Trip Generation and Distribution Report

McKinstry Spokane Shop #2

9610 W 21st Avenue
Spokane, WA 99224

Prepared for:

Inga Note, P.E.
Senior Traffic Planning Engineer
City of Spokane
808 W. Spokane Falls Boulevard
Spokane, WA 99201
509.625.6331
inote@spokanecity.org

Prepared by:

DCI ENGINEERS
707 W 2nd Avenue ▪ Spokane, WA 99201
Tele: (509) 455-4448 ▪ Fax: (509) 455-7492

This report has been prepared by the staff of DCI Engineers under the direction of the undersigned professional engineer whose stamp and signature appears hereon.

DCI Job No.: 26042-0008
Date: March 25, 2026
Revised: April 8, 2026

DCI ENGINEERS

Table of Contents

List of Appendices

Trip Generation & Distribution Letter
McKinstry Spokane Shop #2

1.0 Introduction

Dear Inga,

DCI Engineers understands that the city of Spokane, the city of Airway Heights, and WSDOT are requesting/reviewing a trip generation and distribution letter as part of the SEPA process to understand the traffic impacts for the proposed McKinstry Spokane Shop #2 building located within the Pacific Northwest Technology Park (PNWTP) West development in the West Plains area of Spokane; North of 21st Avenue between Lucas Road and Flint Road. The Project Address is 9610 W 21st Ave, Spokane, WA 99224 (Parcel 25301.0504). A vicinity map showing the site location is included in Appendix I.

2.0 Project Description

The project intends to develop the entirety of the 5.13-acre site (except for the existing drainage ditch on the north side of the site) located at 9610 W 21st Avenue. The site currently is utilized as a laydown yard for the adjacent property to the east (same owner). The project includes the construction of a +/-94,000-SF single-story warehouse building for McKinstry that will have +/-45 paved parking stalls and is anticipated to have 60 employees working during operational hours. It is estimated that this project will generate **103 entering and 102 exiting trips during the Typical Weekday, 32 entering and 12 exiting trips during the AM Peak Hour, and 17 entering and 29 exiting trips during the PM Peak Hour**. A Site Plan for this project had been included in Appendix II.

3.0 Trip Generation Summary

The number of trips generated by this project was estimated using information found in the 11th Edition of ITE's Trip Generation Manual. The Trip Generation Manual was used to calculate the estimated total number of proposed trips entering and exiting the site during the Typical Weekday, and AM and PM Peak Hours based on the proposed land use for the project. Land Use 140 – Manufacturing will be used for this site as it most closely represents to proposed building use. This proposed usage was coordinated with the City of Spokane and WSDOT and aligns with the anticipated use of the building. The proposed building is anticipated to have 60 employees working during the operational hours, and this independent variable (IV) will be used to determine the total number of trips entering and existing the site. This information has been determined from conversations with the owner regarding the intended use of the facility. The methodology described in the Trip Generation Handbook was used to determine whether to use the fitted curve or the average rate for each scenario. Pass-by trips and internal capture were not considered for this project as they were determined to be negligible. The corresponding charts from the ITE Manual and the trip calculations are included in Appendix III. The following is a summary of the anticipated trips generated from the proposed project.

4.0 Land Use 140 - Manufacturing

- Weekday
  - Average vehicle trip ends vs. Employees (60)
    - **205 total trips** (Fitted Curve)
      - **50% IN, 103 trips**
      - **50% OUT, 102 trips**

- Weekday, Peak Hour of Adjacent Street Traffic, One hour between 7-9 AM
  - Average vehicle trip ends vs. Employees (60)
    - **44 total trips** (Fitted Curve)
      - **73% IN, 32 trips**
      - **27% OUT, 12 trips**

- Weekday, Peak Hour of Adjacent Street Traffic, One hour between 4-6 PM
  - Average vehicle trip ends vs. Employees (60)
    - **46 total trips** (Fitted Curve)
      - **37% IN, 17 trips**
      - **63% OUT, 29 trips**

5.0 Trip Count Summary

Based on the results provided above, the estimated net total trips generated by the proposed site are as follows:

Estimated Trips		
Weekday Trips:	**205**	Trips
Entering:	**103**	Trips
Exiting:	**102**	Trips
AM Trips:	**44**	Trips
Entering:	**32**	Trips
Exiting:	**12**	Trips
PM Trips:	**46**	Trips
Entering:	**17**	Trips
Exiting:	**29**	Trips

These trip calculations along with the appropriate pages from the ITE Manual can be found in Appendix III.

6.0 Trip Distribution and Assignment

Trips for this project will enter and exit the site via W 21st Avenue with access to Flint Road and US Highway 2. It is anticipated that at some point in the future, 21st Avenue will be fully developed to the west of the site. It is also anticipated that Lucas Road and Deer Heights Road will also be extended to 21st Avenue. This project does not anticipate providing a driveway connection to Lucas road as part of this project or in the future. Any trips associated with future roads were not considered as part of this analysis.

The table below describes the movements at the boundary of the analysis extents, the potential destinations/originations associated with that movement, and the anticipated percentage of trips that would be associated with that movement. It is assumed that these percentages will be consistent across both the AM and PM Peak Hours.

Roadway (Direction)	Origination/Destination	Anticipated Percentage	Weekday Trips (IN/OUT)	AM Peak Trips (IN/OUT)	PM Peak Trips (IN/OUT
US Highway 2 (East)	Spokane, I-90 East	60%	62/61	19/7	10/17
US Highway 2 (West)	Airway Heights, Fairchild AFB	25%	26/26	8/3	4/7
Flint Road (North)	North Spokane Alternative Route	5%	5/5	2/1	1/2
Flint Road (South)	Spokane International Airport	10%	10/10	3/1	2/3
		Totals:	103/102	32/12	17/29

Exhibits showing the anticipated distribution of trips created by the proposed project have been included in Appendix IV. Included exhibits show the proposed AM and PM Peak Hour trips.

If you have any questions, please don't hesitate to contact me.

Sincerely,
DCI Engineers Inc.

Duncan Mayer, P.E.
Civil Project Manager

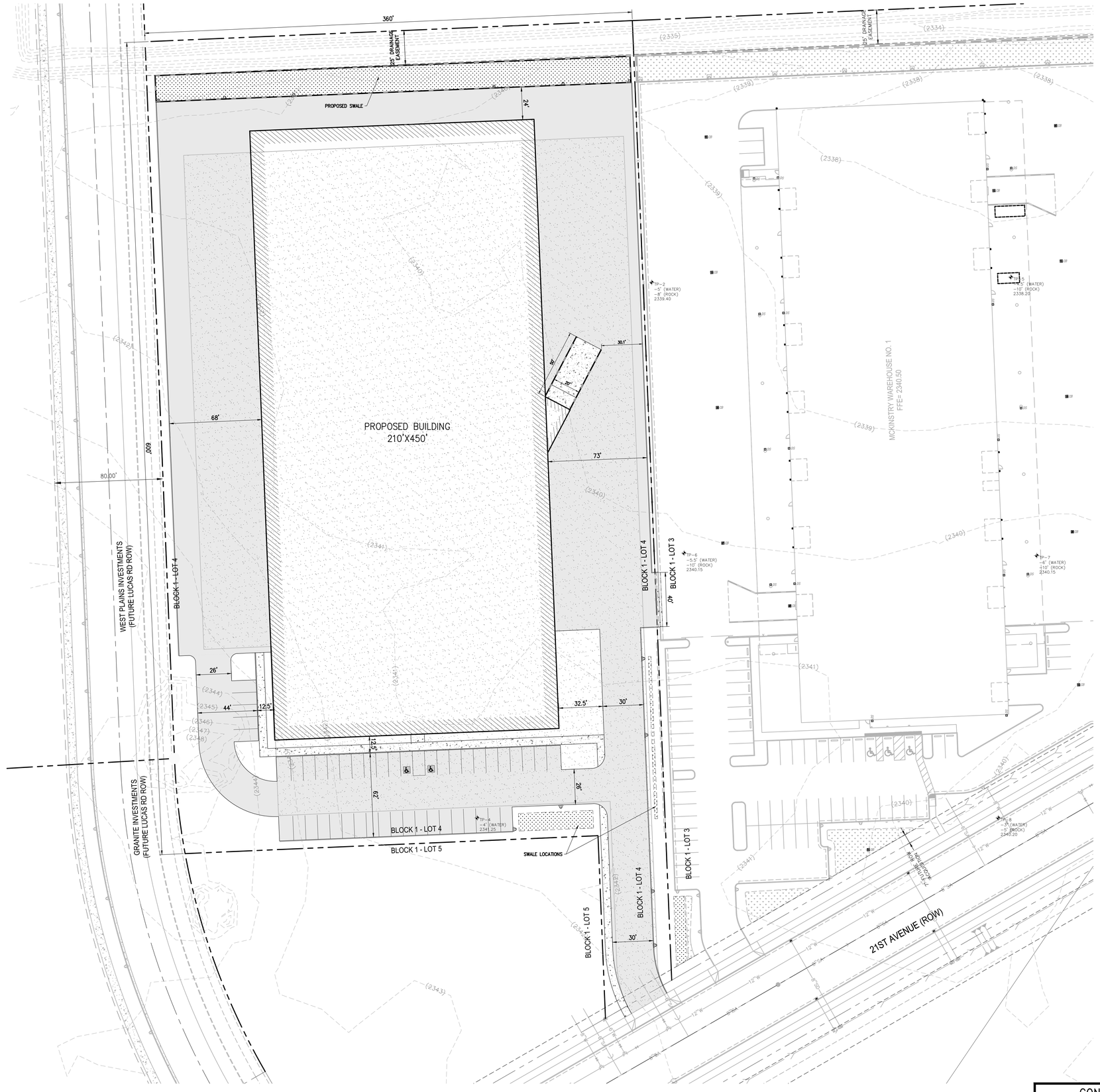
dmayer@dci-engineers.com
(509)227-6919

Appendix I
Vicinity Map

Vicinity Map

Address: 9610 W 21st Avenue, Spokane, WA 99224
Parcel: 25301.0504

Appendix II
Site Plan



PROGRESS PRINT
(NOT FOR CONSTRUCTION)

THESE DRAWINGS HAVE BEEN RELEASED AT THE REQUEST OF THE CLIENT AND ARE NOT INTENDED FOR THE PURPOSES OF BIDDING, PERMITTING, OR CONSTRUCTION.

CONTRACTOR NOTE

ALL EXISTING UTILITIES SHOWN ON PLANS ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORD MAPS AND SURVEYS FURNISHED BY OTHERS. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS AND SURVEYS. CONTACT THE UTILITY OWNER/AGENCY FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION.

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

PREPARED BY
DCI ENGINEERS®
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STRUCTURAL / CIVIL / SURVEY

ENGINEER STAMP

SEPA SITE PLAN

McKINSTRY SHOP 2 BUILDING

ISSUES AND REVISIONS

NO	DATE	DESCRIPTION

Project No.:	26-42-0008
Proj. Manager:	DEM
Drawn:	DEM
Reviewed:	
Dwg. Check:	
Date:	03/13/2026
Scale:	1" = 30'

SHEET TITLE

PRELIMINARY SITE PLAN

SHEET NUMBER

C1

PLOT DATE: 3/13/2026 12:18 PM FILE LOCATION: O:\0425-Spokane\DCI Civil\2026\26-42-0008_McKinstry Shop #2\42D\2042-0008_Preliminary Site Plan.dwg

Appendix III
ITE Manual Description & Reports

Land Use: 140
Manufacturing

Description

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions. General light industrial (Land Use 110) and industrial park (Land Use 130) are related uses.

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 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Minnesota, Missouri, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Vermont, Washington, and West Virginia.

Source Numbers

177, 179, 184, 241, 357, 384, 418, 443, 583, 598, 611, 728, 747, 875, 879, 940, 969, 1067, 1068, 1082

Manufacturing
(140)

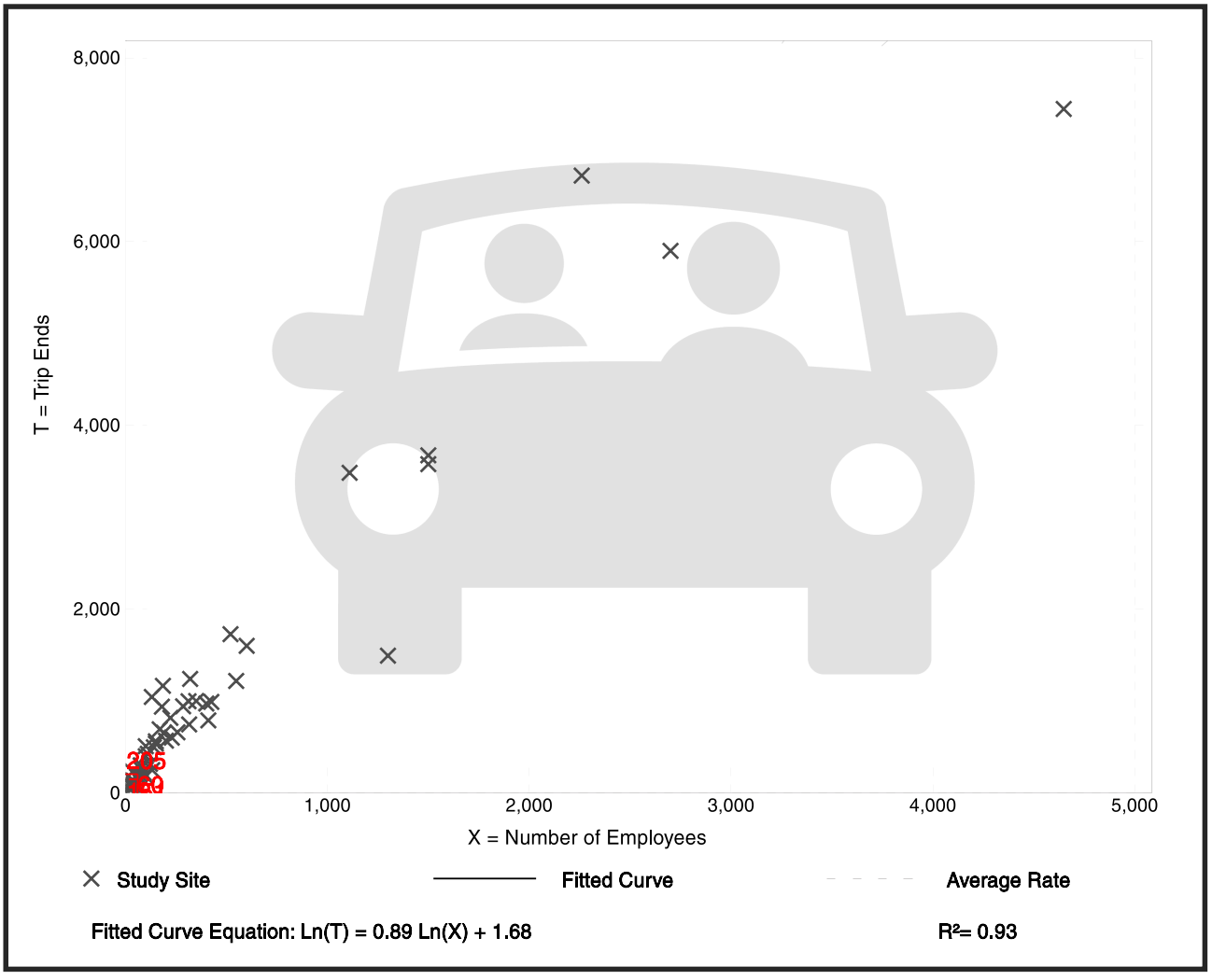
Vehicle Trip Ends vs: **Employees**
On a: **Weekday**

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



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

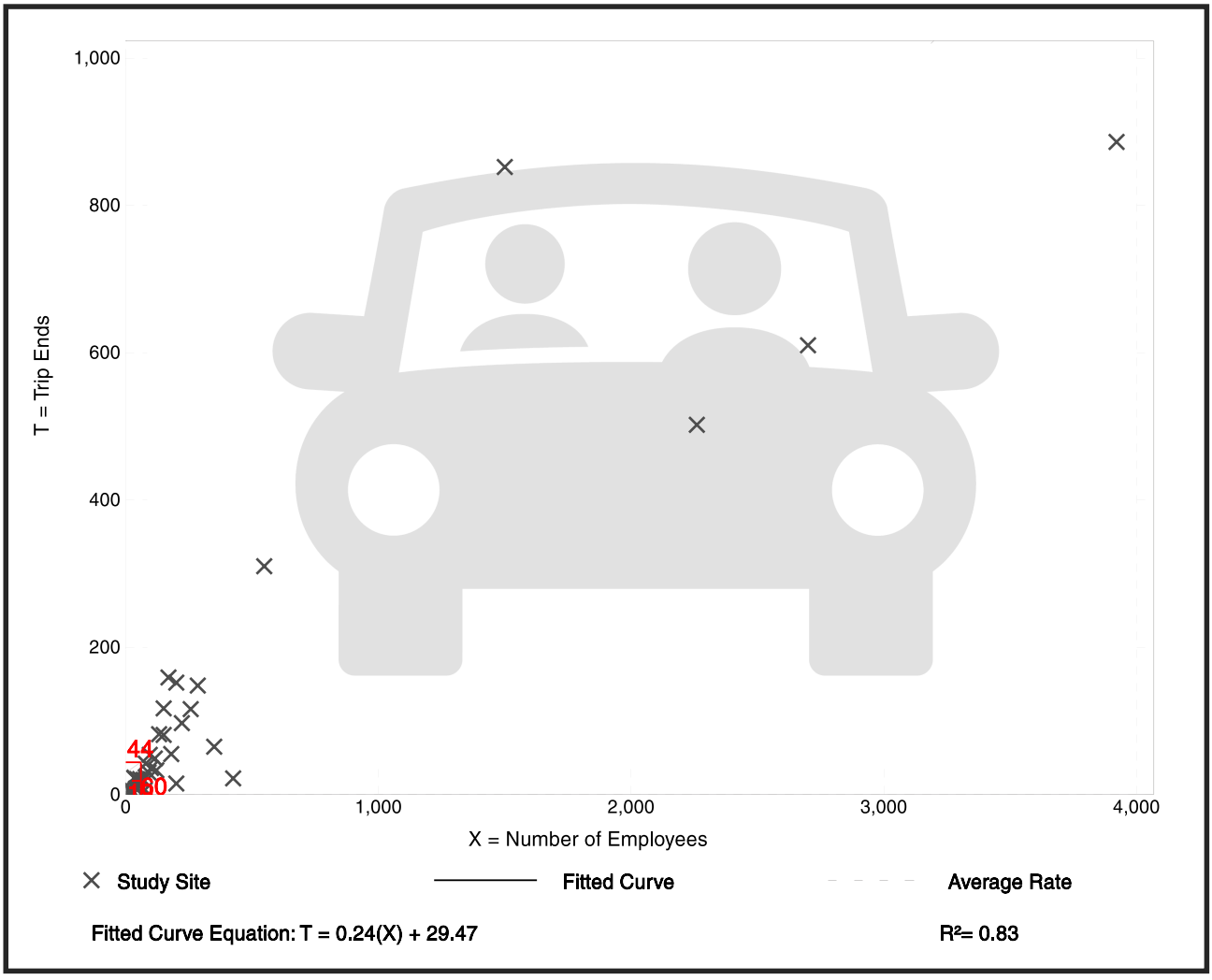
Manufacturing
(140)

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



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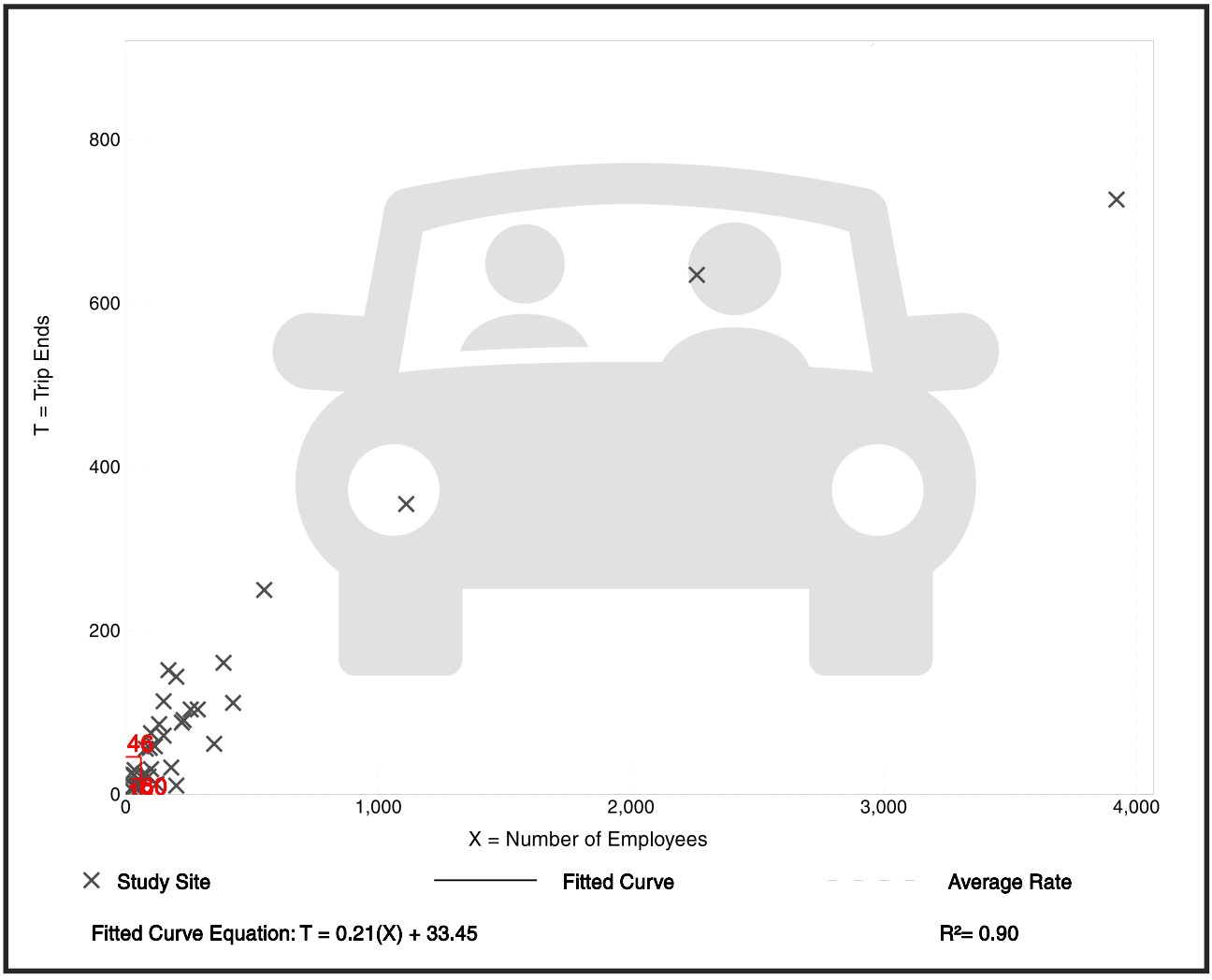
Manufacturing
(140)

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



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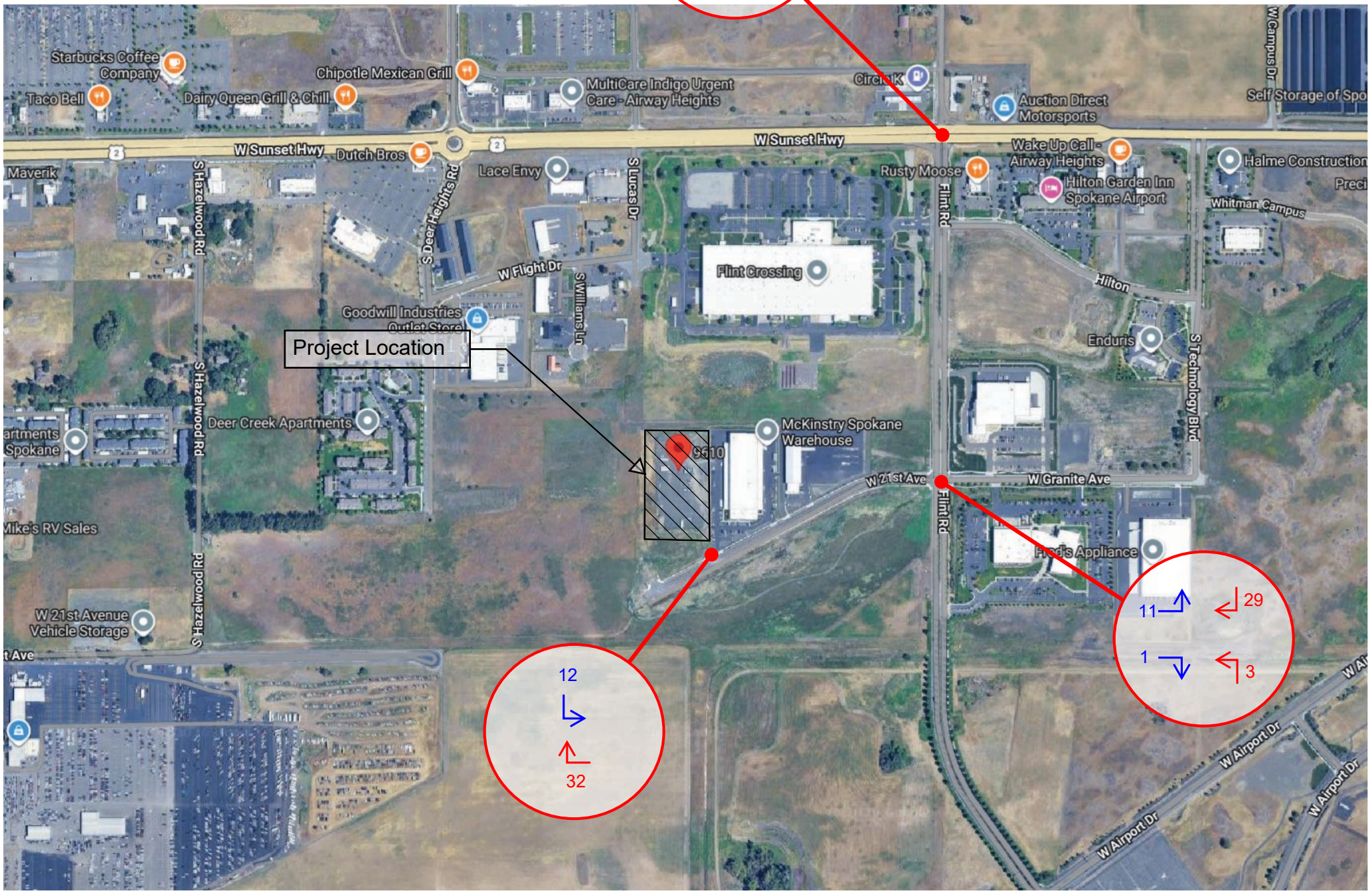
Appendix IV
Trip Distribution

AM Peak Hour

- 32 Entering Trips
- 12 Exiting Trips



PM Peak Hour

- 17 Entering Trips
- 29 Exiting Trips