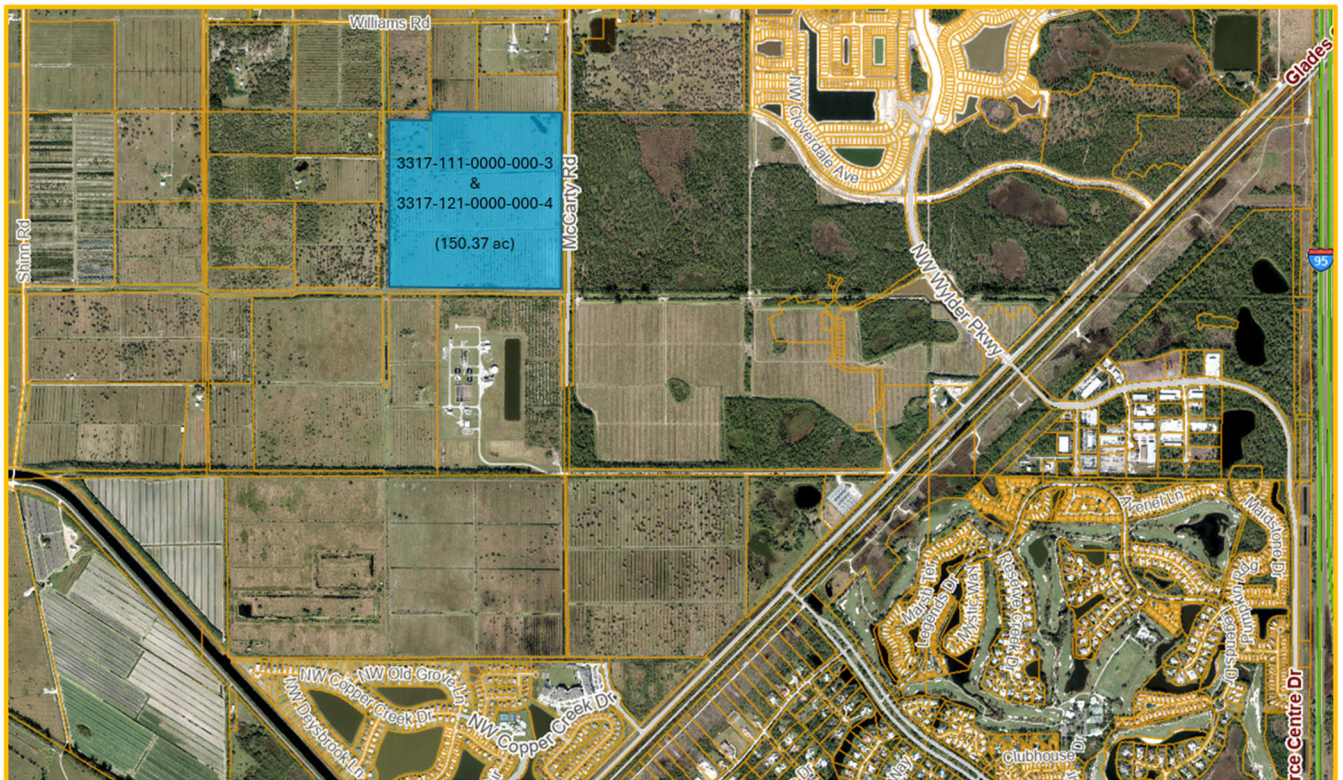


Figure 1. Project Location

The methodology and procedures used in this analysis are consistent with the guidelines for the CITY, the Florida Department of Economic Opportunity (FDEO), and the Florida Department of Transportation (FDOT).

Trip Generation for Current vs Proposed FLU Designation

The average daily trips and the p.m. peak hour trips for the current and proposed future land use (FLU) districts are listed in **Table 1**. The site has City of Port St. Lucie Utility Future Land Use (FLU) Designation for all 150.37 acres. The trip generation was determined using the Institute of Transportation Engineers (ITE) document, Trip Generation Manual, 11th Edition. First, the existing FLU trip generation potential was examined. Based on the allowable intensities and densities of the currently assigned FLU, a maximum development program of approximately 1,965,035 square feet of utility space is possible. This is based on 150.37 acres with a 0.30 FAR. Utility (land use code 170) was used as the highest trip-generating use permitted. Based on ITE average rates, there will potentially be 24,150 daily trips, 4,578 a.m. peak-hour trips, and 4,244 p.m. peak-hour trips.

Next, the maximum development potential of the requested Light Industrial designation was examined. Based on the allowable intensities and densities of the proposed Light Industrial (LI) FLU, a maximum development program of approximately 3,275,059 square feet of building space is possible. This is based on 150.37 acres with a 0.50 FAR. Manufacturing (land use code 140) was used as the highest trip-generating use permitted. Based on ITE average rates, there will potentially be 15,556 daily trips, 2,227 a.m. peak-hour trips, and 2,424 p.m. peak-hour trips.

Land Use	ITE Code	Intensity	Daily Trip Ends	AM Peak Period					PM Peak Period				
				In		Out		Total	In		Out		Total
				%	Trips	%	Trips		%	Trips	%	Trips	
Current FLU (0.30 FAR, Utility[U])													
Utilities	170	1,965 KSF	24,150	87%	3,983	13%	595	4,578	18%	764	82%	3,480	4,244
Proposed FLU (0.50 FAR, Light Industrial [LI])													
Manufacturing	140	3,275 KSF	15,556	76%	1,693	24%	534	2,227	31%	751	69%	1,673	2,424
Net Difference			-8,594		-2,290		-61	-2,351		-13		-1,807	-1,820
Source: ITE Trip Generation, 11th Edition													

As exhibited in **Table 1**, the trip difference between the currently assigned FLU and the requested Light Industrial designation is determined by subtracting trips generated by the currently assigned FLU from the trips generated by the proposed Light Industrial designation. This results in a potential trip decrease of 8,594 daily trips, 2,351 a.m. peak-hour trips, and 1,820 p.m. peak-hour trips.

CONCLUSION

The study was conducted to evaluate the potential impact the proposed Comprehensive Plan Amendment would have on area roadways. Based on this analysis, there would be a net decrease in potential trip generation. This means that since the potential highest and best use development program using the proposed Future Land Use designation is consistent with the Comprehensive Plan.

Concurrency and any required mitigation to support a proposed development plan will be assessed in greater detail during the final development permitting process to determine the impacts associated with the specific development program.

Appendix A Property Record Card

Property Identification

Site Address: TBD
Sec/Town/Range: 17/36S/39E
Parcel ID: 3317-111-0000-000-3
Jurisdiction: Port Saint Lucie

Use Type: 6000
Account #: 35635
Map ID: 33/17N
Zoning:

Ownership

Port St Lucie City of (Lessor)
Jacob Concannon (Lessee)
121 SW Port St Lucie BLVD
Port St Lucie, FL 34984

Legal Description

17 36 39 E 1/2 OF NE 1/4 AND E 1/2 OF NW 1/4 OF NE 1/4 AND SW 1/4 OF NW 1/4 OF NE 1/4 AND SW 1/4 OF NE 1/4-LESS E 44.5 FT AND LESS S 42.5FT AND LESS W 46 FT FOR CANAL RS/W- (142.73 AC) (OR 1808-2492)

Current Values

Just/Market Value: \$2,797,508
Assessed Value: \$39,251
Exemptions: \$0
Taxable Value: \$39,251



Total Areas

Finished/Under Air (SF): 0
Gross Sketched Area (SF): 0
Land Size (acres): 142.73
Land Size (SF): 6,217,318.8

Property taxes are subject to change upon change of ownership.

- Past taxes are not a reliable projection of future taxes.
- The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.

Taxes for this parcel: [SLC Tax Collector's Office](#)
Download TRIM for this parcel: [Download PDF](#)

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Property Identification

Site Address: TBD
Sec/Town/Range: 17/36S/39E
Parcel ID: 3317-121-0000-000-4
Jurisdiction: Port Saint Lucie

Use Type: 6000
Account #: 35636
Map ID: 33/17N
Zoning:

Ownership

(Lessor) Port St Lucie City of
(Lessee) Jacob Concannon
121 SW Port St Lucie BLVD
Port St Lucie, FL 34984

Legal Description

17 36 39 THAT PART OF NW 1/4 OF NW 1/4 OF NE 1/4 MPDAF: COMM NE COR OF SEC, TH N 89 42 49 W ALG NLY LI OF SEC 1972.91 FT, TH S 00 27 08 E 12.01 FT TO POB, TH CONT 544.41 FT, TH N 89 42 06 W 610.85 FT TO ELY LI CANAL NO. 89, TH N 00 31 12 W 544.29 FT, TH S 89 42 49 E 611.49 FT TO POB-LESS W 46 FT FOR CANAL R/W- (7.64 AC) (OR 3154-2082)

Current Values

Just/Market Value: \$299,488
Assessed Value: \$2,101
Exemptions: \$0
Taxable Value: \$2,101



Total Areas

Finished/Under Air (SF): 0
Gross Sketched Area (SF): 0
Land Size (acres): 7.64
Land Size (SF): 332,798

Property taxes are subject to change upon change of ownership.

- Past taxes are not a reliable projection of future taxes.
- The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.

Taxes for this parcel: [SLC Tax Collector's Office](#)
Download TRIM for this parcel: [Download PDF](#)

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Appendix B

ITE Trip Generation Sheets

Utility (170)

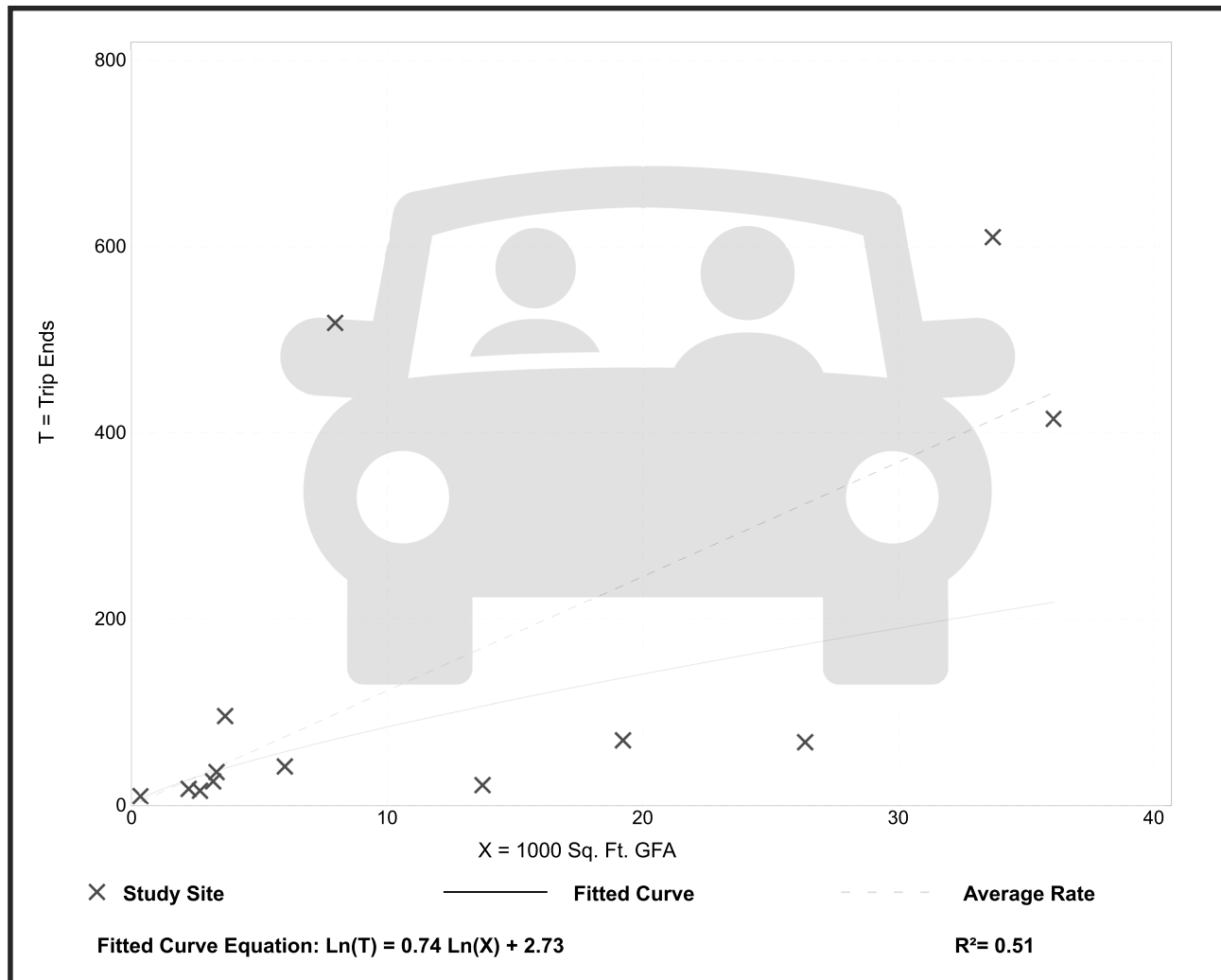
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GFA: 12
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
12.29	1.60 - 65.03	14.32

Data Plot and Equation



Utility (170)

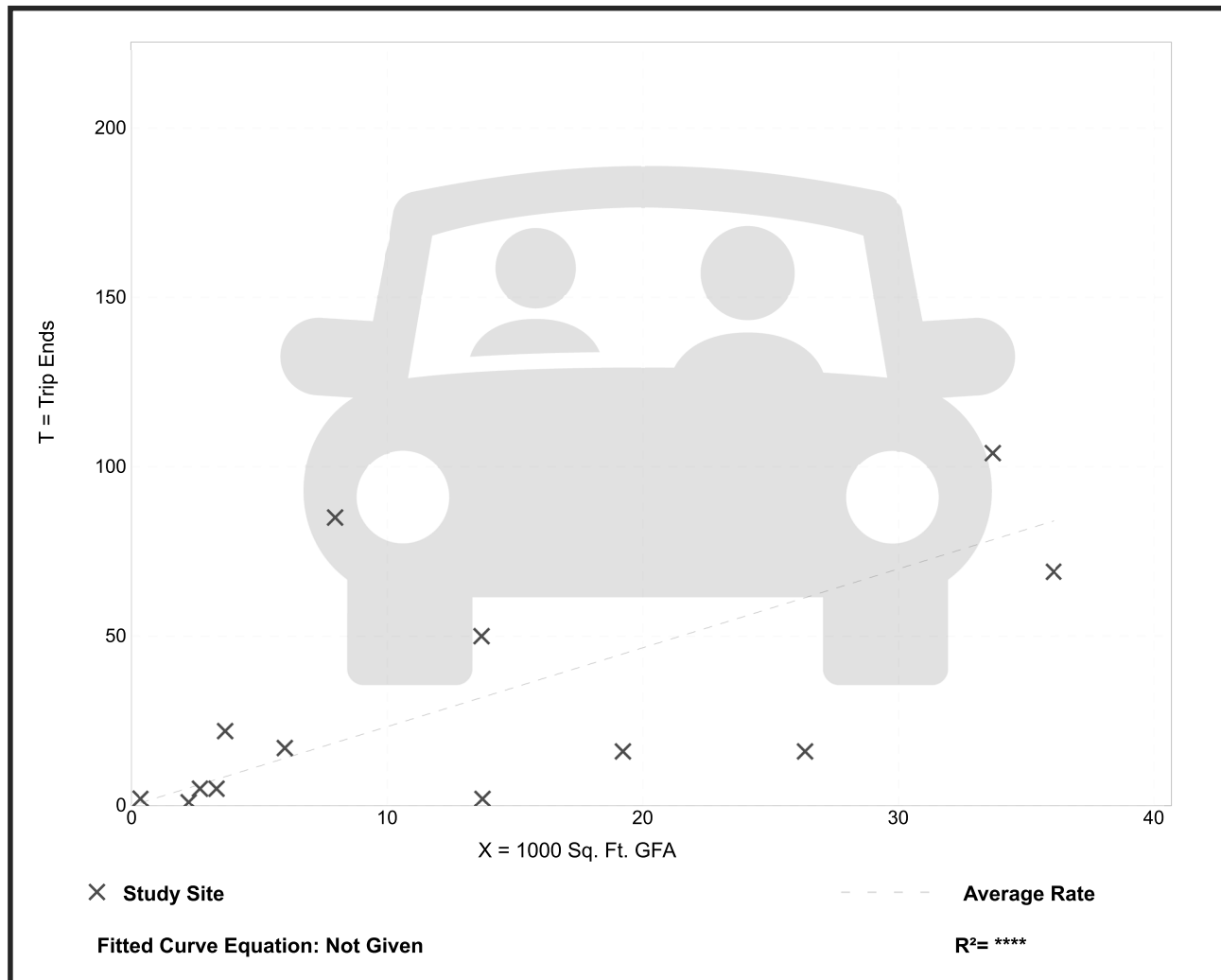
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 13
 Avg. 1000 Sq. Ft. GFA: 13
 Directional Distribution: 87% entering, 13% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.33	0.15 - 10.67	2.34

Data Plot and Equation



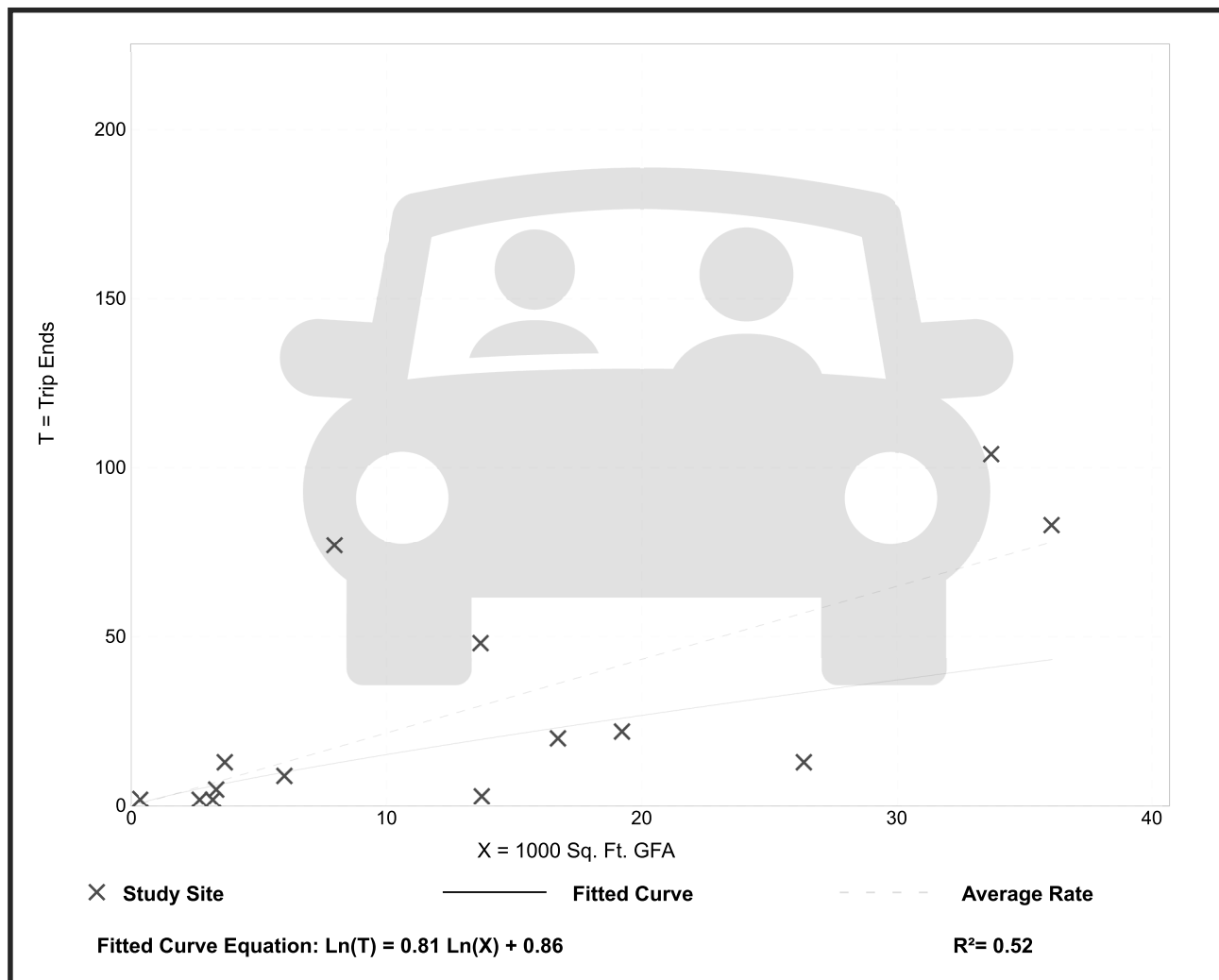
Utility (170)

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: 14
 Avg. 1000 Sq. Ft. GFA: 13
 Directional Distribution: 18% entering, 82% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.22 - 9.67	2.00

Data Plot and Equation



Manufacturing (140)

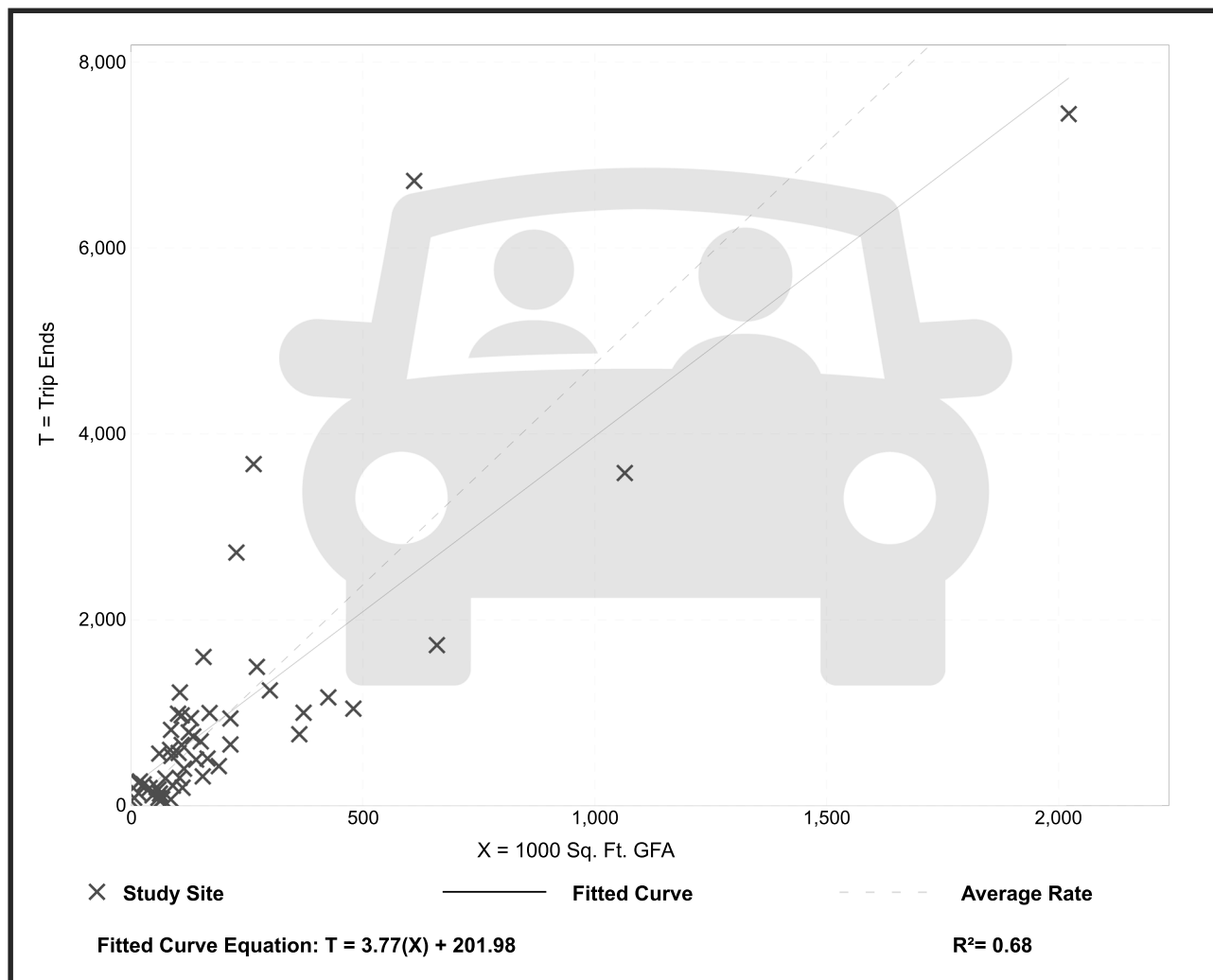
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

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



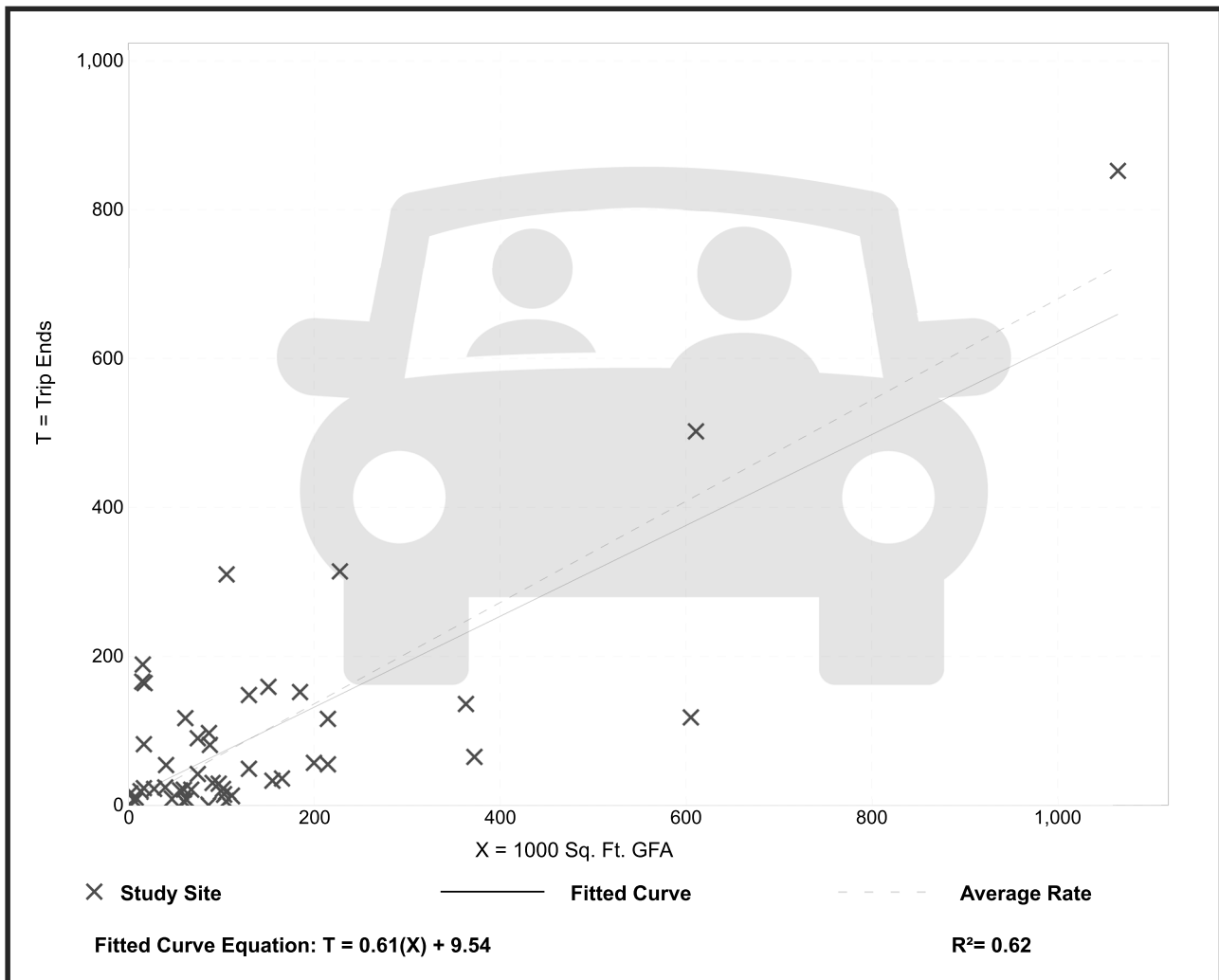
Manufacturing (140)

Vehicle Trip Ends vs: 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

