CASEY'S REDEVELOPMENT

Traffic Impact Study

Naperville, IL

March 2022

Prepared for:

Casey's Retail Company

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EXECUTIVE SUMMARY

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by Casey's Retail Company to perform a traffic impact study for the proposed Casey's General Store on the southeast quadrant of Ogden Avenue/ Naper Boulevard in Naperville, Illinois. The proposed redevelopment would provide twenty (20) fueling positions with a convenience store. The site is currently a gas station with sixteen (16) fueling positions with a convenience store and car wash. Existing access to the site is provided by four driveways: a full access driveway (Driveway 1) and a right-in/right-out only access (Driveway 2) located along Naper Boulevard as well as two full access driveways (Driveway 3 and Driveway 4) located along Ogden Avenue. The proposed site plan includes the removal of Driveway 3 along Ogden Avenue, reducing the total access driveways to the site down to three, and the alteration of Driveway 4 from full-access to 3/4 access.

As part of the traffic impact study, existing and future conditions were evaluated for the signalized intersection of Ogden Avenue/ Naper Boulevard and the unsignalized intersections of Naper Boulevard/Driveway 1/Commercial Access 1, Naper Boulevard/Driveway 2, Driveway 3/Ogden Avenue, and Driveway 4/Commercial Access 2/Ogden Avenue.

Based on a review of future traffic conditions, it is anticipated that the background traffic growth and the site-generated traffic would not materially impact the Naper Boulevard or Ogden Avenue corridors. It is notable that the eastbound approach at the intersection of Ogden Avenue/Naper Boulevard is projected to experience an increase in delay of approximately 3 seconds and operate at LOS F in the AM peak hour under the Future 2027 No-Build traffic conditions and continue to operate at LOS F with a minor increase in delay for the Future 2027 Build conditions, though the overall signalized intersection continues to operate at LOS D for all time periods. Site access is anticipated to experience increases in delay due to the anticipated increase in site-generated traffic. The most notable delay increase is anticipated at the westbound site access at Naper Boulevard/Driveway 1/ Commercial Access 1, which is expected to operate at LOS E during all peak hours. The northbound approach at Ogden Avenue/Driveway 4/Commercial Access 2, is anticipated to operate at LOS B during the weekday AM and PM peak hours, as well as the Saturday midday peak hour. The low level-of-service at individual site access locations may be conservative since outbound site traffic is likely to make alternative choices to avoid visible queues and delay when exiting the site. The projected 95th percentile queues for the outbound movements are not anticipated to impede internal site circulation.

With the removal on Driveway 3, it is recommended that an eastbound right-turn lane be constructed at Driveway 4 along Ogden Avenue. Two outbound lanes (a separate right-turn lane and left-turn lane) should be provided at Driveway 1. Additionally, minor leg stop control should be posted at each of the site driveways along with stop signs and stop bars. These study results are discussed in more detail in the Recommendations & Conclusion section of this report.

1. INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by Casey's Retail Company to perform a traffic study for a proposed Casey's General Store on the southeast quadrant of the Ogden Avenue/ Naper Boulevard intersection in Naperville, Illinois. The site is bound by Ogden Avenue to the north, Naper Boulevard to the west, residential developments to the south, and commercial developments to the east. The proposed redevelopment would include a convenience store with twenty (20) fueling positions and approximately 4,800 SF of convenience store space. The proposed site is currently a gas station with sixteen (16) fueling positions with a convenience store and car wash.

Access to the site will be provided by existing accesses that will remain with the redevelopment including one right-in/right-out only driveway (Driveway 2) and a full access driveway (Driveway 1) on Naper Boulevard, as well as the full access driveway (Driveway 4) modified to provide 3/4 access (right-in, right-out, left-in) on Ogden Avenue. The existing westmost full access driveway along Ogden Avenue (Driveway 3) will be removed. An aerial view of the study location and the surrounding roadway network is presented in **Exhibit 1**.

As part of this study, the existing roadway network was analyzed to determine the current operations at the study intersections. Site trip generation characteristics were established for the redevelopment and added to the background traffic volumes in order to assess the site's potential impact on the area roadway network. Consistent with the Illinois Department of Transportation (IDOT) requirements, future traffic conditions were evaluated for Future Year 2027. This report presents and documents data collection, summarizes the evaluation of the existing and projected future traffic conditions on the surrounding roadways, and identifies recommendations to address the potential impact of site-generated traffic on the adjacent roadway network.

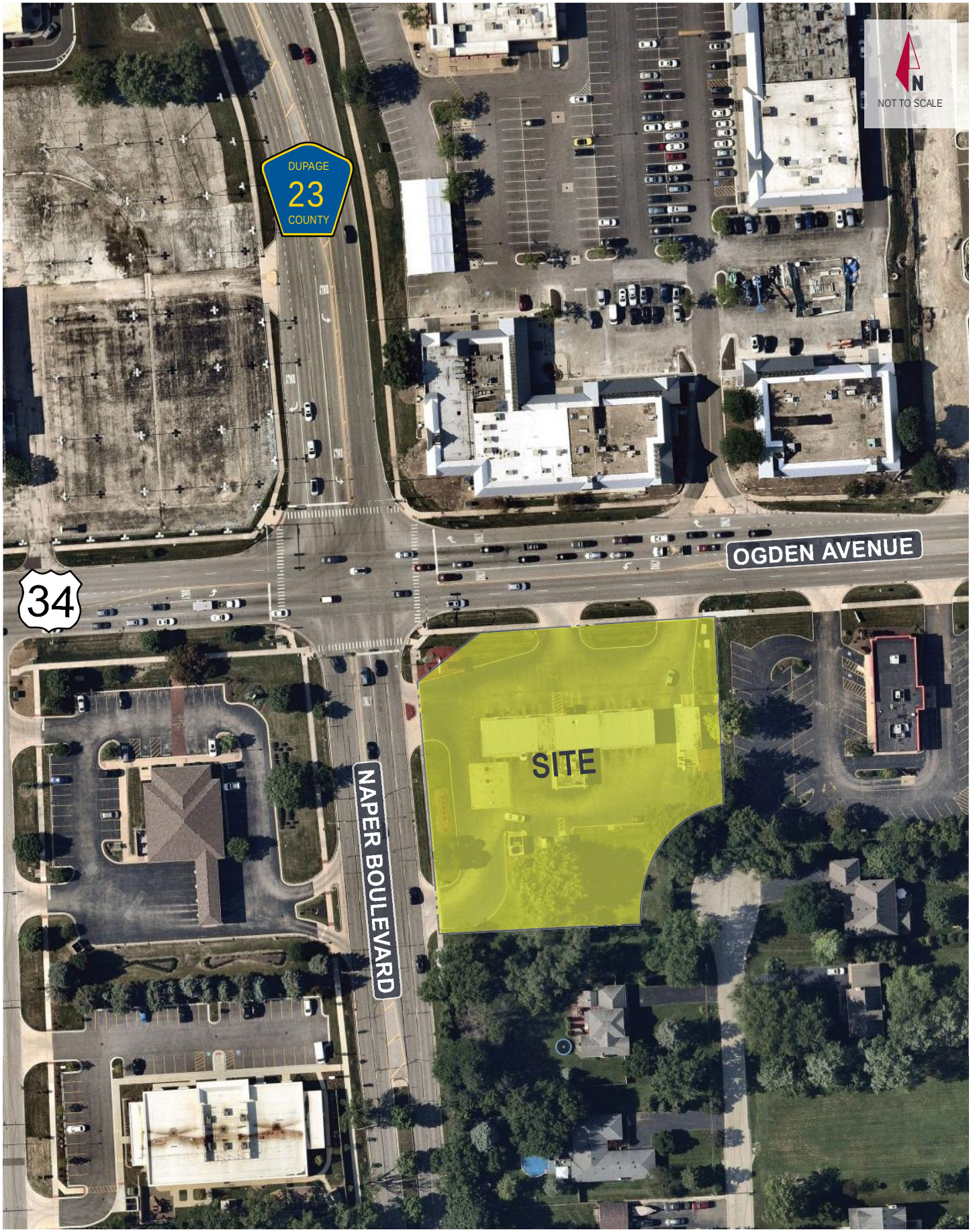

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EXHIBIT 1

SITE LOCATION MAP

2. EXISTING CONDITIONS

Based on aerial imagery as well as a site visit, Kimley-Horn conducted a review of the subject site including existing land uses in the surrounding area, the adjacent street system, current traffic volumes and operating conditions, lane configurations and traffic controls at nearby intersections, and other key roadway characteristics. This section of the report details information on the existing conditions.

Area Land Uses & Connectivity

Located in the southeast quadrant of the Ogden Avenue and Naper Boulevard intersection, the subject site is currently developed as a gas station. Located in Naperville, Illinois, the site is bounded by Ogden Avenue to the north, Naper Boulevard to the west, residential properties to the south, and commercial developments to the east.

Regional connectivity is provided to the east and west via Ogden Avenue adjacent to the site, and by I-88 approximately 0.5 miles north of the project site. I-355 provides regional connectivity to the north and south approximately 3.5 miles east of the subject site.

Existing Roadway Characteristics

A field investigation was conducted within the study area. As a result of this visit, the following information was obtained about the existing roadway network.

Ogden Avenue (US 34) is an east-west roadway that runs along the northern frontage of the site. The Illinois Department of Transportation (IDOT) classifies Ogden Avenue as a Principal Arterial. Through the study area, two travel lanes are provided in each direction with dedicated left-turn lanes at key intersections. At its signalized intersection with Naper Boulevard, Ogden Avenue provides two through lanes and a dedicated left-turn lane on the east and west legs of the intersection and a dedicated right-turn lane on the east leg. Crosswalks are provided on all legs of the intersection. At its unsignalized intersection with Driveway 3/Driveway 4/Commercial Access 2, Ogden Avenue provides two through lanes in each direction and dedicated westbound left- and right-turn lanes on the east leg. A speed limit of 35 miles per hour (MPH) is posted on Ogden Avenue through the study area. Ogden Avenue is under IDOT jurisdiction.

Naper Boulevard is a north-south roadway that runs along the western frontage of the subject site. IDOT classifies Naper Boulevard as a Principal Arterial. Through the study area, Naper Boulevard provides two travel lanes in each direction with left-turn lanes at key intersections. At its signalized intersection with Ogden Avenue, Naper Boulevard provides two through lanes and a dedicated left-turn lane on the north and south legs of the intersection and a dedicated right-turn lane is provided on the north leg of the intersection. At its unsignalized intersection with Driveway 1/Commercial Access 1/Driveway 2, Naper Boulevard provides two through lanes in each direction with a dedicated northbound left-turn lane. A speed limit of 40 MPH is posted on Naper Boulevard through the study area. Naper Boulevard becomes Naperville Road (DuPage County Route 23) approximately 1,300 feet north of Ogden Avenue. Naper Boulevard is under DuPage County jurisdiction north of Ogden Avenue, and under the City of Naperville's jurisdiction south of Ogden Avenue.

Driveway 1/Commercial Access 1 is located 250 feet south of the Ogden Avenue/ Naper Boulevard intersection. At its unsignalized intersection with Naper Boulevard, Commercial Access 1 is stop controlled and provides right-in/right-out access only on the west leg of the intersection, and Driveway 1 provides a shared left- and right-turn lane on the east leg. Left-turns into Driveway 1 from Naper Boulevard are restricted via signage during the weekday morning (6-9 AM) and weekday evening (4-7 PM) peak periods.

Driveway 2 is located 100 feet south of the Ogden Avenue/ Naper Boulevard intersection on the east side of Naper Boulevard. At its unsignalized intersection with Naper Boulevard, Driveway 2 provides right-in/right-out access only.

Driveway 3 is located 150 feet east of the Ogden Avenue/ Naper Boulevard intersection on the south side of Ogden Avenue. At its unsignalized intersection with Ogden Avenue, Driveway 3 provides a shared left- and right-turn lane.

Driveway 4/Commercial Access 2 is located 400 feet east of the Ogden Avenue/ Naper Boulevard intersection. At its unsignalized intersection with Ogden Avenue, Driveway 4 provides a shared left- and right-turn lane on the south leg, and the Commercial Access provides right-in/right-out only access on the north leg.

Traffic Count Data

Turning movement count data was collected in May 2021 at the following intersections:

- Naper Boulevard/ Ogden Avenue
- Naper Boulevard/ Driveway 1/ Commercial Access 1
- Naper Boulevard/ Driveway 2
- Driveway 3/ Ogden Avenue
- Driveway 4/ Commercial Access 2/ Ogden Avenue

The counts were conducted on a typical weekday from 7:00 to 9:00AM, and 4:00 to 6:00PM. Additionally, counts were conducted on a typical Saturday from 11:00AM to 1:00PM. These count periods were selected in order to capture the peak travel periods in the area. The traffic count data indicates that peak traffic volumes occur within the study area from 7:30 to 8:30AM and 4:45 to 5:45PM on weekdays, and from 12:00 to 1:00PM on Saturdays.

24-hour counts were additionally collected for the intersection of Ogden Avenue/ Naper Boulevard on Tuesday, May 11, 2021. The 24-hour traffic counts for the study intersection were compared to historical IDOT count data in order to determine if there was an impact on the traffic patterns in the study area due to COVID-19. The collected May 2021 data was greater than the available 2016 IDOT data along Ogden Avenue/ Naper Boulevard. Based on the volume comparison, no adjustments were made to the existing 2021 traffic counts.

The peak hour vehicle traffic volumes were rounded to the nearest multiple of five and balanced between the study intersections. The existing traffic volumes are presented in **Exhibit 2**. A summary of the traffic count data is provided in the appendix.

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EXHIBIT 2

EXISTING (2021) TRAFFIC VOLUMES

Existing Capacity Analysis

Capacity analysis for the existing and future conditions was performed using Synchro Version 11. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions). The lowest LOS grade typically accepted by jurisdictional transportation agencies in Northeastern Illinois is LOS D.

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2.1**.

Table 2.1 Level of Service Grading Descriptions[1]

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

[1]Highway Capacity Manual, 6th Edition.

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 2.2**. Because signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, note that higher delays are tolerated for the corresponding LOS ratings.

Table 2.2 Level of Service Grading Criteria[1]

Level of Service	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F[2]	> 50	> 80

[1]Highway Capacity Manual, 6th Edition

[2]All movements with a Volume to Capacity (v/C) ratio greater than 1 receive a rating of LOS F.

Based on these standards, capacity results were identified for the study intersections under existing conditions. The results of capacity analysis for existing conditions are summarized in **Table 2.3**. In this table, operation on each approach is quantified according to the average delay per vehicle and

the corresponding level of service. The results for the study intersections are based on HCM 6th Edition capacity analysis. Copies of the Synchro reports are provided in the appendix. The signal timings used in the analysis of the Ogden Avenue/ Naper Boulevard intersection were requested and obtained from IDOT.

Table 2.3 Existing (2021) Levels of Service

Intersection	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Ogden Avenue/ Naper Boulevard ★						
Eastbound	79	E[1]	60	E	51	D[2]
Westbound	55-	D[2]	49	D	37	D
Northbound	24	C	33	C	32	C
Southbound	19	B	31	C	28	C
Intersection	*44*	*D*	*43*	*D*	*38*	*D*
Naper Boulevard/ Driveway 1/ Commercial Access 1 △						
Eastbound	10+	B	14	B	12	B
Westbound	22	C	39	E	30	D
Southbound	1	A	1	A	1	A
Naper Boulevard/ Driveway 2 △						
Westbound	14	B	12	B	13	B
Ogden Avenue/ Driveway 3 △						
Westbound	1	A	1	A	1	A
Northbound	16	C	20	C	16	C
Ogden Avenue/ Driveway 4/ Commercial Access 2 △						
Westbound	1	A	10-	A	10-	A
Northbound	21	C	24	C	22	C
Southbound	11	B	13	B	13	B

★ -Signalized Intersection △-Minor-Leg Stop-Controlled Intersection [1]Through movement operates at LOS F
[2]Through movement operates at LOS E

At the signalized intersection of Ogden Avenue/Naper Boulevard all approaches, except the eastbound approach during the AM and PM peak hours, currently operate at LOS D or better. The eastbound approach operates at LOS E during the AM and PM peak hours. Additionally, the eastbound through movement at the intersection operates at LOS F during the AM peak hour and LOS E during the Saturday midday peak hour. The westbound through movement at the intersection operates at LOS E during the AM peak hour. The 95th percentile queues for the eastbound left-turn movement are estimated to be up to 8 vehicles (approximately 200 feet) in the PM peak period which exceeds the existing storage by 120 feet. Queue spillback for this movement likely occurs. The 95th percentile queues on all other approaches are accommodated by the existing storage.

At the minor-leg stop-controlled intersection of Naper Boulevard and Driveway 1/Commercial Access 1, all approaches currently operate at LOS C or better during the AM, PM and Saturday midday peak hours with the exception of the westbound approach in the PM peak hour, which operates at LOS E. Low levels-of-service are not uncommon for side street approaches, as vehicles may experience delays turning onto a major roadway. The 95th percentile queues are estimated to be one vehicle or

less (approximately 25 feet) for all approaches in each peak hour and are accommodated by the existing capacity.

At the minor-leg stop-controlled intersection of Naper Boulevard and Driveway 2, all approaches currently operate at LOS B or better during the AM, PM and Saturday midday peak hours. The 95th percentile queues are estimated to be less than one vehicle (approximately 25 feet) for all approaches in each peak hour and are accommodated by the existing capacity.

At the minor-leg stop-controlled intersection of Driveway 3 and Ogden Avenue, all approaches currently operate at LOS C or better during the AM, PM and Saturday midday peak hours. The 95th percentile queues are estimated to be one vehicle or less (approximately 25 feet) for all approaches in each peak hour and are accommodated by the existing capacity.

At the minor-leg stop-controlled intersection of Driveway 4 and Ogden Avenue, all approaches currently operate at LOS C or better during the AM, PM and Saturday midday peak hours. The 95th percentile queues are estimated to be one vehicle or less (approximately 25 feet) for all approaches in each peak hour and are accommodated by the existing capacity.

3. DEVELOPMENT CHARACTERISTICS

This section of the report outlines the proposed site plan, summarizes site-specific traffic characteristics, defines future roadway improvements, and develops future traffic projections for analysis.

Development Characteristics

The proposed redevelopment would include an approximately 4,800 square-foot convenience store with twenty (20) vehicle fueling positions. The new Casey's General Store would replace an existing gas station with (16) fueling positions with a convenience store and car wash. The proposed redevelopment would maintain the existing full movement driveway on Naper Boulevard (Driveway 1) and the right-in/right-out only driveway on Naper Boulevard and modify the full-access driveway on Ogden Avenue (Driveway 4) to provide 3/4 access. It should be noted that left-turns into Driveway 1 from Naper Boulevard are restricted via signage during the weekday morning and evening peak periods. The westmost existing full-access driveway along Ogden Avenue (Driveway 3) will be removed. Driveways 2 and 4 would include one inbound and one outbound lane and would be stop controlled on the outbound lane. Driveway 1 would provide one inbound lane and two outbound lanes: a separate right-turn and left-turn lane. All existing site driveway locations will remain for the proposed redevelopment, except for Driveway 3 as it is being removed. A conceptual site plan is provided in the appendix.

Trip Generation

In order to calculate the trips generated by the proposed site, data was referenced from the Institute of Transportation Engineers (ITE) manual titled Trip Generation, Eleventh Edition. Trip generation rates for the ITE Land Use Code (LUC) corresponding to the proposed use are shown in **Table 3.1**. LUC 945 (Convenience Store / Gas Station) offers multiple subcategories – gross floor area and vehicle fueling positions, of which gross floor area was chosen. A copy of the ITE data are provided in the appendix.

Table 3.1 ITE Trip Generation Data

ITE Land Use	Unit	Weekday			Saturday
		Daily	AM Peak Hour	PM Peak Hour	Midday Peak Hour
Convenience Store/Gas Station (LUC 945)	Per vehicle fueling positions	257.13X 50% in/50% out	27.04X 50% in/50% out	22.76X 50% in/50% out	20.44X 50% in/50% out

X = Vehicle Fueling Positions

For the purpose of this study, site generated trips are expected to exhibit multiple routing patterns when traveling to and from the subject site, as described below:

- The subject site is currently developed as a gas station. Existing site trips were removed from site generated trips to determine the net new trips generated by the site. Based on the assumptions in **Table 3.3**, the site trip assignment for new primary trips and new pass-by trips are illustrated on **Exhibit 3** and **Exhibit 4**, respectively. The total new site-generated trips are depicted in **Exhibit 5**.
- **Pass-By** - Pass-by traffic reflects the travel patterns of motorists who are already traveling on the adjacent study roadways and stop at the site en route to another destination. Data in

the ITE Trip Generation Handbook, Third Edition, reveals that roughly 62 percent of vehicles at a Convenience Market with a Gas Station are pass-by trips in the weekday morning peak hour and 56 percent of vehicles are pass-by trips during the weekday evening peak hour. ITE data is not provided for daily and Saturday midday pass-by trips; therefore, the weekday evening pass-by percentage was applied (56 percent).

- **Primary Trips** - Vehicles that travel to the subject development and then return directly to their place of origin are called "primary trips." Primary trips reflect new traffic volumes generated by the proposed development that would approach and depart on the same route. Trips to/from the site that are not pass-by trips are expected to be primary trips.

Table 3.2 shows the site generated traffic projections.

Table 3.2 Site-Generated Traffic Projections[1]

Land Use	Size	Daily	Weekday						Saturday		
			AM Peak Hour			PM Peak Hour			Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Convenience Store/Gas Station (LUC 945)	20 Fueling Positions	5,140	270	270	540	230	230	460	205	205	410
Existing Site traffic		--	125	100	225	145	140	285	150	125	275
Total New Site Trips		--	145	170	315	85	90	175	55	80	135
Pass-By Trips[2]		--	100	100	200	55	55	110	40	40	80
Net New Site Trips		--	45	70	115	30	35	65	15	40	55

[1]In/Out volumes are rounded to the nearest multiple of five.

[2]Based upon the ITE Trip Generation Handbook, Third Edition, pass-by trips for the site are assumed to be 62 percent during the weekday morning, 56 percent during the weekday evening. ITE data is not provided for Saturday midday and daily pass-by trips; therefore, the weekday evening pass-by percentage was applied.

Directional Distribution

The estimated distribution of site-generated traffic on the surrounding roadway network as it approaches and departs the site is a function of several variables, such as the nature of surrounding land uses, prevailing traffic volumes/patterns, characteristics of the street system, and the ease with which motorists can travel over various sections of that system. The anticipated directional distributions estimated for the primary trips and pass-by trips are outlined in **Table 3.3**.

Table 3.3 Estimated Trip Distribution

Traveling to/from	Estimated Trip Distribution	
	Primary Trips	Pass-By Trips[1]
North on Naper Boulevard	5%	5%
South on Naper Boulevard	40%	35%
East on Ogden Avenue	30%	10%
West on Ogden Avenue	25%	50%
Total	100%	100%

[1]Pass-by trips are categorized by the trip's origin.

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EXHIBIT 3

SITE TRIP ASSIGNMENT - NEW PRIMARY TRIPS

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EXHIBIT 4

SITE TRIP ASSIGNMENT - NEW PASS-BY TRIPS

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EXHIBIT 5

SITE TRIP ASSIGNMENT - NEW TOTAL TRIPS

4. FUTURE CONDITIONS

This section of the report outlines the proposed site plan, summarizes site-specific traffic characteristics, and develops future traffic projections for analysis.

Future Background Traffic Projections

Background traffic volumes were estimated using data from the Chicago Metropolitan Agency for Planning (CMAP). Based on information received from CMAP, the following growth rates were determined for the roadway segments in the study area:

- Ogden Avenue east of Naper Boulevard: 0.43%
- Naper Boulevard north of Ogden Avenue: 0.17%
- Naper Boulevard south of Ogden Avenue: 0.43%

To be conservative for the analysis, the 0.43 percent growth rate was applied to the entire study area for background traffic growth. An official letter from CMAP documenting the projected Year 2050 traffic volume on the study roadways is included in the appendix. The future background traffic volumes for Year 2027 are presented in **Exhibit 6**.

Future Geometry

Future traffic projections for Year 2027 were calculated by adding the total new site trips (**Exhibit 5**) to future no-build traffic projections (**Exhibit 6**). Traffic projections for the future (2027) build scenario are illustrated in **Exhibit 7**. For the analysis of future traffic conditions, the existing intersection traffic geometrics and control was assumed with the exception of Driveway 3 as it is being removed, and Driveway 4 as it is being modified to 3/4 access. A review of turn lane warrants was completed for the site driveway locations based on criteria outlined in the IDOT guidelines provided in the IDOT *Bureau of Design and Environment (BDE) Manual.*

At Driveway 1 on Naper Boulevard, IDOT *BDE Manual* volume guidance provided for unsignalized intersections on four-lane facilities identified that existing 2021 traffic conditions do not meet the criteria for a northbound right-turn lane at Driveway 1. However, with the addition of site-generated traffic, future traffic conditions for this movement meet the warrant criteria. While warranted, the turn lane was not included in the analysis based on acceptable operations and City staff direction.

At Driveway 2 on Naper Boulevard, IDOT *BDE Manual* volume guidance provided for four-lane facilities identified that future traffic conditions do not meet the criteria for a northbound right-turn lane at Driveway 2. As such, the turn lane was not included in the analysis.

At Driveway 4 on Ogden Avenue, IDOT *BDE Manual* volume guidance provided for unsignalized intersections on four-lane facilities identified that existing 2021 traffic conditions meet the criteria for a westbound left-turn lane at Driveway 4, but do not meet the criteria for an eastbound right-turn lane. Future traffic conditions continue to meet the criteria for a westbound left-turn lane at Driveway 4 and will now meet the criteria for an eastbound right-turn lane with the closure of Driveway 3. Due to the existing westbound left-turn lane associated with the signalized intersection of Ogden Avenue/ Naper Boulevard, the installation of a westbound left-turn lane was not included in this analysis. The closure of Driveway 3 provides space for an eastbound right-turn lane to be installed at Driveway 4. Based on *BDE Manual* guidance, a right-turn lane with 145 feet of storage and a 175-foot taper should be installed at Driveway 4, however due to the proximity of Driveway 4 to the Ogden Avenue/Naper

Boulevard intersection, the recommended turn lane storage and taper cannot be met, therefore, coordination with IDOT will be required to install the turn lane. For the purposes of this analysis, a right-turn lane with 100 feet of storage and a 50-foot taper were assumed.

Future No-Build Capacity Analysis

Based on the volume projections in Exhibit 6, capacity results were identified for the study intersections under future (2027) no-build conditions. The results of capacity analysis are summarized in **Table 4.2** Consistent with the existing conditions analysis, the results for the study intersections are based on Synchro's HCM 6th Edition reports. The signal timings used in the analysis of the Ogden Avenue/ Naper Boulevard intersection were requested and obtained from IDOT.

Table 4.2 Future No-Build Level of Service

Intersection	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Ogden Avenue/ Naper Boulevard ★						
Eastbound	82	F	61	E	52	D[1]
Westbound	55-	D[1]	49	D	37	D
Northbound	25	C	34	C[2]	34	C[2]
Southbound	20-	B[3]	32	C	29	C
Intersection	*46*	*D*	*44*	*D*	*39*	*D*
Naper Boulevard/ Driveway 1/ Commercial Access 1 △						
Eastbound	10+	B	14	B	12	B
Westbound	23	C	41	E	32	D
Southbound	1	A	1	A	1	A
Naper Boulevard/ Driveway 2 △						
Westbound	14	B	12	B	13	B
Ogden Avenue/ Driveway 3 △						
Westbound	1	A	1	A	1	A
Northbound	17	C	21	C	16	C
Ogden Avenue/ Driveway 4/ Commercial Access 2 △						
Westbound	1	A	1	A	1	A
Northbound	21	C	26	D	23	C
Southbound	11	B	13	B	13	B

★ -Signalized Intersection △-Minor-Leg Stop-Controlled Intersection [1]Through movement operates at LOS E
[2]Through movement operates at LOS D [3]Left turn movement operates at LOS C

At the signalized intersection of Ogden Avenue/ Naper Boulevard under Future No-Build conditions, individual intersection approaches operate at similar LOS with minor increases in delay as compared to Existing Conditions with the exception of the eastbound approach, which operates at LOS F instead of LOS E due to an increase in delay of 3 seconds during the AM peak hour. The eastbound through movement continues to operate at LOS E during the Saturday midday peak hour, the westbound through movement continues to operate at LOS E in the AM peak hour, and the southbound left-turn movement continues to operate at LOS C. With the increase in background traffic for the Future No-Build condition, the northbound through movement operates at LOS D in the PM and Saturday peak hours. The 95th percentile queue estimates for all approaches are similar to Existing Conditions, with the eastbound left-turn lane queue expected to continue exceeding the provided storage, and all other queues accommodated by the provided storage.

At the minor-leg stop-controlled intersection of Naper Boulevard and Driveway 1/Commercial Access 1, all approaches continue to operate at LOS E or better during the AM, PM and Saturday midday

peak hours with minor increases in delay. Low levels-of-service are not uncommon for side street approaches, as vehicles may experience delays turning onto a major roadway. The 95th percentile queues are estimated to be similar to Existing Conditions, with all queues accommodated by the provided storage.

At the minor-leg stop-controlled intersection of Naper Boulevard and Driveway 2, all approaches continue to operate at LOS B or better during the AM, PM and Saturday midday peak hours with no increase in delay or LOS. The 95th percentile queues are estimated to be similar to Existing Conditions, with all queues accommodated by the provided storage.

At the minor-leg stop-controlled intersection of Driveway 3 and Ogden Avenue, all approaches continue to operate at LOS C or better during the AM, PM and Saturday midday peak hours with minor increases in delay compared to existing conditions. The 95th percentile queues are estimated to be similar to Existing Conditions, with all queues accommodated by the provided storage.

At the minor-leg stop-controlled intersection of Driveway 4 and Ogden Avenue, all approaches continue to operate at LOS C or better during the AM, PM and Saturday midday peak hours and minor increases in delay compared to existing conditions with the exception of the northbound approach which operates at LOS D with an increase in delay of 2 seconds. The 95th percentile queues are estimated to be similar to Existing Conditions, with all queues accommodated by the provided storage.

Future Build Capacity Analysis

Based on the volume projections presented in **Exhibit 7**, capacity results were identified for the study intersections under Future Year 2027 Build conditions. The results of capacity analysis are summarized in **Table 4.3**. Consistent with the No-Build Conditions analysis, the results for the study intersections are based on Synchro's HCM 6th Edition reports. The signal timings used in the analysis of the Ogden Avenue/ Naper Boulevard intersection were requested and obtained from IDOT.

Table 4.3 Future Build Level of Service

Intersection	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Ogden Avenue/ Naper Boulevard ★						
Eastbound	83	F	62	E	52	D[1]
Westbound	54	D	48	D	37	D
Northbound	25	C	38	D	34	C[2]
Southbound	21	C	32	C	29	C
Intersection	*46*	*D*	*44*	*D*	*39*	*D*
Naper Boulevard/ Driveway 1/ Commercial Access 1 △						
Eastbound	10+	B	14	B	12	B
Westbound	44	E	48	E	37	E
Southbound	0	A	0	A	<1	A
Naper Boulevard/ Driveway 2 △						
Westbound	16	C	13	B	13	B
Ogden Avenue/ Driveway 4/ Commercial Access 2 △						
Westbound	1	A	1	A	1	A
Northbound	12	B	12	B	13	B
Southbound	11	B	13	B	13	B

★ -Signalized Intersection △-Minor-Leg Stop-Controlled Intersection [1]Through movement operates at LOS E
[2]Through movement operates at LOS D

At the signalized intersection of Ogden Avenue/ Naper Boulevard under Future Build conditions, individual intersection approaches operate at similar LOS with minor increases in delay as compared to no-build conditions with the exception of the southbound approach during the AM peak hour which operates at LOS C with an increase in delay of 1 second as compared to the no-build scenario. The 95th percentile queue estimates for all approaches are similar to future no-build conditions, with the eastbound left-turn lane queue expected to continue exceeding the provided storage, and all other queues are accommodated by the provided storage.

At the minor-leg stop-controlled intersection of Naper Boulevard and Driveway 1/Commercial Access 1, the eastbound approach continues to operate at LOS B during the AM, PM and Saturday midday peak hours. The westbound site access approach operates at LOS E in the AM, PM and Saturday peak hours. Low levels-of-service are not uncommon for side street approaches, as vehicles may experience delays turning onto a major roadway. The low level-of-service at this particular site access may be conservative since outbound site traffic is likely to make an alternative choice to avoid visible queues and delay when exiting the site. By providing two outbound lanes, the projected 95th percentile queues for the westbound left-turn movement are projected to be approximately 3 vehicles (75 feet) or less during all peak hours and the projected 95th percentile queues for the westbound

right-turn movement are projected to be less than one vehicle during all peak hours, resulting in no impact to internal site circulation. It is likely that the recommended westbound left and right-turn lanes are only able to provide approximately 25 feet of useable storage due to the bend in Driveway 1. As mentioned above, the projected 95th percentile queue for the westbound left-turn lane is 75 feet and as such, the vehicles queued for this movement will extend around the bend and may block access to the westbound right-turn lane. In the event that this scenario arises, it is likely that vehicles will utilize Driveway 2 to exit the site.

At the minor-leg stop-controlled intersection of Naper Boulevard and Driveway 2, all approaches currently operate at LOS C or better during the AM, PM and Saturday midday peak hours. The 95th percentile queues are estimated to be similar to No-Build Conditions, with all queues accommodated by the provided storage.

At the minor-leg stop-controlled intersection of Driveway 4 and Ogden Avenue, the southbound approach continues to operate at LOS B or better during all peak hours. The northbound site access approach is projected to operate at LOS B during each peak hour. The 95th percentile queue for the northbound right-turn lane is projected at one vehicle or less (approximately 25 feet) during all three peak hours. Based on the lengths of these projected northbound queues, internal site circulation will not be impacted.

Kimley»Horn

EXHIBIT 6

FUTURE (2027) BACKGROUND TRAFFIC PROJECTIONS

Kimley»Horn

EXHIBIT 7

FUTURE (2027) BUILD TRAFFIC PROJECTIONS

5. RECOMMENDATIONS & CONCLUSIONS

Based on Kimley-Horn's review of the proposed site plan and evaluation of existing and future traffic conditions, the study intersections are projected to adequately accommodate the proposed redevelopment with the implementation of the following improvements:

- **Naper Boulevard/ Driveway 1**
  - Provide one inbound lane and two outbound lanes (separate right-turn and left-turn lanes approximately 25 feet each) with minor leg stop control and a stop sign and stop bar
- **Naper Boulevard/ Driveway 2**
  - Provide one inbound lane and one outbound lane with minor leg stop control and a stop sign and stop bar
- **Ogden Avenue/ Driveway 4**
  - Provide a right-turn lane on Ogden Avenue with 100 feet of storage and a 50-foot taper
  - Provide one inbound lane and one outbound lane with minor leg stop control and a stop sign and stop bar. Modify the access from full-access to provide 3/4 access with a mountable curb median restricting outbound left-turn movements onto Ogden Avenue.

No improvements are recommended for the existing signalized intersection of Ogden Avenue/ Naper Boulevard. The study intersection does not warrant additional turn-lanes based on the future build traffic conditions presented in this analysis, however, a review of the existing traffic volumes and signal timings is recommended.

Regardless of the final configuration of the intersection geometrics, several additional items should be taken into consideration when preparing site and roadway improvement plans for the subject redevelopment. As the site design progresses, care should be taken with landscaping, signage, and monumentation at the site access locations to ensure that adequate horizontal sight distance is provided from the new stop bars. If alterations to the site plan or land use should occur, changes to the analysis provided within this traffic impact study may be needed.

TECHNICAL APPENDIX

Conceptual Site Plan

Traffic Count Data

CMAP Year 2050 Projections

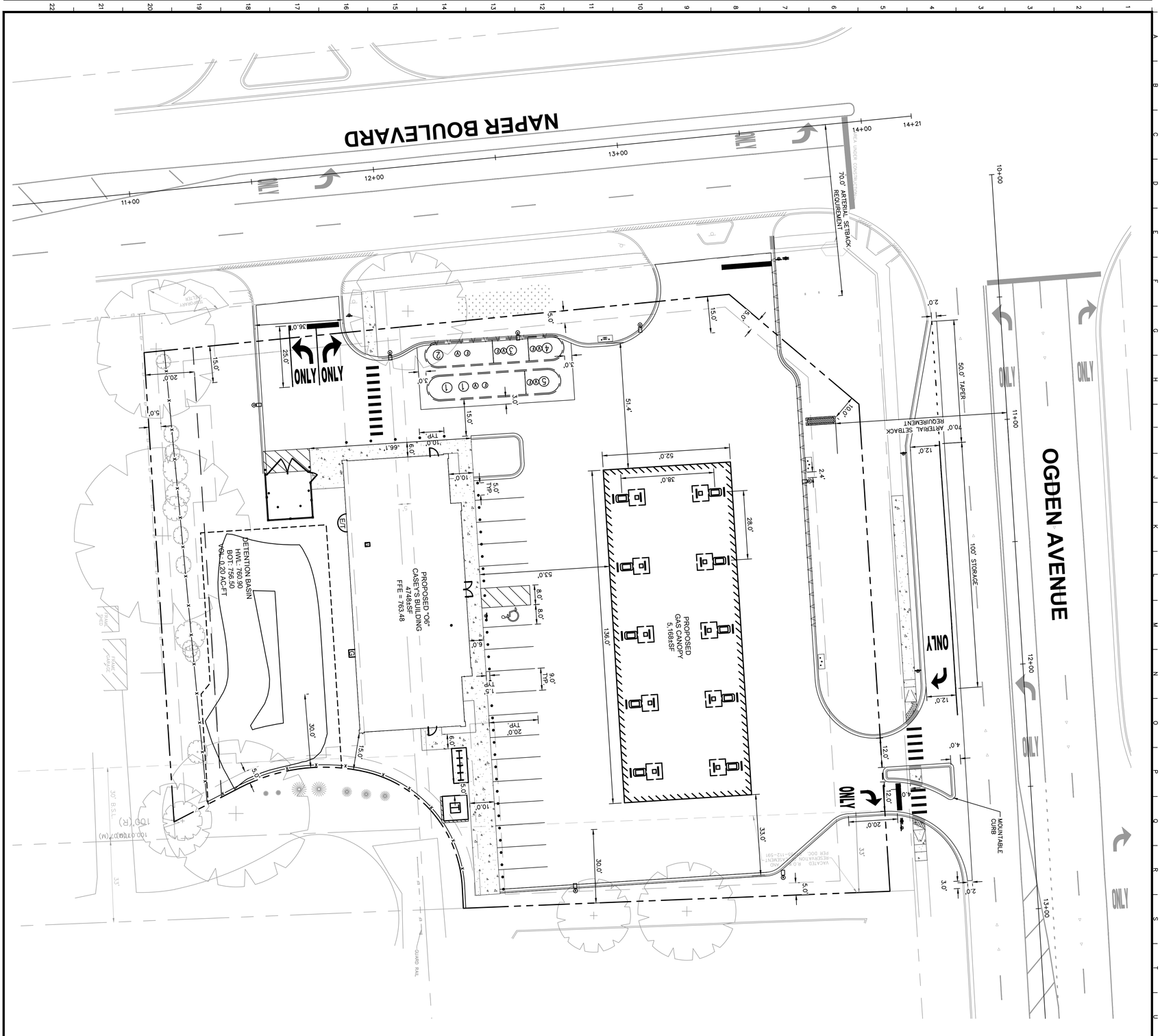
Existing (2021) Capacity Reports

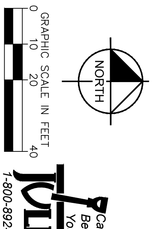
Data from the ITE Manual Trip Generation, Eleventh Edition

Data from the ITE Trip Generation Handbook, Third Edition

Future (2027) No-Build Capacity Reports

Future (2027) Build Capacity Reports





Call Before You Dig
JULIE
1-800-892-0123

C-101	SHEET NUMBER	ORIGINAL ISSUE: 06/02/2021 KHA PROJECT NO. 168865010	CASEY'S NAPERVILLE #6534 1420 E OGDEN AVE NAPERVERVILLE, IL 60563	SITE PLAN	Casey's	SCALE: AS NOTED DESIGNED BY: INS DRAWN BY: INS CHECKED BY: EJT	Kimley»Horn © 2021 KIMLEY-HORN AND ASSOCIATES, INC. 4201 WINFIELD ROAD, SUITE 600 WARRENVILLE, IL 60555 PHONE: 630-487-5550 WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY
1	CITY OF NAPERVILLE COMMENTS	01/26/22	INS

Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

May 18, 2021

Christina Soteros
Kimley-Horn
4201 Winfield Road
Suite 600
Warrenville, IL 60555

Subject: ***Ogden Avenue (US 34) @ Naper Boulevard***
IDOT

Dear Ms. Soteros:

In response to a request made on your behalf and dated May 18, 2021, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current Volumes	Year 2050 ADT
Ogden Ave east of Naper Blvd	23,500	27,200
Naper Blvd north of Ogden Ave	28,000	29,700
Naper Blvd south of Ogden Ave	21,000	24,300

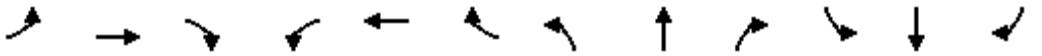
Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2020 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
2021_CY_TrafficForecast\Naperville\du-21-21\du-21-21.docx



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	620	115	60	465	115	180	995	35	140	355	20
Future Volume (veh/h)	155	620	115	60	465	115	180	995	35	140	355	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1811	1826	1856	1844	1811	1856	1870	1767	1856	1969	1618
Adj Flow Rate, veh/h	163	653	121	63	489	121	189	1047	37	147	374	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	5	3	10	6	3	2	9	3	2	19
Cap, veh/h	234	707	131	132	754	411	620	1863	66	313	1950	806
Arrive On Green	0.07	0.24	0.24	0.04	0.22	0.22	0.06	0.53	0.53	0.05	0.52	0.52
Sat Flow, veh/h	1739	2899	536	1767	3504	1535	1767	3501	124	1767	3741	1372
Grp Volume(v), veh/h	163	387	387	63	489	121	189	531	553	147	374	21
Grp Sat Flow(s),veh/h/ln	1739	1721	1715	1767	1752	1535	1767	1777	1848	1767	1870	1372
Q Serve(g_s), s	10.0	32.9	33.0	4.1	19.1	9.4	7.4	29.9	29.9	5.8	8.0	1.0
Cycle Q Clear(g_c), s	10.0	32.9	33.0	4.1	19.1	9.4	7.4	29.9	29.9	5.8	8.0	1.0
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	234	419	418	132	754	411	620	945	983	313	1950	806
V/C Ratio(X)	0.70	0.92	0.93	0.48	0.65	0.29	0.31	0.56	0.56	0.47	0.19	0.03
Avail Cap(c_a), veh/h	234	424	423	182	864	459	643	945	983	355	1950	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	55.4	55.4	46.4	53.7	43.6	14.7	23.4	23.4	18.6	19.1	12.9
Incr Delay (d2), s/veh	8.8	28.4	28.8	2.7	4.3	1.8	0.3	2.4	2.3	1.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.1	24.4	24.4	3.5	13.7	6.8	5.4	18.8	19.4	4.3	6.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	83.7	84.2	49.1	58.0	45.5	15.0	25.8	25.7	19.7	19.3	13.0
LnGrp LOS	D	F	F	D	E	D	B	C	C	B	B	B
Approach Vol, veh/h		937			673			1273			542	
Approach Delay, s/veh		78.6			54.9			24.2			19.2	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	43.1	13.0	84.7	13.5	38.8	11.4	86.3
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	10.0	37.0	11.5	71.5	10.0	37.0	11.5	71.5
Max Q Clear Time (g_c+I1), s	6.1	35.0	9.4	10.0	12.0	21.1	7.8	31.9
Green Ext Time (p_c), s	0.0	1.5	0.1	9.0	0.0	7.9	0.1	25.6

Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1190	5	0	530
Future Vol, veh/h	0	20	1190	5	0	530
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	2	2	2	4
Mvmt Flow	0	21	1253	5	0	558

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	629	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	-	-	-	-
Pot Cap-1 Maneuver	0	418	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	418	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	418	-
HCM Lane V/C Ratio	-	-	0.05	-
HCM Control Delay (s)	-	-	14.1	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	5	0	25	0	1170	25	5	510	15
Future Vol, veh/h	0	0	20	5	0	25	0	1170	25	5	510	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	5	2	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	21	5	0	26	0	1232	26	5	537	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	277	1524	1808	629	-	0	0	1258	0	0
Stage 1	-	-	-	1245	1245	-	-	-	-	-	-	-
Stage 2	-	-	-	279	563	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.35	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	711	81	78	425	0	-	-	549	-	-
Stage 1	0	0	-	184	244	-	0	-	-	-	-	-
Stage 2	0	0	-	704	507	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	711	78	77	425	-	-	-	549	-	-
Mov Cap-2 Maneuver	-	-	-	78	77	-	-	-	-	-	-	-
Stage 1	-	-	-	184	244	-	-	-	-	-	-	-
Stage 2	-	-	-	674	500	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	21.9	0	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	711	244	549	-	-
HCM Lane V/C Ratio	-	-	0.03	0.129	0.01	-	-
HCM Control Delay (s)	-	-	10.2	21.9	11.6	-	-
HCM Lane LOS	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	730	65	5	635	5	10
Future Vol, veh/h	730	65	5	635	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	2	2	9	2	8
Mvmt Flow	768	68	5	668	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	836	0	1146	418
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	344	-
Critical Hdwy	-	-	4.14	-	6.84	7.06
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.38
Pot Cap-1 Maneuver	-	-	794	-	193	567
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	689	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	794	-	192	567
Mov Cap-2 Maneuver	-	-	-	-	192	-
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	685	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	343	-	-	794	-
HCM Lane V/C Ratio	0.046	-	-	0.007	-
HCM Control Delay (s)	16	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

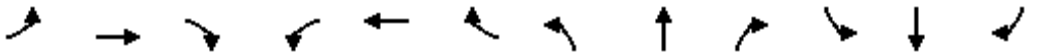
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	735	5	15	615	35	15	0	20	0	0	10
Future Vol, veh/h	0	735	5	15	615	35	15	0	20	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	6	8	6	2	2	5	2	2	9
Mvmt Flow	0	774	5	16	647	37	16	0	21	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	779	0	0	1133	1493	390	-	-	324
Stage 1	-	-	-	-	-	-	777	777	-	-	-	-
Stage 2	-	-	-	-	-	-	356	716	-	-	-	-
Critical Hdwy	-	-	-	4.22	-	-	7.54	6.54	7	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.26	-	-	3.52	4.02	3.35	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	808	-	-	158	122	600	0	0	652
Stage 1	0	-	-	-	-	-	356	405	-	0	0	-
Stage 2	0	-	-	-	-	-	634	432	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	808	-	-	153	120	600	-	-	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	153	120	-	-	-	-
Stage 1	-	-	-	-	-	-	356	405	-	-	-	-
Stage 2	-	-	-	-	-	-	611	423	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	20.7	10.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	266	-	-	808	-	-	652
HCM Lane V/C Ratio	0.139	-	-	0.02	-	-	0.016
HCM Control Delay (s)	20.7	-	-	9.5	-	-	10.6
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	635	190	115	740	170	215	640	30	220	840	65
Future Volume (veh/h)	155	635	190	115	740	170	215	640	30	220	840	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1969	1870	1870	1870	1856	1856	1969	1618
Adj Flow Rate, veh/h	163	668	200	121	779	179	226	674	32	232	884	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	3	3	2	19
Cap, veh/h	248	805	241	200	1058	593	344	1437	68	411	1610	695
Arrive On Green	0.08	0.30	0.30	0.06	0.28	0.28	0.08	0.42	0.42	0.09	0.43	0.43
Sat Flow, veh/h	1767	2695	807	1781	3741	1585	1781	3454	164	1767	3741	1372
Grp Volume(v), veh/h	163	440	428	121	779	179	226	347	359	232	884	68
Grp Sat Flow(s),veh/h/ln	1767	1777	1725	1781	1870	1585	1781	1777	1841	1767	1870	1372
Q Serve(g_s), s	9.7	34.7	34.7	7.2	28.3	12.0	11.1	21.2	21.3	11.1	26.4	3.9
Cycle Q Clear(g_c), s	9.7	34.7	34.7	7.2	28.3	12.0	11.1	21.2	21.3	11.1	26.4	3.9
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	248	530	515	200	1058	593	344	739	766	411	1610	695
V/C Ratio(X)	0.66	0.83	0.83	0.61	0.74	0.30	0.66	0.47	0.47	0.56	0.55	0.10
Avail Cap(c_a), veh/h	248	563	546	227	1185	646	344	739	766	615	1610	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	49.1	49.1	38.9	48.7	33.1	25.2	31.8	31.8	22.9	31.9	19.2
Incr Delay (d2), s/veh	6.1	14.0	14.4	3.6	4.6	1.3	4.5	2.1	2.1	1.2	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	24.2	23.7	6.0	19.9	8.4	8.7	14.5	15.0	8.2	17.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	63.1	63.5	42.5	53.3	34.4	29.7	33.9	33.8	24.2	33.2	19.5
LnGrp LOS	D	E	E	D	D	C	C	C	C	C	C	B
Approach Vol, veh/h		1031			1079			932			1184	
Approach Delay, s/veh		60.1			48.9			32.9			30.7	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	51.3	15.0	71.1	15.0	48.9	17.2	68.9
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	11.5	47.5	11.5	59.5	11.5	47.5	31.0	40.0
Max Q Clear Time (g_c+I1), s	9.2	36.7	13.1	28.4	11.7	30.3	13.1	23.3
Green Ext Time (p_c), s	0.1	7.9	0.0	19.1	0.0	12.2	0.6	9.4

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	870	10	0	1145
Future Vol, veh/h	0	15	870	10	0	1145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	2	2
Mvmt Flow	0	16	916	11	0	1205

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	464	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.06	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.38	-	-	-	-
Pot Cap-1 Maneuver	0	529	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	529	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	529	-
HCM Lane V/C Ratio	-	-	0.03	-
HCM Control Delay (s)	-	-	12	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	20	0	30	0	850	35	1	1095	50
Future Vol, veh/h	0	0	30	20	0	30	0	850	35	1	1095	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	4	2	2	2	2	3	2	2	2
Mvmt Flow	0	0	32	21	0	32	0	895	37	1	1153	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	603	1493	2122	466	-	0	0	932	0	0
Stage 1	-	-	-	914	914	-	-	-	-	-	-	-
Stage 2	-	-	-	579	1208	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	7.58	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.58	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	3.54	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	440	84	50	543	0	-	-	730	-	-
Stage 1	0	0	-	290	350	-	0	-	-	-	-	-
Stage 2	0	0	-	463	254	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	440	78	50	543	-	-	-	730	-	-
Mov Cap-2 Maneuver	-	-	-	78	50	-	-	-	-	-	-	-
Stage 1	-	-	-	290	350	-	-	-	-	-	-	-
Stage 2	-	-	-	428	253	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	38.2	0	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	440	160	730	-	-
HCM Lane V/C Ratio	-	-	0.072	0.329	0.001	-	-
HCM Control Delay (s)	-	-	13.8	38.2	9.9	-	-
HCM Lane LOS	-	-	B	E	A	-	-
HCM 95th %tile Q(veh)	-	-	0.2	1.3	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	805	80	10	1020	5	10
Future Vol, veh/h	805	80	10	1020	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	847	84	11	1074	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	931	0	1448	466
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	559	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	731	-	122	543
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	536	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	731	-	120	543
Mov Cap-2 Maneuver	-	-	-	-	120	-
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	528	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	250	-	-	731	-
HCM Lane V/C Ratio	0.063	-	-	0.014	-
HCM Control Delay (s)	20.4	-	-	10	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

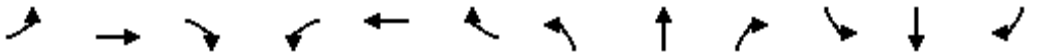
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	815	1	10	975	35	15	0	45	0	0	40
Future Vol, veh/h	0	815	1	10	975	35	15	0	45	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	858	1	11	1026	37	16	0	47	0	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	859	0	0	1394	1944	430	-	-	513
Stage 1	-	-	-	-	-	-	859	859	-	-	-	-
Stage 2	-	-	-	-	-	-	535	1085	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	778	-	-	101	64	573	0	0	506
Stage 1	0	-	-	-	-	-	317	371	-	0	0	-
Stage 2	0	-	-	-	-	-	497	291	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	778	-	-	92	63	573	-	-	506
Mov Cap-2 Maneuver	-	-	-	-	-	-	92	63	-	-	-	-
Stage 1	-	-	-	-	-	-	317	371	-	-	-	-
Stage 2	-	-	-	-	-	-	449	287	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	24.4	12.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	-	-	778	-	-	506
HCM Lane V/C Ratio	0.255	-	-	0.014	-	-	0.083
HCM Control Delay (s)	24.4	-	-	9.7	-	-	12.8
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1	-	-	0	-	-	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	705	210	130	670	165	240	715	50	175	550	80
Future Volume (veh/h)	195	705	210	130	670	165	240	715	50	175	550	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1969	1870	1870	1870	1870	1870	1969	1841
Adj Flow Rate, veh/h	205	742	221	137	705	174	253	753	53	184	579	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	4
Cap, veh/h	316	828	247	211	1049	579	438	1252	88	339	1329	705
Arrive On Green	0.10	0.31	0.31	0.07	0.28	0.28	0.10	0.37	0.37	0.08	0.36	0.36
Sat Flow, veh/h	1781	2699	804	1781	3741	1585	1781	3368	237	1781	3741	1560
Grp Volume(v), veh/h	205	489	474	137	705	174	253	397	409	184	579	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1726	1781	1870	1585	1781	1777	1828	1781	1870	1560
Q Serve(g_s), s	9.5	31.5	31.5	6.5	20.1	9.4	10.7	21.7	21.7	7.7	14.2	3.7
Cycle Q Clear(g_c), s	9.5	31.5	31.5	6.5	20.1	9.4	10.7	21.7	21.7	7.7	14.2	3.7
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	316	545	529	211	1049	579	438	660	679	339	1329	705
V/C Ratio(X)	0.65	0.90	0.90	0.65	0.67	0.30	0.58	0.60	0.60	0.54	0.44	0.12
Avail Cap(c_a), veh/h	342	597	580	230	1144	619	438	660	679	582	1329	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	39.8	39.8	31.6	38.3	27.2	21.7	30.5	30.5	23.2	29.5	19.0
Incr Delay (d2), s/veh	3.8	15.3	15.7	5.6	1.4	0.3	1.9	4.0	3.9	1.3	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.7	22.3	21.8	5.5	14.3	6.4	8.0	14.9	15.2	5.9	10.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	55.1	55.5	37.2	39.7	27.5	23.6	34.5	34.4	24.6	30.5	19.4
LnGrp LOS	C	E	E	D	D	C	C	C	C	C	C	B
Approach Vol, veh/h		1168			1016			1059			847	
Approach Delay, s/veh		51.1			37.2			31.9			28.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	43.3	15.6	49.1	15.1	40.2	13.6	51.1
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	9.7	40.3	12.1	37.9	13.3	36.7	26.5	23.5
Max Q Clear Time (g_c+I1), s	8.5	33.5	12.7	16.2	11.5	22.1	9.7	23.7
Green Ext Time (p_c), s	0.0	3.3	0.0	3.9	0.1	4.6	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	990	5	0	890
Future Vol, veh/h	0	15	990	5	0	890
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	1042	5	0	937

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	524	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	498	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	498	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	498	-
HCM Lane V/C Ratio	-	-	0.032	-
HCM Control Delay (s)	-	-	12.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	15	0	35	0	960	35	5	845	40
Future Vol, veh/h	0	0	30	15	0	35	0	960	35	5	845	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	32	16	0	37	0	1011	37	5	889	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	466	1485	1971	524	-	0	0	1048	0	0
Stage 1	-	-	-	1030	1030	-	-	-	-	-	-	-
Stage 2	-	-	-	455	941	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	543	86	62	498	0	-	-	660	-	-
Stage 1	0	0	-	250	309	-	0	-	-	-	-	-
Stage 2	0	0	-	554	340	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	543	80	61	498	-	-	-	660	-	-
Mov Cap-2 Maneuver	-	-	-	80	61	-	-	-	-	-	-	-
Stage 1	-	-	-	250	309	-	-	-	-	-	-	-
Stage 2	-	-	-	513	335	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	30.3	0	0.1
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	543	194	660	-	-
HCM Lane V/C Ratio	-	-	0.058	0.271	0.008	-	-
HCM Control Delay (s)	-	-	12	30.3	10.5	-	-
HCM Lane LOS	-	-	B	D	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	1.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	845	85	5	965	2	10
Future Vol, veh/h	845	85	5	965	2	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	889	89	5	1016	2	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	978	0	1452	489
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	518	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	701	-	121	525
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	701	-	120	525
Mov Cap-2 Maneuver	-	-	-	-	120	-
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	336	-	-	701	-
HCM Lane V/C Ratio	0.038	-	-	0.008	-
HCM Control Delay (s)	16.1	-	-	10.2	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	855	1	15	875	65	10	0	40	0	0	85
Future Vol, veh/h	0	855	1	15	875	65	10	0	40	0	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	900	1	16	921	68	11	0	42	0	0	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	901	0	0	1394	1922	451	-	-	461
Stage 1	-	-	-	-	-	-	901	901	-	-	-	-
Stage 2	-	-	-	-	-	-	493	1021	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	750	-	-	101	66	556	0	0	547
Stage 1	0	-	-	-	-	-	299	355	-	0	0	-
Stage 2	0	-	-	-	-	-	526	312	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	750	-	-	83	65	556	-	-	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	65	-	-	-	-
Stage 1	-	-	-	-	-	-	299	355	-	-	-	-
Stage 2	-	-	-	-	-	-	431	305	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	22.3	12.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	260	-	-	750	-	-	547
HCM Lane V/C Ratio	0.202	-	-	0.021	-	-	0.164
HCM Control Delay (s)	22.3	-	-	9.9	-	-	12.9
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	-	0.6

Land Use: 945
Convenience Store/Gas Station

Description

A convenience store/gas station is a facility with a co-located convenience store and gas station. The convenience store sells grocery and other everyday items that a person may need or want as a matter of convenience. The gas station sells automotive fuels such as gasoline and diesel.

A convenience store/gas station is typically located along a major thoroughfare to optimize motorist convenience. Extended hours of operation (with many open 24 hours, 7 days a week) are common at these facilities.

The convenience store product mix typically includes pre-packaged grocery items, beverages, dairy products, snack foods, confectionary, tobacco products, over-the-counter drugs, and toiletries. A convenience store may sell alcohol, often limited to beer and wine. Coffee and pre-made sandwiches are also commonly sold at a convenience store. Made-to-order food orders are sometimes offered. Some stores offer limited seating.

The sites in this land use include both self-pump and attendant-pumped fueling positions and both pre-pay and post-pay operations.

Convenience store (Land Use 851), gasoline/service station (Land Use 944), and truck stop (Land Use 950) are related uses.

Land Use Subcategory

Multiple subcategories were added to this land use to allow for multi-variable evaluation of sites with single-variable data plots. All study sites are assigned to one of three subcategories, based on the number of vehicle fueling positions (VFP) at the site: between 2 and 8 VFP, between 9 and 15 VFP, and between 16 and 24 VFP. For each VFP range subcategory, data plots are presented with GFA as the independent variable for all time periods and trip types for which data are available. The use of both GFA and VFP (as the independent variable and land use subcategory, respectively) provides a significant improvement in the reliability of a trip generation estimate when compared to the single-variable data plots in prior editions of *Trip Generation Manual*.

Further, the study sites were also assigned to one of three other subcategories, based on the gross floor area (GFA) of the convenience store at the site: between 2,000 and 4,000 square feet, between 4,000 and 5,500 square feet, and between 5,500 and 10,000 square feet. For each GFA subcategory range, data plots are presented with VFP as the independent variable for all time periods and trip types for which data are available. The use of both VFP and GFA (as the independent variable and land use subcategory, respectively) provides a significant improvement in the reliability of a trip generation estimate when compared to the single-variable data plots in prior editions of *Trip Generation Manual*.

When analyzing the convenience store/gas station land use with each combination of GFA and VFP values as described above, the two sets of data plots will produce two estimates of site-generated trips. Both values can be considered when determining a site trip generation estimate.

Data plots are also provided for three additional independent variables: AM peak hour traffic on adjacent street, PM peak hour traffic on adjacent street, and employees. These independent variables are intended to be analyzed as single independent variables and do not have sub-categories associated with them. Within the data plots and within the ITETripGen web app, these plots are found under the land use subcategory "none."

Additional Data

ITE recognizes there are existing convenience store/gas station sites throughout North America that are larger than the sites presented in the data plots. However, the ITE database does not include any site with more than 24 VFP or any site with gross floor area greater than 10,000 square feet. Submission of trip generation data for larger sites is encouraged.

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), Arkansas, California, Connecticut, Delaware, Florida, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Vermont, Washington, and Wisconsin.

Source Numbers

221, 245, 274, 288, 300, 340, 350, 351, 352, 355, 359, 385, 440, 617, 718, 810, 813, 844, 850, 853, 864, 865, 867, 869, 882, 883, 888, 904, 926, 927, 936, 938, 954, 960, 962, 977, 1004, 1024, 1025, 1027, 1052

Convenience Store/Gas Station - GFA (2-4k) (945)

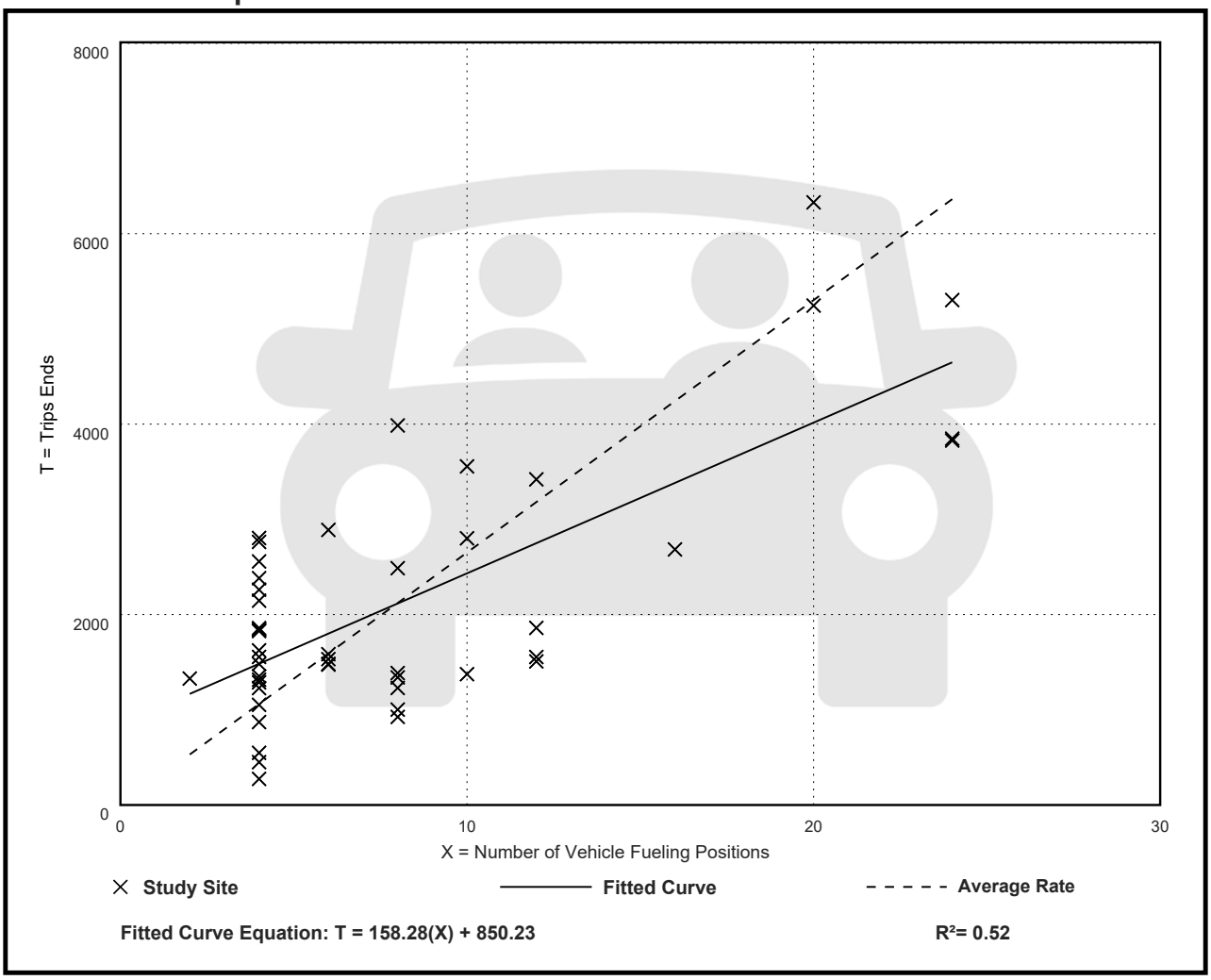
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 48
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
265.12	68.50 - 701.00	142.37

Data Plot and Equation



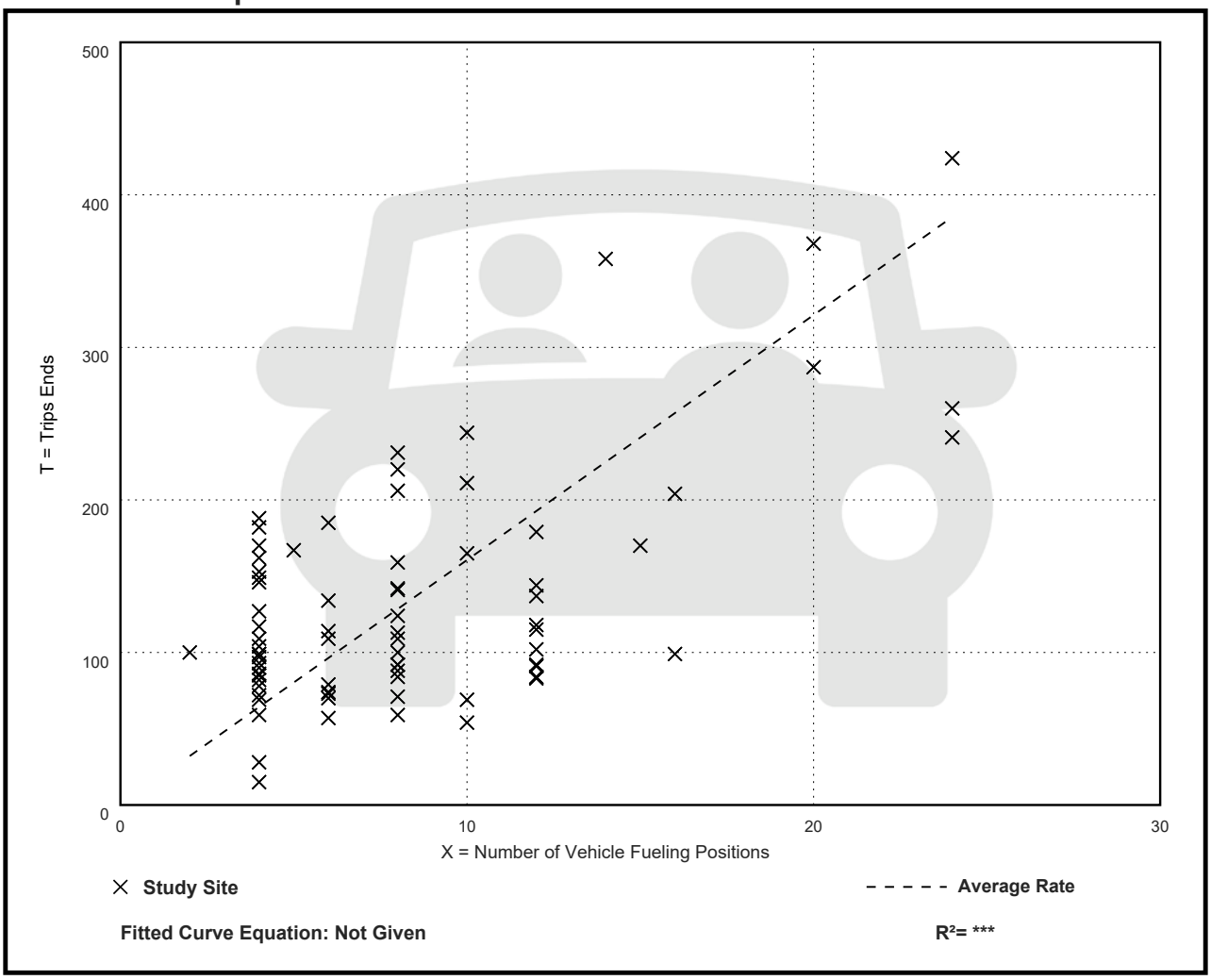
Convenience Store/Gas Station - GFA (2-4k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
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: 76
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
16.06	3.75 - 50.00	8.79

Data Plot and Equation



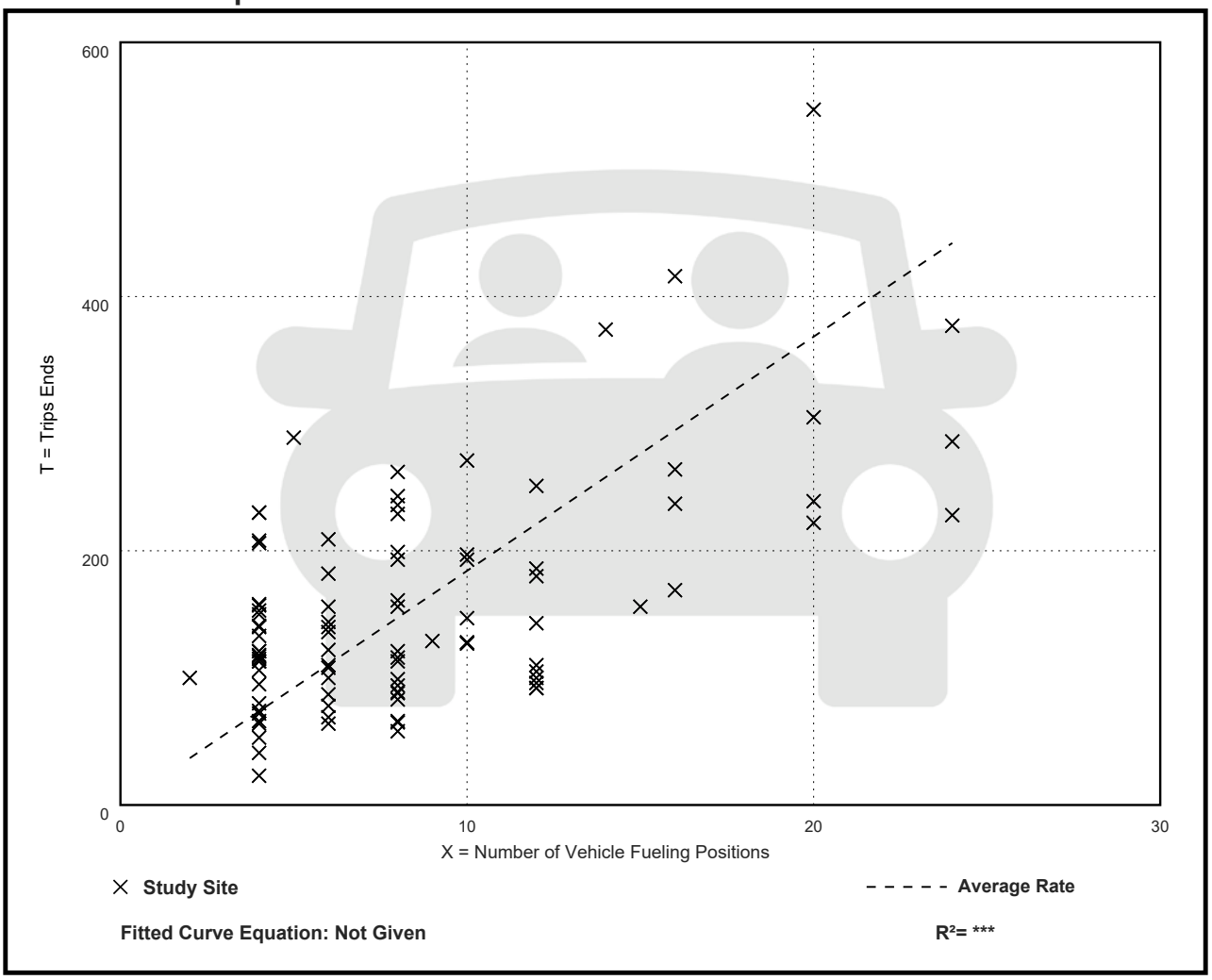
Convenience Store/Gas Station - GFA (2-4k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
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: 93
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
18.42	5.75 - 57.80	10.16

Data Plot and Equation



Convenience Store/Gas Station - GFA (2-4k) (945)

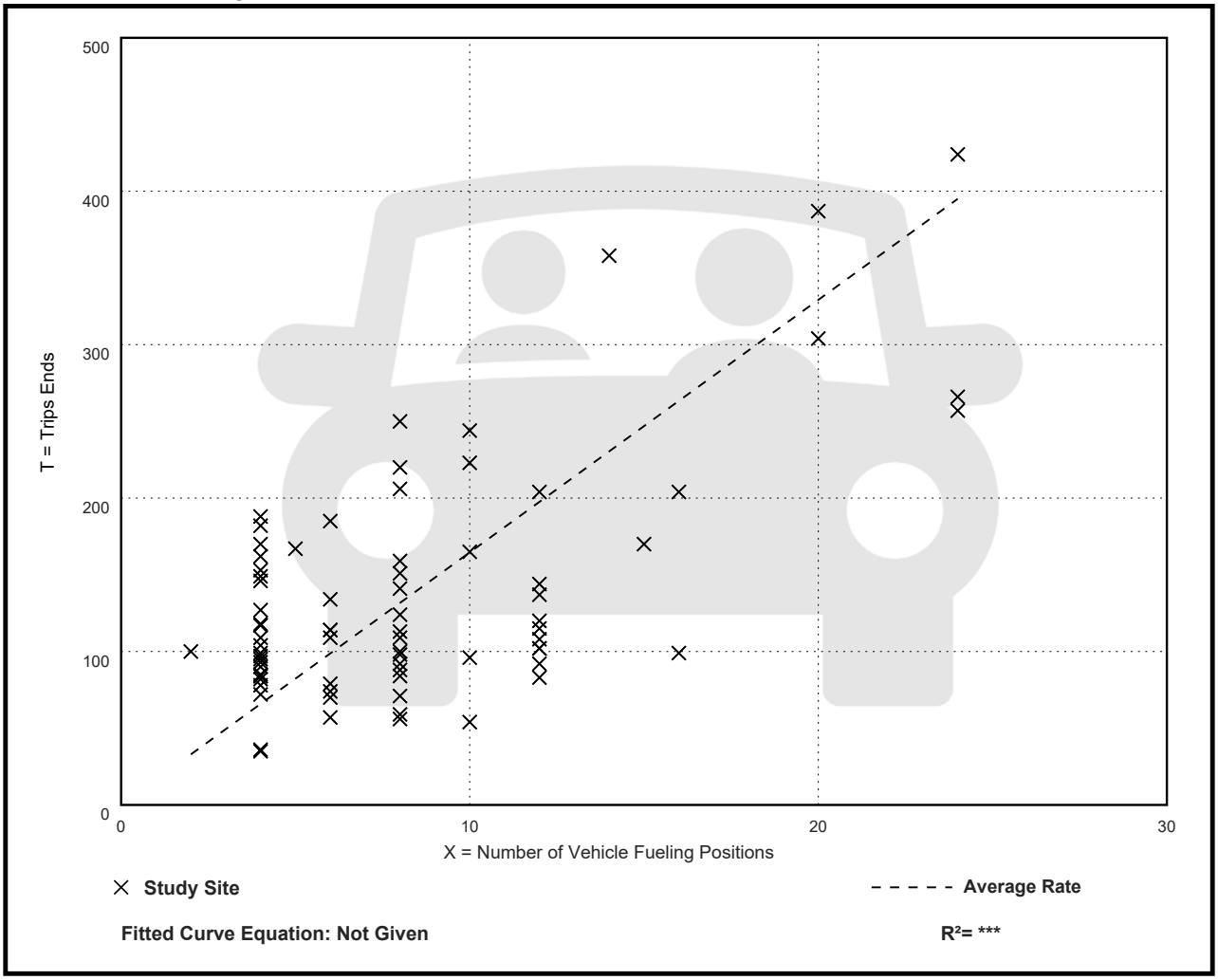
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 77
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
16.46	5.40 - 50.00	8.75

Data Plot and Equation



Convenience Store/Gas Station - GFA (2-4k) (945)

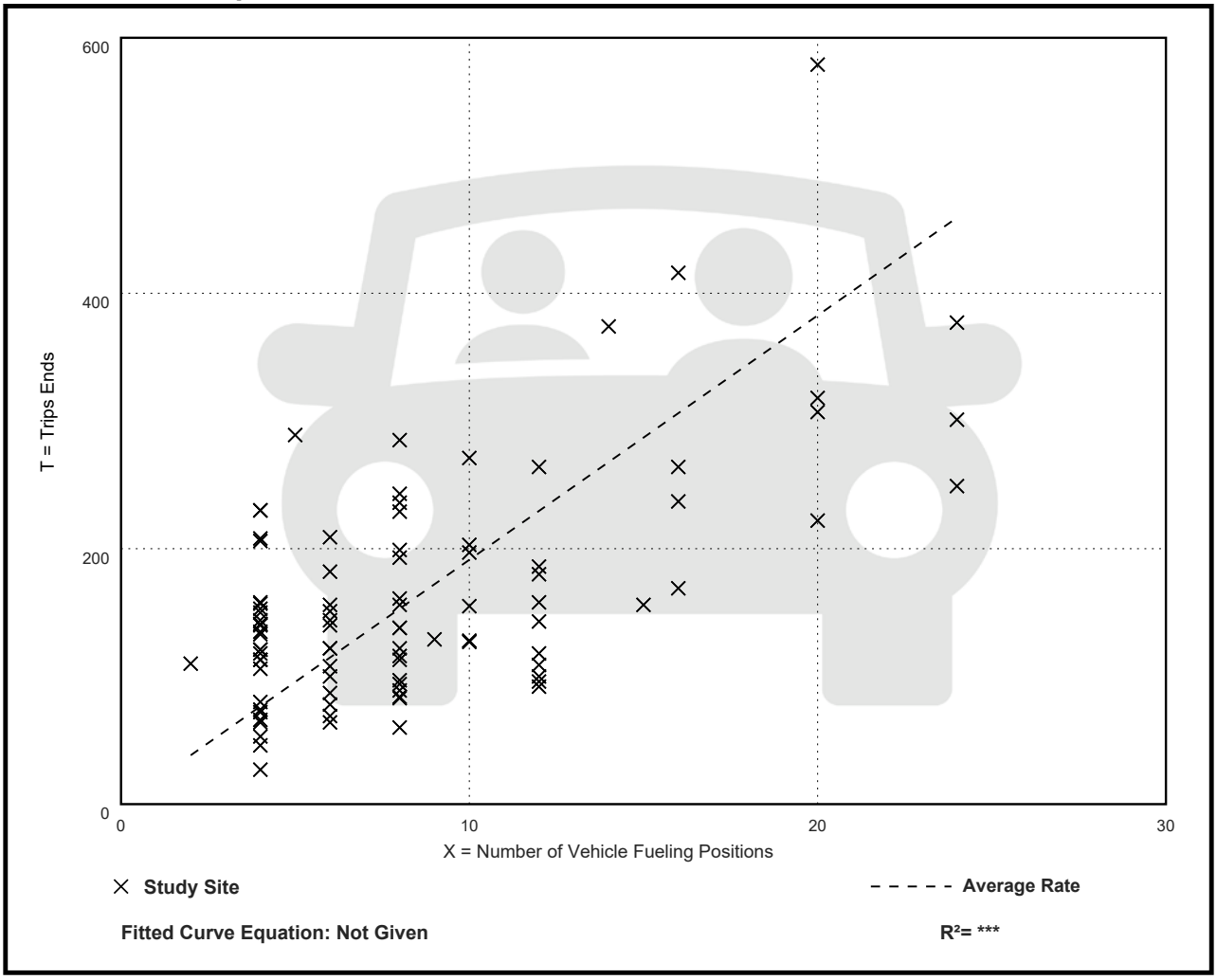
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 93
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
19.13	6.75 - 57.80	10.15

Data Plot and Equation



Convenience Store/Gas Station - GFA (2-4k) (945)

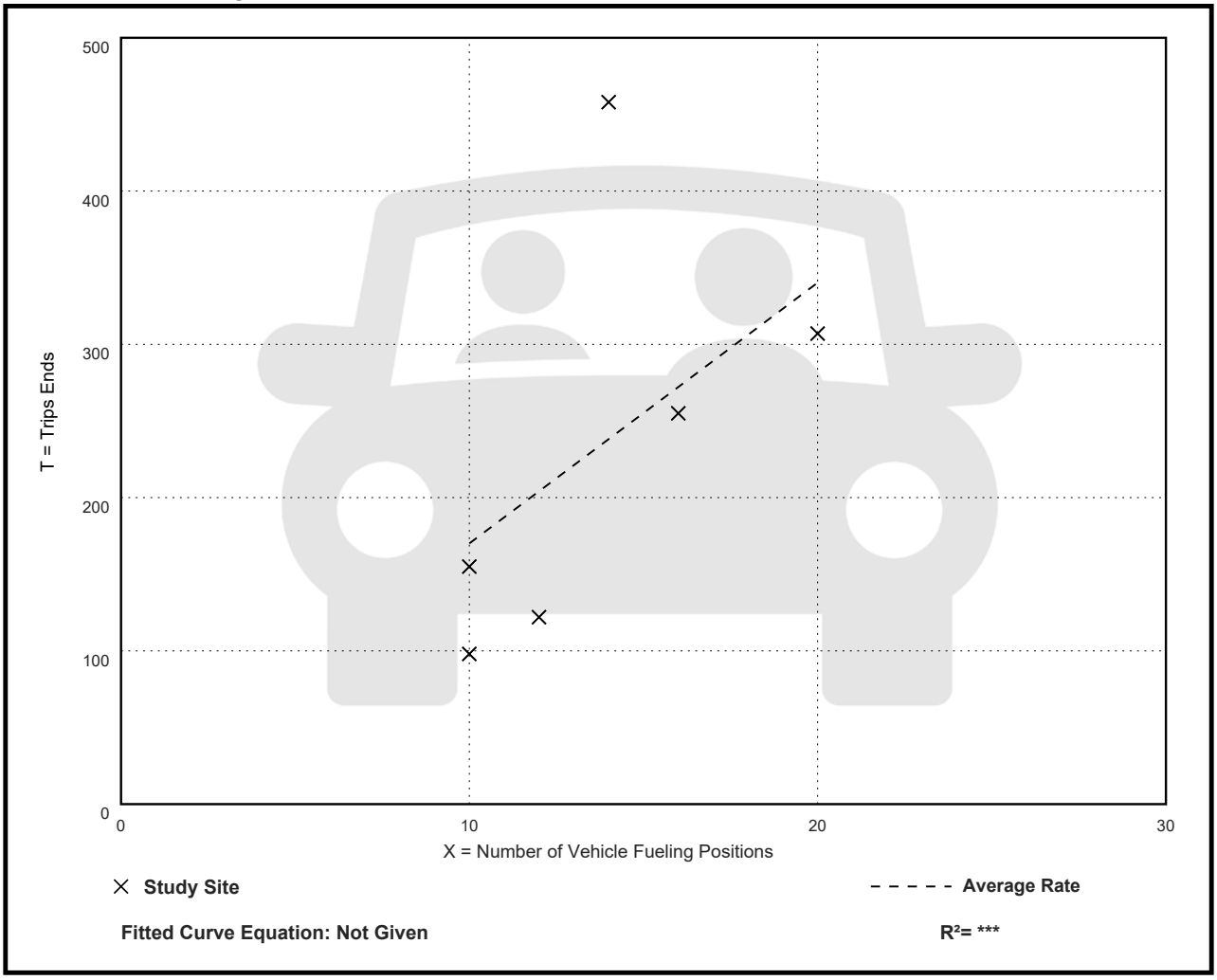
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
17.01	9.80 - 32.71	8.23

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - GFA (4-5.5k) (945)

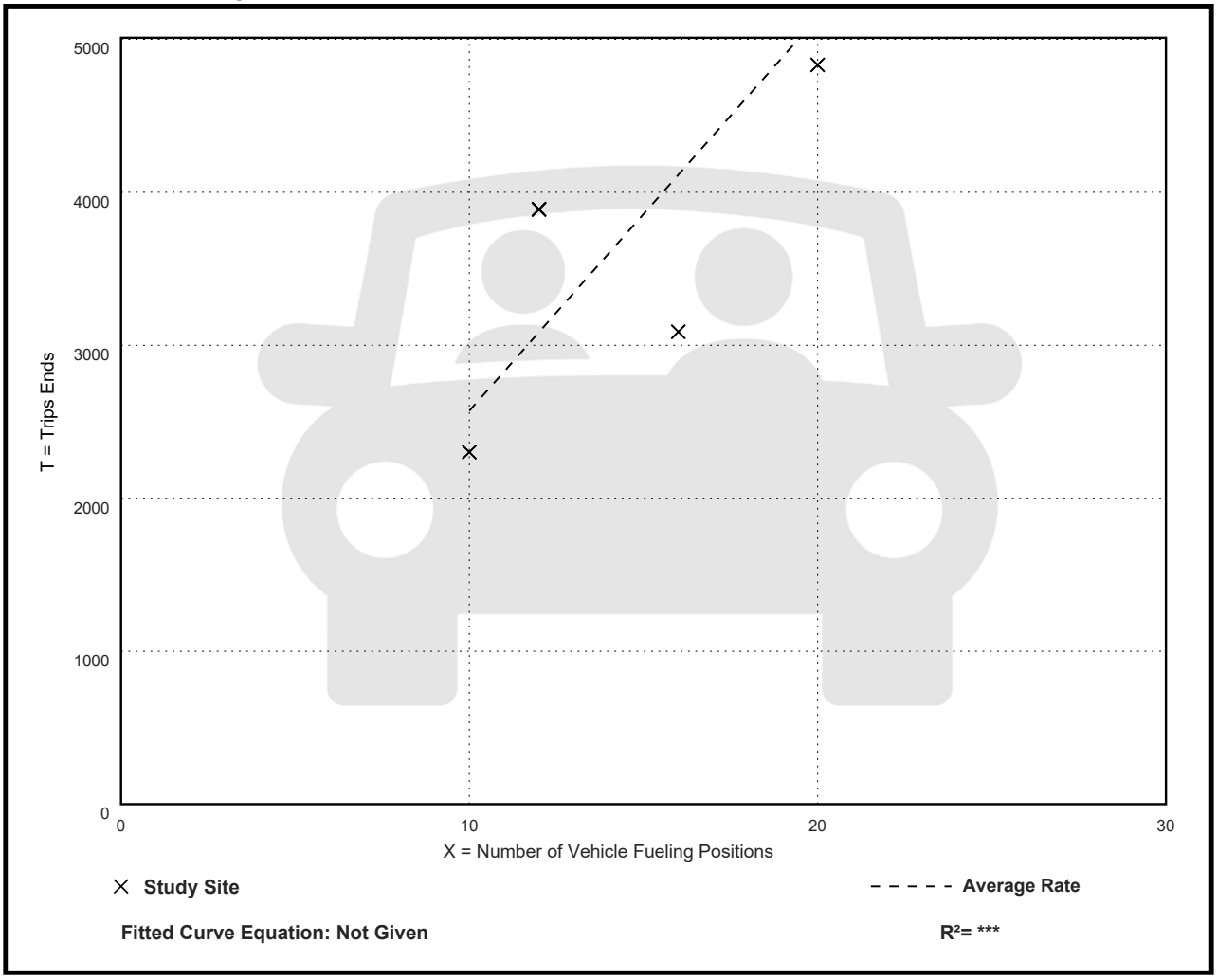
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
257.13	193.00 - 324.17	57.53

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

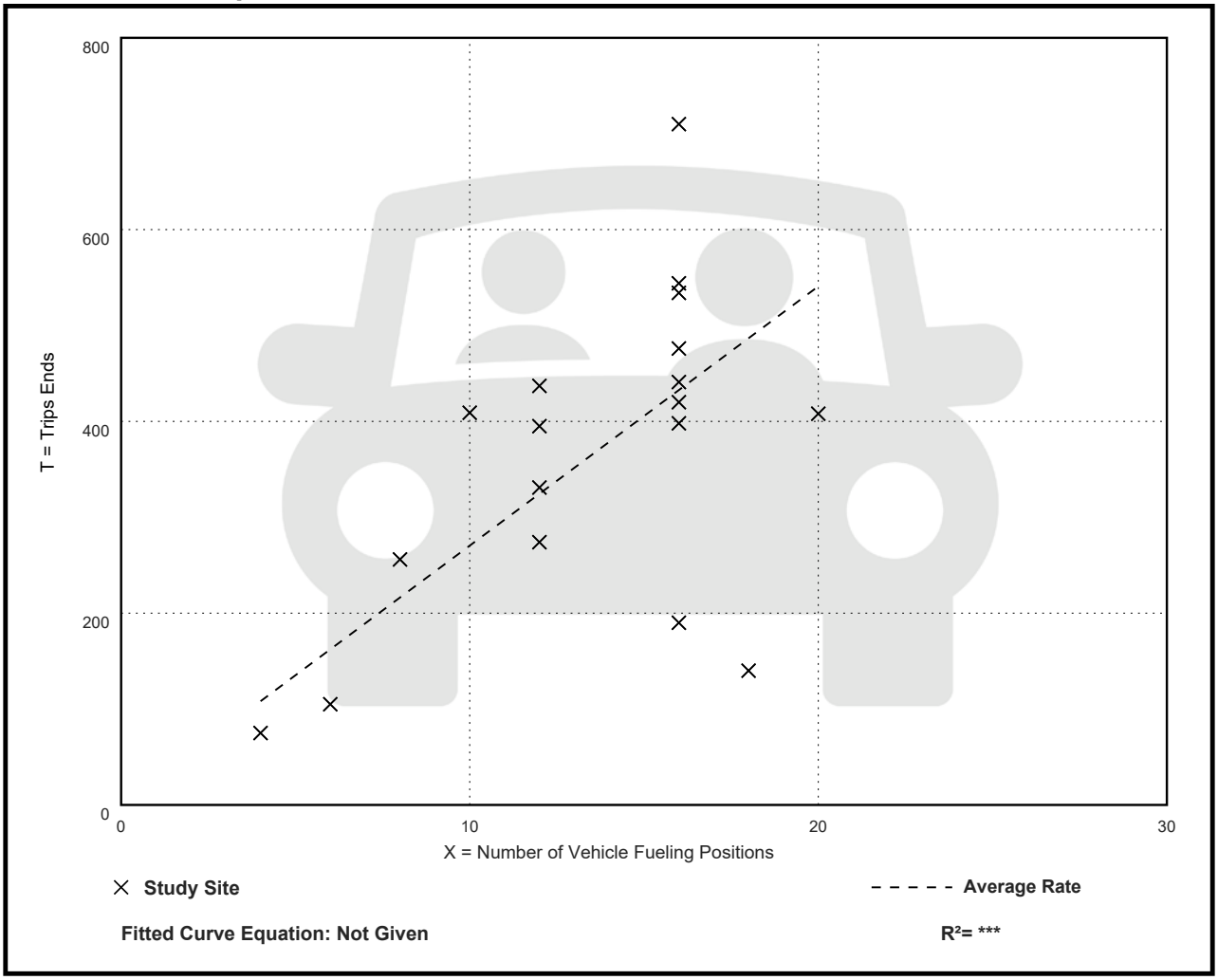
Convenience Store/Gas Station - GFA (4-5.5k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
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: 18
Avg. Num. of Vehicle Fueling Positions: 13
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
27.04	7.78 - 44.38	9.88

Data Plot and Equation



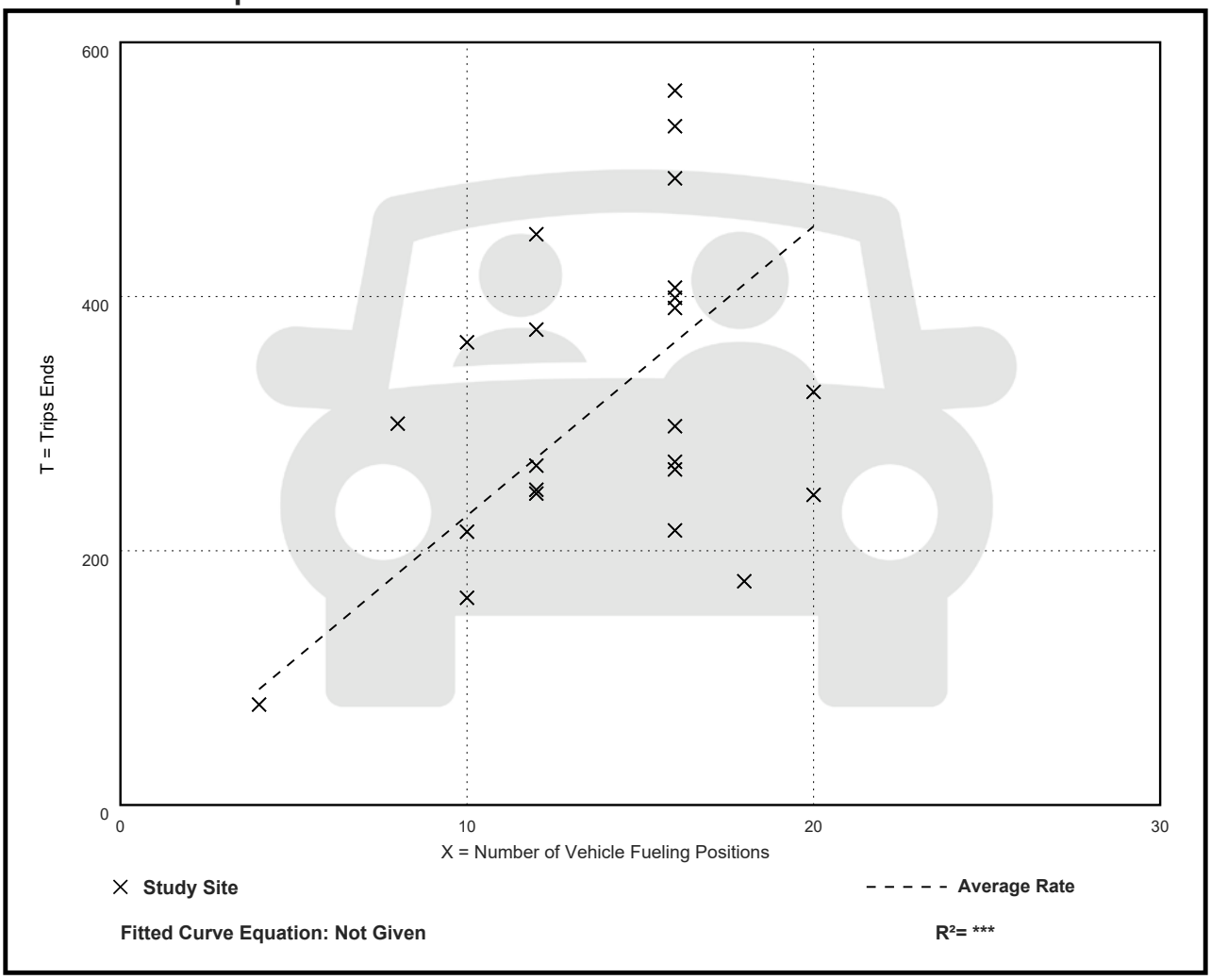
Convenience Store/Gas Station - GFA (4-5.5k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
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: 23
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
22.76	9.78 - 37.50	8.49

Data Plot and Equation



Convenience Store/Gas Station - GFA (4-5.5k) (945)

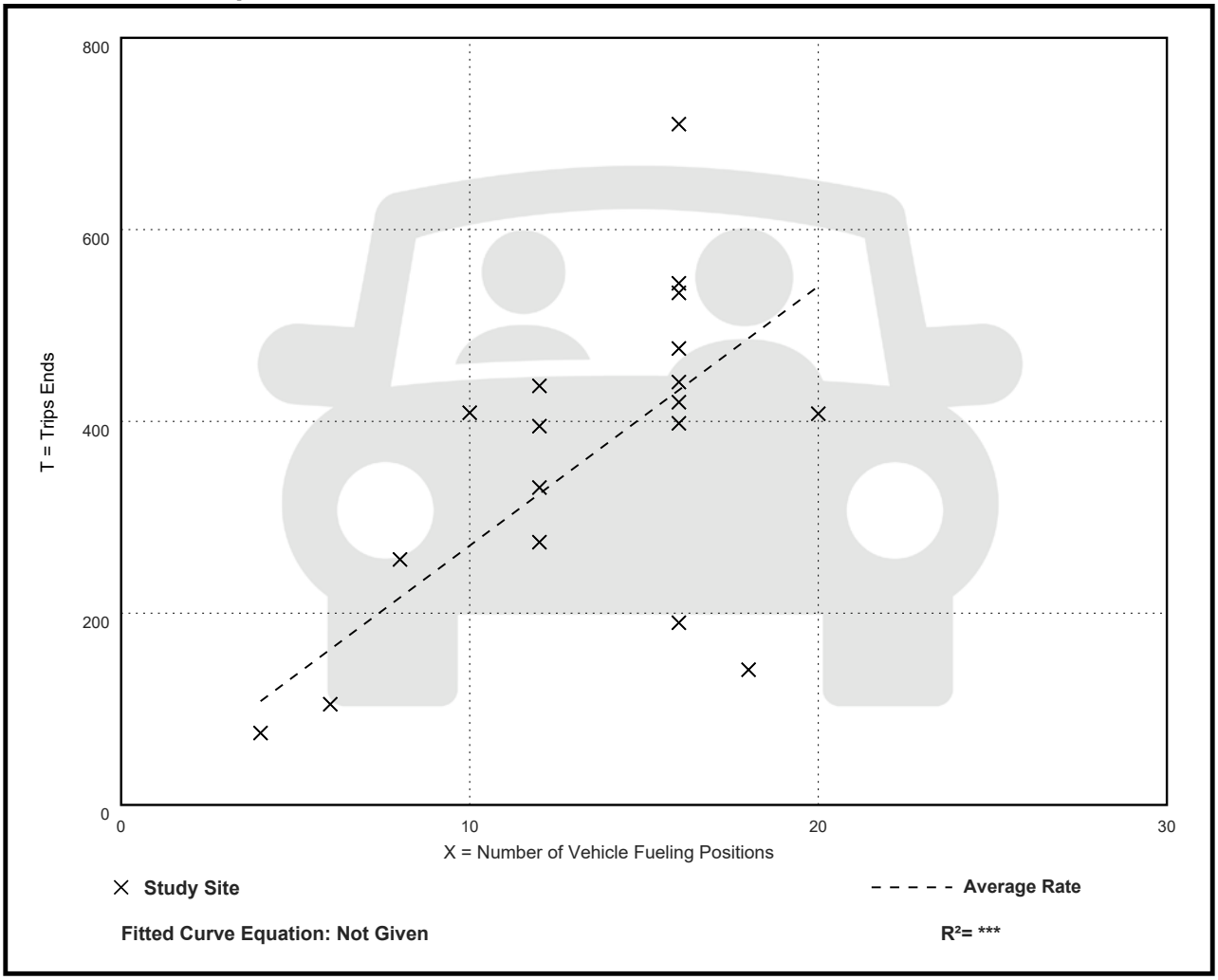
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 18
Avg. Num. of Vehicle Fueling Positions: 13
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
27.04	7.83 - 44.38	9.87

Data Plot and Equation



Convenience Store/Gas Station - GFA (4-5.5k) (945)

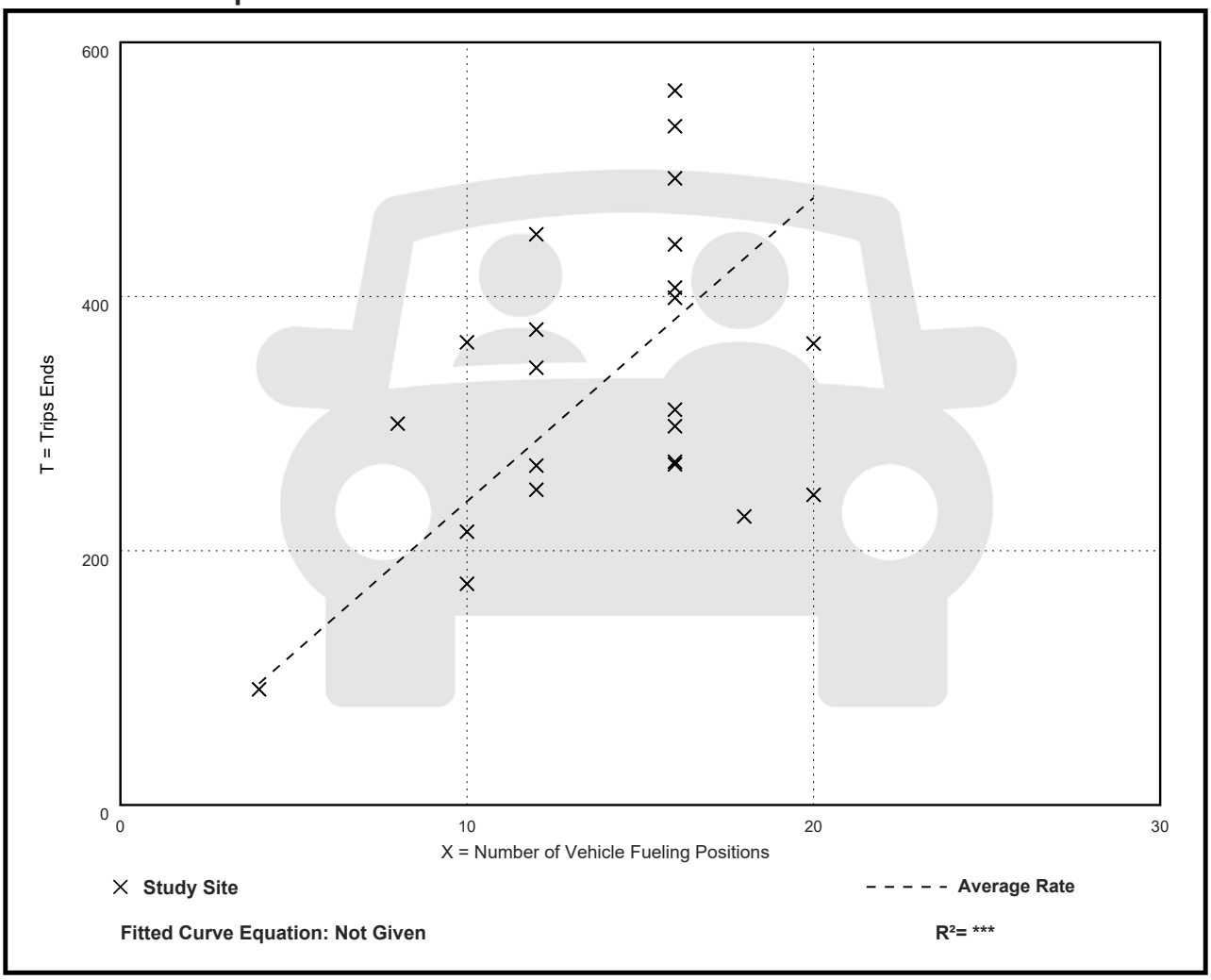
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 23
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
23.88	12.20 - 37.50	7.95

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - GFA (4-5.5k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Saturday

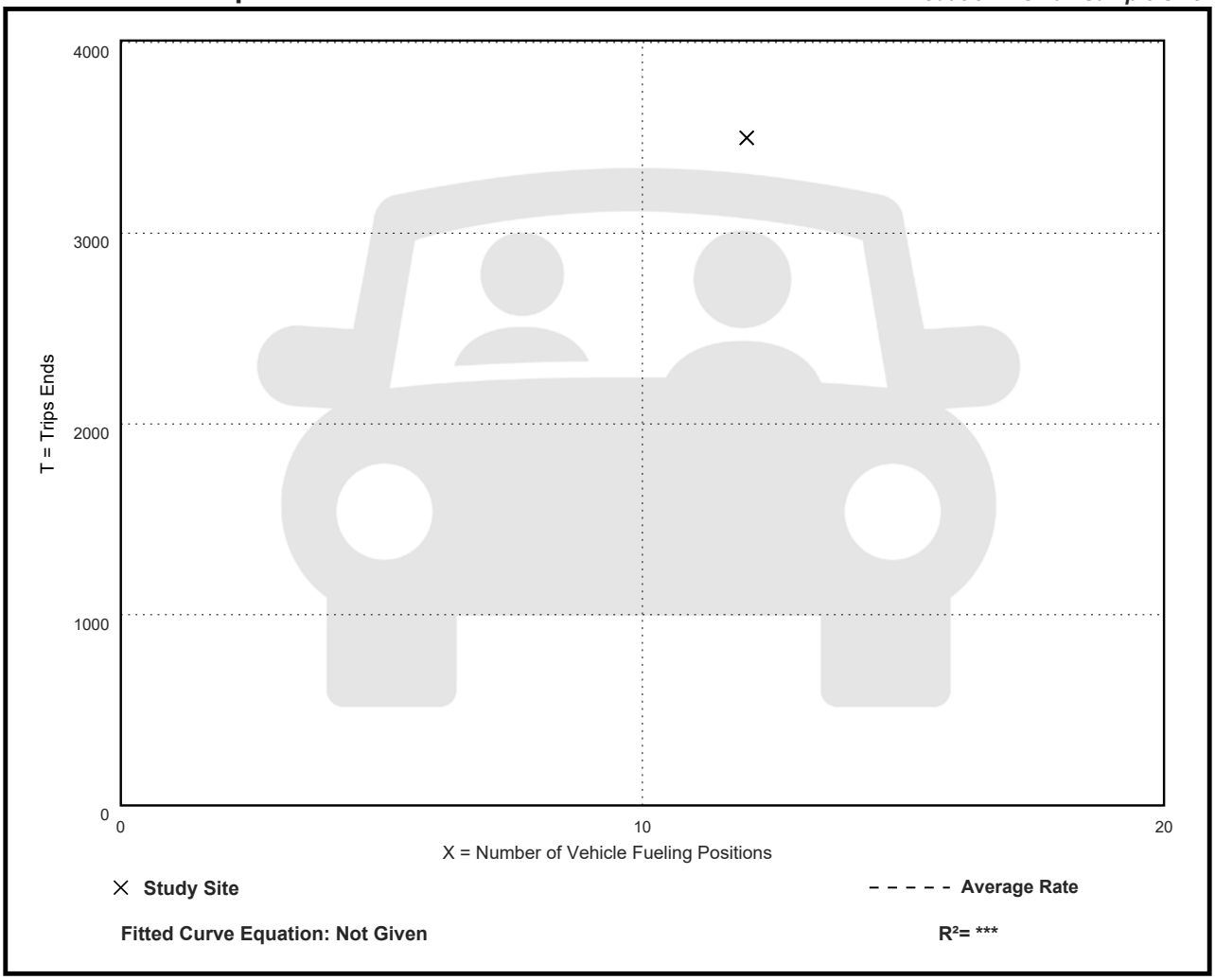
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Vehicle Fueling Positions: 12
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
291.67	291.67 - 291.67	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - GFA (4-5.5k) (945)

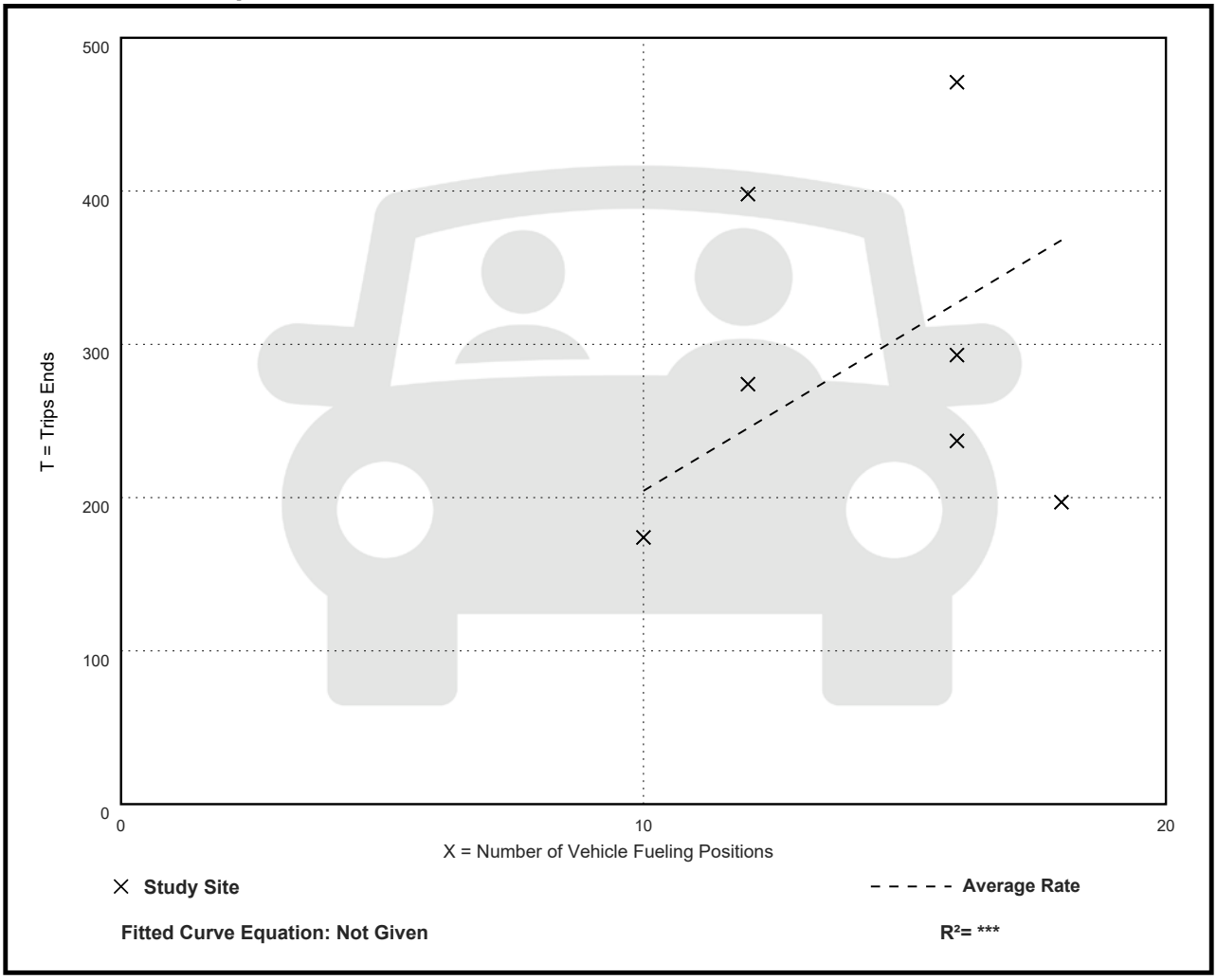
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
20.44	10.94 - 33.17	8.08

Data Plot and Equation



Convenience Store/Gas Station - GFA (4-5.5k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Sunday, Peak Hour of Generator

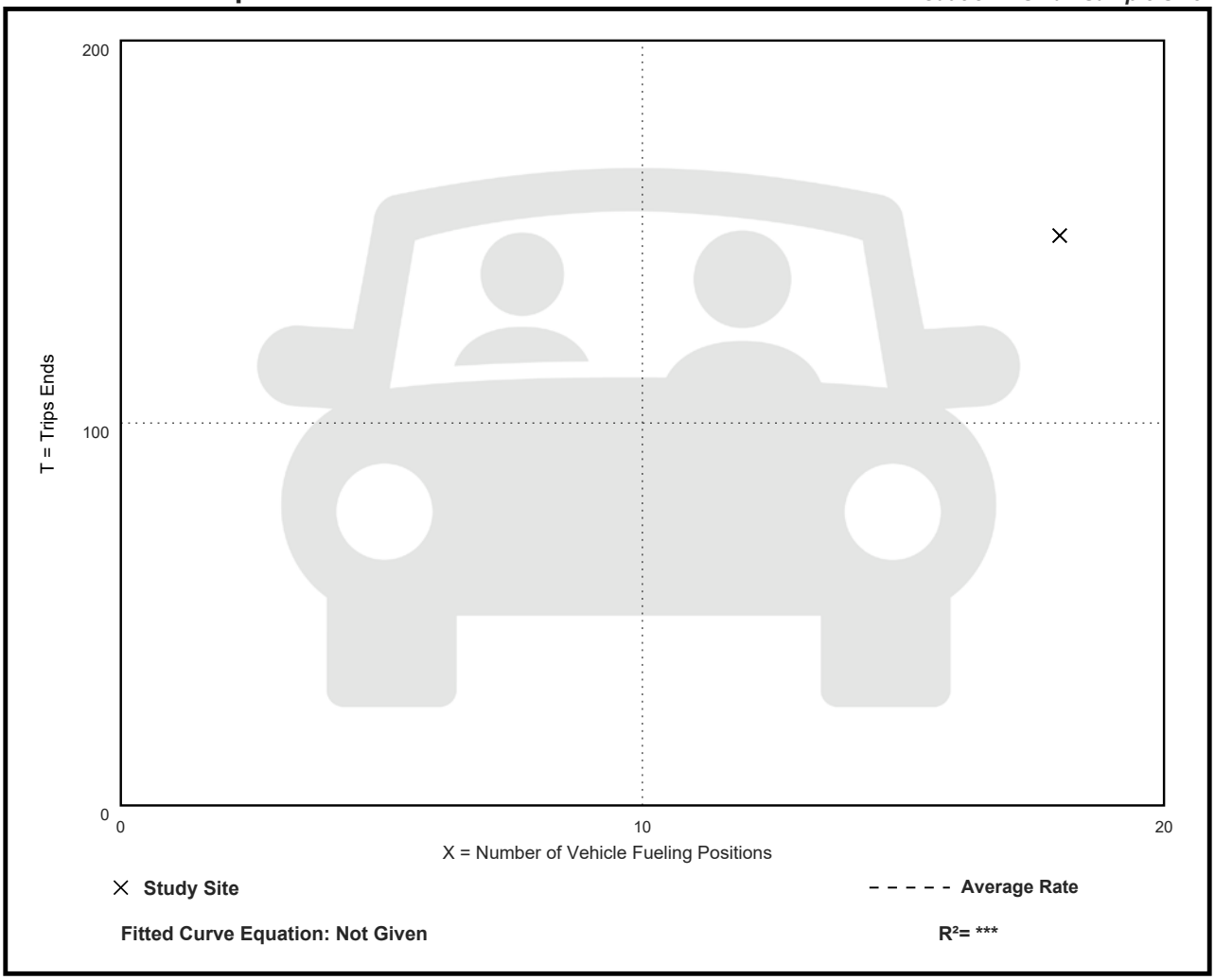
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Vehicle Fueling Positions: 18
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
8.28	8.28 - 8.28	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - GFA (5.5-10k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday

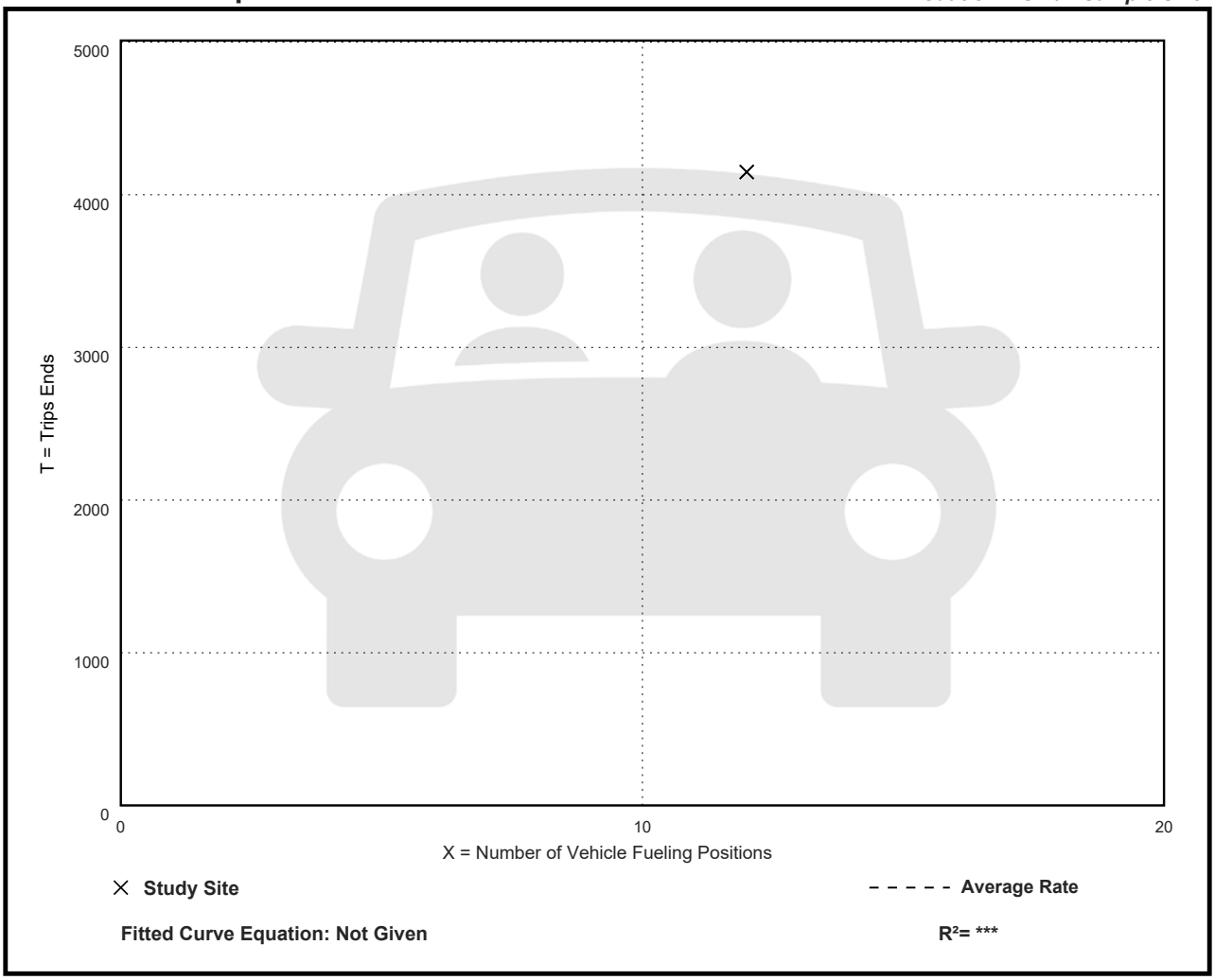
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Vehicle Fueling Positions: 12
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
345.75	345.75 - 345.75	***

Data Plot and Equation

Caution – Small Sample Size



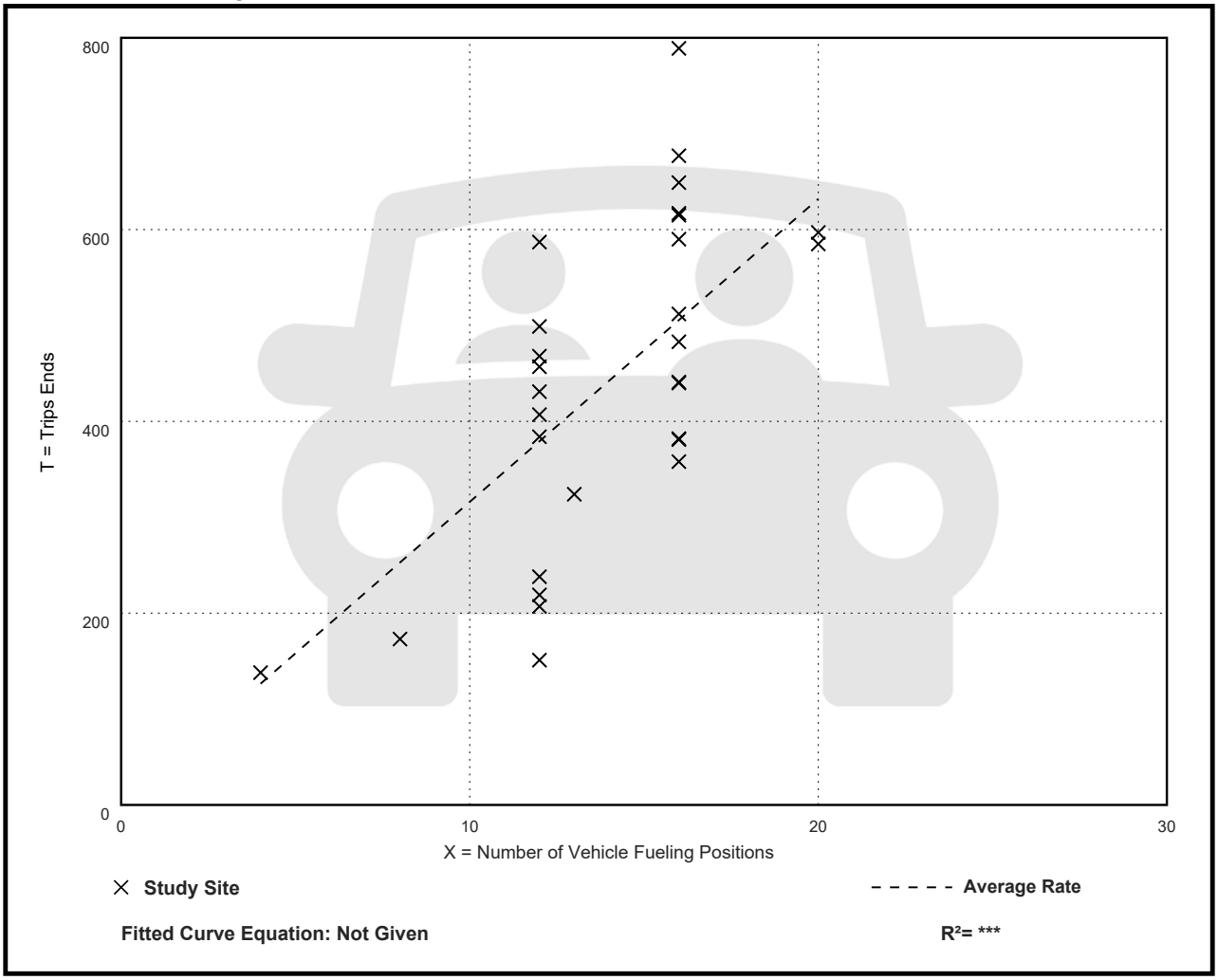
Convenience Store/Gas Station - GFA (5.5-10k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
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: 29
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
31.60	12.58 - 49.31	9.10

Data Plot and Equation



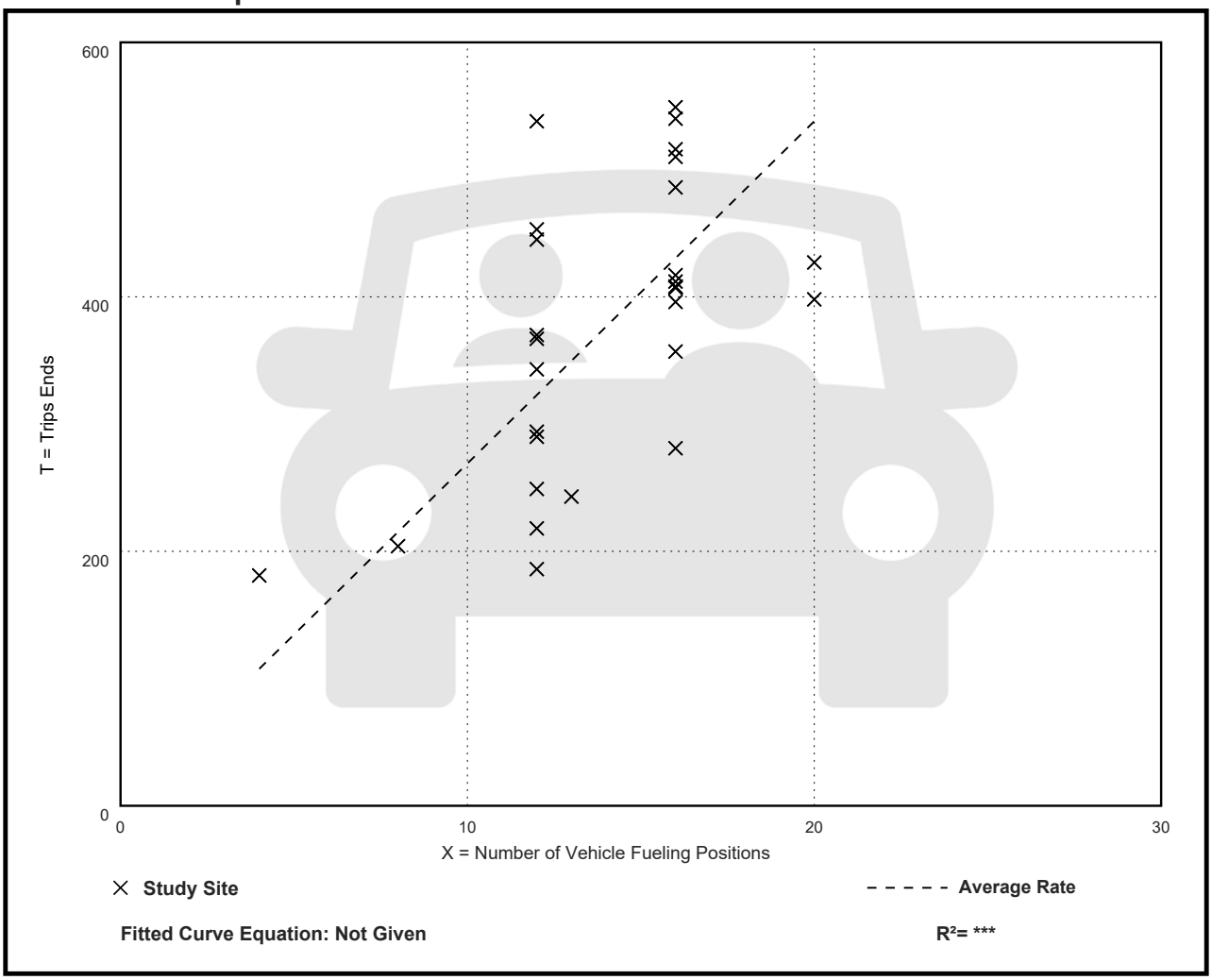
Convenience Store/Gas Station - GFA (5.5-10k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
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: 29
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
26.90	15.50 - 45.25	6.87

Data Plot and Equation



Convenience Store/Gas Station - GFA (5.5-10k) (945)

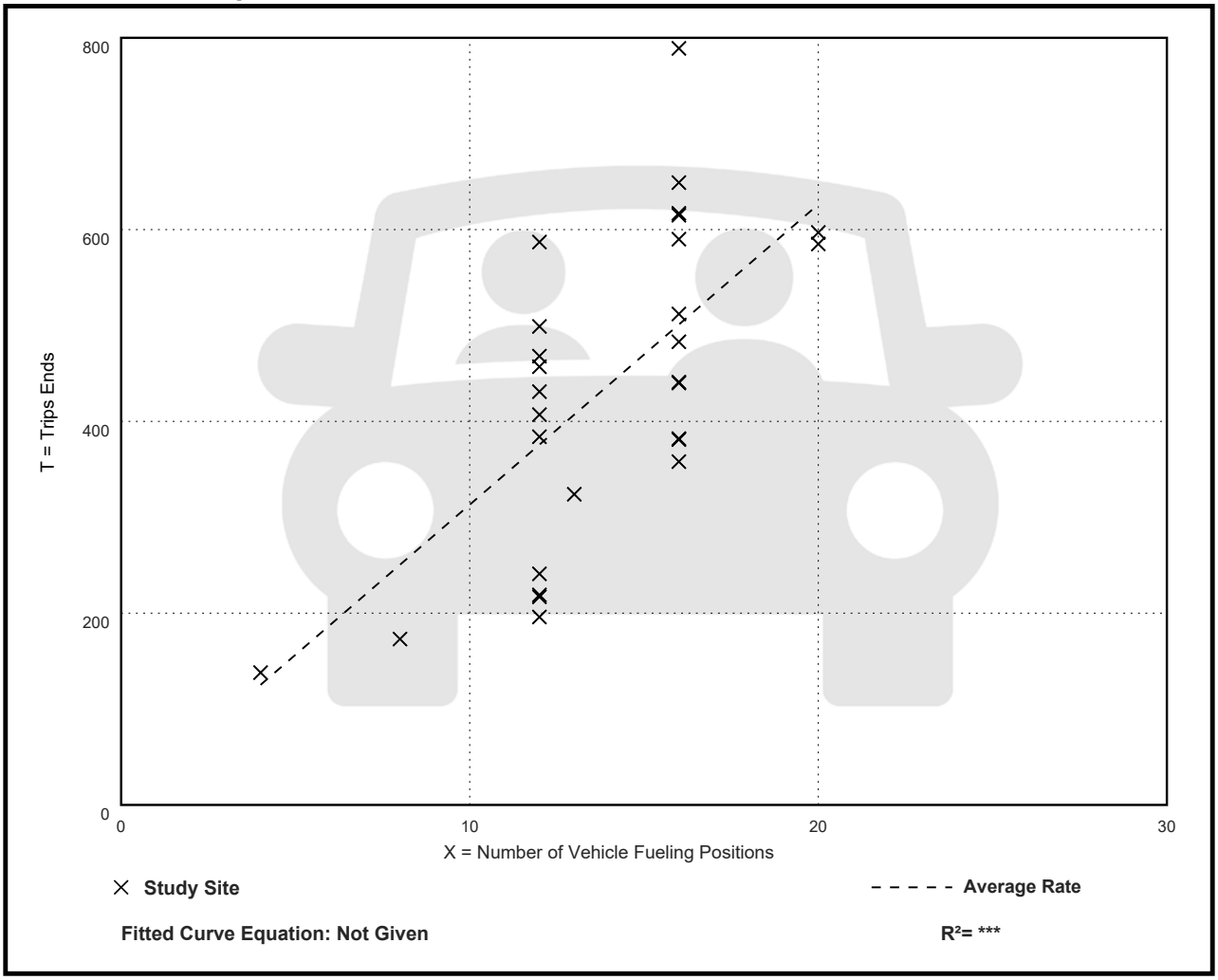
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 28
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
31.31	16.33 - 49.31	8.74

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - GFA (5.5-10k) (945)

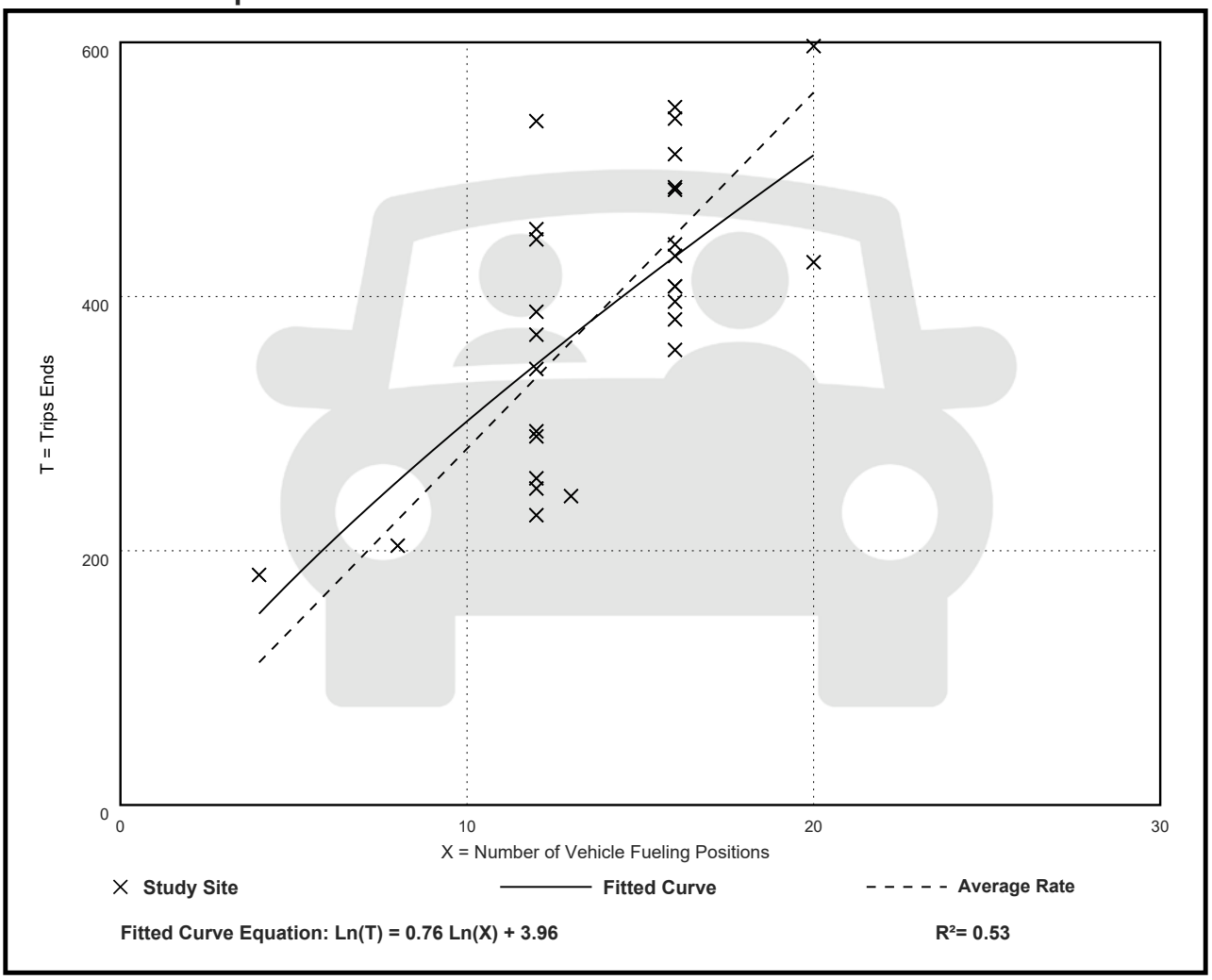
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 28
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
28.03	18.69 - 45.25	6.19

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.76 Ln(X) + 3.96

R^2= 0.53

Convenience Store/Gas Station - GFA (5.5-10k) (945)

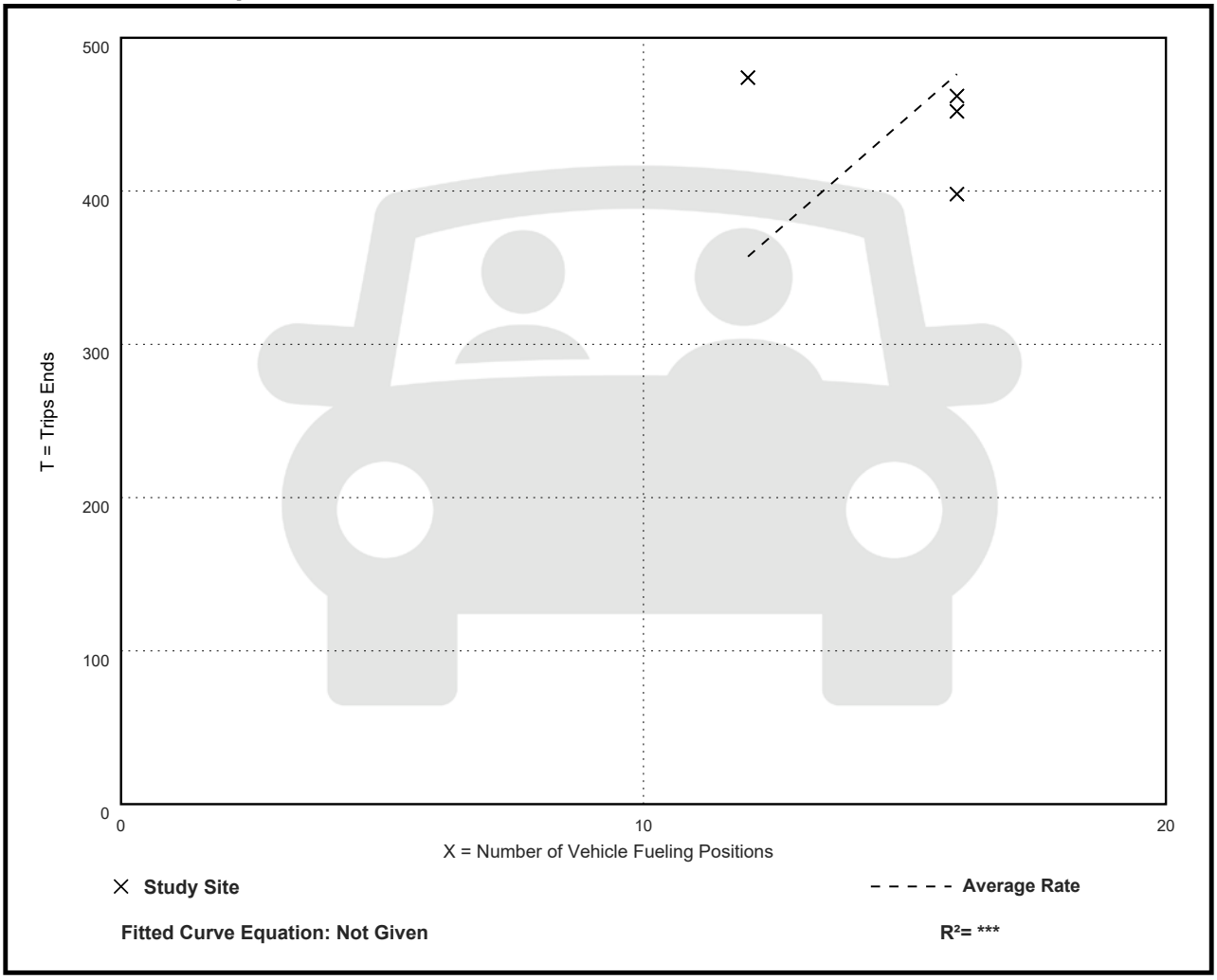
Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. Num. of Vehicle Fueling Positions: 15
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
29.77	24.88 - 39.50	5.91

Data Plot and Equation



Convenience Store/Gas Station - GFA (5.5-10k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Sunday, Peak Hour of Generator

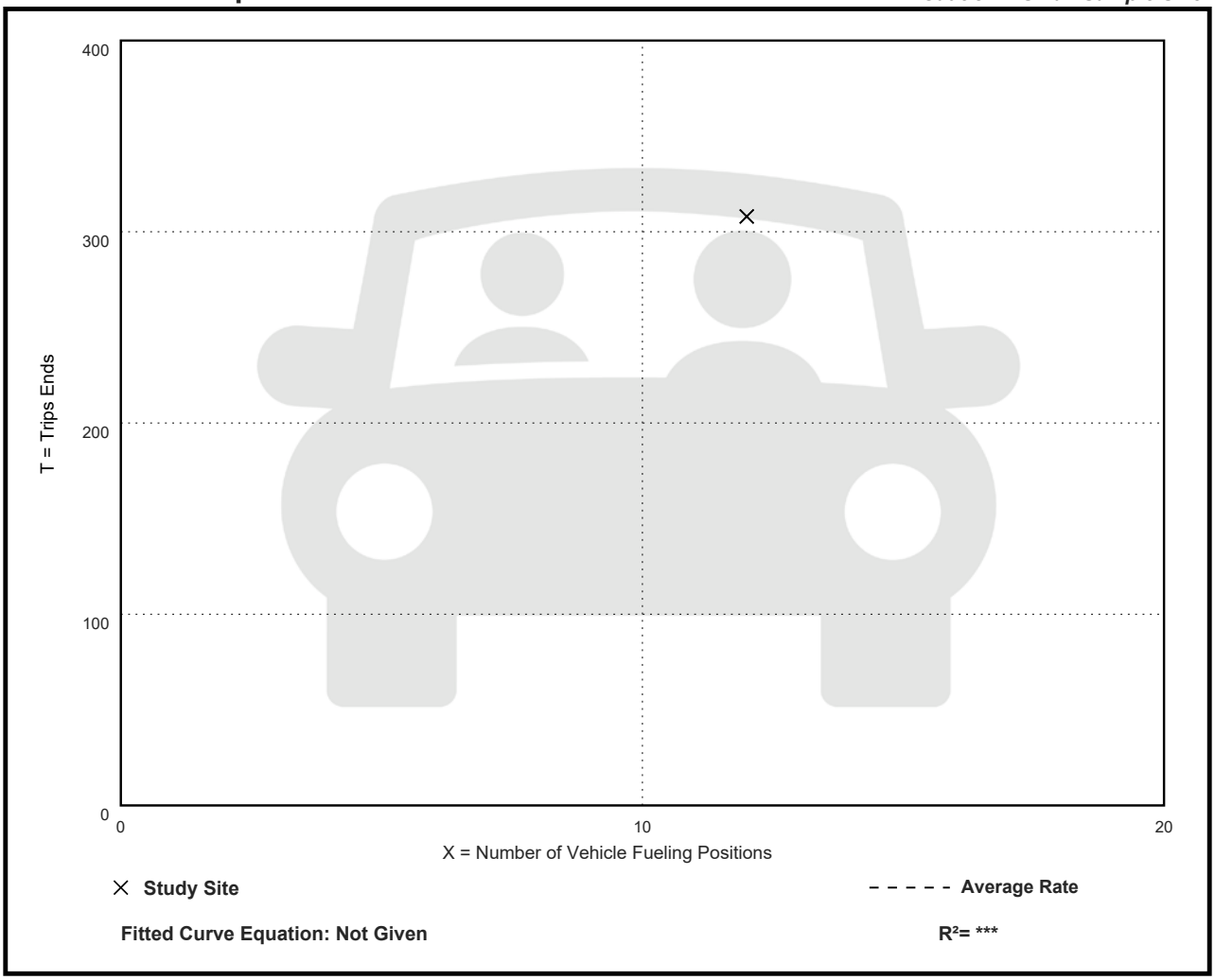
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Vehicle Fueling Positions: 12
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
25.67	25.67 - 25.67	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - VFP (2-8) (945)

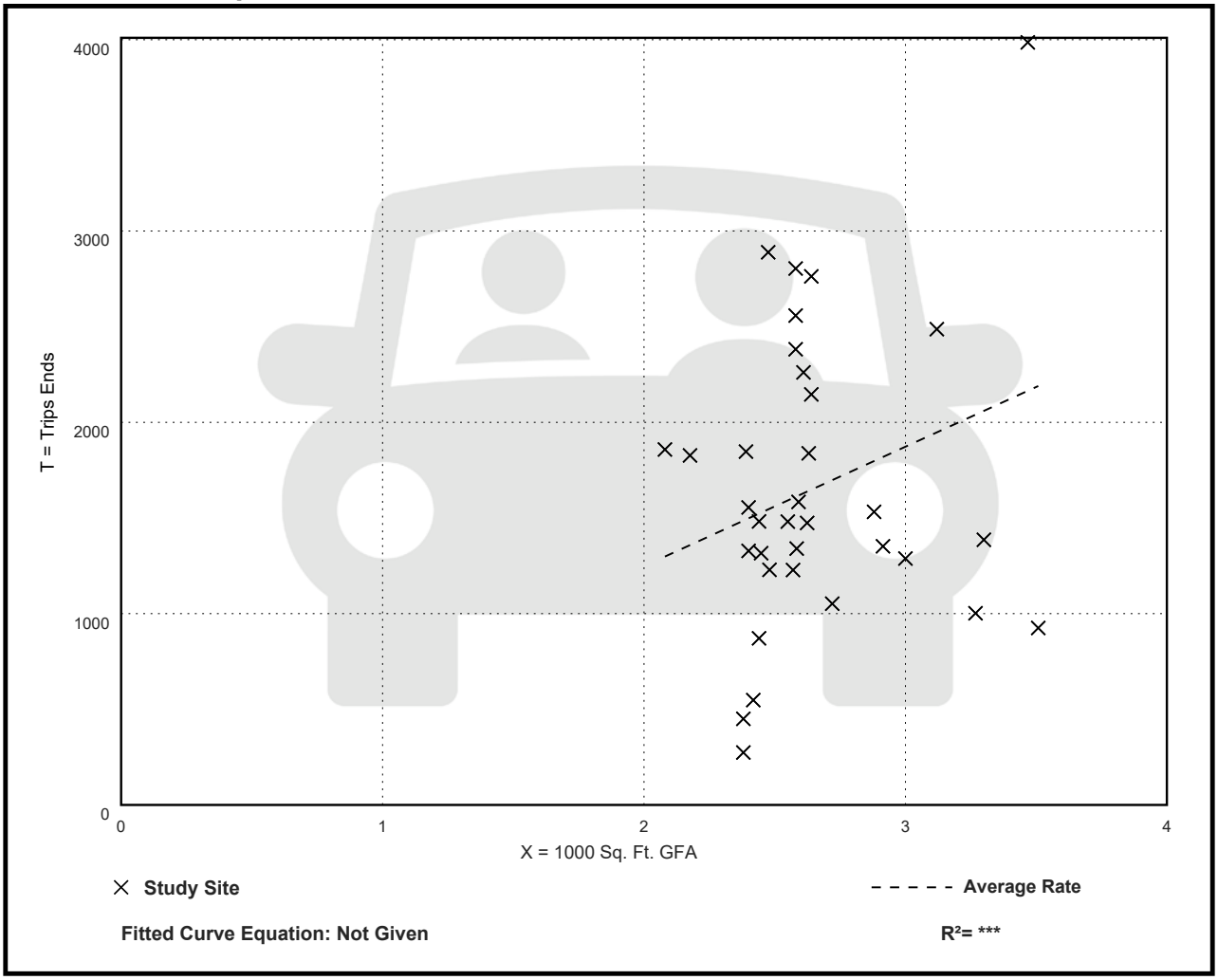
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 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
624.20	115.13 - 1167.27	283.35

Data Plot and Equation



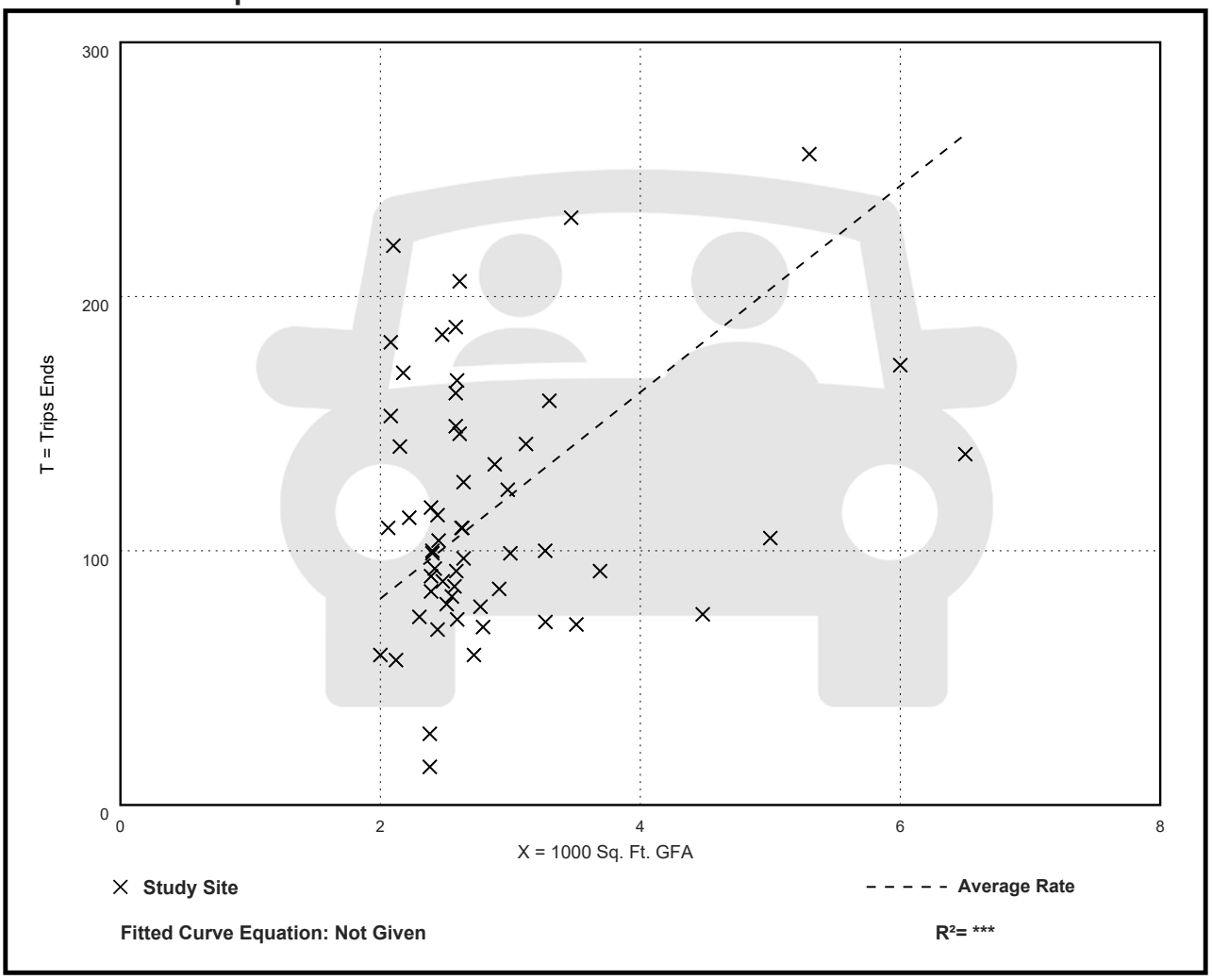
Convenience Store/Gas Station - VFP (2-8) (945)

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: 57
Avg. 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
40.59	6.30 - 104.76	19.18

Data Plot and Equation



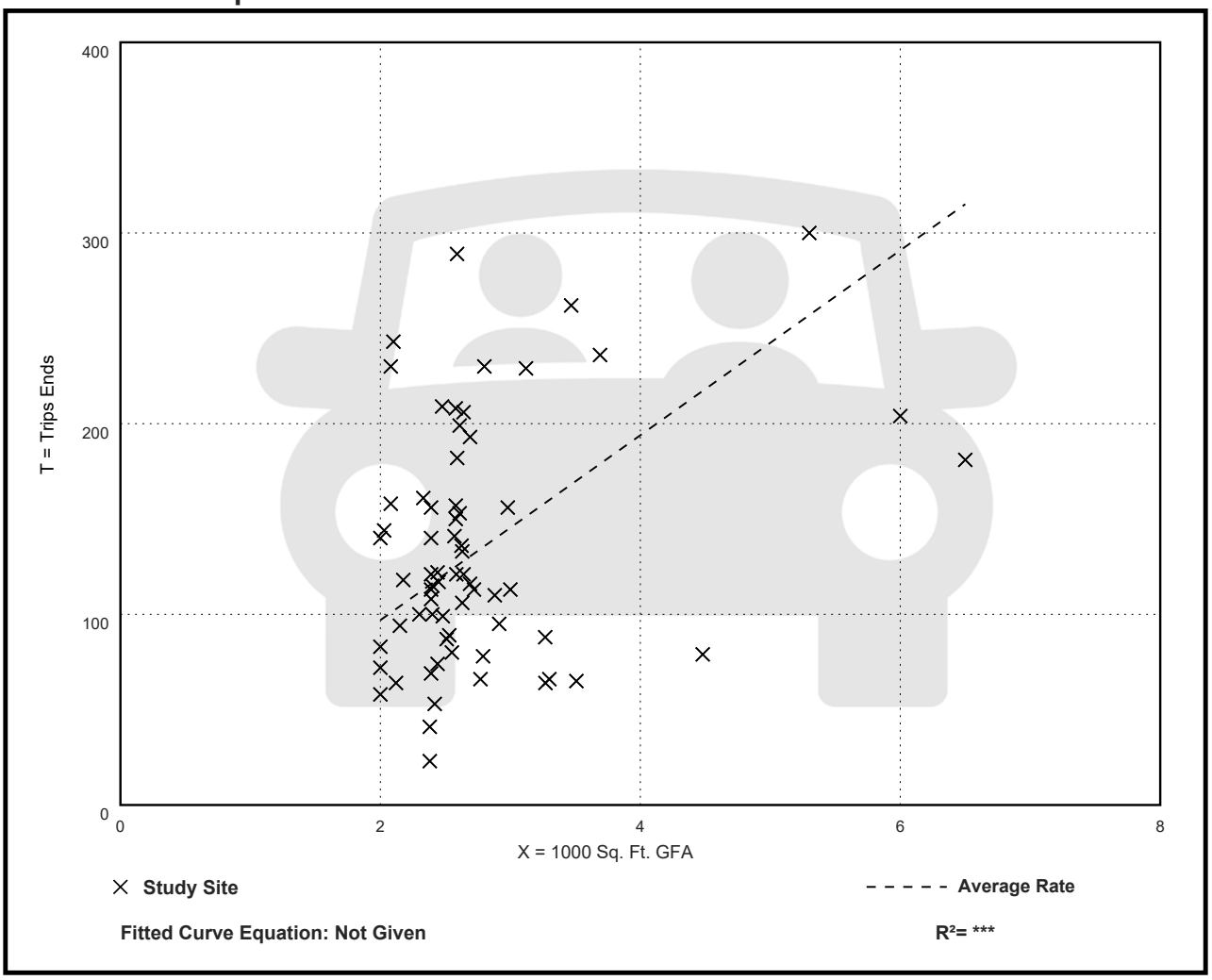
Convenience Store/Gas Station - VFP (2-8) (945)

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: 67
Avg. 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
48.48	9.66 - 115.71	22.59

Data Plot and Equation



Convenience Store/Gas Station - VFP (2-8) (945)

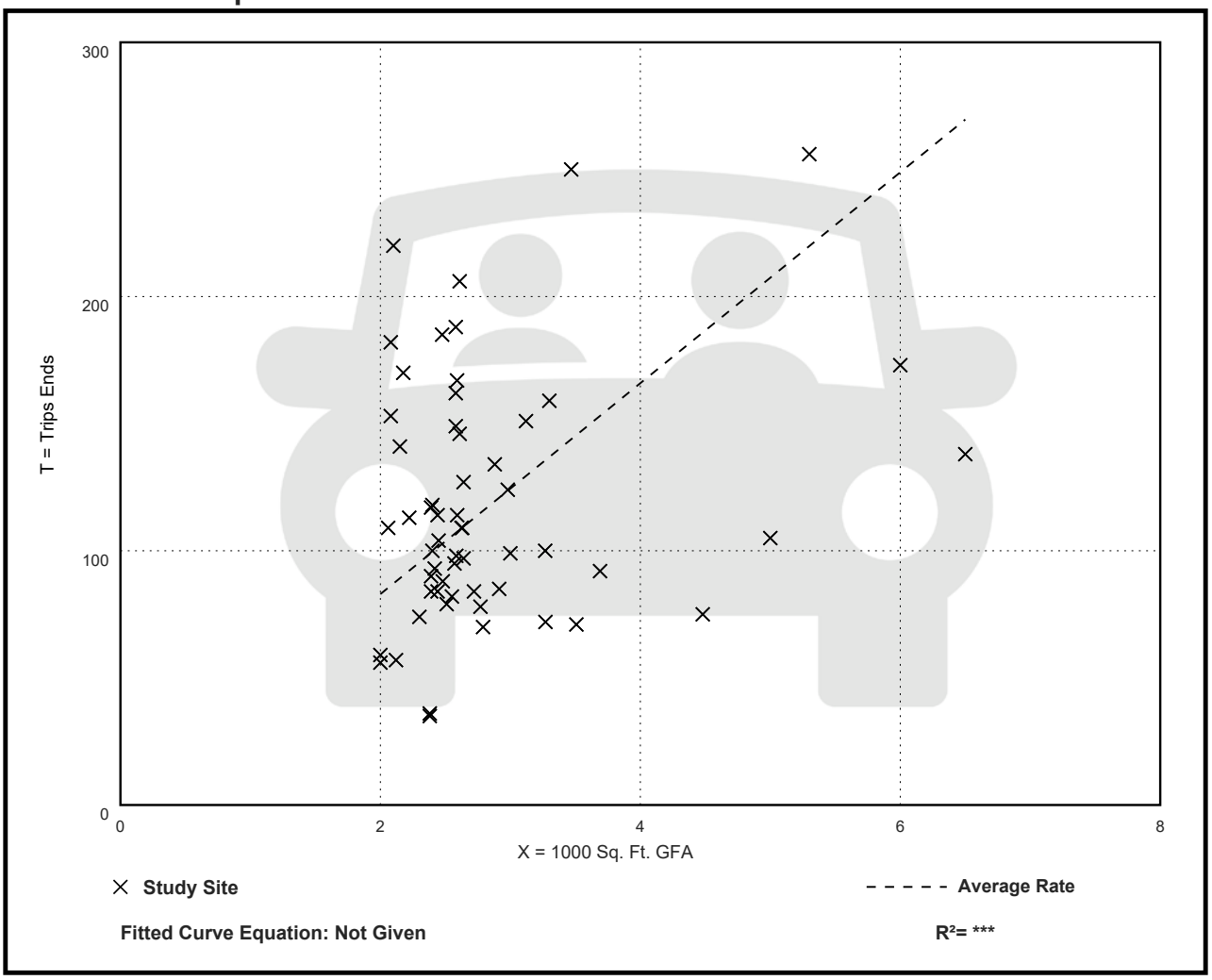
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 58
Avg. 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
41.48	14.71 - 104.76	18.80

Data Plot and Equation



Convenience Store/Gas Station - VFP (2-8) (945)

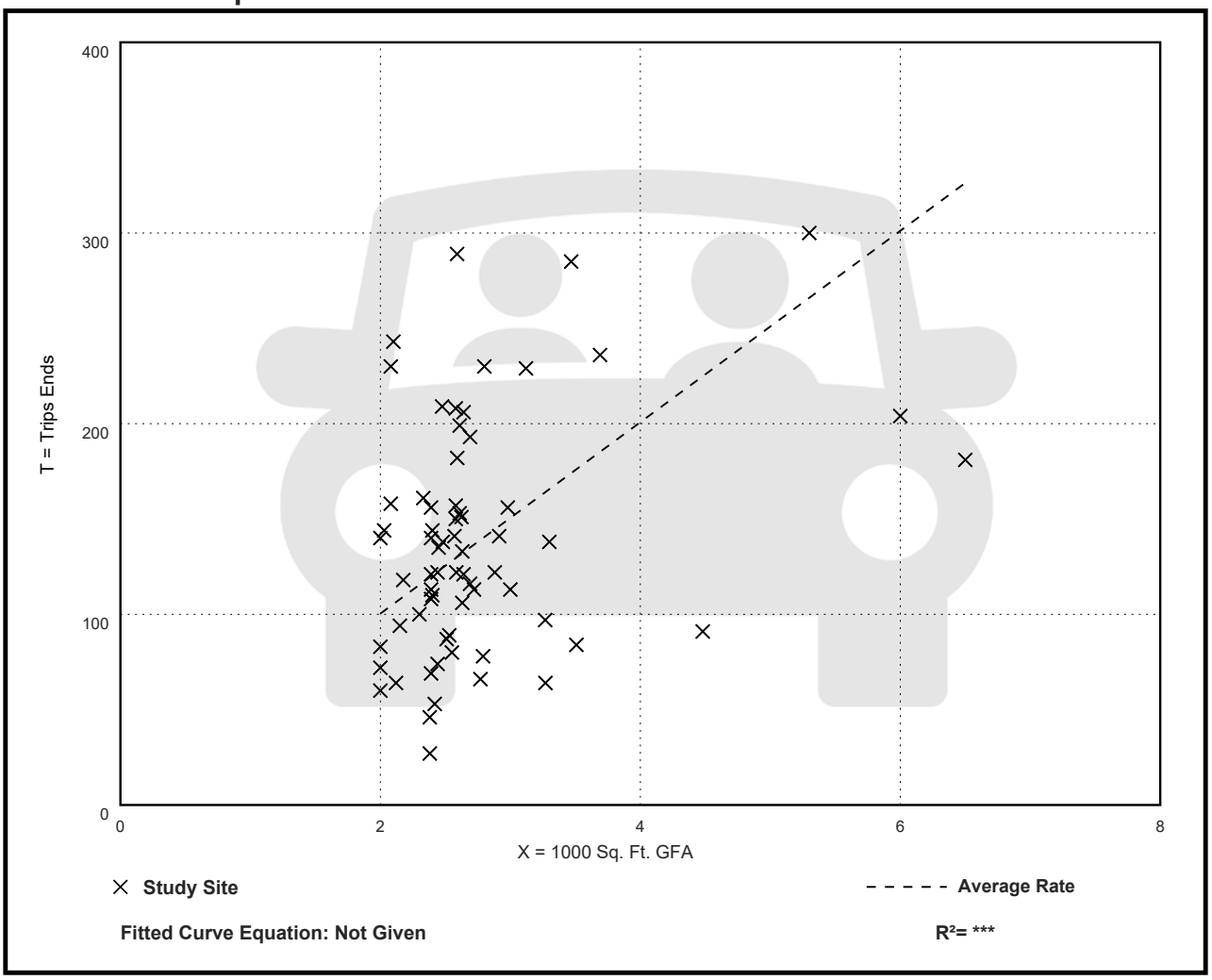
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 67
Avg. 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
50.19	11.34 - 115.71	21.98

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

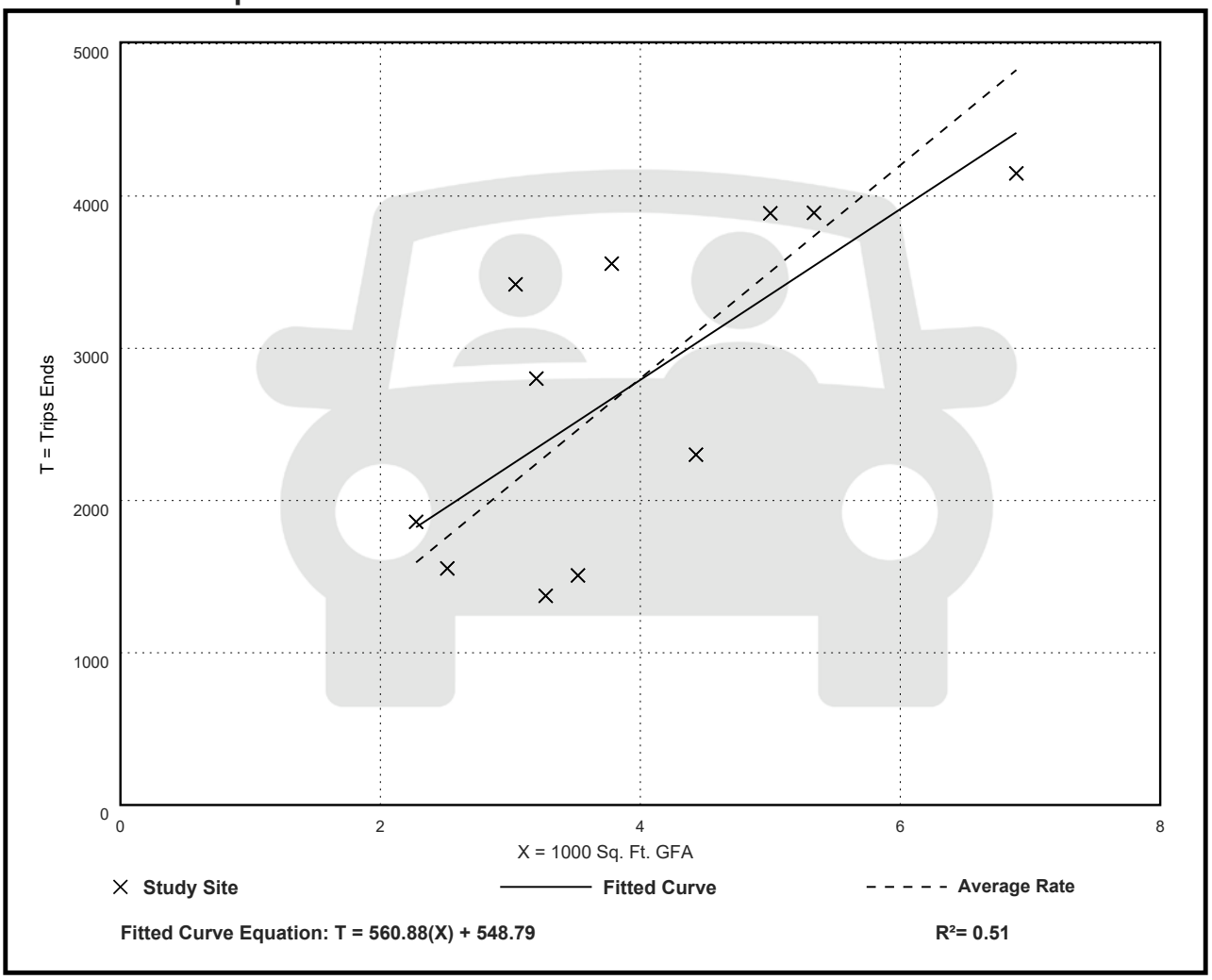
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
700.43	419.93 - 1125.00	206.44

Data Plot and Equation



Fitted Curve Equation: T = 560.88(X) + 548.79

R^2= 0.51

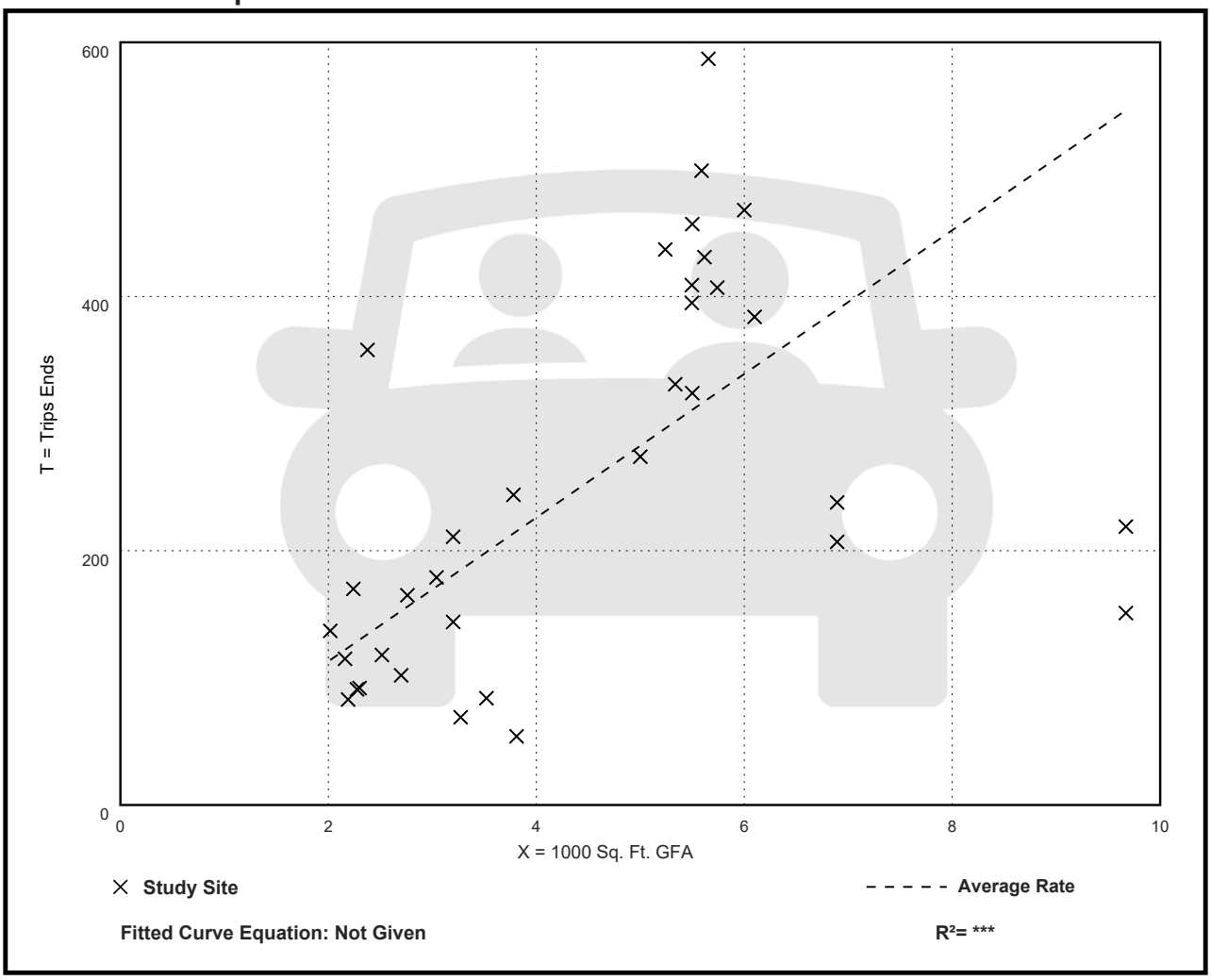
Convenience Store/Gas Station - VFP (9-15) (945)

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: 34
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.52	14.17 - 150.67	27.56

Data Plot and Equation



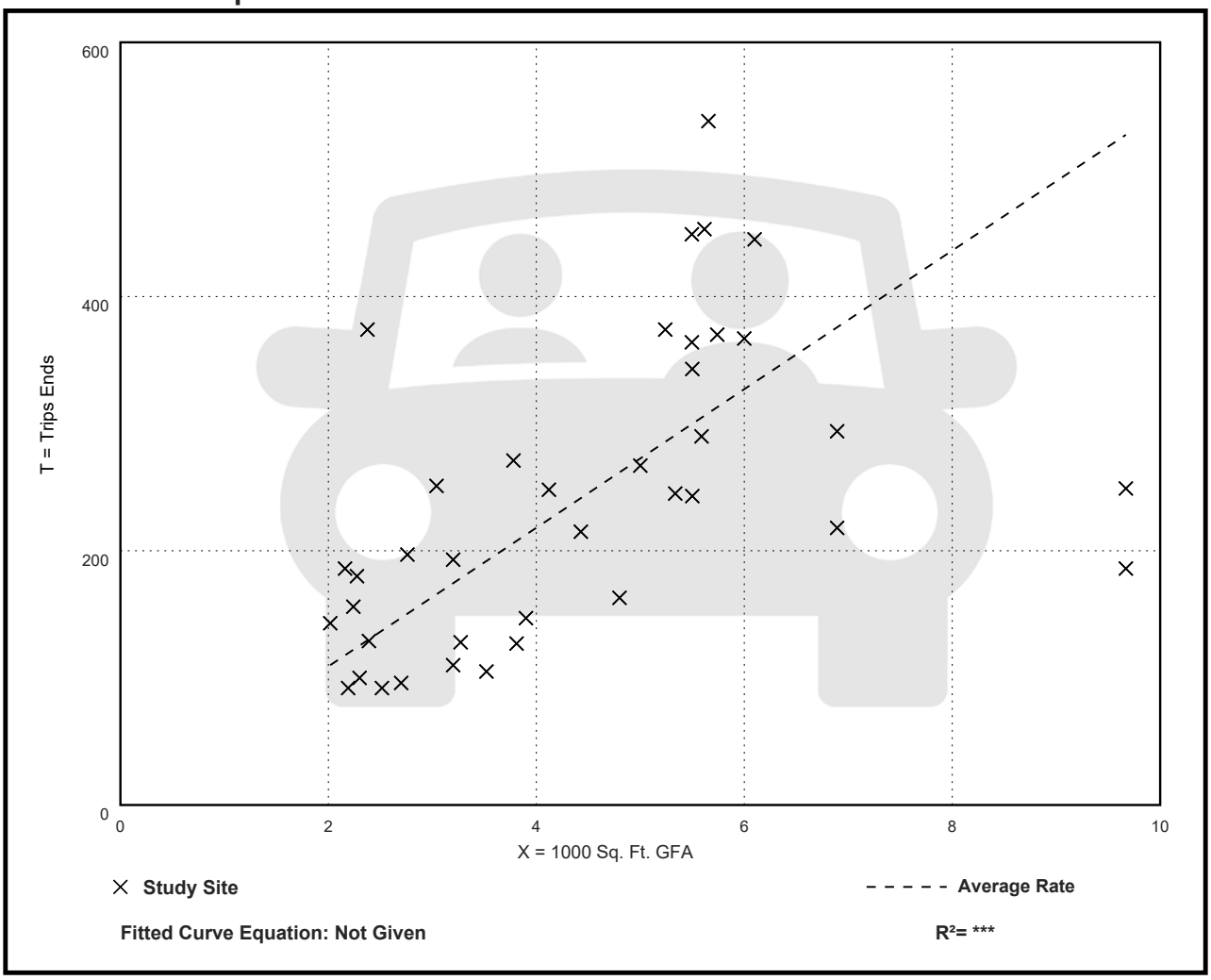
Convenience Store/Gas Station - VFP (9-15) (945)

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: 39
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
54.52	19.23 - 157.41	23.69

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

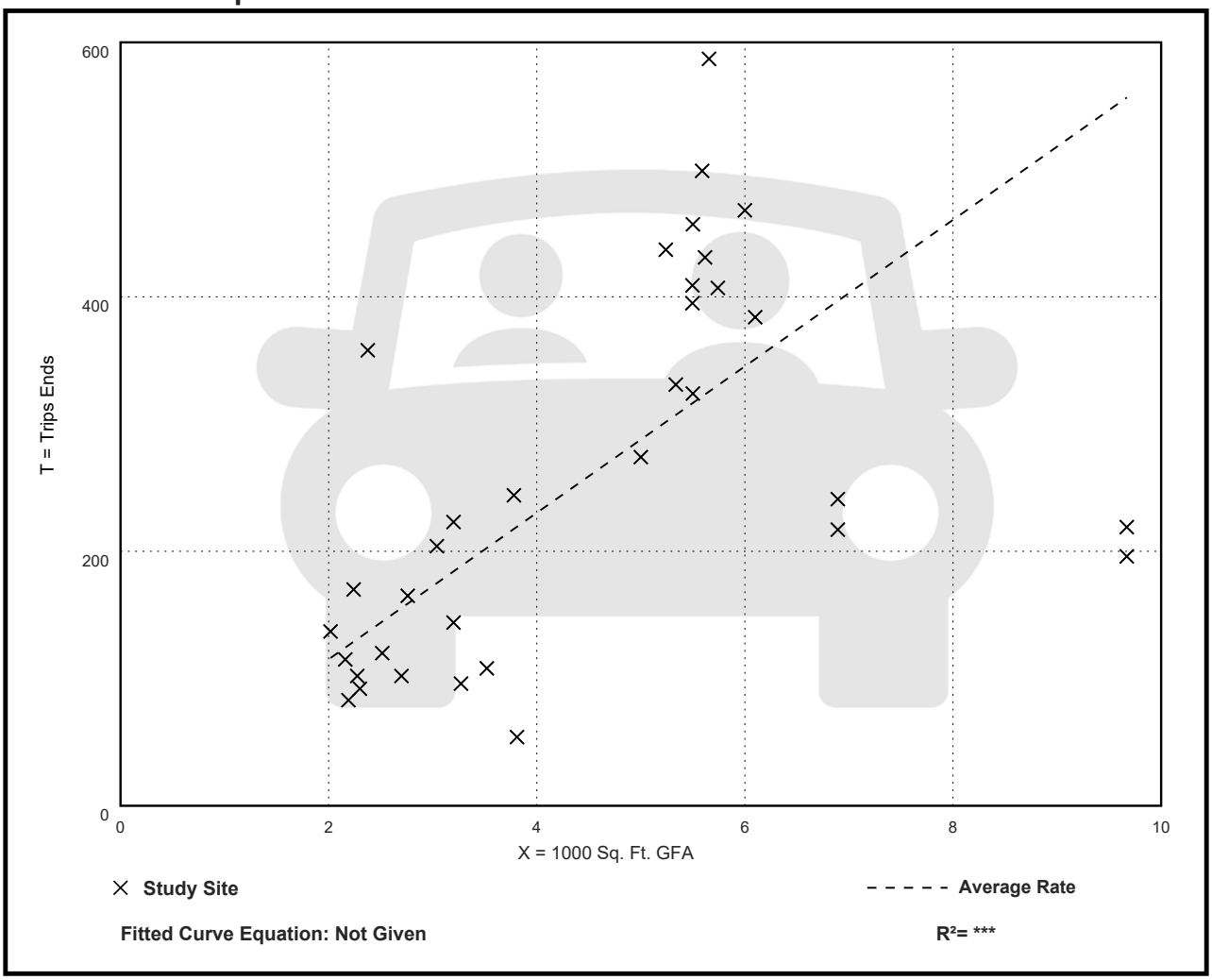
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
57.56	14.17 - 150.67	26.67

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

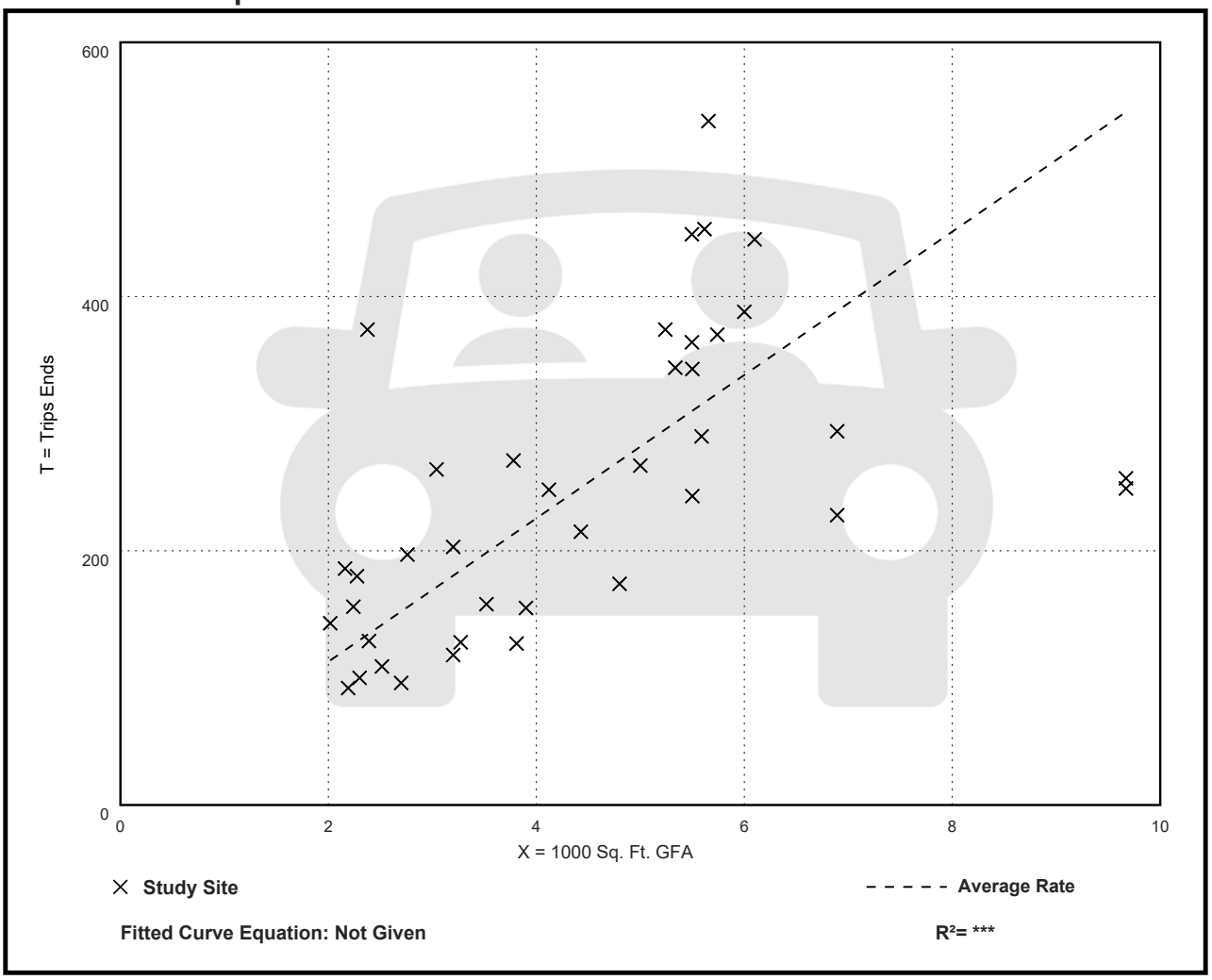
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.38	25.75 - 157.41	22.74

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

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

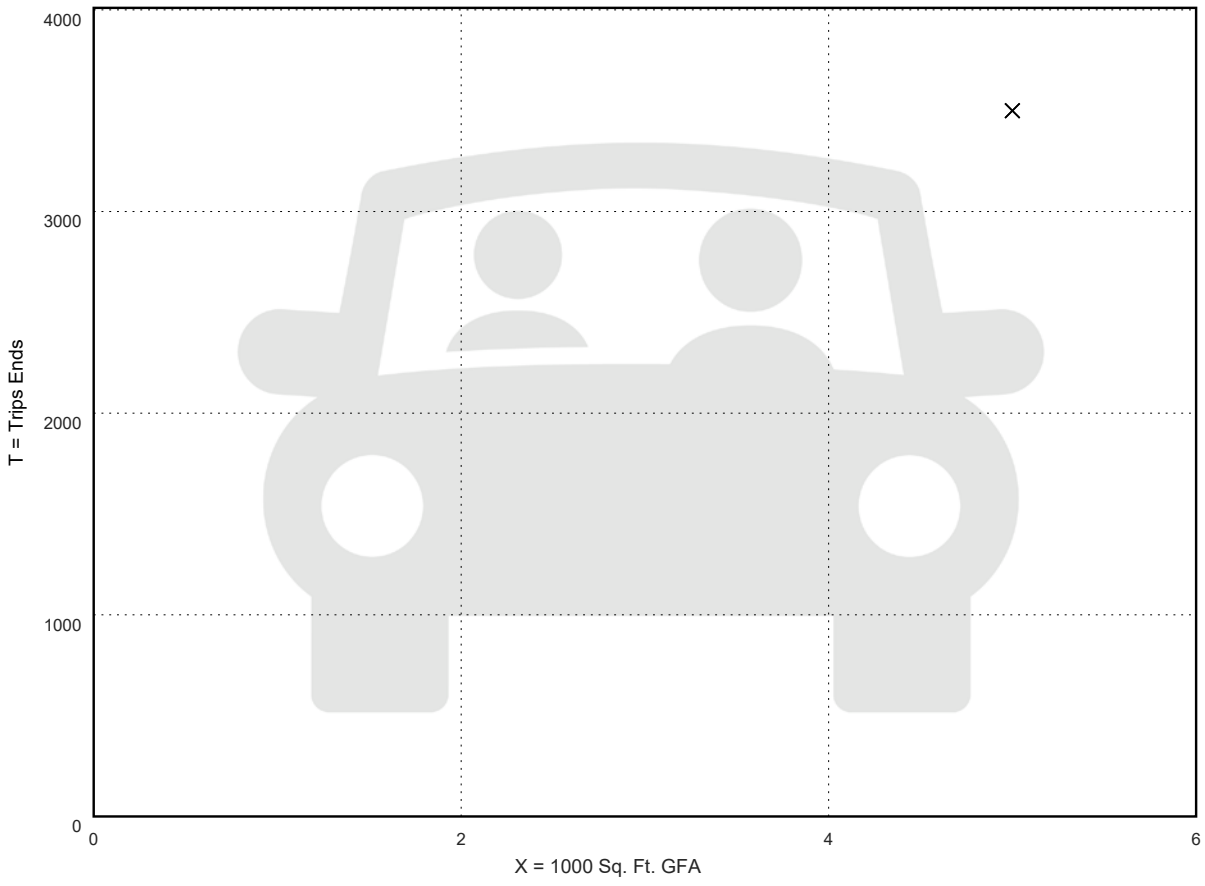
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
700.00	700.00 - 700.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - VFP (9-15) (945)

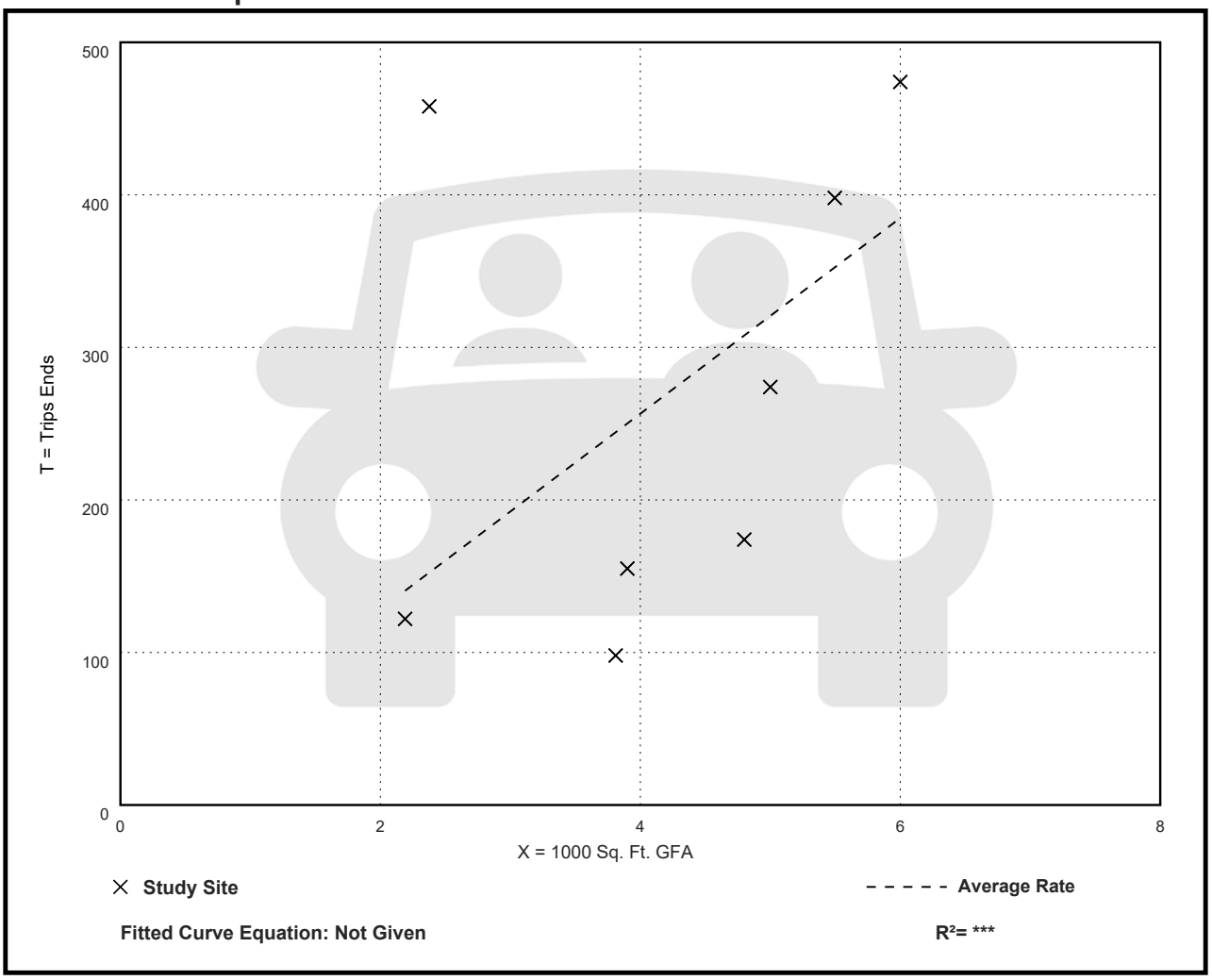
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
64.13	25.72 - 192.76	42.59

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday, Peak Hour of Generator

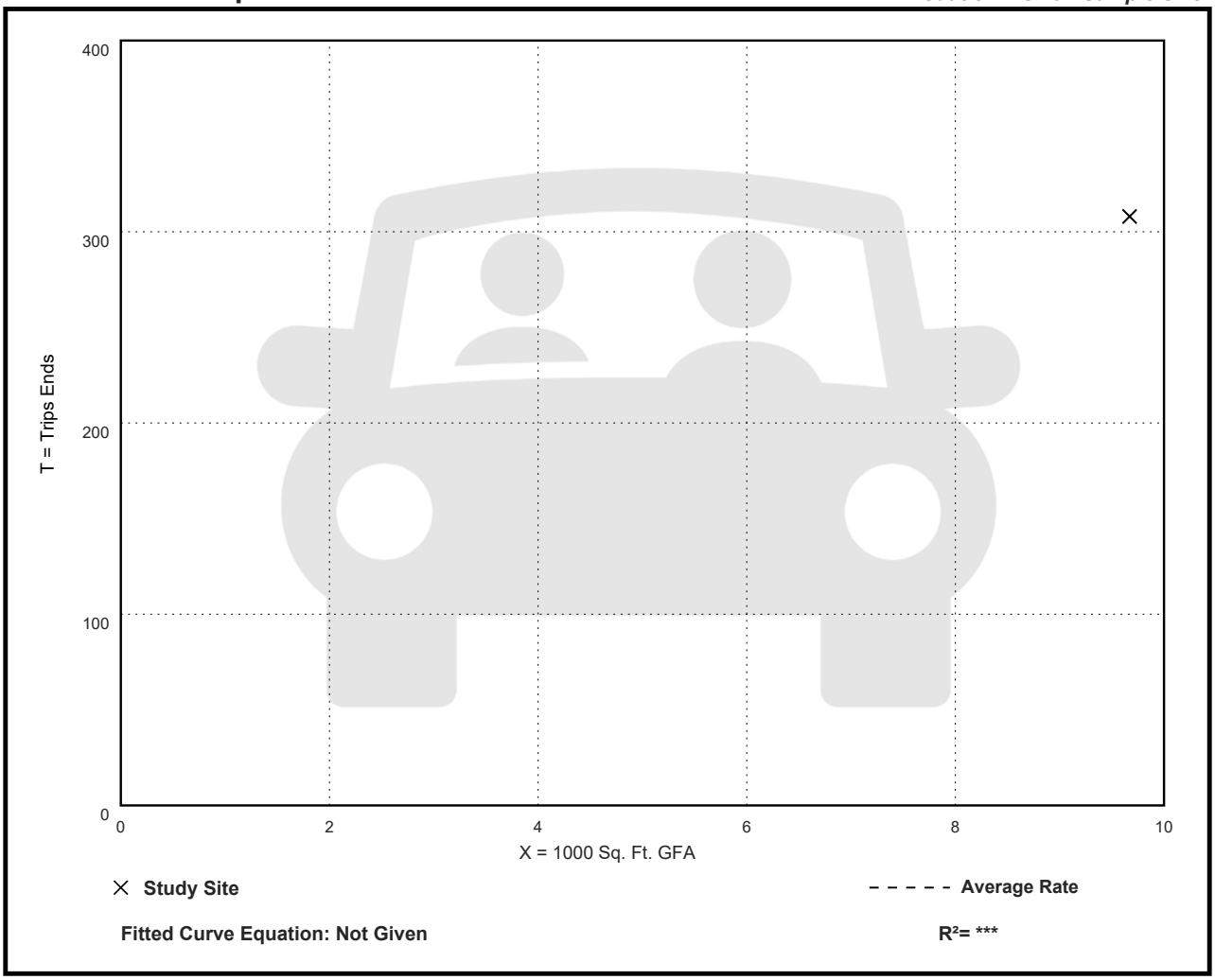
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
31.85	31.85 - 31.85	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - VFP (16-24) (945)

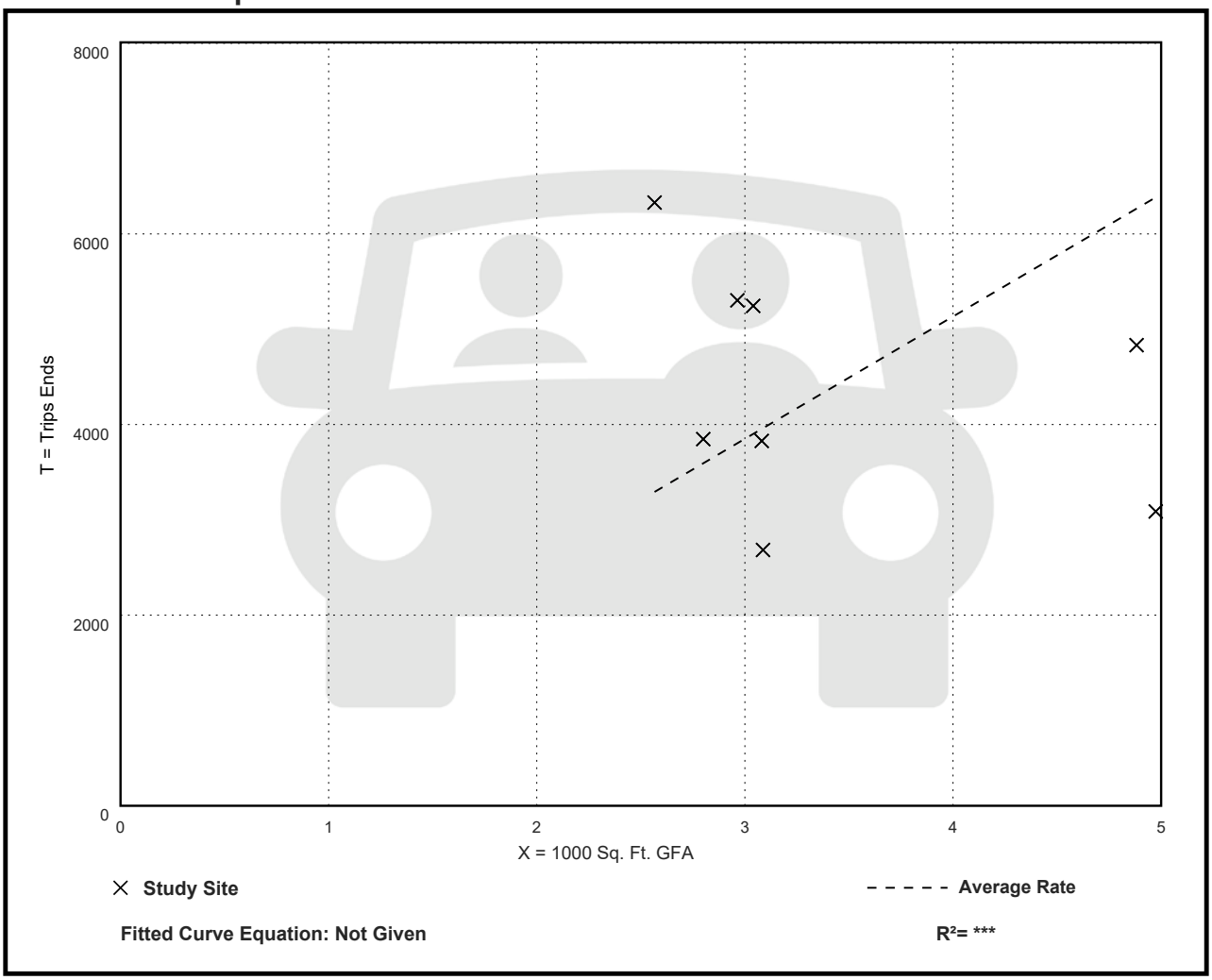
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. 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
1283.38	620.83 - 2466.48	581.47

Data Plot and Equation



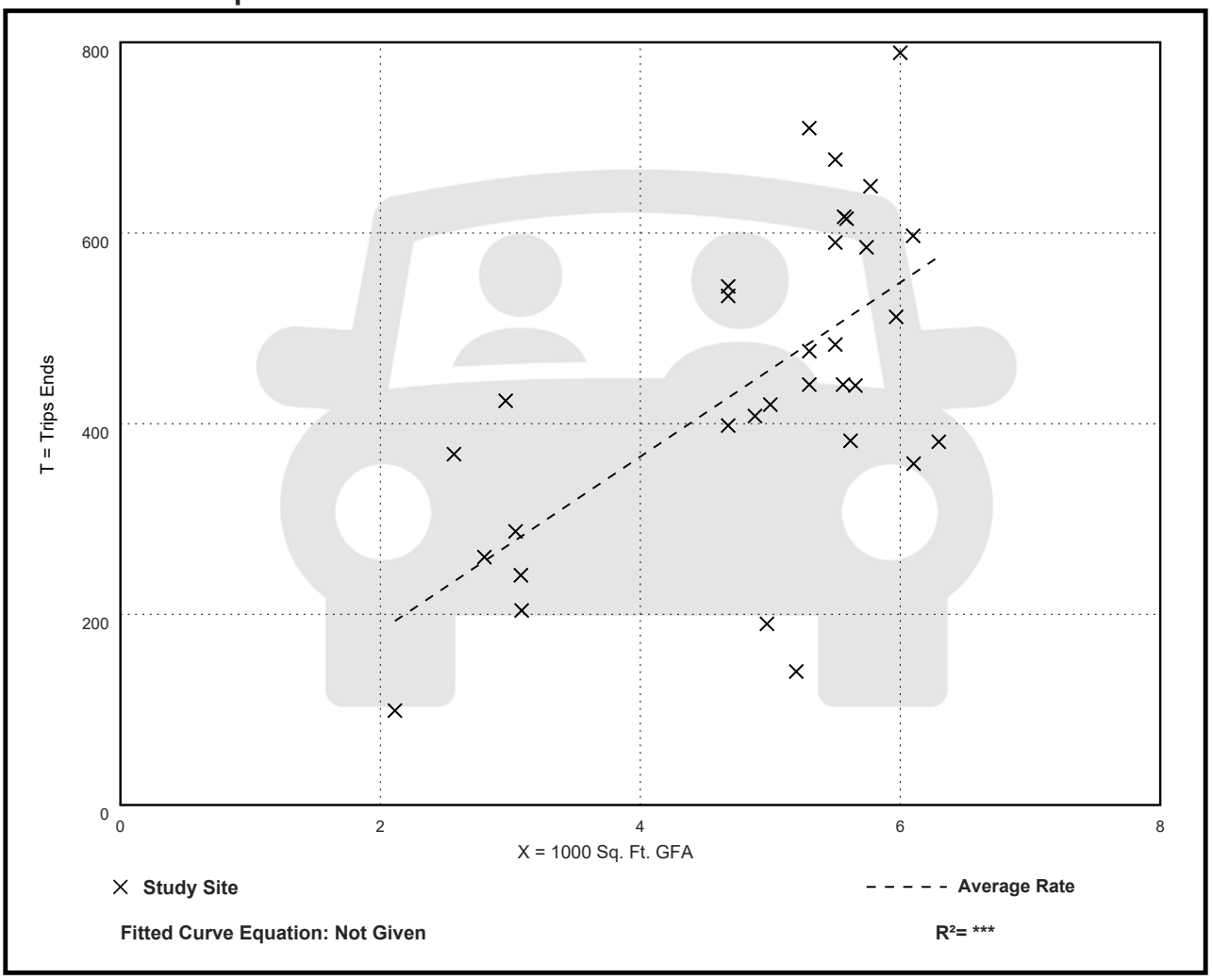
Convenience Store/Gas Station - VFP (16-24) (945)

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: 32
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
91.35	26.92 - 143.41	27.59

Data Plot and Equation



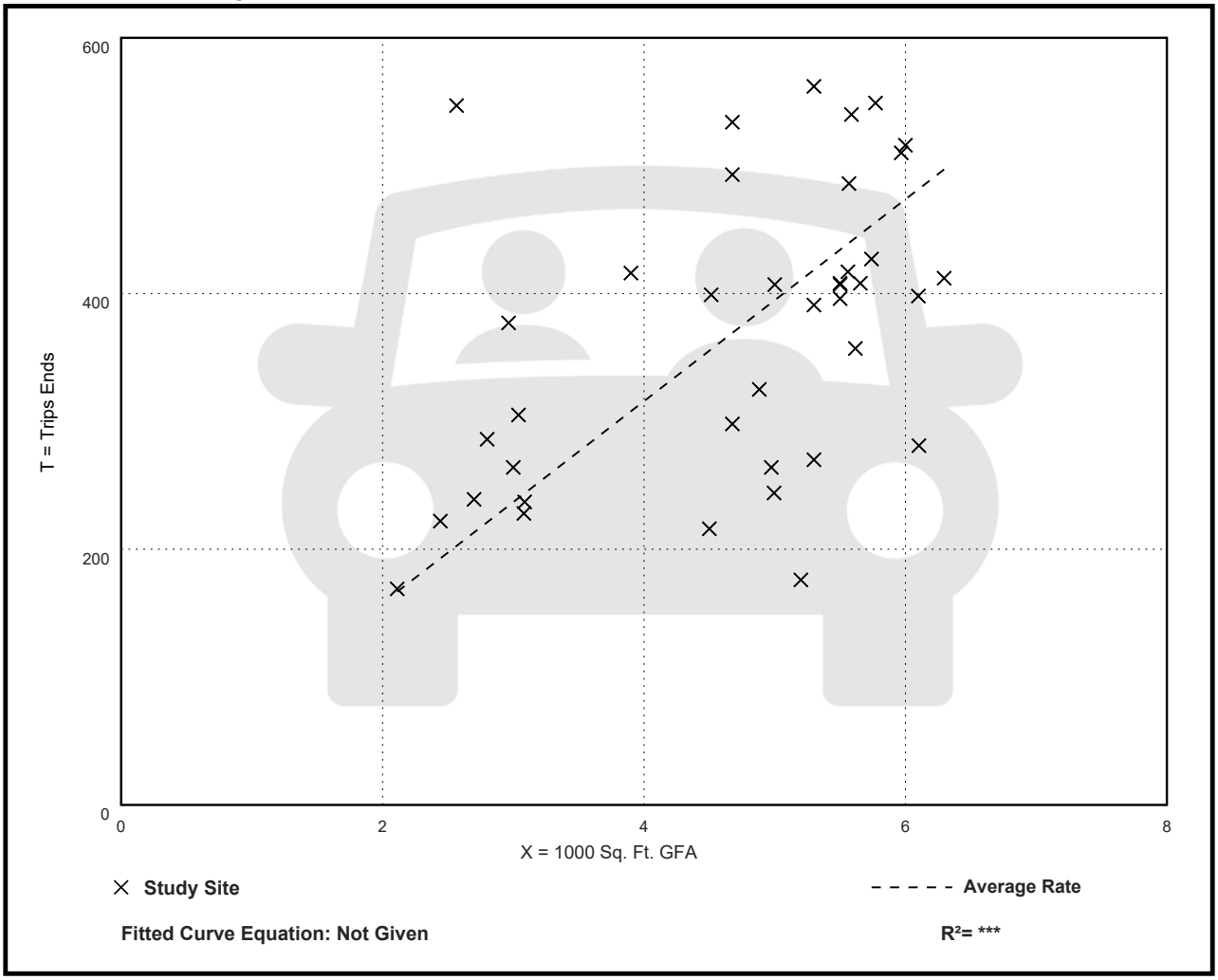
Convenience Store/Gas Station - VFP (16-24) (945)

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: 39
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
78.95	33.85 - 213.17	25.75

Data Plot and Equation



Convenience Store/Gas Station - VFP (16-24) (945)

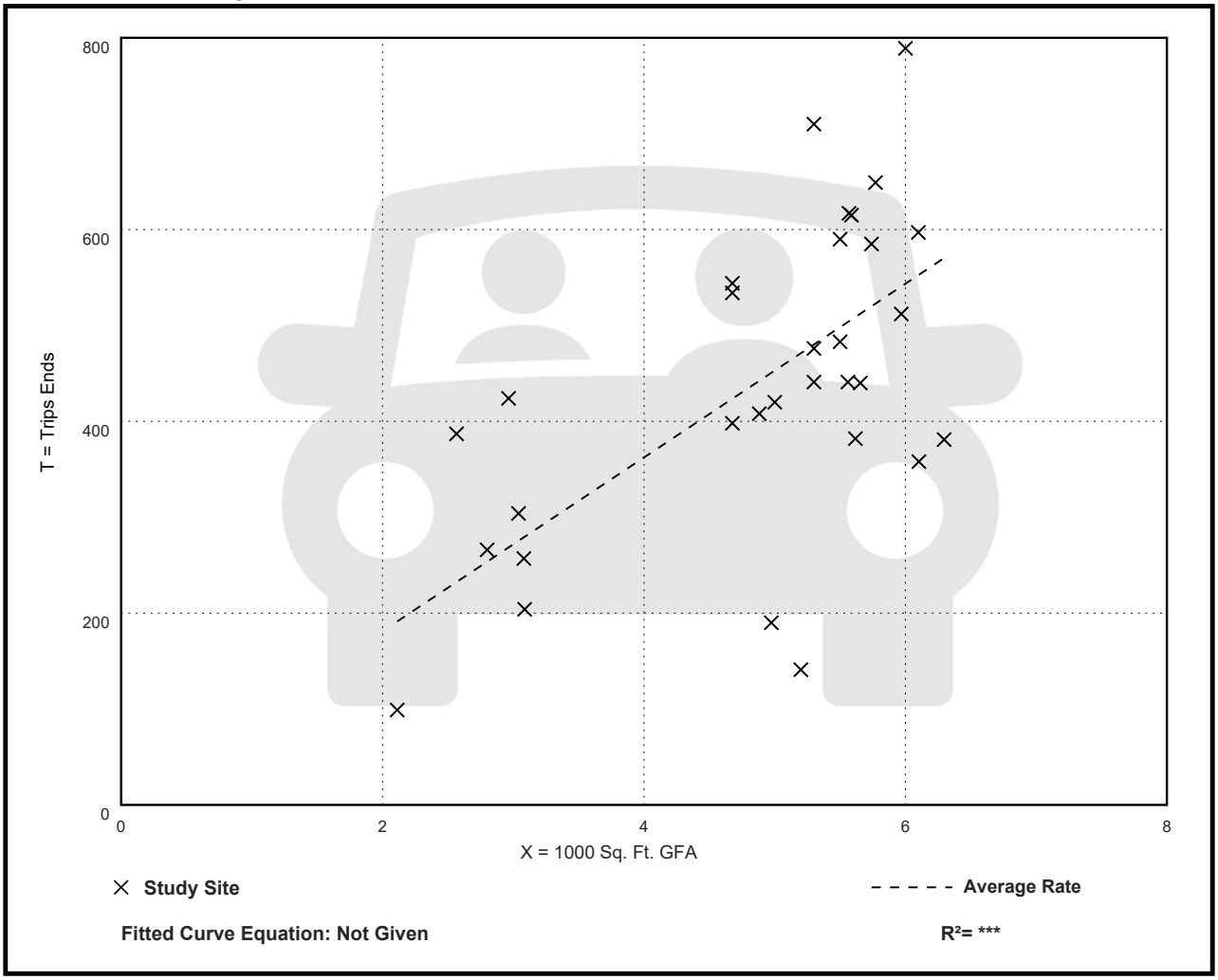
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
90.59	27.12 - 150.82	27.65

Data Plot and Equation



Convenience Store/Gas Station - VFP (16-24) (945)

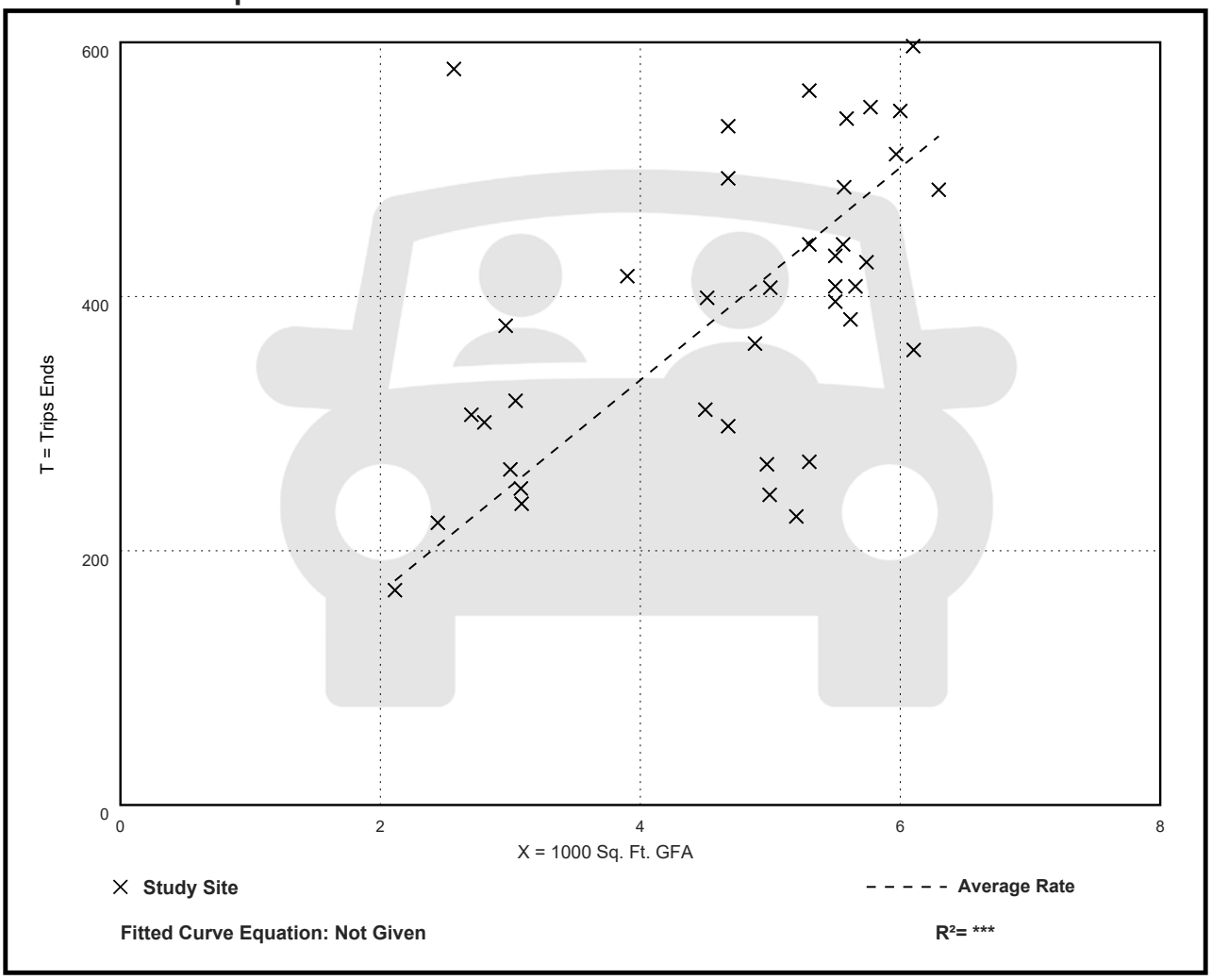
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
83.57	43.65 - 225.64	25.32

Data Plot and Equation



Convenience Store/Gas Station - VFP (16-24) (945)

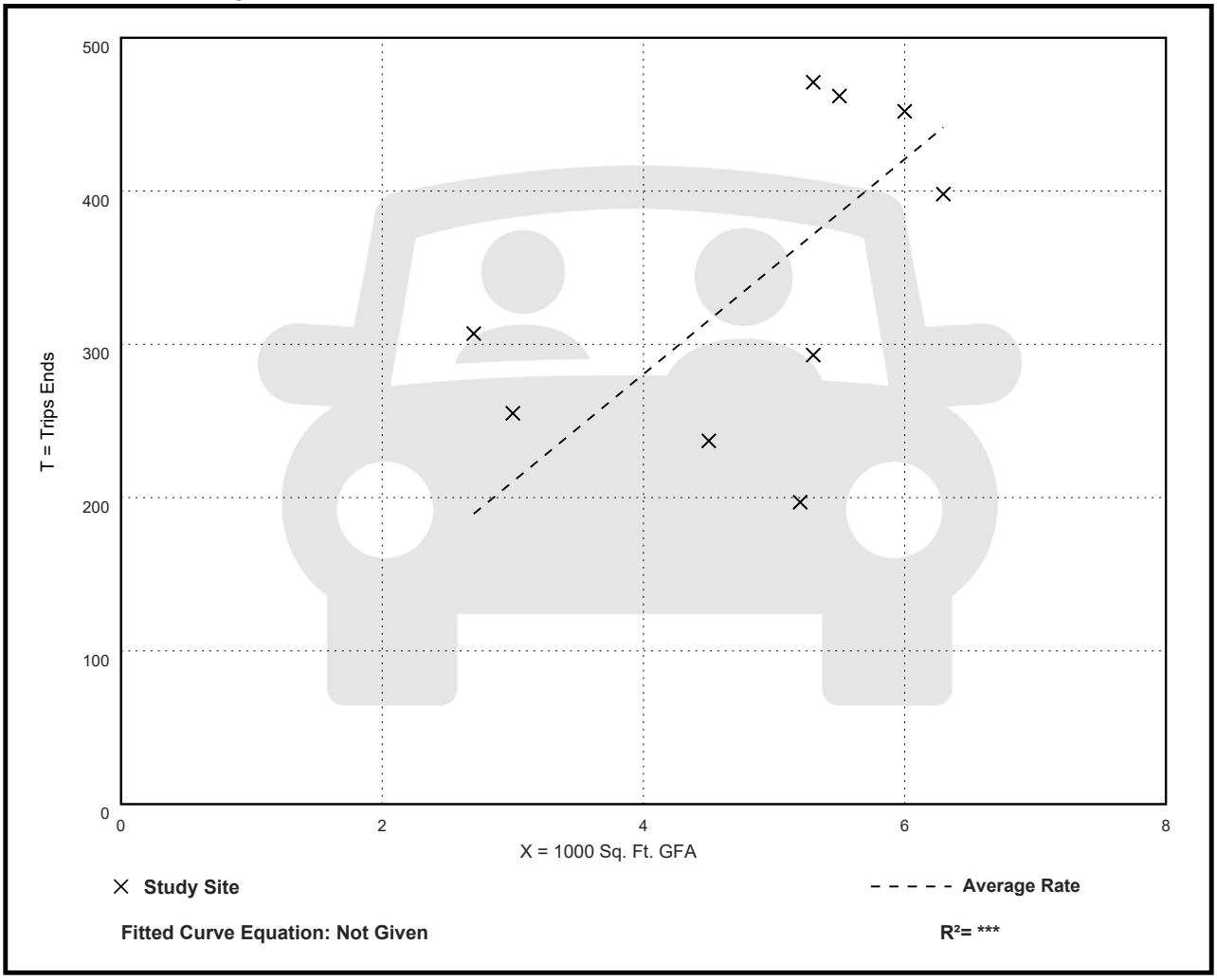
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
70.14	37.88 - 113.70	20.97

Data Plot and Equation



Convenience Store/Gas Station - VFP (16-24) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday, Peak Hour of Generator

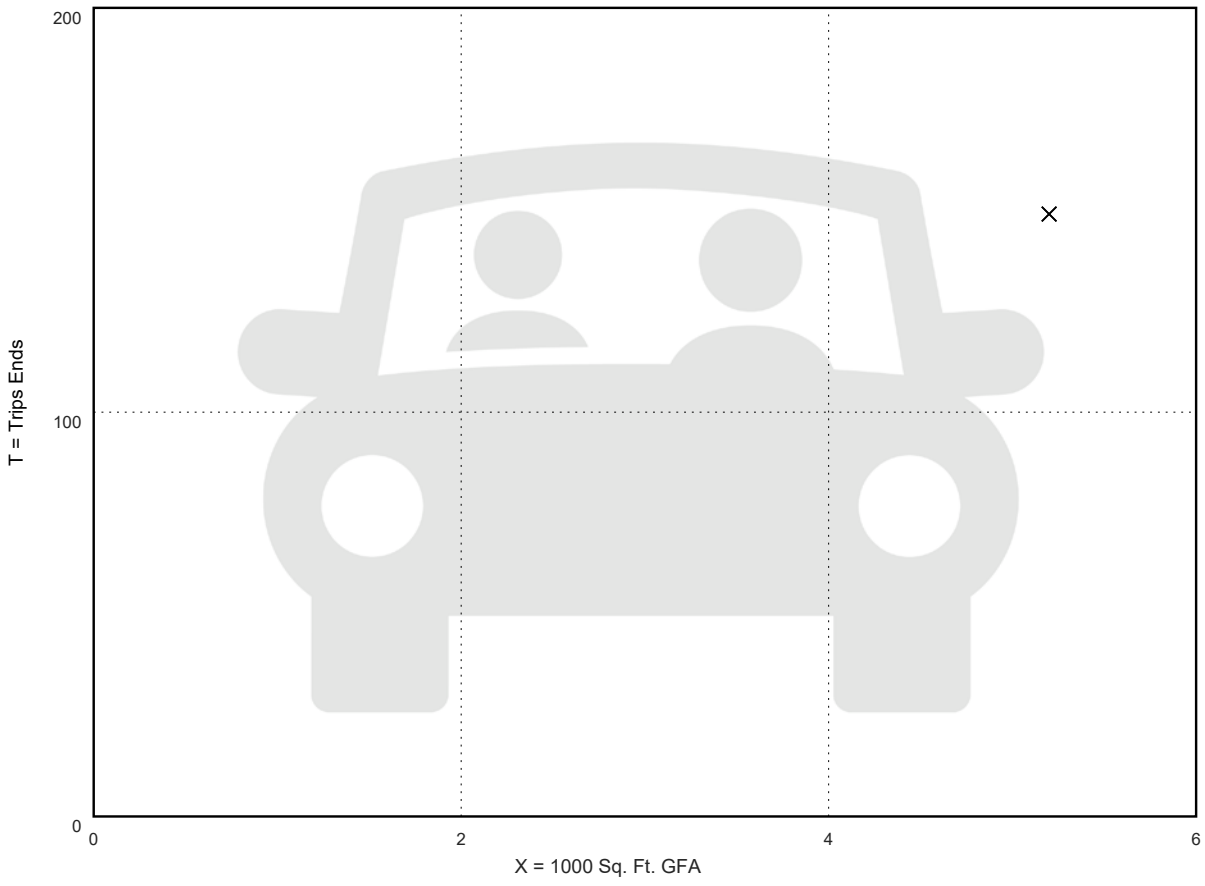
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
28.65	28.65 - 28.65	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Convenience Store/Gas Station - VFP (2-8) (945)

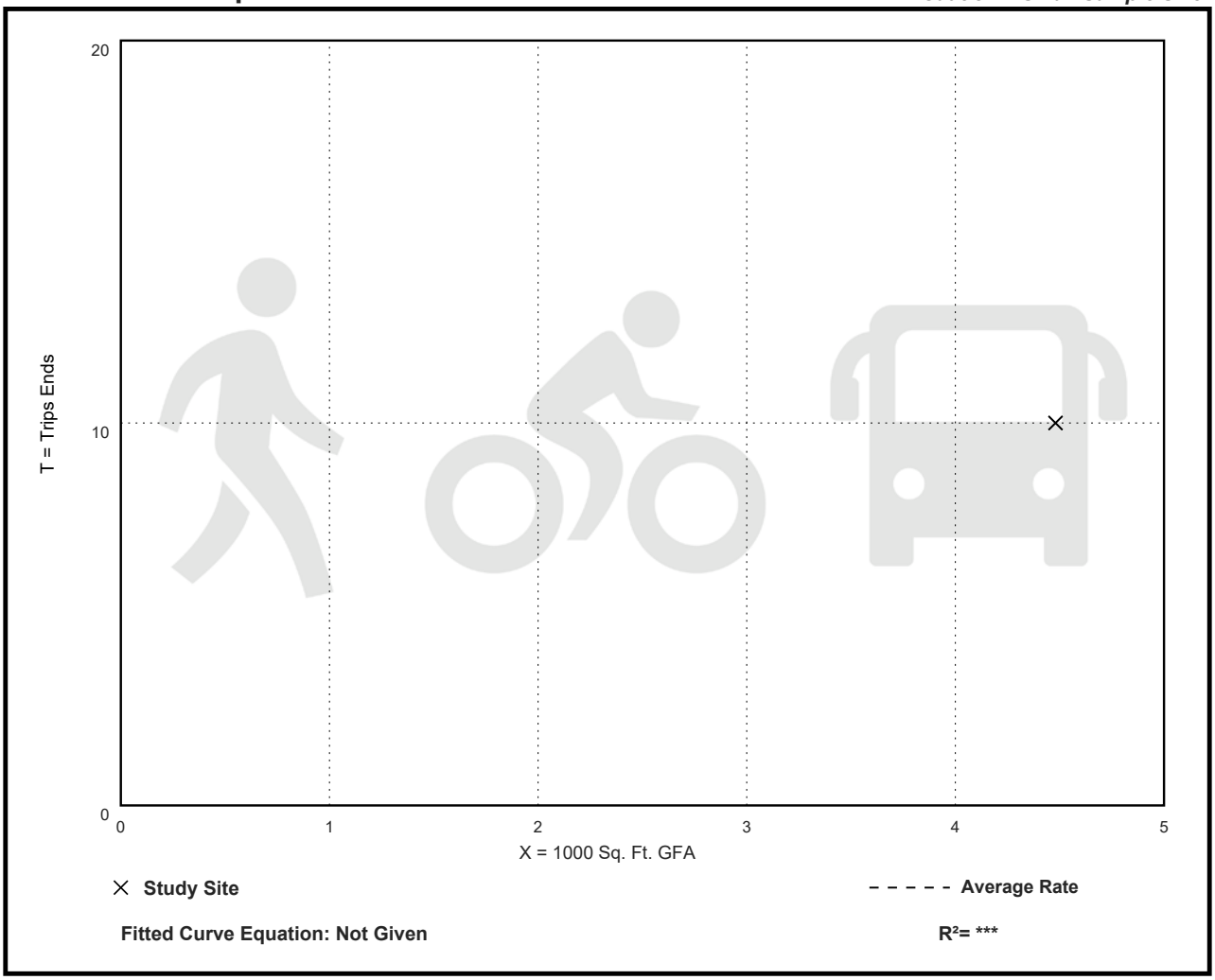
Walk+Bike+Transit Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: Not Available

Walk+Bike+Transit Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.23	2.23 - 2.23	***

Data Plot and Equation

Caution – Small Sample Size



Convenience Store/Gas Station - VFP (2-8) (945)

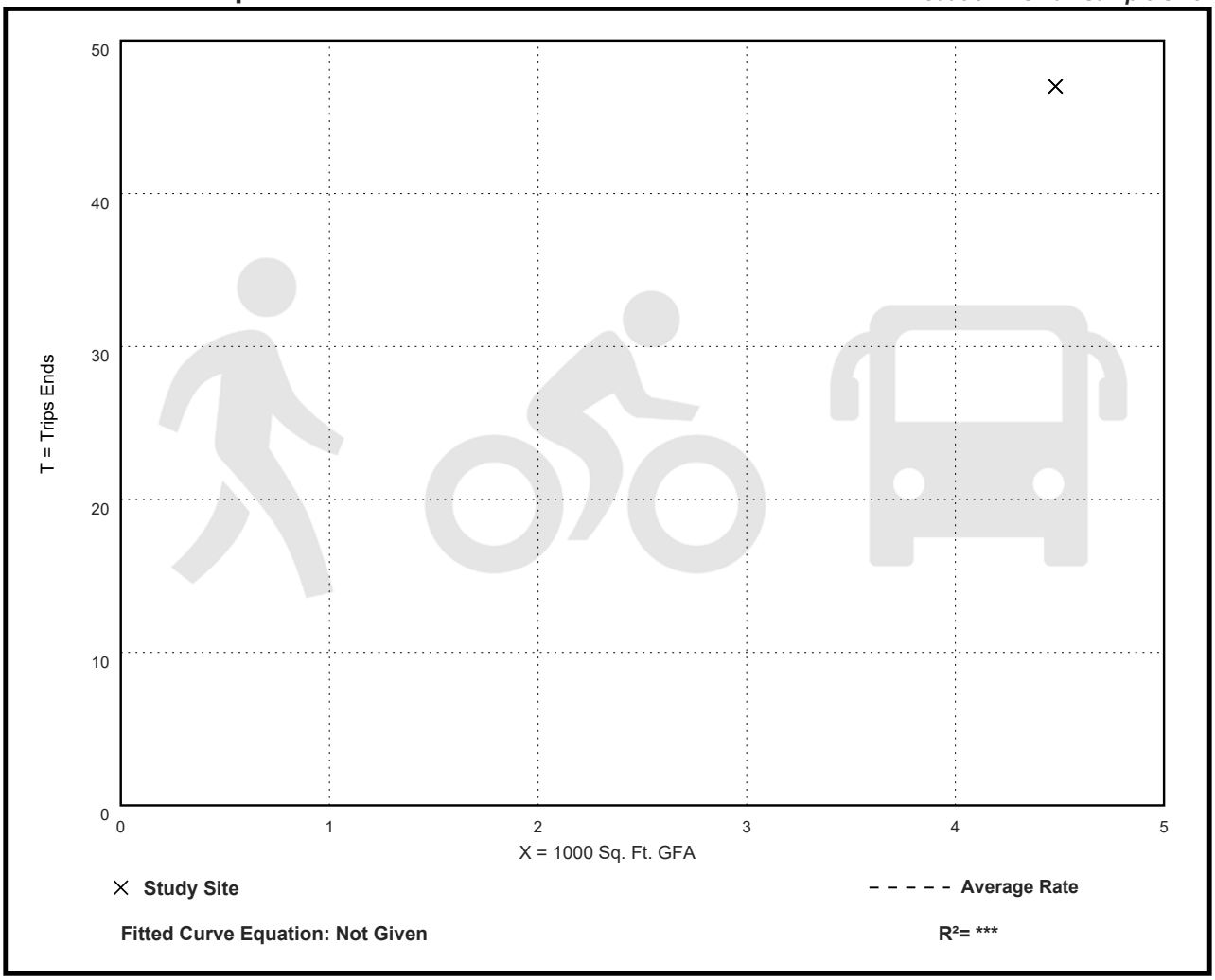
Walk+Bike+Transit Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: Not Available

Walk+Bike+Transit Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.49	10.49 - 10.49	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - VFP (9-15) (945)

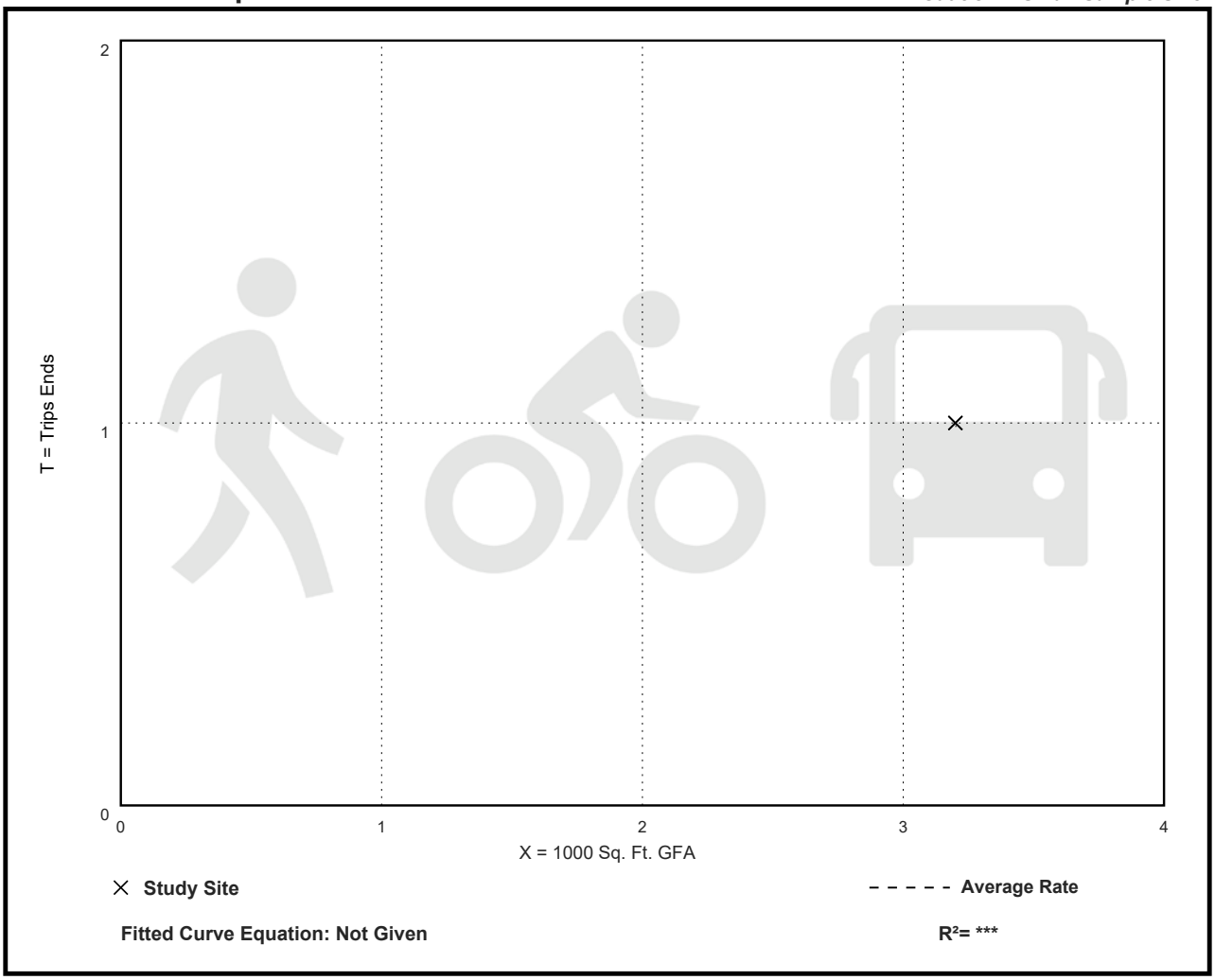
Walk+Bike+Transit Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: Not Available

Walk+Bike+Transit Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.31	0.31 - 0.31	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

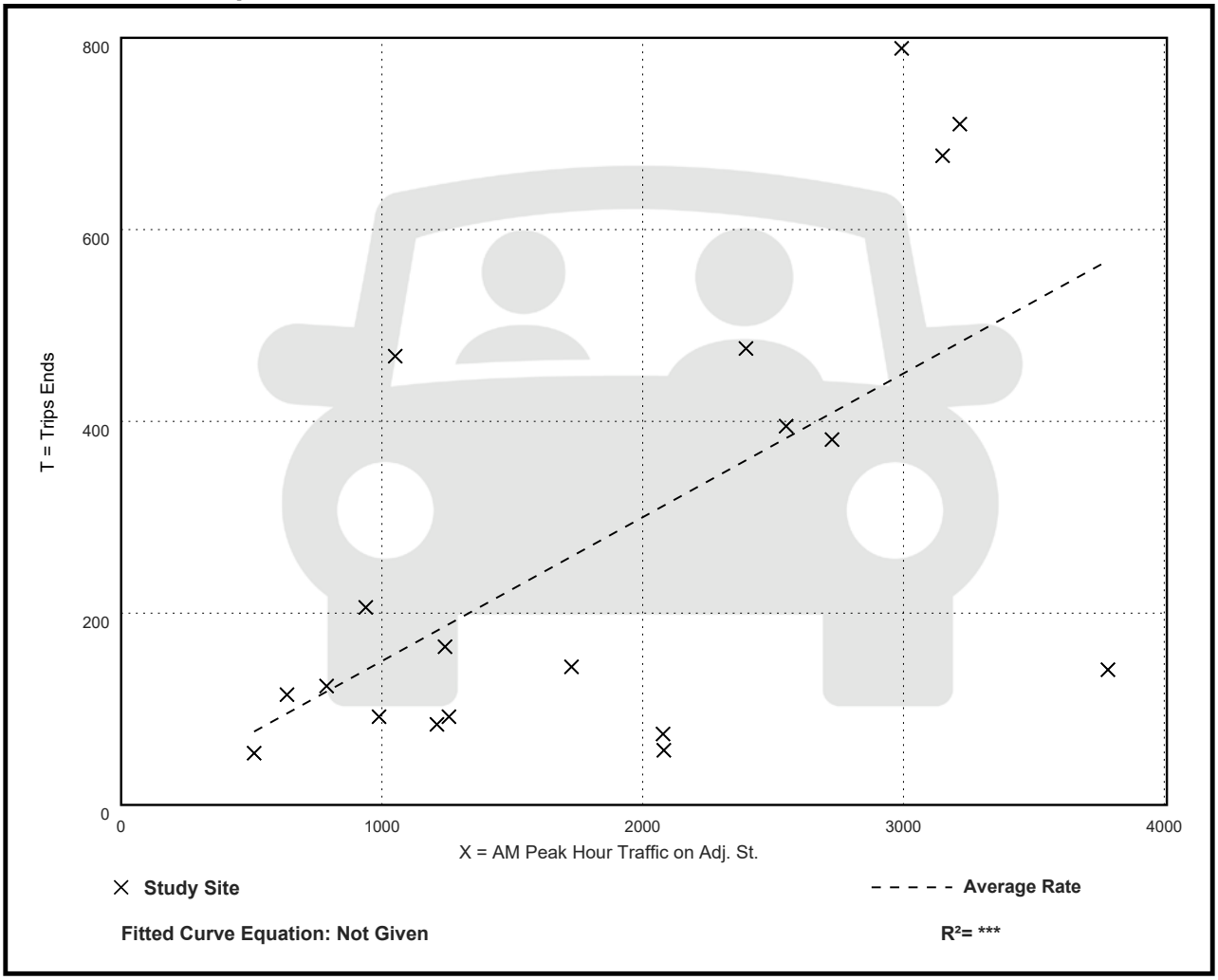
Convenience Store/Gas Station - None (945)

Vehicle Trip Ends vs: AM Peak Hour Traffic on Adj. St.
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: 19
Avg. AM Peak Hour Traffic on Adj. St.: 1859
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per AM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.15	0.03 - 0.45	0.10

Data Plot and Equation



Convenience Store/Gas Station - None (945)

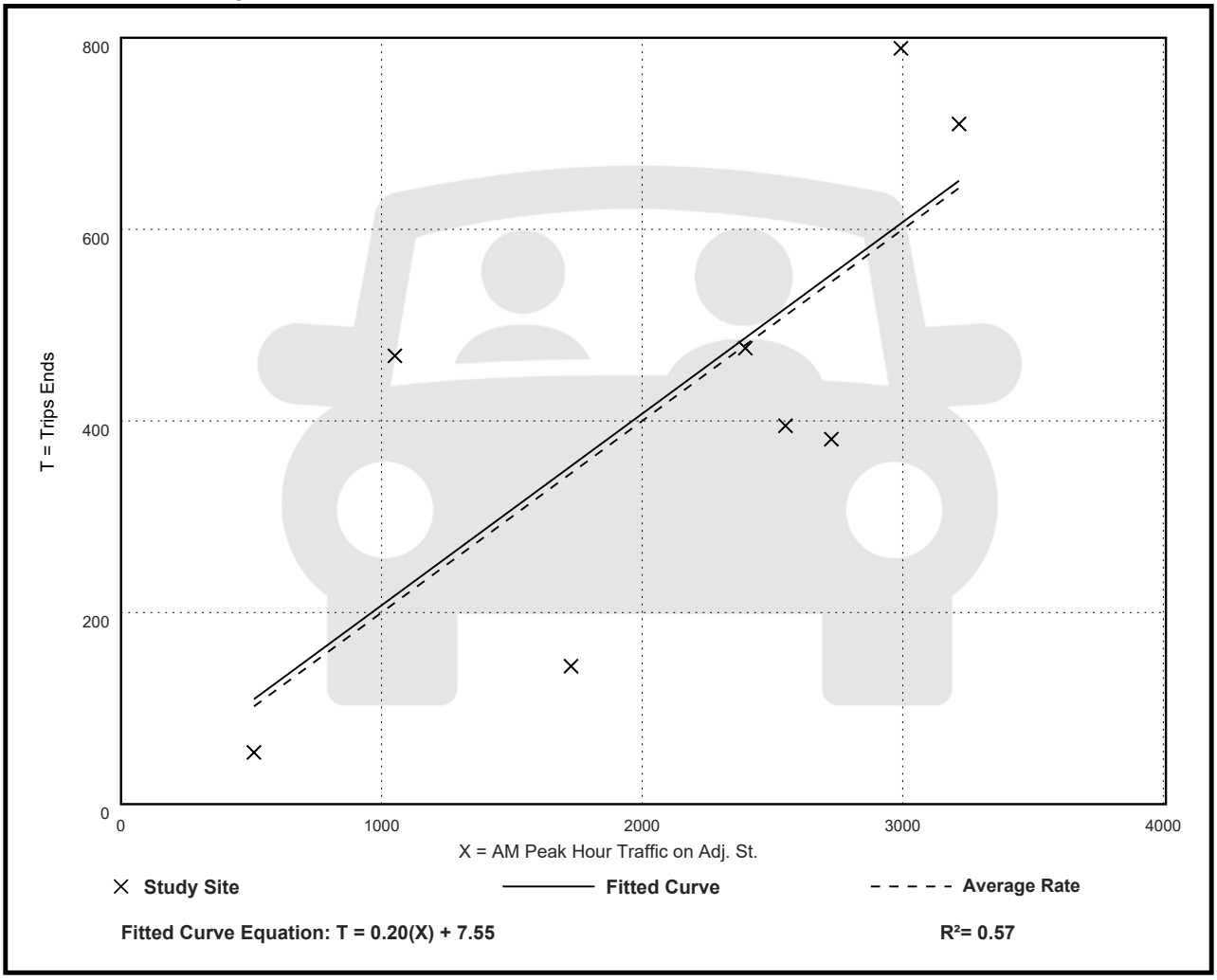
Vehicle Trip Ends vs: AM Peak Hour Traffic on Adj. St.
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. AM Peak Hour Traffic on Adj. St.: 2146
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per AM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.20	0.08 - 0.45	0.09

Data Plot and Equation



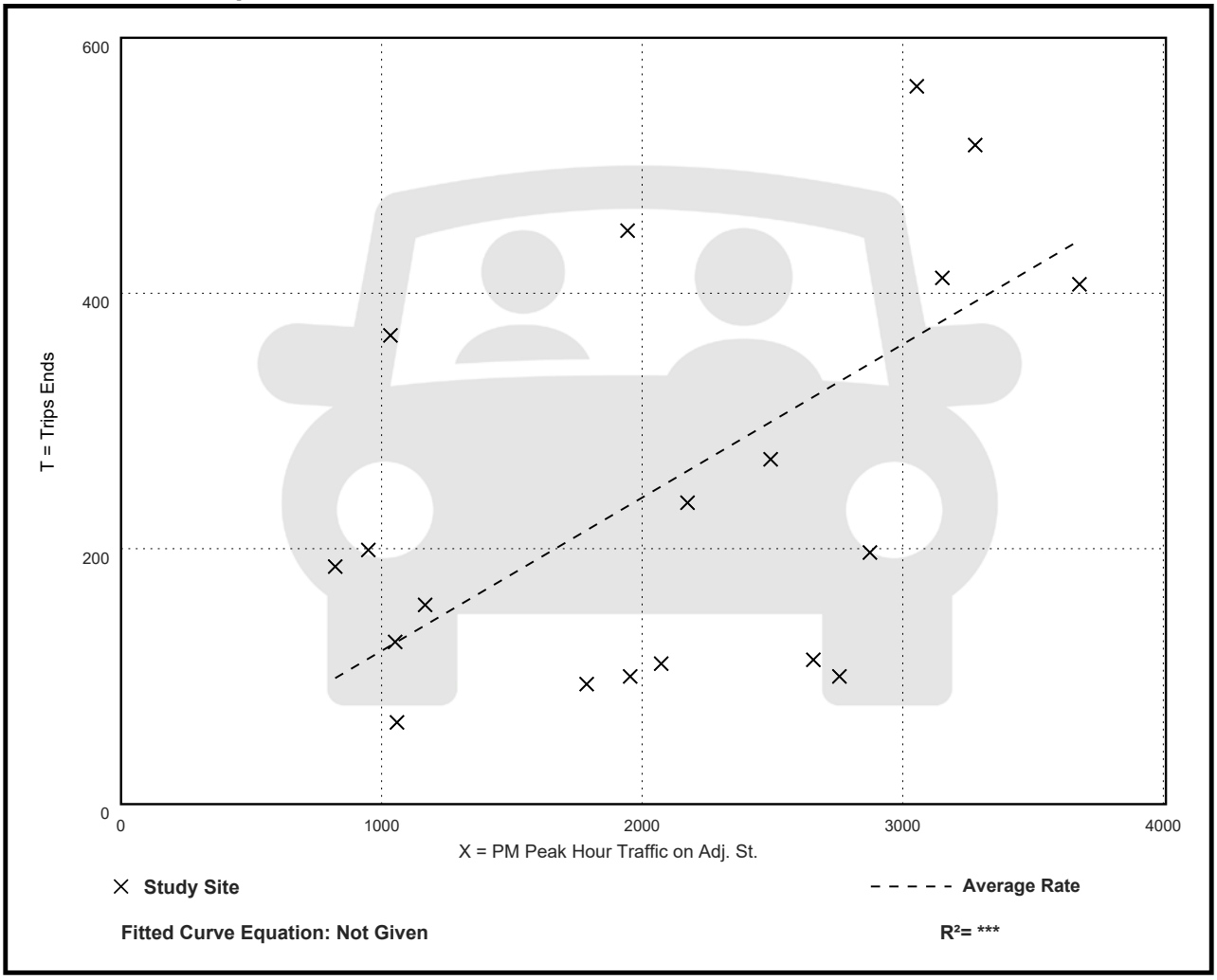
Convenience Store/Gas Station - None (945)

Vehicle Trip Ends vs: PM Peak Hour Traffic on Adj. St.
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: 19
Avg. PM Peak Hour Traffic on Adj. St.: 2103
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per PM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.12	0.04 - 0.35	0.07

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - None (945)

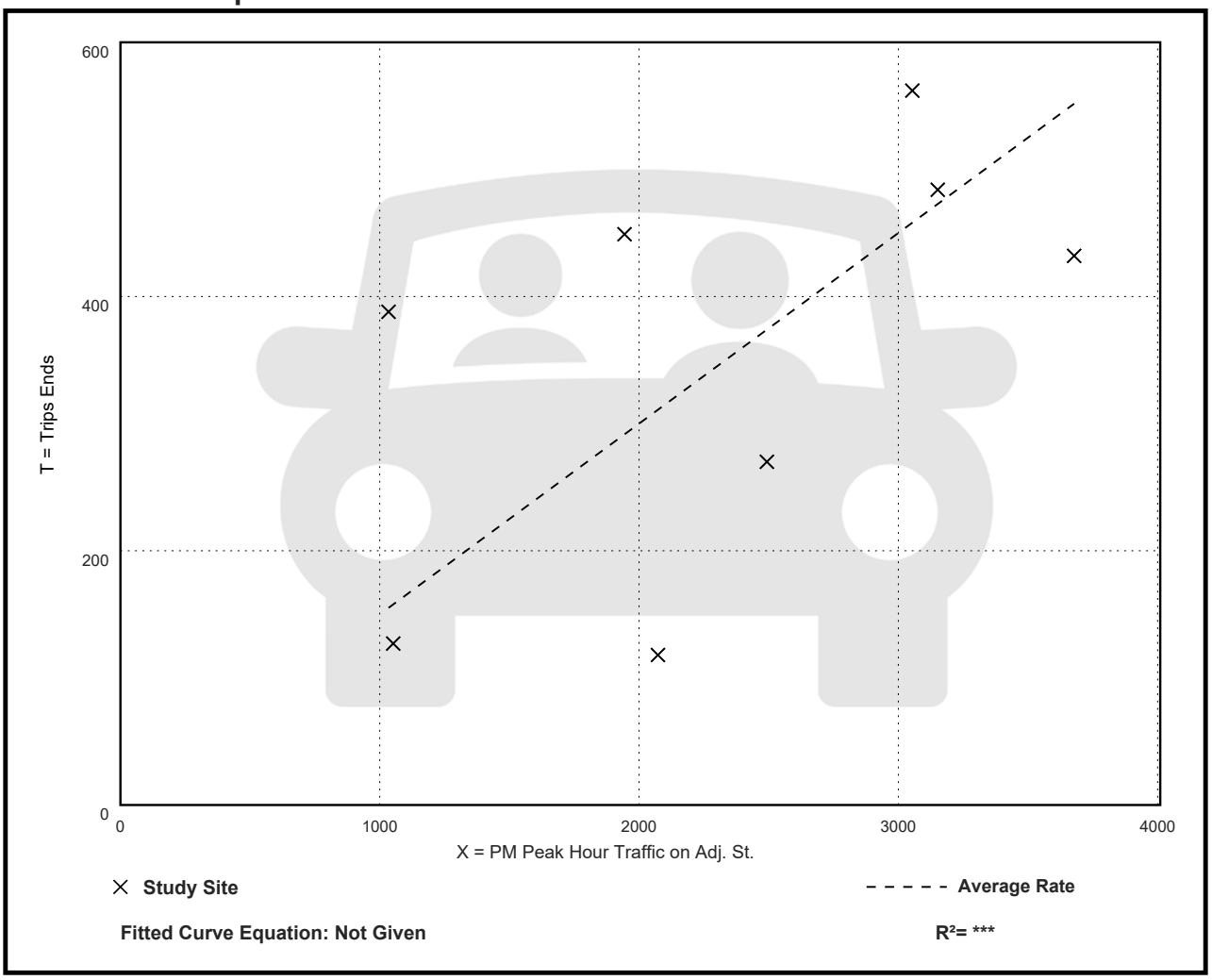
Vehicle Trip Ends vs: PM Peak Hour Traffic on Adj. St.
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. PM Peak Hour Traffic on Adj. St.: 2310
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per PM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.15	0.06 - 0.38	0.08

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Convenience Store/Gas Station - None (945)

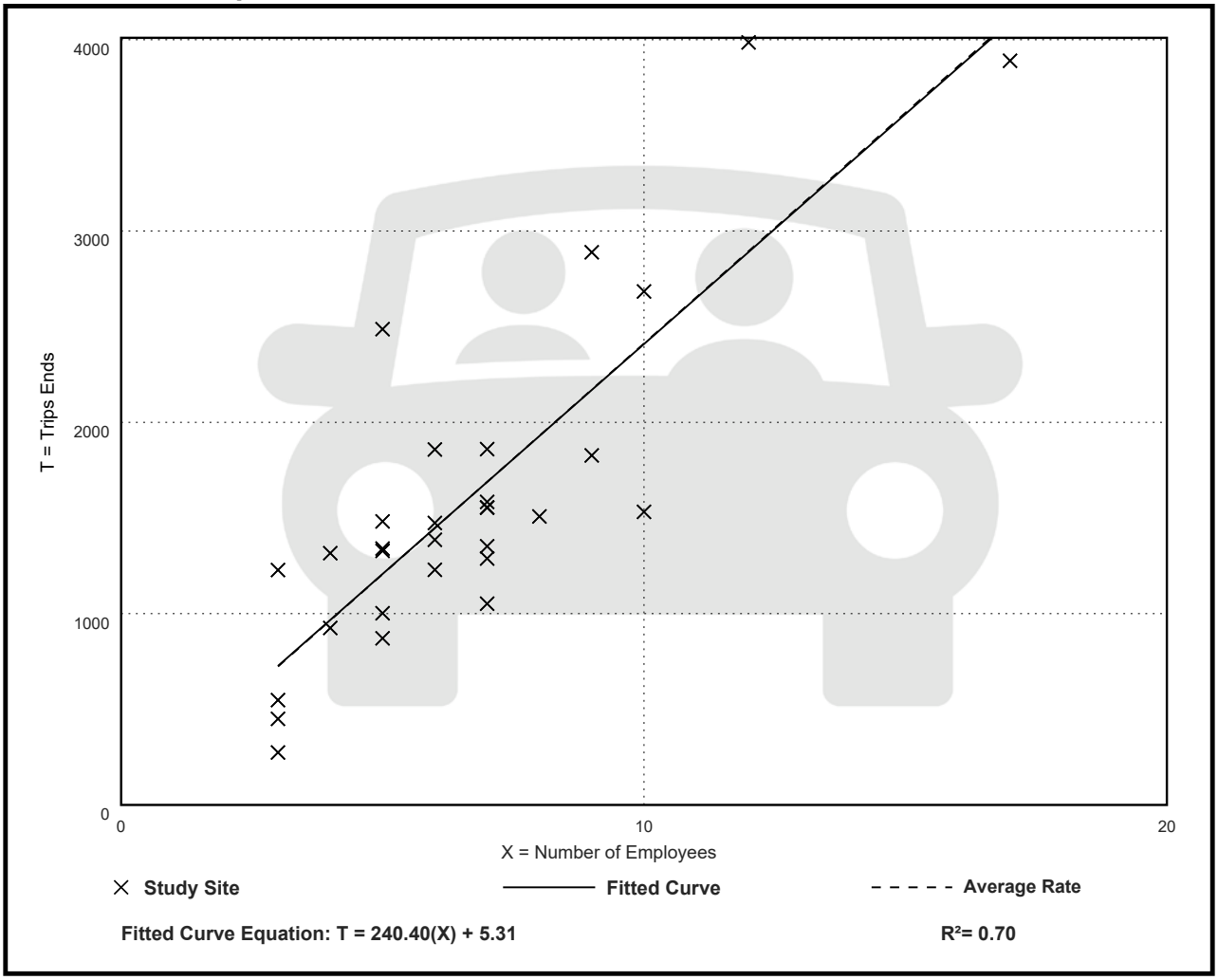
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Employees: 7
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
241.21	91.33 - 497.40	73.12

Data Plot and Equation



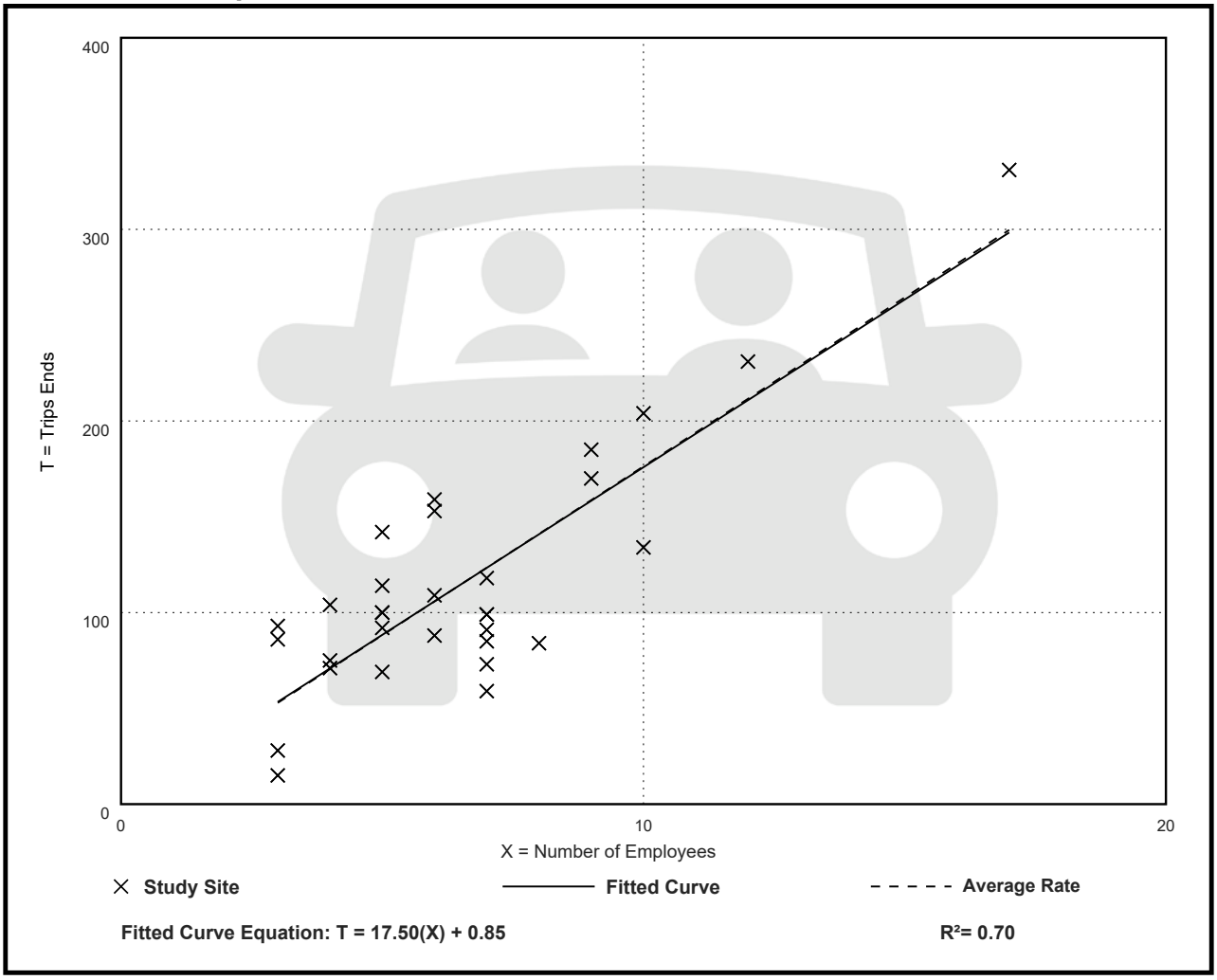
Convenience Store/Gas Station - None (945)

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: 31
Avg. Num. of Employees: 7
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
17.63	5.00 - 31.00	5.52

Data Plot and Equation



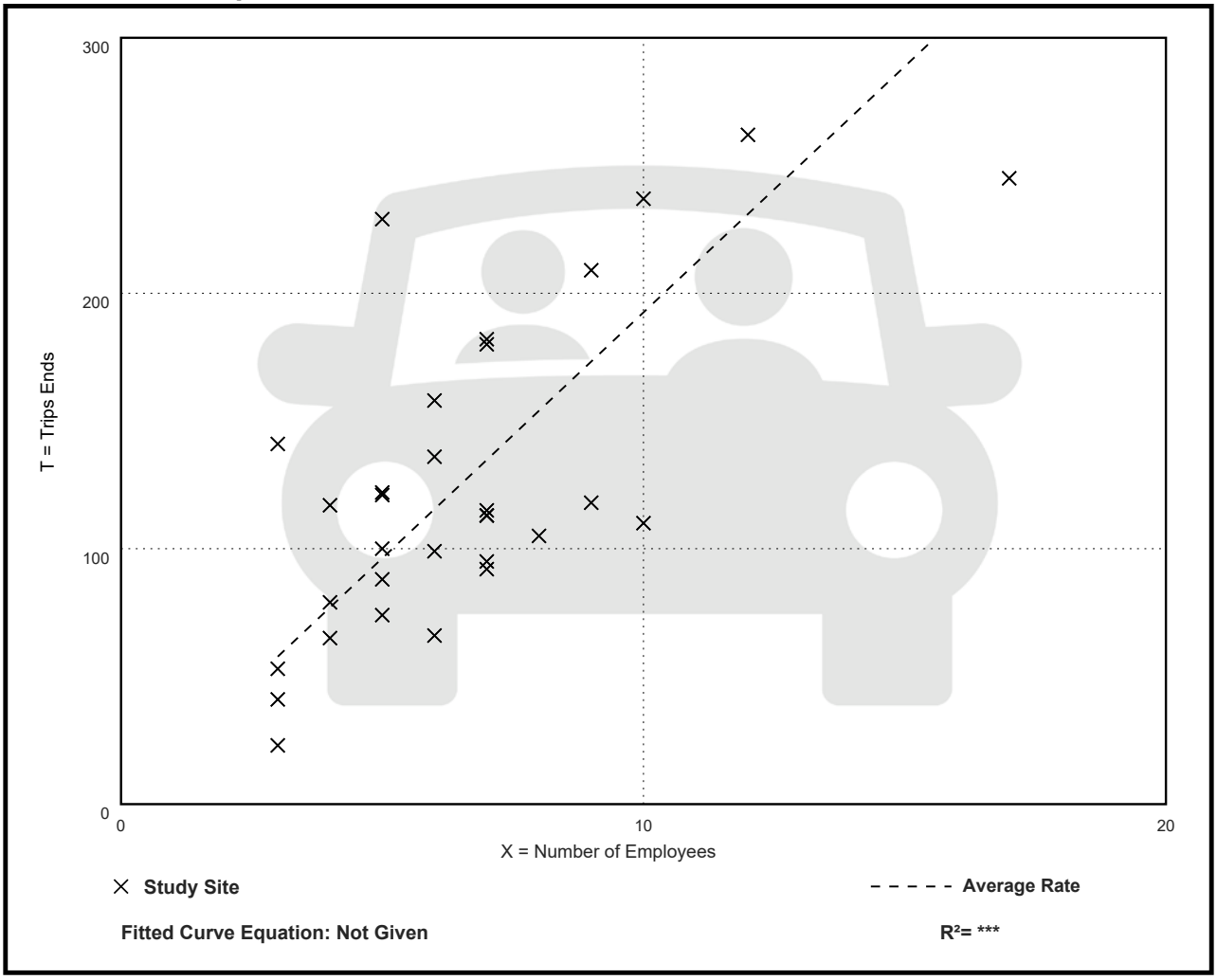
Convenience Store/Gas Station - None (945)

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: 31
Avg. Num. of Employees: 7
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
19.25	7.67 - 47.00	7.64

Data Plot and Equation



Convenience Store/Gas Station - None (945)

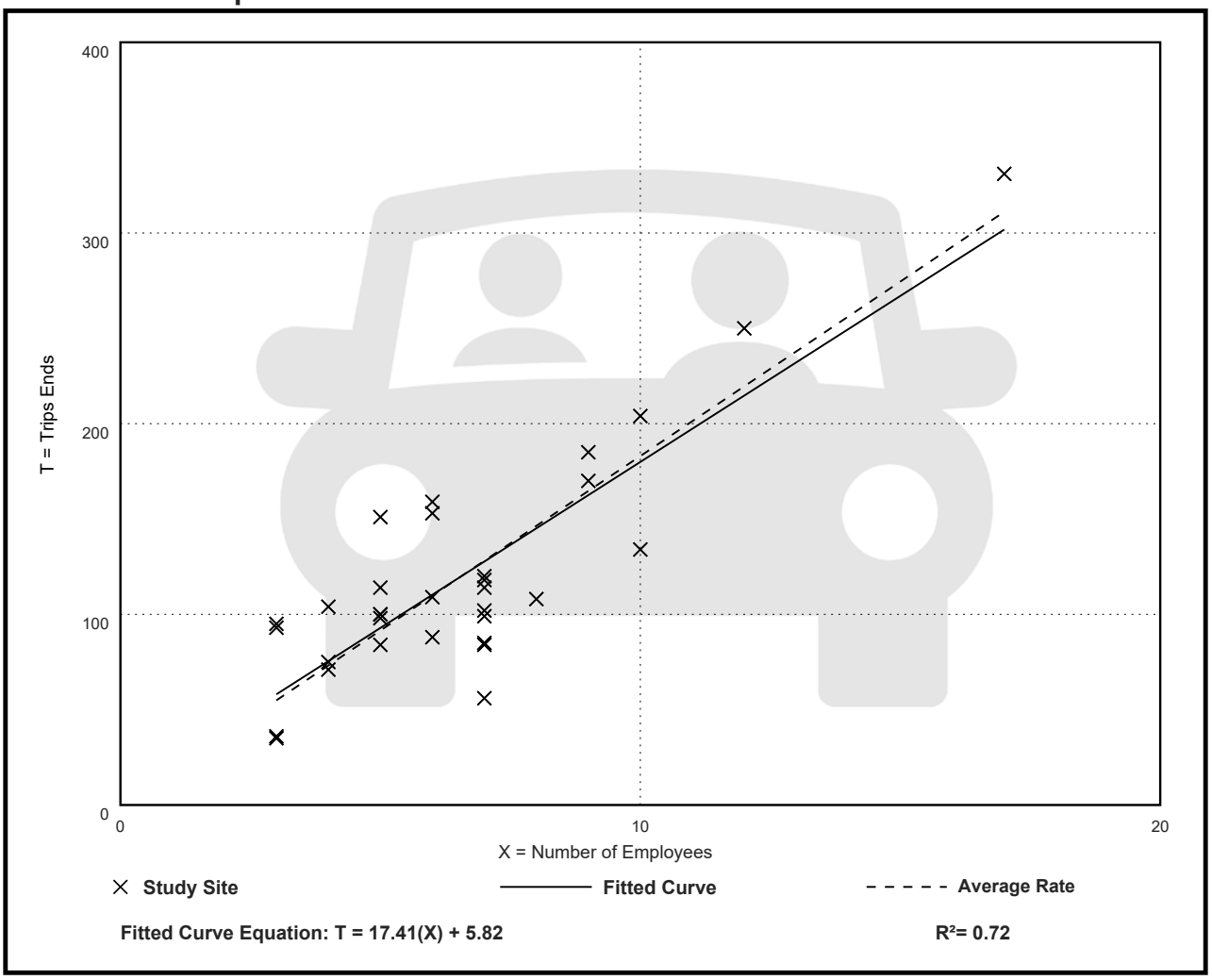
Vehicle Trip Ends vs: Employees
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 32
Avg. Num. of Employees: 7
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
18.30	8.00 - 31.67	5.13

Data Plot and Equation



Fitted Curve Equation: T = 17.41(X) + 5.82

R^2= 0.72

Convenience Store/Gas Station - None (945)

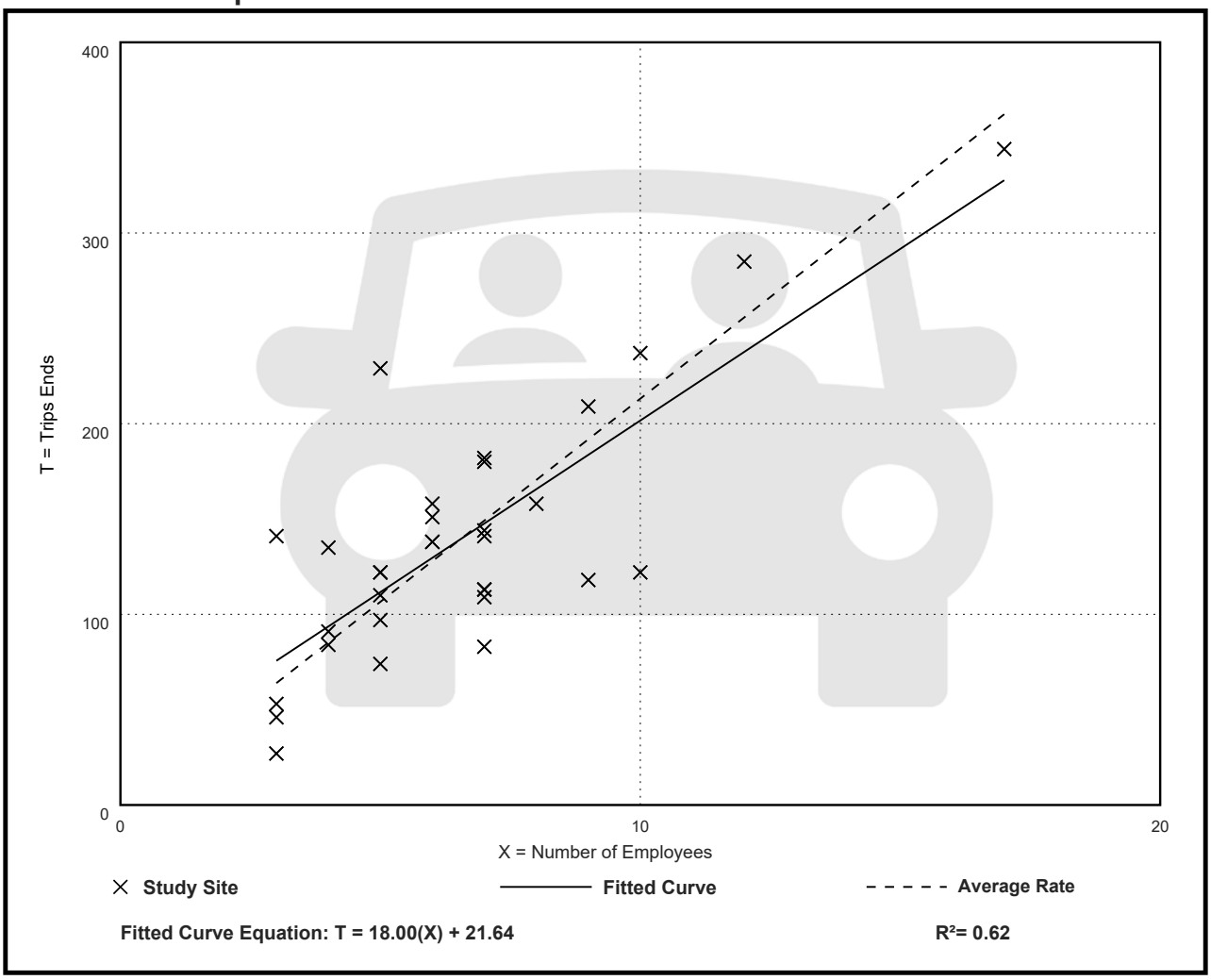
Vehicle Trip Ends vs: Employees
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 32
Avg. Num. of Employees: 7
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
21.31	9.00 - 47.00	7.02

Data Plot and Equation



Fitted Curve Equation: T = 18.00(X) + 21.64

R^2= 0.62

Convenience Store/Gas Station - None (945)

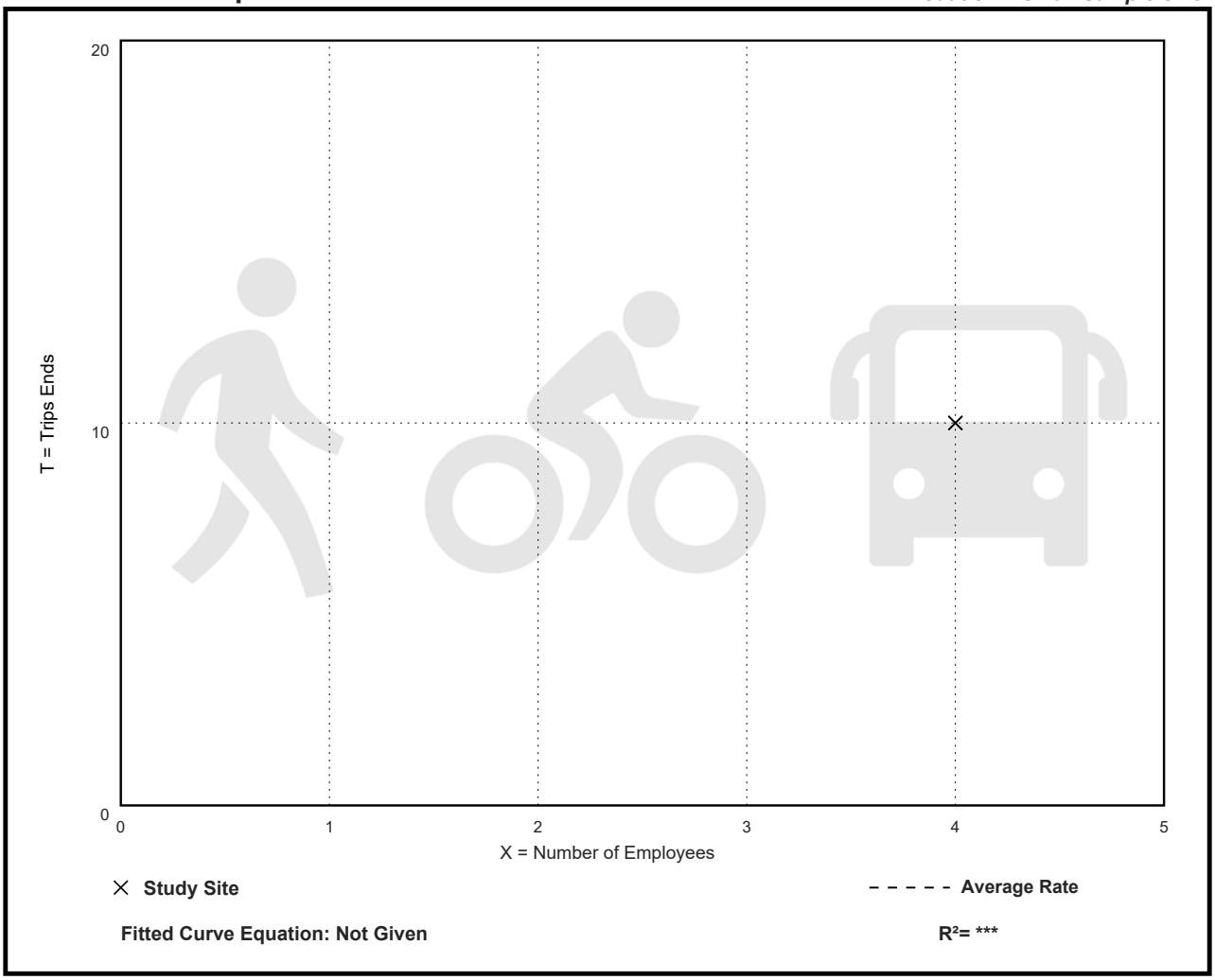
Walk+Bike+Transit Trip Ends vs: Employees
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Employees: 4
Directional Distribution: Not Available

Walk+Bike+Transit Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
2.50	2.50 - 2.50	***

Data Plot and Equation

Caution – Small Sample Size



Convenience Store/Gas Station - None (945)

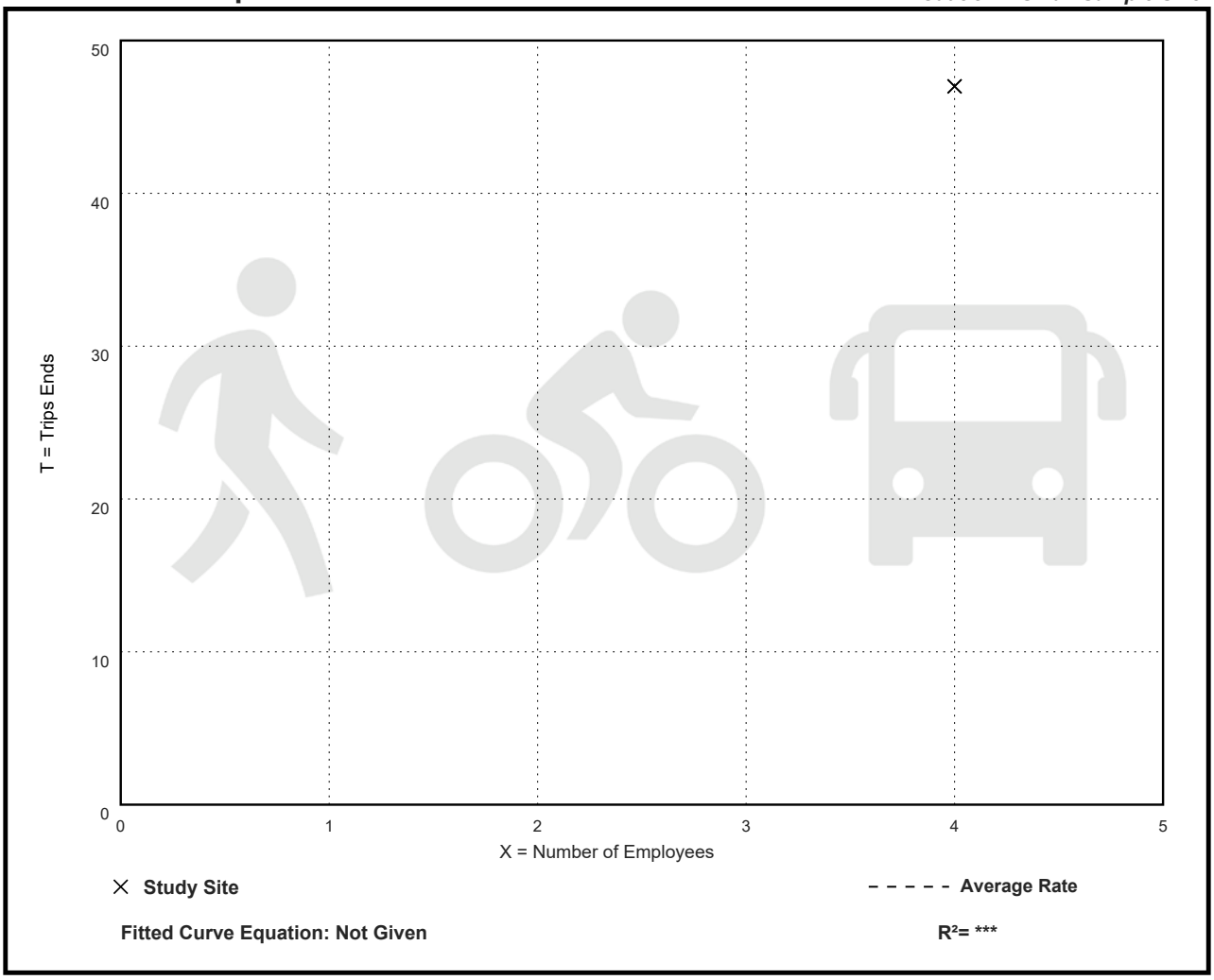
Walk+Bike+Transit Trip Ends vs: Employees
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Employees: 4
Directional Distribution: Not Available

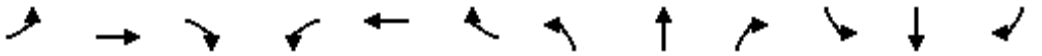
Walk+Bike+Transit Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
11.75	11.75 - 11.75	***

Data Plot and Equation

Caution – Small Sample Size





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	635	120	60	475	120	185	1020	35	145	365	20
Future Volume (veh/h)	160	635	120	60	475	120	185	1020	35	145	365	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1811	1826	1856	1844	1811	1856	1870	1767	1856	1969	1618
Adj Flow Rate, veh/h	168	668	126	63	500	126	195	1074	37	153	384	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	5	3	10	6	3	2	9	3	2	19
Cap, veh/h	231	709	134	128	760	417	613	1852	64	306	1936	801
Arrive On Green	0.07	0.25	0.25	0.04	0.22	0.22	0.07	0.53	0.53	0.05	0.52	0.52
Sat Flow, veh/h	1739	2889	544	1767	3504	1535	1767	3505	121	1767	3741	1372
Grp Volume(v), veh/h	168	397	397	63	500	126	195	544	567	153	384	21
Grp Sat Flow(s),veh/h/ln	1739	1721	1713	1767	1752	1535	1767	1777	1849	1767	1870	1372
Q Serve(g_s), s	10.0	34.0	34.1	4.1	19.6	9.8	7.7	31.2	31.2	6.1	8.3	1.0
Cycle Q Clear(g_c), s	10.0	34.0	34.1	4.1	19.6	9.8	7.7	31.2	31.2	6.1	8.3	1.0
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	231	422	420	128	760	417	613	939	977	306	1936	801
V/C Ratio(X)	0.73	0.94	0.94	0.49	0.66	0.30	0.32	0.58	0.58	0.50	0.20	0.03
Avail Cap(c_a), veh/h	231	424	423	178	864	462	633	939	977	345	1936	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	55.5	55.6	46.4	53.7	43.4	14.9	24.0	24.0	19.2	19.4	13.2
Incr Delay (d2), s/veh	10.8	31.3	31.7	2.9	4.4	1.9	0.3	2.6	2.5	1.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	25.3	25.3	3.5	14.0	7.1	5.6	19.5	20.1	4.6	6.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	86.8	87.2	49.4	58.1	45.2	15.2	26.6	26.5	20.5	19.7	13.2
LnGrp LOS	E	F	F	D	E	D	B	C	C	C	B	B
Approach Vol, veh/h		962			689			1306			558	
Approach Delay, s/veh		81.6			54.9			24.9			19.7	
Approach LOS		F			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	43.3	13.3	84.1	13.5	39.0	11.7	85.8
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	10.0	37.0	11.5	71.5	10.0	37.0	11.5	71.5
Max Q Clear Time (g_c+I1), s	6.1	36.1	9.7	10.3	12.0	21.6	8.1	33.2
Green Ext Time (p_c), s	0.0	0.7	0.1	9.3	0.0	7.9	0.1	25.7

Intersection Summary	
HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1220	5	0	545
Future Vol, veh/h	0	20	1220	5	0	545
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	21	1284	5	0	574

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	645	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	-	-	-	-
Pot Cap-1 Maneuver	0	408	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	408	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	408	-
HCM Lane V/C Ratio	-	-	0.052	-
HCM Control Delay (s)	-	-	14.3	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	5	0	25	0	1200	25	5	525	15
Future Vol, veh/h	0	0	20	5	0	25	0	1200	25	5	525	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	5	2	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	21	5	0	26	0	1263	26	5	553	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	285	1563	1855	645	-	0	0	1289	0	0
Stage 1	-	-	-	1276	1276	-	-	-	-	-	-	-
Stage 2	-	-	-	287	579	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.35	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	703	76	73	415	0	-	-	534	-	-
Stage 1	0	0	-	176	236	-	0	-	-	-	-	-
Stage 2	0	0	-	696	499	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	703	73	72	415	-	-	-	534	-	-
Mov Cap-2 Maneuver	-	-	-	73	72	-	-	-	-	-	-	-
Stage 1	-	-	-	176	236	-	-	-	-	-	-	-
Stage 2	-	-	-	666	492	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	22.9	0	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	703	233	534	-	-
HCM Lane V/C Ratio	-	-	0.03	0.136	0.01	-	-
HCM Control Delay (s)	-	-	10.3	22.9	11.8	-	-
HCM Lane LOS	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.5	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	750	65	5	650	5	10
Future Vol, veh/h	750	65	5	650	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	2	2	9	2	8
Mvmt Flow	789	68	5	684	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	857	0	1175	429
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	352	-
Critical Hdwy	-	-	4.14	-	6.84	7.06
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.38
Pot Cap-1 Maneuver	-	-	779	-	185	558
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	683	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	779	-	184	558
Mov Cap-2 Maneuver	-	-	-	-	184	-
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	679	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	333	-	-	779	-
HCM Lane V/C Ratio	0.047	-	-	0.007	-
HCM Control Delay (s)	16.3	-	-	9.7	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

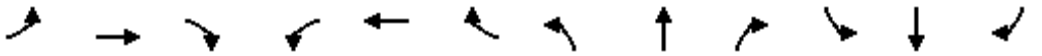
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	755	5	15	630	35	15	0	20	0	0	10
Future Vol, veh/h	0	755	5	15	630	35	15	0	20	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	6	5	6	2	2	2	2	2	9
Mvmt Flow	0	795	5	16	663	37	16	0	21	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	800	0	0	1162	1530	400	-	-	332
Stage 1	-	-	-	-	-	-	798	798	-	-	-	-
Stage 2	-	-	-	-	-	-	364	732	-	-	-	-
Critical Hdwy	-	-	-	4.22	-	-	7.54	6.54	6.94	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.26	-	-	3.52	4.02	3.32	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	793	-	-	150	116	600	0	0	644
Stage 1	0	-	-	-	-	-	346	396	-	0	0	-
Stage 2	0	-	-	-	-	-	627	425	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	793	-	-	145	114	600	-	-	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	145	114	-	-	-	-
Stage 1	-	-	-	-	-	-	346	396	-	-	-	-
Stage 2	-	-	-	-	-	-	604	417	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	21.4	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	256	-	-	793	-	-	644
HCM Lane V/C Ratio	0.144	-	-	0.02	-	-	0.016
HCM Control Delay (s)	21.4	-	-	9.6	-	-	10.7
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	655	195	120	755	175	220	655	30	225	860	65
Future Volume (veh/h)	160	655	195	120	755	175	220	655	30	225	860	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1969	1870	1870	1870	1870	1856	1969	1618
Adj Flow Rate, veh/h	168	689	205	126	795	184	232	689	32	237	905	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	2	3	2	19
Cap, veh/h	248	813	242	198	1075	604	334	1415	66	403	1593	689
Arrive On Green	0.08	0.30	0.30	0.06	0.29	0.29	0.08	0.41	0.41	0.09	0.43	0.43
Sat Flow, veh/h	1767	2700	803	1781	3741	1585	1781	3458	161	1767	3741	1372
Grp Volume(v), veh/h	168	453	441	126	795	184	232	354	367	237	905	68
Grp Sat Flow(s),veh/h/ln	1767	1777	1726	1781	1870	1585	1781	1777	1841	1767	1870	1372
Q Serve(g_s), s	10.0	35.9	35.9	7.4	28.8	12.2	11.5	22.0	22.1	11.4	27.5	3.9
Cycle Q Clear(g_c), s	10.0	35.9	35.9	7.4	28.8	12.2	11.5	22.0	22.1	11.4	27.5	3.9
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	248	535	520	198	1075	604	334	727	754	403	1593	689
V/C Ratio(X)	0.68	0.85	0.85	0.64	0.74	0.30	0.69	0.49	0.49	0.59	0.57	0.10
Avail Cap(c_a), veh/h	248	563	547	223	1185	650	334	727	754	603	1593	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	49.2	49.2	38.9	48.4	32.5	26.2	32.7	32.7	23.5	32.6	19.5
Incr Delay (d2), s/veh	7.2	15.2	15.6	4.9	4.6	1.3	6.1	2.3	2.2	1.4	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.4	25.1	24.5	6.3	20.3	8.5	9.2	15.0	15.5	8.4	18.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	64.4	64.8	43.7	52.9	33.8	32.3	35.0	34.9	24.9	34.1	19.8
LnGrp LOS	D	E	E	D	D	C	C	D	C	C	C	B
Approach Vol, veh/h		1062			1105			953			1210	
Approach Delay, s/veh		61.4			48.7			34.3			31.5	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	51.7	15.0	70.4	15.0	49.6	17.5	67.9
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	11.5	47.5	11.5	59.5	11.5	47.5	31.0	40.0
Max Q Clear Time (g_c+I1), s	9.4	37.9	13.5	29.5	12.0	30.8	13.4	24.1
Green Ext Time (p_c), s	0.1	7.3	0.0	19.0	0.0	12.0	0.6	9.2

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	890	10	0	1175
Future Vol, veh/h	0	15	890	10	0	1175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	2	2
Mvmt Flow	0	16	937	11	0	1237

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	474	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.06	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.38	-	-	-	-
Pot Cap-1 Maneuver	0	521	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	521	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	521	-
HCM Lane V/C Ratio	-	-	0.03	-
HCM Control Delay (s)	-	-	12.1	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	20	0	30	0	870	35	1	1125	50
Future Vol, veh/h	0	0	30	20	0	30	0	870	35	1	1125	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	4	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	32	21	0	32	0	916	37	1	1184	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	619	1529	2174	477	-	0	0	953	0	0
Stage 1	-	-	-	935	935	-	-	-	-	-	-	-
Stage 2	-	-	-	594	1239	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	7.58	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.58	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	3.54	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	429	79	46	534	0	-	-	717	-	-
Stage 1	0	0	-	282	342	-	0	-	-	-	-	-
Stage 2	0	0	-	453	246	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	429	73	46	534	-	-	-	717	-	-
Mov Cap-2 Maneuver	-	-	-	73	46	-	-	-	-	-	-	-
Stage 1	-	-	-	282	342	-	-	-	-	-	-	-
Stage 2	-	-	-	418	245	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	41.1	0	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	429	151	717	-	-
HCM Lane V/C Ratio	-	-	0.074	0.349	0.001	-	-
HCM Control Delay (s)	-	-	14.1	41.1	10	-	-
HCM Lane LOS	-	-	B	E	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	1.4	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	830	80	10	1045	5	10
Future Vol, veh/h	830	80	10	1045	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	874	84	11	1100	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	958	0	1488	479
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	572	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	714	-	115	533
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	528	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	714	-	113	533
Mov Cap-2 Maneuver	-	-	-	-	113	-
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	520	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	238	-	-	714	-
HCM Lane V/C Ratio	0.066	-	-	0.015	-
HCM Control Delay (s)	21.2	-	-	10.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

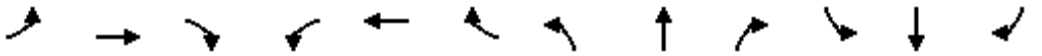
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	840	1	10	1000	35	15	0	45	0	0	40
Future Vol, veh/h	0	840	1	10	1000	35	15	0	45	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	884	1	11	1053	37	16	0	47	0	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	885	0	0	1434	1997	443	-	-	527
Stage 1	-	-	-	-	-	-	885	885	-	-	-	-
Stage 2	-	-	-	-	-	-	549	1112	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	760	-	-	94	59	562	0	0	496
Stage 1	0	-	-	-	-	-	306	361	-	0	0	-
Stage 2	0	-	-	-	-	-	488	282	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	760	-	-	85	58	562	-	-	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	58	-	-	-	-
Stage 1	-	-	-	-	-	-	306	361	-	-	-	-
Stage 2	-	-	-	-	-	-	440	278	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	26	12.9
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	234	-	-	760	-	-	496
HCM Lane V/C Ratio	0.27	-	-	0.014	-	-	0.085
HCM Control Delay (s)	26	-	-	9.8	-	-	12.9
HCM Lane LOS	D	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.1	-	-	0	-	-	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	725	215	135	685	170	245	735	50	180	560	80
Future Volume (veh/h)	200	725	215	135	685	170	245	735	50	180	560	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1969	1870	1870	1870	1870	1870	1969	1841
Adj Flow Rate, veh/h	211	763	226	142	721	179	258	774	53	189	589	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	4
Cap, veh/h	319	844	250	212	1070	591	427	1222	84	329	1303	697
Arrive On Green	0.10	0.31	0.31	0.07	0.29	0.29	0.10	0.36	0.36	0.09	0.35	0.35
Sat Flow, veh/h	1781	2703	801	1781	3741	1585	1781	3375	231	1781	3741	1560
Grp Volume(v), veh/h	211	502	487	142	721	179	258	407	420	189	589	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1726	1781	1870	1585	1781	1777	1829	1781	1870	1560
Q Serve(g_s), s	9.7	32.5	32.5	6.7	20.5	9.6	11.2	22.8	22.8	8.0	14.6	3.8
Cycle Q Clear(g_c), s	9.7	32.5	32.5	6.7	20.5	9.6	11.2	22.8	22.8	8.0	14.6	3.8
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	319	555	539	212	1070	591	427	643	662	329	1303	697
V/C Ratio(X)	0.66	0.90	0.90	0.67	0.67	0.30	0.60	0.63	0.63	0.57	0.45	0.12
Avail Cap(c_a), veh/h	342	597	580	228	1144	623	427	643	662	567	1303	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	39.5	39.5	31.4	37.9	26.6	22.5	31.7	31.7	24.0	30.2	19.4
Incr Delay (d2), s/veh	4.3	16.6	17.0	6.8	1.4	0.3	2.4	4.7	4.6	1.6	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	23.0	22.6	5.8	14.5	6.5	8.4	15.6	15.9	6.1	10.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	56.1	56.5	38.1	39.3	26.9	24.9	36.4	36.3	25.6	31.4	19.8
LnGrp LOS	C	E	E	D	D	C	C	D	D	C	C	B
Approach Vol, veh/h		1200			1042			1085			862	
Approach Delay, s/veh		52.0			37.0			33.6			29.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	44.0	15.6	48.3	15.3	40.8	14.0	49.9
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	9.7	40.3	12.1	37.9	13.3	36.7	26.5	23.5
Max Q Clear Time (g_c+I1), s	8.7	34.5	13.2	16.6	11.7	22.5	10.0	24.8
Green Ext Time (p_c), s	0.0	3.0	0.0	4.0	0.1	4.7	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	1015	5	0	910
Future Vol, veh/h	0	15	1015	5	0	910
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	1068	5	0	958

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	537	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	488	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	488	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	488	-
HCM Lane V/C Ratio	-	-	0.032	-
HCM Control Delay (s)	-	-	12.6	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	15	0	35	0	985	35	5	865	40
Future Vol, veh/h	0	0	30	15	0	35	0	985	35	5	865	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	32	16	0	37	0	1037	37	5	911	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	477	1522	2019	537	-	0	0	1074	0	0
Stage 1	-	-	-	1056	1056	-	-	-	-	-	-	-
Stage 2	-	-	-	466	963	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	534	81	58	488	0	-	-	645	-	-
Stage 1	0	0	-	241	300	-	0	-	-	-	-	-
Stage 2	0	0	-	546	332	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	534	75	57	488	-	-	-	645	-	-
Mov Cap-2 Maneuver	-	-	-	75	57	-	-	-	-	-	-	-
Stage 1	-	-	-	241	300	-	-	-	-	-	-	-
Stage 2	-	-	-	505	326	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	32.2	0	0.1
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	534	184	645	-	-
HCM Lane V/C Ratio	-	-	0.059	0.286	0.008	-	-
HCM Control Delay (s)	-	-	12.2	32.2	10.6	-	-
HCM Lane LOS	-	-	B	D	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	1.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	870	85	5	990	2	10
Future Vol, veh/h	870	85	5	990	2	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	916	89	5	1042	2	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1005	0	1492	503
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	685	-	114	514
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	685	-	113	514
Mov Cap-2 Maneuver	-	-	-	-	113	-
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	550	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	323	-	-	685	-
HCM Lane V/C Ratio	0.039	-	-	0.008	-
HCM Control Delay (s)	16.6	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

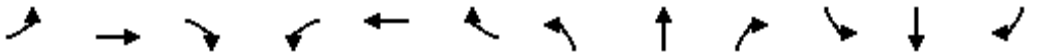
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	880	1	15	900	65	10	0	40	0	0	85
Future Vol, veh/h	0	880	1	15	900	65	10	0	40	0	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	926	1	16	947	68	11	0	42	0	0	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	927	0	0	1433	1974	464	-	-	474
Stage 1	-	-	-	-	-	-	927	927	-	-	-	-
Stage 2	-	-	-	-	-	-	506	1047	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	733	-	-	95	61	545	0	0	537
Stage 1	0	-	-	-	-	-	289	345	-	0	0	-
Stage 2	0	-	-	-	-	-	517	303	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	733	-	-	78	60	545	-	-	537
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	60	-	-	-	-
Stage 1	-	-	-	-	-	-	289	345	-	-	-	-
Stage 2	-	-	-	-	-	-	421	296	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	23.4	13
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	-	-	733	-	-	537
HCM Lane V/C Ratio	0.212	-	-	0.022	-	-	0.167
HCM Control Delay (s)	23.4	-	-	10	-	-	13
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-	-	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	645	120	60	445	120	235	1025	35	160	355	20
Future Volume (veh/h)	160	645	120	60	445	120	235	1025	35	160	355	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1811	1826	1856	1844	1811	1856	1870	1767	1856	1969	1618
Adj Flow Rate, veh/h	168	679	126	63	468	126	247	1079	37	168	374	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	5	3	10	6	3	2	9	3	2	19
Cap, veh/h	242	713	132	126	763	426	626	1832	63	309	1892	785
Arrive On Green	0.07	0.25	0.25	0.04	0.22	0.22	0.08	0.52	0.52	0.06	0.51	0.51
Sat Flow, veh/h	1739	2898	537	1767	3504	1535	1767	3505	120	1767	3741	1372
Grp Volume(v), veh/h	168	403	402	63	468	126	247	547	569	168	374	21
Grp Sat Flow(s),veh/h/ln	1739	1721	1714	1767	1752	1535	1767	1777	1849	1767	1870	1372
Q Serve(g_s), s	10.0	34.6	34.6	4.1	18.1	9.7	10.0	31.8	31.8	6.8	8.2	1.0
Cycle Q Clear(g_c), s	10.0	34.6	34.6	4.1	18.1	9.7	10.0	31.8	31.8	6.8	8.2	1.0
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	242	424	422	126	763	426	626	929	966	309	1892	785
V/C Ratio(X)	0.69	0.95	0.95	0.50	0.61	0.30	0.39	0.59	0.59	0.54	0.20	0.03
Avail Cap(c_a), veh/h	242	424	423	176	864	470	626	929	966	339	1892	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	55.6	55.7	46.4	53.0	42.7	15.1	24.7	24.7	20.0	20.4	13.9
Incr Delay (d2), s/veh	8.3	33.0	33.4	3.1	3.7	1.8	0.4	2.7	2.6	1.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	25.9	25.9	3.5	13.1	7.0	7.2	19.8	20.5	5.2	6.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	88.7	89.1	49.5	56.7	44.4	15.5	27.4	27.3	21.5	20.6	14.0
LnGrp LOS	D	F	F	D	E	D	B	C	C	C	C	B
Approach Vol, veh/h		973			657			1363			563	
Approach Delay, s/veh		82.7			53.6			25.2			20.6	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	43.4	15.0	82.4	13.5	39.1	12.4	84.9
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	10.0	37.0	11.5	71.5	10.0	37.0	11.5	71.5
Max Q Clear Time (g_c+I1), s	6.1	36.6	12.0	10.2	12.0	20.1	8.8	33.8
Green Ext Time (p_c), s	0.0	0.3	0.0	9.0	0.0	8.0	0.1	25.5

Intersection Summary	
HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1240	10	0	535
Future Vol, veh/h	0	55	1240	10	0	535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	58	1305	11	0	563

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	658	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.35	-	-	-	-
Pot Cap-1 Maneuver	0	400	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	400	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	400	-
HCM Lane V/C Ratio	-	-	0.145	-
HCM Control Delay (s)	-	-	15.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	40	0	80	0	1170	70	0	520	15
Future Vol, veh/h	0	0	20	40	0	80	0	1170	70	0	520	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	5	2	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	21	42	0	84	0	1232	74	0	547	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	282	1543	1832	653	-	0	0	-	-	0
Stage 1	-	-	-	1269	1269	-	-	-	-	-	-	-
Stage 2	-	-	-	274	563	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	7.54	6.54	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.35	3.52	4.02	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	706	78	75	410	0	-	-	0	-	-
Stage 1	0	0	-	178	238	-	0	-	-	0	-	-
Stage 2	0	0	-	709	507	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	706	76	75	410	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	76	75	-	-	-	-	-	-	-
Stage 1	-	-	-	178	238	-	-	-	-	-	-	-
Stage 2	-	-	-	688	507	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	44	0	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	-	-	706	76	410	-	-
HCM Lane V/C Ratio	-	-	0.03	0.554	0.205	-	-
HCM Control Delay (s)	-	-	10.3	99.9	16	-	-
HCM Lane LOS	-	-	B	F	C	-	-
HCM 95th %tile Q(veh)	-	-	0.1	2.4	0.8	-	-

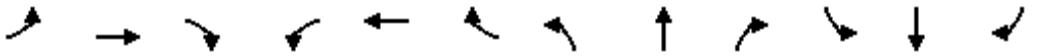
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	695	145	45	615	35	0	0	100	0	0	10
Future Vol, veh/h	0	695	145	45	615	35	0	0	100	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	130	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	6	5	6	2	2	2	2	2	9
Mvmt Flow	0	732	153	47	647	37	0	0	105	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	885	0	0	-	1510	366	-	-	324
Stage 1	-	-	-	-	-	-	-	732	-	-	-	-
Stage 2	-	-	-	-	-	-	-	778	-	-	-	-
Critical Hdwy	-	-	-	4.22	-	-	-	6.54	6.94	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.26	-	-	-	4.02	3.32	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	736	-	-	0	119	631	0	0	652
Stage 1	0	-	-	-	-	-	0	425	-	0	0	-
Stage 2	0	-	-	-	-	-	0	405	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	736	-	-	-	111	631	-	-	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	111	-	-	-	-
Stage 1	-	-	-	-	-	-	-	425	-	-	-	-
Stage 2	-	-	-	-	-	-	-	379	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.7	11.8	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	631	-	-	736	-	-	652
HCM Lane V/C Ratio	0.167	-	-	0.064	-	-	0.016
HCM Control Delay (s)	11.8	-	-	10.2	-	-	10.6
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	665	195	120	730	175	255	655	30	230	855	65
Future Volume (veh/h)	160	665	195	120	730	175	255	655	30	230	855	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1969	1870	1870	1870	1856	1856	1969	1618
Adj Flow Rate, veh/h	168	700	205	126	768	184	268	689	32	242	900	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	3	3	2	19
Cap, veh/h	256	821	240	197	1080	609	334	1404	65	404	1588	687
Arrive On Green	0.08	0.30	0.30	0.06	0.29	0.29	0.08	0.41	0.41	0.10	0.42	0.42
Sat Flow, veh/h	1767	2711	794	1781	3741	1585	1781	3458	161	1767	3741	1372
Grp Volume(v), veh/h	168	459	446	126	768	184	268	354	367	242	900	68
Grp Sat Flow(s),veh/h/ln	1767	1777	1728	1781	1870	1585	1781	1777	1841	1767	1870	1372
Q Serve(g_s), s	9.9	36.4	36.4	7.4	27.6	12.1	11.5	22.2	22.2	11.7	27.3	3.9
Cycle Q Clear(g_c), s	9.9	36.4	36.4	7.4	27.6	12.1	11.5	22.2	22.2	11.7	27.3	3.9
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	256	538	523	197	1080	609	334	721	748	404	1588	687
V/C Ratio(X)	0.66	0.85	0.85	0.64	0.71	0.30	0.80	0.49	0.49	0.60	0.57	0.10
Avail Cap(c_a), veh/h	256	563	547	221	1185	653	334	721	748	601	1588	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	49.2	49.2	38.9	47.7	32.2	31.1	33.0	33.0	23.6	32.7	19.6
Incr Delay (d2), s/veh	5.9	15.7	16.1	5.1	4.0	1.3	13.0	2.4	2.3	1.4	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	25.4	24.9	6.3	19.4	8.5	8.0	15.1	15.5	8.6	18.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	64.8	65.3	44.0	51.7	33.5	44.2	35.4	35.3	25.1	34.2	19.9
LnGrp LOS	D	E	E	D	D	C	D	D	D	C	C	B
Approach Vol, veh/h		1073			1078			989			1210	
Approach Delay, s/veh		61.5			47.7			37.8			31.6	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	51.9	15.0	70.2	15.0	49.8	17.8	67.4
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	11.5	47.5	11.5	59.5	11.5	47.5	31.0	40.0
Max Q Clear Time (g_c+I1), s	9.4	38.4	13.5	29.3	11.9	29.6	13.7	24.2
Green Ext Time (p_c), s	0.1	7.0	0.0	19.0	0.0	12.5	0.6	9.2

Intersection Summary	
HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	905	10	0	1170
Future Vol, veh/h	0	35	905	10	0	1170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	2	2
Mvmt Flow	0	37	953	11	0	1232

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	482	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.06	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.38	-	-	-	-
Pot Cap-1 Maneuver	0	515	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	515	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	515	-
HCM Lane V/C Ratio	-	-	0.072	-
HCM Control Delay (s)	-	-	12.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	40	0	65	0	850	65	0	1120	50
Future Vol, veh/h	0	0	30	40	0	65	0	850	65	0	1120	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	4	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	32	42	0	68	0	895	68	0	1179	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	616	1519	2161	482	-	0	0	-	-	0
Stage 1	-	-	-	929	929	-	-	-	-	-	-	-
Stage 2	-	-	-	590	1232	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	7.58	6.54	6.94	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	6.58	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.58	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	3.54	4.02	3.32	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	431	80	47	530	0	-	-	0	-	-
Stage 1	0	0	-	284	344	-	0	-	-	0	-	-
Stage 2	0	0	-	456	248	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	431	74	47	530	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	74	47	-	-	-	-	-	-	-
Stage 1	-	-	-	284	344	-	-	-	-	-	-	-
Stage 2	-	-	-	423	248	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	47.7	0	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	-	-	431	74	530	-	-
HCM Lane V/C Ratio	-	-	0.073	0.569	0.129	-	-
HCM Control Delay (s)	-	-	14	104.5	12.8	-	-
HCM Lane LOS	-	-	B	F	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	2.5	0.4	-	-

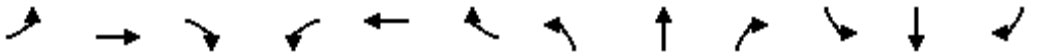
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	805	120	35	985	35	0	0	90	0	0	40
Future Vol, veh/h	0	805	120	35	985	35	0	0	90	0	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	130	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	847	126	37	1037	37	0	0	95	0	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	973	0	0	-	1995	424	-	-	519
Stage 1	-	-	-	-	-	-	-	847	-	-	-	-
Stage 2	-	-	-	-	-	-	-	1148	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	-	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	-	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	704	-	-	0	60	579	0	0	502
Stage 1	0	-	-	-	-	-	0	376	-	0	0	-
Stage 2	0	-	-	-	-	-	0	272	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	704	-	-	-	57	579	-	-	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	57	-	-	-	-
Stage 1	-	-	-	-	-	-	-	376	-	-	-	-
Stage 2	-	-	-	-	-	-	-	258	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	12.4	12.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	579	-	-	704	-	-	502
HCM Lane V/C Ratio	0.164	-	-	0.052	-	-	0.084
HCM Control Delay (s)	12.4	-	-	10.4	-	-	12.8
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-	-	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	730	215	135	670	170	270	735	50	180	560	80
Future Volume (veh/h)	200	730	215	135	670	170	270	735	50	180	560	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1969	1870	1870	1870	1870	1870	1969	1841
Adj Flow Rate, veh/h	211	768	226	142	705	179	284	774	53	189	589	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	4
Cap, veh/h	325	848	250	211	1073	593	426	1218	83	329	1300	695
Arrive On Green	0.10	0.31	0.31	0.07	0.29	0.29	0.10	0.36	0.36	0.09	0.35	0.35
Sat Flow, veh/h	1781	2707	797	1781	3741	1585	1781	3375	231	1781	3741	1560
Grp Volume(v), veh/h	211	504	490	142	705	179	284	407	420	189	589	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1727	1781	1870	1585	1781	1777	1829	1781	1870	1560
Q Serve(g_s), s	9.7	32.6	32.6	6.7	19.9	9.6	12.1	22.8	22.8	8.1	14.6	3.8
Cycle Q Clear(g_c), s	9.7	32.6	32.6	6.7	19.9	9.6	12.1	22.8	22.8	8.1	14.6	3.8
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	325	557	541	211	1073	593	426	641	660	329	1300	695
V/C Ratio(X)	0.65	0.91	0.91	0.67	0.66	0.30	0.67	0.64	0.64	0.58	0.45	0.12
Avail Cap(c_a), veh/h	348	597	580	227	1144	623	426	641	660	567	1300	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	39.5	39.5	31.3	37.6	26.5	23.5	31.8	31.8	24.1	30.3	19.5
Incr Delay (d2), s/veh	3.8	16.8	17.2	6.9	1.3	0.3	3.9	4.7	4.6	1.6	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	23.2	22.7	5.8	14.1	6.4	9.4	15.6	16.0	6.2	10.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	56.3	56.7	38.2	38.9	26.8	27.4	36.5	36.4	25.7	31.5	19.8
LnGrp LOS	C	E	E	D	D	C	C	D	D	C	C	B
Approach Vol, veh/h		1205			1026			1111			862	
Approach Delay, s/veh		52.1			36.7			34.1			29.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	44.1	15.6	48.2	15.3	40.9	14.0	49.8
Change Period (Y+Rc), s	3.5	6.5	3.5	6.5	3.5	6.5	3.5	6.5
Max Green Setting (Gmax), s	9.7	40.3	12.1	37.9	13.3	36.7	26.5	23.5
Max Q Clear Time (g_c+I1), s	8.7	34.6	14.1	16.6	11.7	21.9	10.1	24.8
Green Ext Time (p_c), s	0.0	2.9	0.0	4.0	0.1	4.7	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	30	1025	5	0	910
Future Vol, veh/h	0	30	1025	5	0	910
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	1079	5	0	958

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	542	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	485	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	485	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	485	-
HCM Lane V/C Ratio	-	-	0.065	-
HCM Control Delay (s)	-	-	12.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	30	0	60	0	970	55	5	865	40
Future Vol, veh/h	0	0	30	30	0	60	0	970	55	5	865	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	32	32	0	63	0	1021	58	5	911	42

Major/Minor	Minor2		Minor1			Major1				Major2		
Conflicting Flow All	-	-	477	1516	2013	540	-	0	0	1079	0	0
Stage 1	-	-	-	1050	1050	-	-	-	-	-	-	-
Stage 2	-	-	-	466	963	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	534	82	58	486	0	-	-	642	-	-
Stage 1	0	0	-	243	302	-	0	-	-	-	-	-
Stage 2	0	0	-	546	332	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	534	76	57	486	-	-	-	642	-	-
Mov Cap-2 Maneuver	-	-	-	76	57	-	-	-	-	-	-	-
Stage 1	-	-	-	243	302	-	-	-	-	-	-	-
Stage 2	-	-	-	505	326	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	36.5	0	0.1
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	534	76	486	642	-	-
HCM Lane V/C Ratio	-	-	0.059	0.416	0.13	0.008	-	-
HCM Control Delay (s)	-	-	12.2	82.6	13.5	10.7	-	-
HCM Lane LOS	-	-	B	F	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	1.6	0.4	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	850	110	30	890	65	0	0	85	0	0	85
Future Vol, veh/h	0	850	110	30	890	65	0	0	85	0	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	130	5	-	5	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	895	116	32	937	68	0	0	89	0	0	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1011	0	0	-	1964	448	-	-	469
Stage 1	-	-	-	-	-	-	-	895	-	-	-	-
Stage 2	-	-	-	-	-	-	-	1069	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	-	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	-	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	681	-	-	0	62	558	0	0	541
Stage 1	0	-	-	-	-	-	0	357	-	0	0	-
Stage 2	0	-	-	-	-	-	0	296	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	681	-	-	-	59	558	-	-	541
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	59	-	-	-	-
Stage 1	-	-	-	-	-	-	-	357	-	-	-	-
Stage 2	-	-	-	-	-	-	-	282	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	12.7	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	558	-	-	681	-	-	541
HCM Lane V/C Ratio	0.16	-	-	0.046	-	-	0.165
HCM Control Delay (s)	12.7	-	-	10.5	-	-	13
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	-	0.6

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