Colliers Engineering & Design

Traffic Impact Study

September 30, 2021

1100 Randolph Road

Block 517.04, Lot 1.01
Franklin Township, Somerset County, New Jersey

Prepared for:

JWH Real Estate Holding Corp.
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Project No. 20001469A

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Table of Contents

Tables

Appendices

Introduction

The following report has been prepared for JWH Real Estate Holding Corp. ("Applicant") in association with a proposed 100,265 SF warehouse building addition ("The Project") in the Township of Franklin, Somerset County, New Jersey. The site is currently developed with an approximately 202,165 GFA, two-story industrial building consisting of office, light manufacturing, and warehouse space. It is proposed to construct a 100,265 SF warehouse facility as an addition to the existing building. The site is designated as Block 517.04, Lot 1.01 on the Township of Franklin Tax Maps and is located in the Business and Industry (B-I) Zoning District and the State Suburban Planning Area (PA-2). The site location map is included as **Figure 1** in **Appendix A**.

Access to the site will remain via one (1) existing full-movement driveway along Randolph Road for passenger vehicles and one (1) existing full-movement driveway along School House Road for trucks. **Figure 2** in **Appendix A** illustrates the proposed Dimension Plan.

This study presents an evaluation of the current and future traffic conditions in the vicinity of the site. Specific elements included in this study are:

- An inventory of the roadway facilities in the vicinity of the project, including the existing physical and traffic operating characteristics;
- Determination of the Existing Conditions;
- Site Generated Trips as described in the ITE Trip Generation Manual, 10th Edition;
- Trip Distribution and Assignment;
- Forecast of 2024 No-Build Traffic Volumes;
- Peak Hour Capacity Analysis for the 2024 No-Build Conditions;
- Forecast of the 2024 Build Traffic Volumes;
- Peak Hour Capacity Analysis for the 2024 Build Conditions;
- Site Access and Parking Assessment; and
- Summary and Conclusions.

Existing Roadway Conditions

A field investigation was conducted adjacent to the project site to obtain an inventory of existing roadway conditions, posted traffic controls, adjacent land uses, lane configurations, and existing vehicular/pedestrian traffic patterns.

Roadways

Randolph Road is an urban major collector under the Township of Franklin jurisdiction with a general north-south orientation. The roadway provides one (1) travel lane in each direction. The posted speed limit is 40 MPH. Land uses along Randolph Road are primarily industrial and commercial.

School House Road is an urban major collector under the Township of Franklin jurisdiction with a general east-west orientation. The roadway provides one (1) travel lane in each direction. The posted speed limit is 30 MPH within the vicinity of the project and 40 MPH west of the intersection with Randolph Road. Land uses along School House Road are primarily industrial and commercial.

Unsignalized Intersections

Randolph Road & Site Access is an unsignalized T-intersection with the westbound approach of the Site Access under stop control. The northbound approach of Randolph Road provides one (1) shared through/right-turn lane. The southbound approach of Randolph Road provides one (1) shared left-turn/through lane. The westbound approach of the Site Access provides one (1) shared left-turn/right-turn lane.

School House Road & Site Access is an unsignalized four-leg intersection with the northbound and southbound approaches of the Site Access under stop control. The eastbound and westbound approaches of School House Road provide one (1) shared lane for all movements. The northbound and southbound approaches of the Site Access provide one (1) shared lane for all movements.

Signalized Intersections

Randolph Road & School House Road is a signalized three-leg intersection with a variable cycle length. The eastbound approach of School House Road provides one (1) dedicated left-turn lane and one (1) through lane. The westbound approach of School House Road provides one (1) shared through/right-turn lane. The southbound approach of Randolph Road provides one (1) dedicated left-turn lane and one (1) dedicated right-turn lane.

Existing Traffic Conditions

Turning Movement Counts

Traffic volume data for the roadway network adjacent to the subject property was obtained through turning movement counts (TMC) on Tuesday, July 13, 2021 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following intersections:

- Randolph Road & School House Road;
- Randolph Road & Site Access; and
- School House Road & Site Access.

The data collection efforts are detailed in **Table 1**. The processed count data is provided in **Appendix B**.

Table 1 – Data Collection Efforts and Established Network Peak Hours

Peak Period	Date Collected	Traffic Count Time Frame	Established Network Peak Hour
Weekday Morning	Tuesday, July 13, 2021	7:00 AM – 9:00 AM	8:00 AM – 9:00 AM
Weekday Evening		4:00 PM – 6:00 PM	5:00 PM – 6:00 PM

Existing Traffic Volumes

The TMC data was adjusted due to the on-going COVID-19 pandemic. It is noted that comparing existing traffic volumes from 2020-2021 to historically reported data across the state of New Jersey, the 2020-2021 count volumes have typically been 15-20% lower. Thus, to provide a conservative analysis, the existing 2021 counts conducted at all three (3) of the study intersections were adjusted by 20%. The TMC summary sheets are provided in **Appendix B**. A Volume Flow diagram illustrating the 2021 Existing Conditions is provided as **Figure 3**, located in **Appendix A**.

Trip Generation and Distribution

Trip Generation

The ability of any roadway network to serve anticipated traffic volumes is measured by comparing peak hour traffic volumes to roadway capacities. Thus, it is essential to determine the hourly traffic volumes to be generated by the Project and add them to the No-Build traffic volumes for the peak hours.

Trip generation estimates for the development of the Project were made utilizing data published under Land Use Code 150 – Warehousing in the Institute of Transportation Engineers' (ITE) publication *Trip Generation, Tenth Edition*. This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country. **Table 2** details the anticipated trips for the Project.

Table 2 – Site Generated Trips

Land Use	Size	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
150 – Warehousing	100,265 SF	27	14	41	9	29	38

It is noted both ITE and NJDOT consider a significant increase in traffic to be 100 or more new peak hour trips to the adjacent roadway network. As shown in **Table 2**, the Project generates a maximum of 41 peak hour trips.

Truck Percentage

According to the ITE Trip Generation manual, truck trips for a Warehouse/Distribution Center account for 9% to 29% of the weekday site generated trips. Based on this guidance, the truck trip percentage is estimated as 20% during the peak hours. The peak hour capacity analysis detailed in this report reflects the truck percentage. A breakdown of the site generated trips between passenger vehicles and trucks is provided in **Table 3**.

Table 3 – Site Generated Trips Vehicle Summary

Land Use	Size	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
150 – Warehousing	Passenger Vehicles (80%)	22	11	33	7	23	30
	Trucks (20%)	5	3	8	2	6	8
Total Site Generated Trips		**27**	**14**	**41**	**9**	**29**	**38**

Trip Distribution

Trip distribution methodology is developed based on a variety of factors. These factors include the existing travel patterns within the adjacent roadway network, adjacent land uses, proposed land use, development locations, driveway locations, and the proximity of major arterials within the project vicinity.

Passenger Vehicle Trip Distribution

The passenger vehicle trip distribution was established based upon a review of the existing roadway volumes, adjacent land uses, and anticipated commuter travel patterns. **Table 4** details the anticipated trips for the Project.

Table 4 – Passenger Vehicle Trip Distribution

To/From	Distribution
Randolph Road – North of Site	70%
School House Road – East of Site	15%
School House Road – West of Site	15%
Total	**100%**

Volume Flow Diagrams illustrating the Passenger Vehicle Trip Distribution and the Passenger Vehicle Site Generated Trips are provided as **Figures 4** and **5** in **Appendix A**.

Truck Trip Distribution

The truck trip distribution was established based upon a review of the existing roadway volumes, adjacent land uses, and anticipated commuter travel patterns. **Table 5** details the anticipated trips for the Project.

Table 5 – Truck Trip Distribution

To/From	Distribution
Randolph Road – North of Site	50%
School House Road – East of Site	50%
Total	**100%**

Volume Flow Diagrams illustrating the Truck Trip Distribution and the Truck Site Generated Trips are provided as **Figures 6** and **7** in **Appendix A**. A Volume Flow Diagram illustrating the Total Site Generated Trips is provided as **Figure 8** in **Appendix A**

Future Traffic Conditions

To determine the traffic impact of the development, an estimation of the traffic operational characteristics at the Build date, without the construction of the project (or "No-Build" condition), is made. The existing volumes have been projected to the Build year of 2024.

2024 Base Conditions

The NJDOT Annual Background Growth Rate Table recommends a rate of 1.75% for urban major collectors within Somerset County. This forecast accounts for general increases in local traffic volumes each year in the study area. The 2024 Base Conditions are illustrated as **Figure 9** in **Appendix A**.

Adjacent Developments

Colliers Engineering & Design contacted the Township of Franklin to determine if there are any planned or approved developments in the vicinity of the project site. The following projects have been approved:

- **Ivy River Property, LLC** – The site is approved for the construction of a 79,380 SF addition to an existing 109,269 SF mixed-use office/warehouse building totaling 136,343 SF of warehouse space and 52,306 SF of office space. The site generated trips were included within the study area. A copy of the *Traffic Impact Study for Ivy River Property, LLC Proposed Warehouse Development*, prepared by Dynamic Traffic, dated August 2, 2019, last revised May 7, 2020 was obtained in order to include the site generated trips of the adjacent development. These volumes are illustrated as **Figure 10** in **Appendix A.**

2024 No-Build Conditions

The 2024 No Build volumes were forecasted by adding the Adjacent Development volumes to the 2024 Base volumes. The 2024 No-Build Conditions are illustrated as **Figure 11** in **Appendix A**.

2024 Build Conditions

The 2024 Build volumes were forecasted by adding the site generated traffic of the proposed development to the 2024 No-Build traffic volumes within the roadway network. The 2024 Build Conditions are illustrated as **Figure 12** in **Appendix A**.

HCM Capacity Analysis

The peak hour traffic operations within the project vicinity were evaluated at the study intersection. The analyses were performed using *Synchro Trafficware*, a traffic analysis and simulation program. The results of these analyses provide Levels of Service (LOS), volume/capacity descriptions, and average seconds of delay for the intersection movements.

The efficiency with which an intersection operates is a function of volume and capacity. The capacity of an intersection is the volume of vehicles it can accommodate during a given time period. LOS is a qualitative measure describing operational conditions within a traffic stream in terms of traffic characteristics such as freedom to maneuver, traffic interruption, comfort, and convenience. Six LOS are defined for each type of facility with analysis procedures available. Levels of Service range from "A" through "F," with Level "A" representing excellent conditions with no delays, and failure and deficient operations denoted by Level "F." The HCM LOS criteria for unsignalized and signalized intersections are summarized in **Table 6**.

Table 6 – HCM LOS/Delay Criteria

Level of Service	Average Control Delay (sec/veh)	
	Signalized Intersections	Unsignalized Intersections
A	< 10	< 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

The Levels of Service for the 2024 No-Build and Build Conditions are detailed in **Table 7**. The capacity analysis calculation worksheets are provided in **Appendix D**.

Table 7 – Level of Service Summary

Intersection	Movement		2024 No-Build Conditions				2024 Build Conditions			
			AM Peak		PM Peak		AM Peak		PM Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Randolph Road (SB) & School House Road (EB/WB)	EB	L	A	4.4	A	9.0	A	4.5	A	9.2
		T	A	4.3	A	5.7	A	4.3	A	5.8
	WB	TR	A	9.3	B	16.9	A	9.4	B	17.3
	SB	L	C	28.0	C	34.0	C	29.5	C	34.5
		R	C	27.6	C	27.4	C	28.6	C	27.3
	Overall		**A**	**9.6**	**B**	**18.2**	**A**	**9.9**	**B**	**18.6**
Randolph Road (NB/SB) & Site Access (WB)	WB	LR	a	9.9	b	11.9	b	10.2	b	12.1
	SB	L	a	7.7	a	7.7	a	7.8	a	7.8
School House Road (EB/SB) & Site Access	EB	L	a	8.2	a	8.8	a	9.8	a	8.8
	WB	L	a	9.1	b	10.5	a	9.1	b	10.5
	NB	LTR	c	21.3	c	23.0	c	21.6	c	23.2
	SB	LTR	c	20.0	c	22.3	c	22.4	c	21.8

*Note: Uppercase letters indicate a signalized intersection, lowercase letters indicate an unsignalized intersection.

Randolph Road & School House Road

2024 No-Build Analysis

Under the No-Build condition, all intersection movements will operate at Levels of Service "C" or better during both peak hours studied.

2024 Build Analysis

Under the proposed Build condition, all intersection movements will continue to operate at or near No-Build levels of service during both peak hours studied.

Randolph Road & Site Access

2024 No-Build Analysis

Under the No-Build condition, all intersection movements will operate at Levels of Service "B" or better during both peak hours studied.

2024 Build Analysis

Under the Build condition, all intersection movements will continue to operate at or near No-Build levels of service during both peak hours studied. The calculated 95th percentile queue lengths at the Site Access will be less than one (1) vehicle or less, which can be accommodated within the layout of the site.

School House Road & Site Access

2024 No-Build Analysis

Under the No-Build condition, all intersection movements will operate at Levels of Service "C" or better during both peak hours studied.

2024 Build Analysis

Under the Build condition, all intersection movements will continue to operate at or near No-Build levels of service during both peak hours studied. The calculated 95th percentile queue lengths at the Site Access will be less than one (1) vehicle or less, which can be accommodated within the layout of the site.

Site Access and Parking Assessment

Site Access

Access to the site is proposed via one (1) full-movement driveway for passenger vehicles along Randolph Road and one (1) full-movement driveway for trucks along School House Road. The proposed site plan provides 30-foot-wide aisles, which can accommodate two-way circulation throughout the site. The layout of the site provides sufficient circulation for a garbage truck, delivery truck, and emergency vehicle to efficiently maneuver through the site. The aisle within the vicinity of the loading dock area is approximately 70 feet wide with a turnaround area to accommodate the turning maneuvers of a WB-67 design vehicle.

Parking Assessment

The Township of Franklin Land Development Ordinance, *§112* – Schedule 4 Parking Requirements, sets forth the following parking requirements: for warehouse and distribution uses, one (1) space for each 1,000 SF of gross floor area for the first 5,000 SF, and one (1) space for each 2,500 SF thereafter; and for light manufacturing uses, two (2) spaces for each 1,000 SF of gross floor area for the first 5,000 SF, and one (1) space for each 2,500 SF thereafter. Note that office space is considered ancillary to the principal uses. For the proposed facility, this equates to a parking requirement of 134 spaces. It is proposed to provide 151 parking spaces and 26 trailer parking spaces. The proposed parking supply of 151 spaces exceeds the Ordinance requirement.

For the existing building, there are currently 81 parking spaces. It is proposed to provide an additional 70 parking spaces to service the warehouse addition.

Table 8 – Parking Requirements

Land Use		Size	Land Development Ordinance		Provided (Spaces)
			Requirement	Calculated (Spaces)	
Existing	Light Manufacturing	100,207 SF	Two (2) spaces per 1,000 SF GFA for first 5,000 SF, and one (1) space per 2,500 SF thereafter	48	81
Existing	Warehouse & Office	99,958 SF	One (1) space per 1,000 SF GFA for first 5,000 SF, and one (1) space per 2,500 SF thereafter	43	
Proposed	Warehouse & Office	100,265 SF	One (1) space per 1,000 SF GFA for first 5,000 SF, and one (1) space per 2,500 SF thereafter	43	70
Total				**134**	**151**

Summary and Conclusions

The Traffic Impact Study evaluated the proposed warehouse addition to the existing industrial development within the Township of Franklin, Somerset County, New Jersey. The findings of the Traffic Impact Study are summarized as follows:

1. It is proposed to construct an 100,265 SF warehouse building addition to the existing two-story industrial development.

2. Access to the site will remain via one (1) existing full-movement driveway along Randolph Road for passenger vehicles and one (1) existing full-movement driveway along School House Road for trucks.

3. Under the Build condition, all movements at the intersection of Randolph Road & School House Road will continue to operate at or near No-Build levels of service during both peak hours studied.

4. Under the Build condition, all movements at the intersection of Randolph Road & Site Access will continue to operate at or near No-Build levels of service during both peak hours studied. The calculated 95th percentile queue lengths at the Site Access will be less than one (1) vehicle or less, which can be accommodated within the layout of the site.

5. Under the Build condition, all movements at the intersection of School House Road & Site Access will continue to operate at or near No-Build levels of service during both peak hours studied. The calculated 95th percentile queue lengths at the Site Access will be less than one (1) vehicle or less, which can be accommodated within the layout of the site.

6. The proposed site plan provides 30-foot-wide aisles and can accommodate two-way circulation throughout the site. The layout of the site provides sufficient circulation for pedestrians and the design vehicles to maneuver through the site safely and efficiently. The aisle within the vicinity of the loading dock area is approximately 70 feet wide with a turnaround area to accommodate the turning maneuvers of a WB-67 design vehicle.

7. The proposed parking supply of 151 spaces exceeds the Ordinance requirement.

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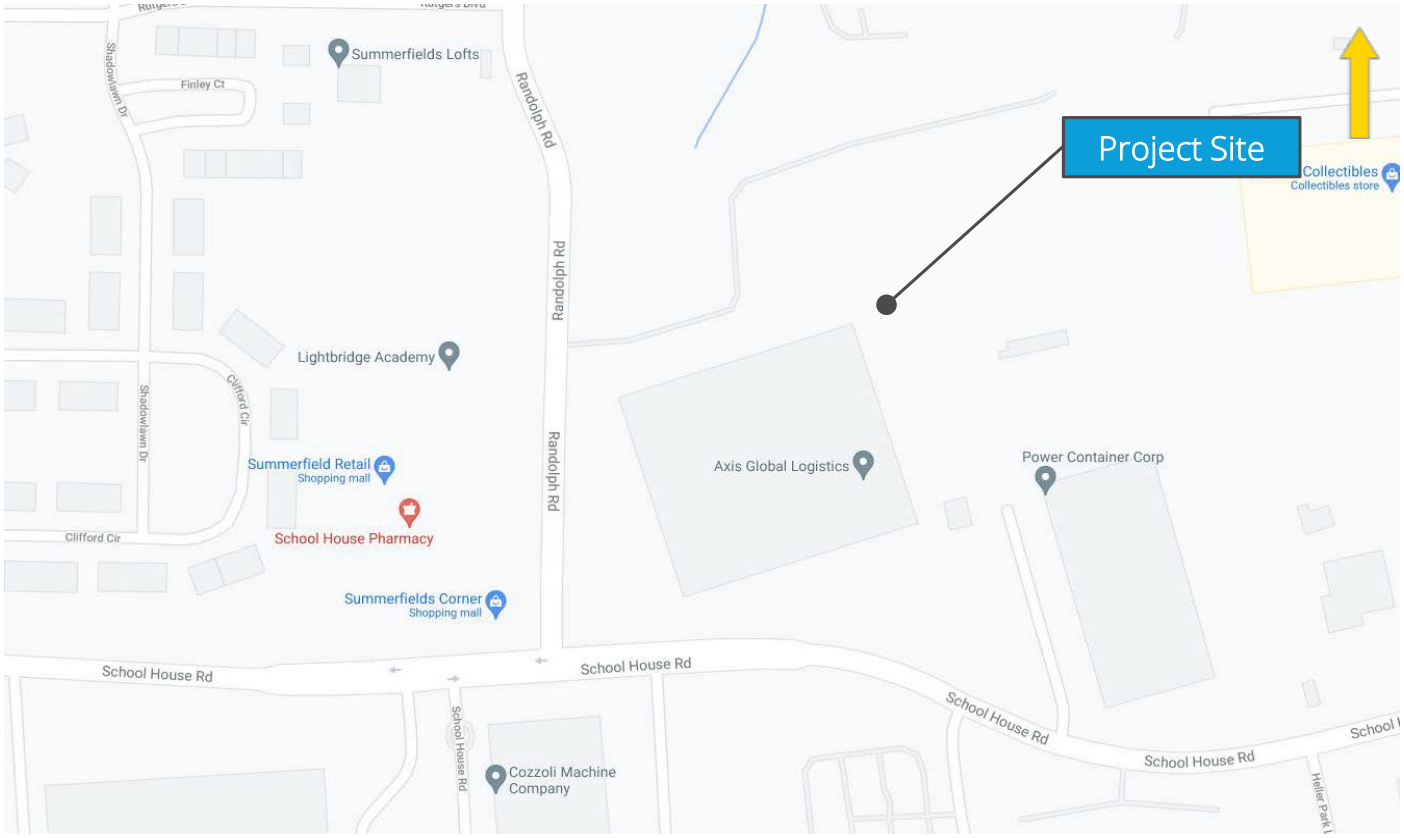
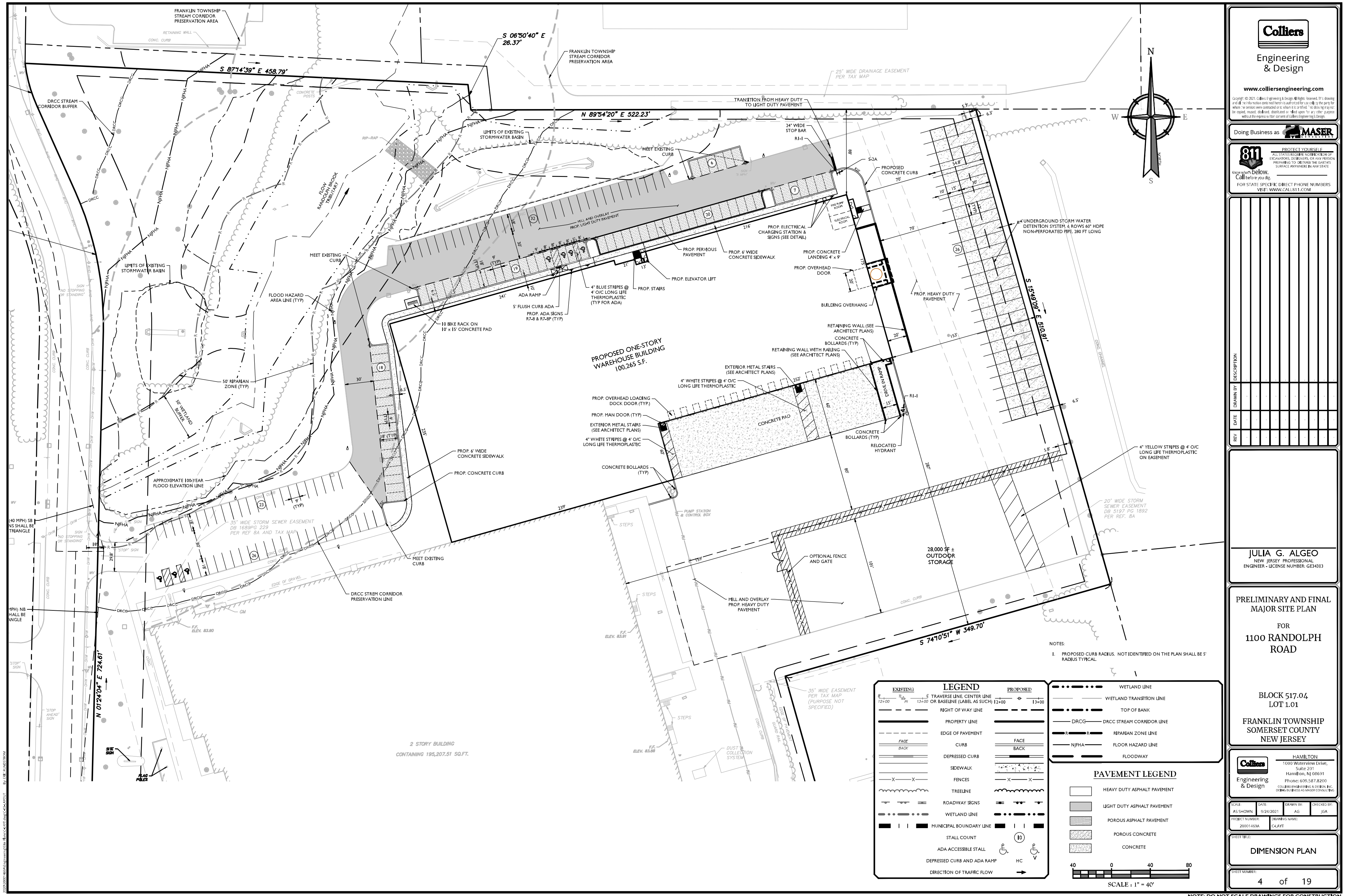
Traffic Impact Study

Appendix A | Traffic Figures



Colliers Engineering & Design	1100 Randolph Road	**Figure 1**
	Project No. 20001469A	
	Township of Franklin, Somerset County, New Jersey	**Site Location Map**

FIGURE 2



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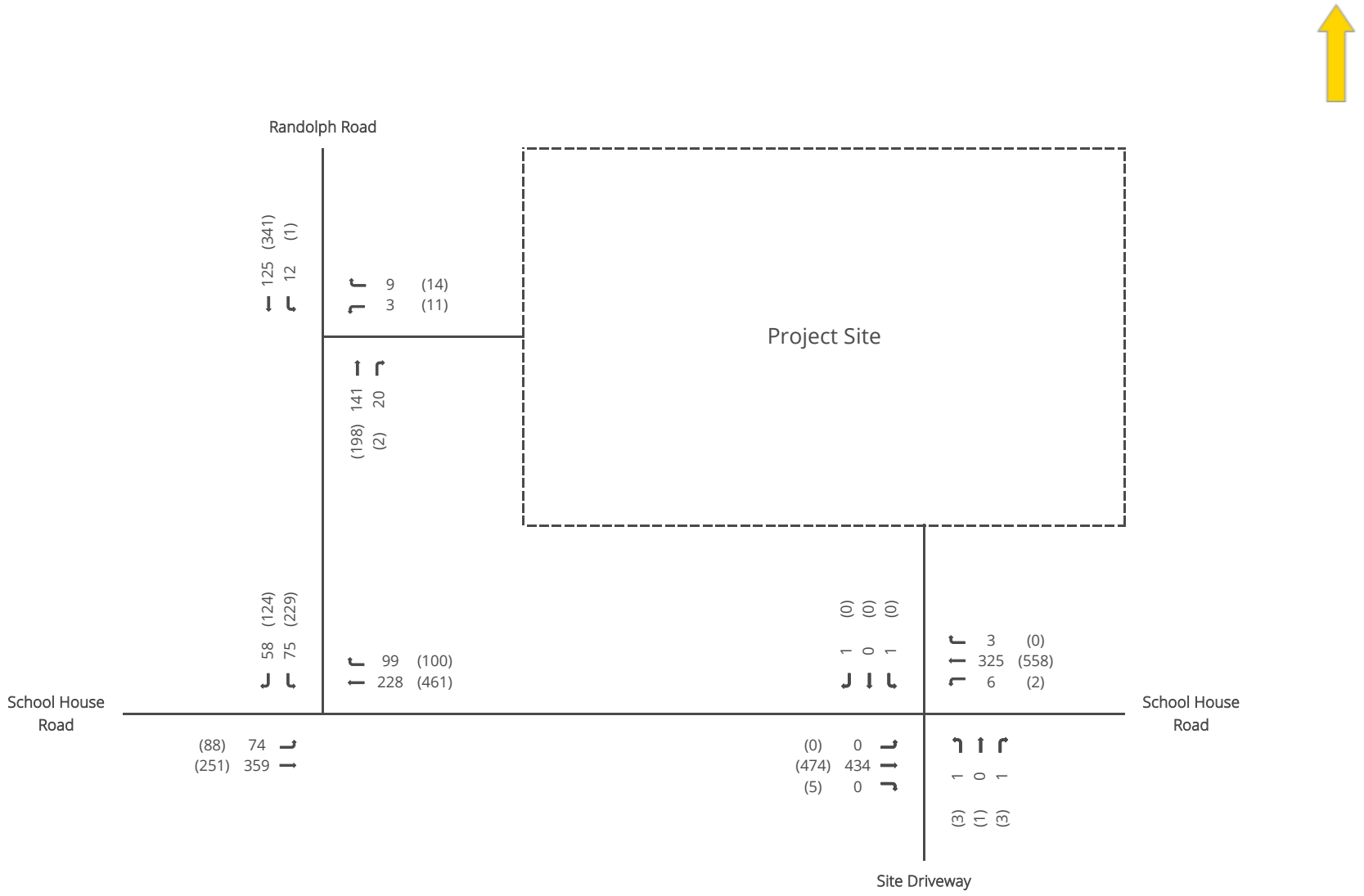
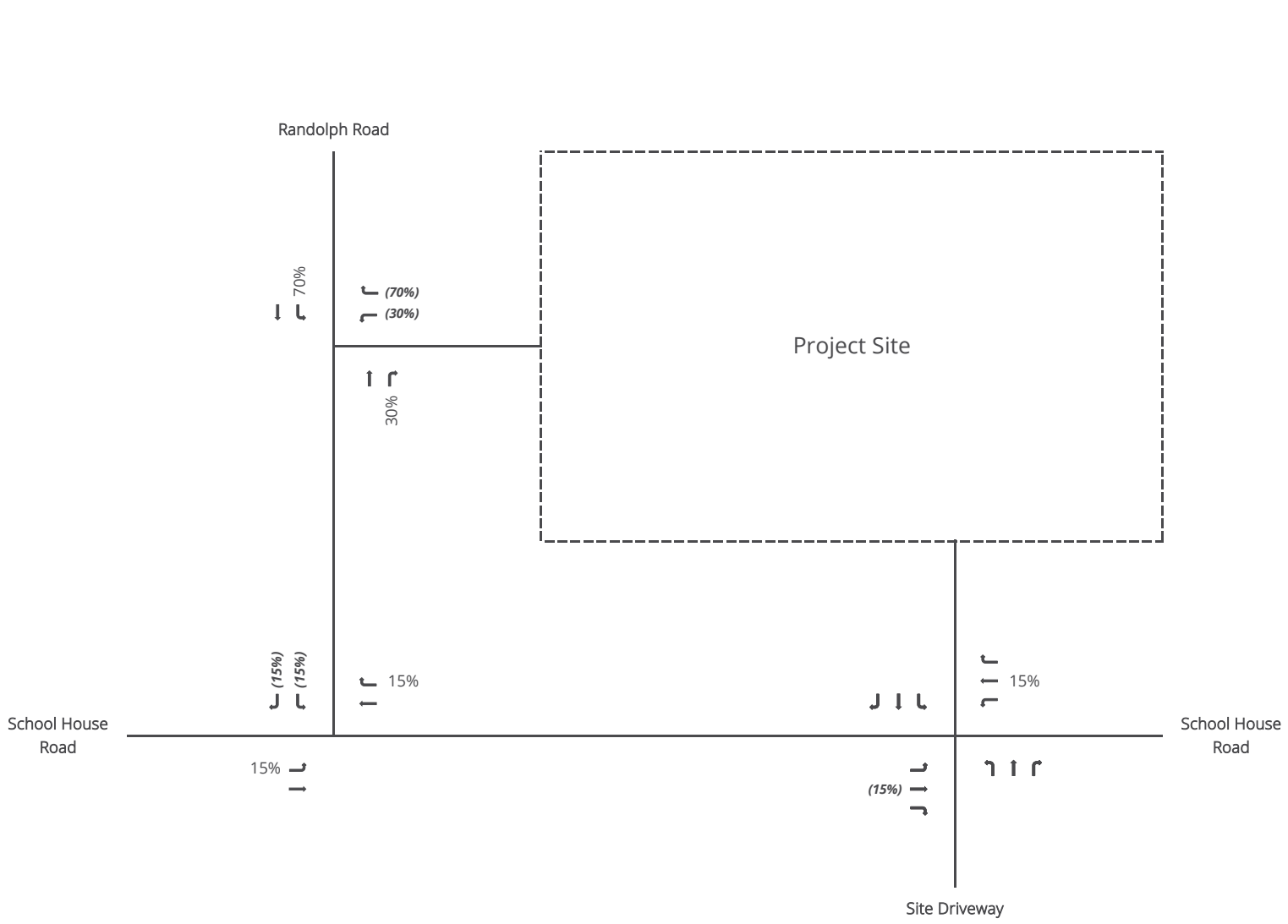
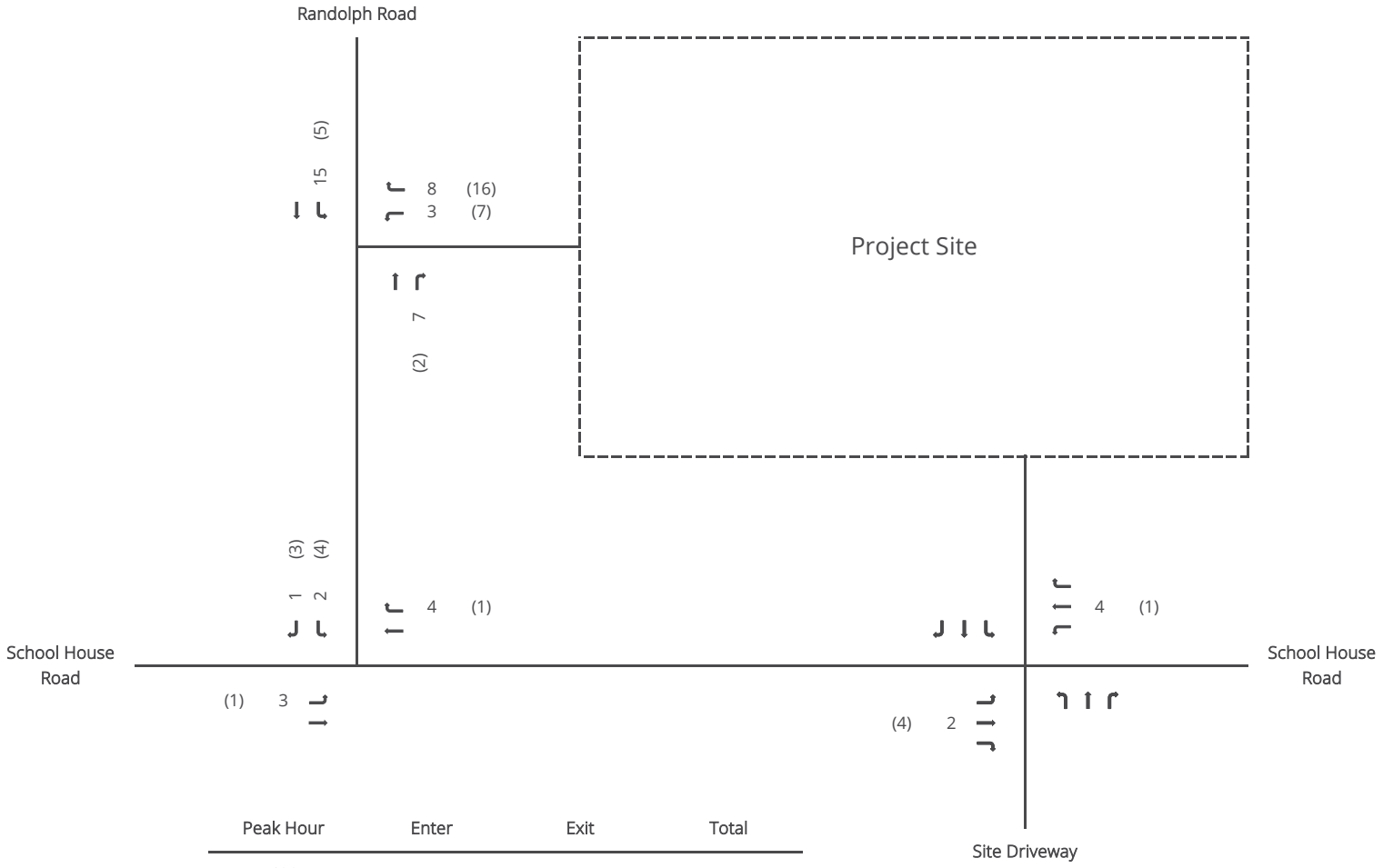
JULIA G. ALGEO
NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE34313
PRELIMINARY AND FINAL MAJOR SITE PLAN
FOR
1100 RANDOLPH ROAD
BLOCK 517.04
LOT 1.01
FRANKLIN TOWNSHIP
SOMERSET COUNTY
NEW JERSEY
HAMILTON
1000 Waterview Drive, Suite 201
Hamilton, NJ 08691
Phone: 609.587.8200
DIMENSION PLAN
4 of 19
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.
PROPOSED ONE-STORY WAREHOUSE BUILDING 100,265 S.F.
28,000 SF ± OUTDOOR STORAGE
2 STORY BUILDING CONTAINING 195,207.51 SQ.FT.
S 87°14'39" E 458.79'
N 89°54'20" E 522.23'
S 15°49'09" E 510.91'
S 74°10'51" W 349.70'
N 01°24'04" E 724.61'
S 06°50'40" E 26.37'
NOTES:
1. PROPOSED CURB RADIUS, NOT IDENTIFIED ON THE PLAN SHALL BE 5' RADIUS TYPICAL.
LEGEND
EXISTING
PROPOSED
TRAVERSE LINE, CENTER LINE OR BASELINE (LABEL AS SUCH)
RIGHT OF WAY LINE
PROPERTY LINE
EDGE OF PAVEMENT
CURB
DEPRESSED CURB
SIDEWALK
FENCES
TREELINE
ROADWAY SIGNS
WETLAND LINE
MUNICIPAL BOUNDARY LINE
STALL COUNT
ADA ACCESSIBLE STALL
DEPRESSED CURB AND ADA RAMP
DIRECTION OF TRAFFIC FLOW
WETLAND LINE
WETLAND TRANSITION LINE
TOP OF BANK
DRCC STREAM CORRIDOR LINE
RIPARIAN ZONE LINE
FLOOR HAZARD LINE
FLOODWAY
PAVEMENT LEGEND
HEAVY DUTY ASPHALT PAVEMENT
LIGHT DUTY ASPHALT PAVEMENT
POROUS ASPHALT PAVEMENT
POROUS CONCRETE
CONCRETE
SCALE : 1" = 40'



Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 3**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⮢	**2021 Existing Conditions**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**

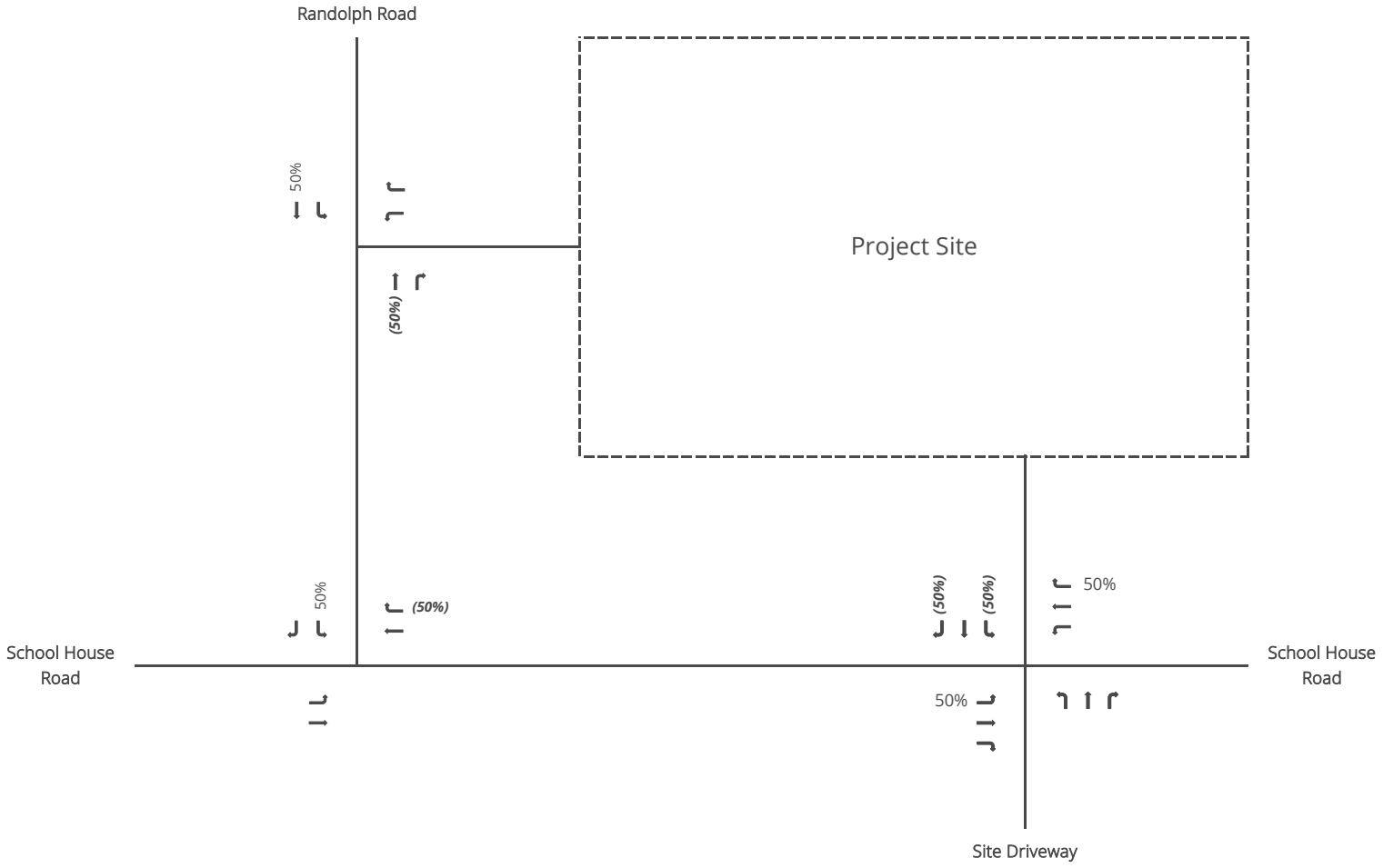


Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 4**
	Project No. 20001469A	Entering: ##% Thru Movement: Exiting: ***(##%)*** Turning Movement:	**Passenger Vehicle Trip Distribution**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**

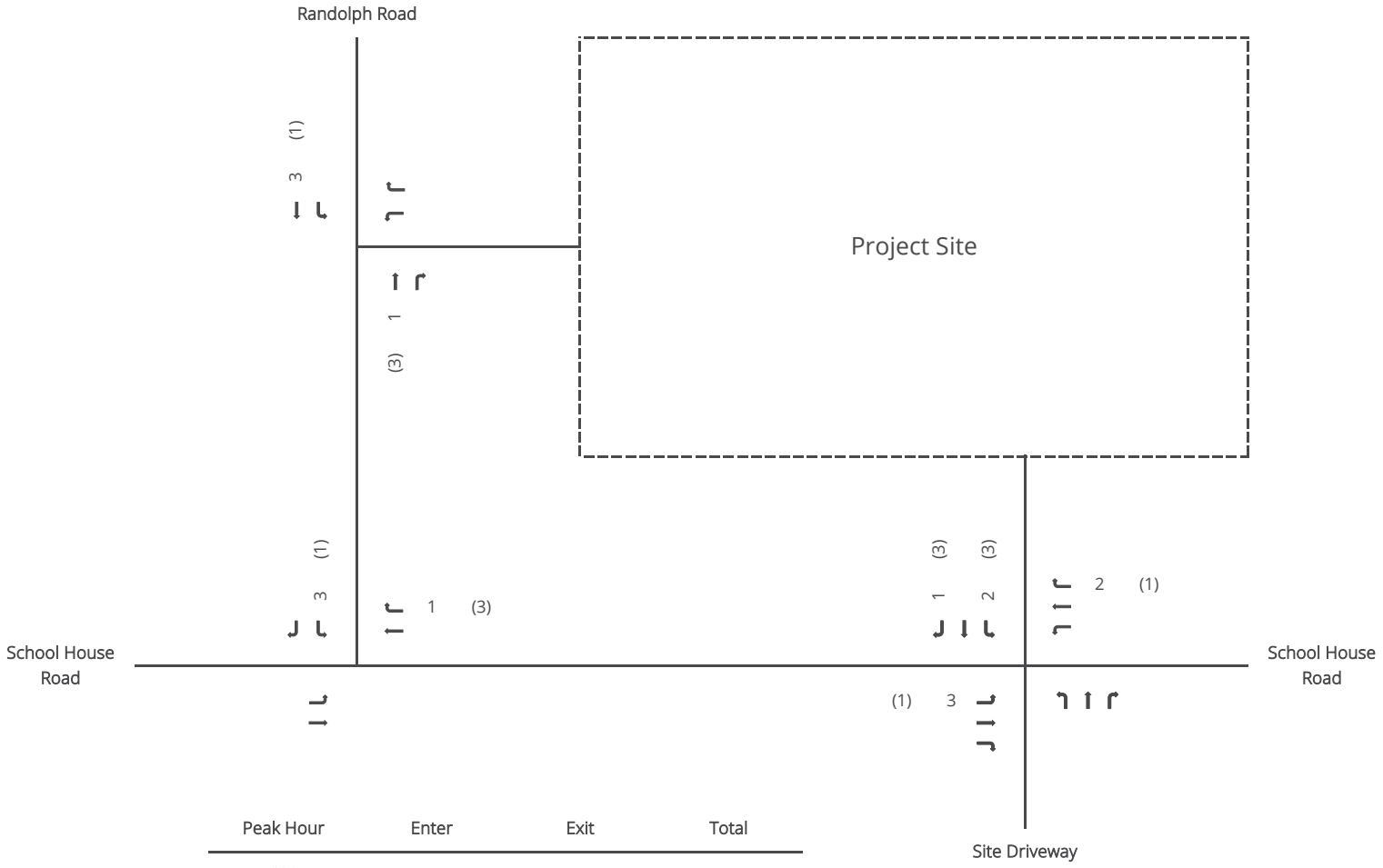


Peak Hour	Enter	Exit	Total
AM	22	11	33
PM	7	23	30

Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 5**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⮌	**Passenger Vehicle Site Generated Trips**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**

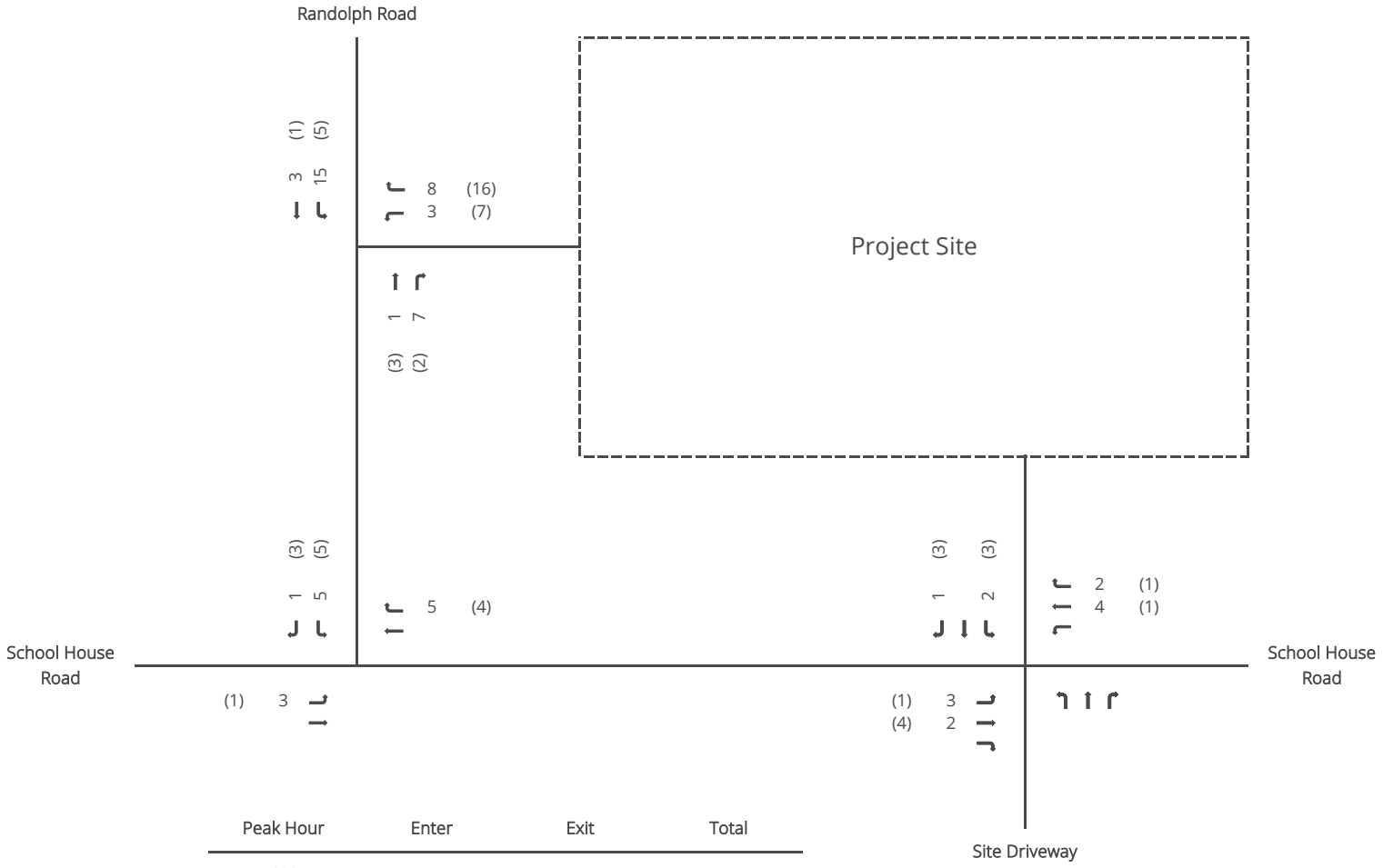


Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 6**
	Project No. 20001469A	Entering: ##% Thru Movement: ⟵ Exiting: ***(##%)*** Turning Movement: ⟵	**Truck Trip Distribution**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**



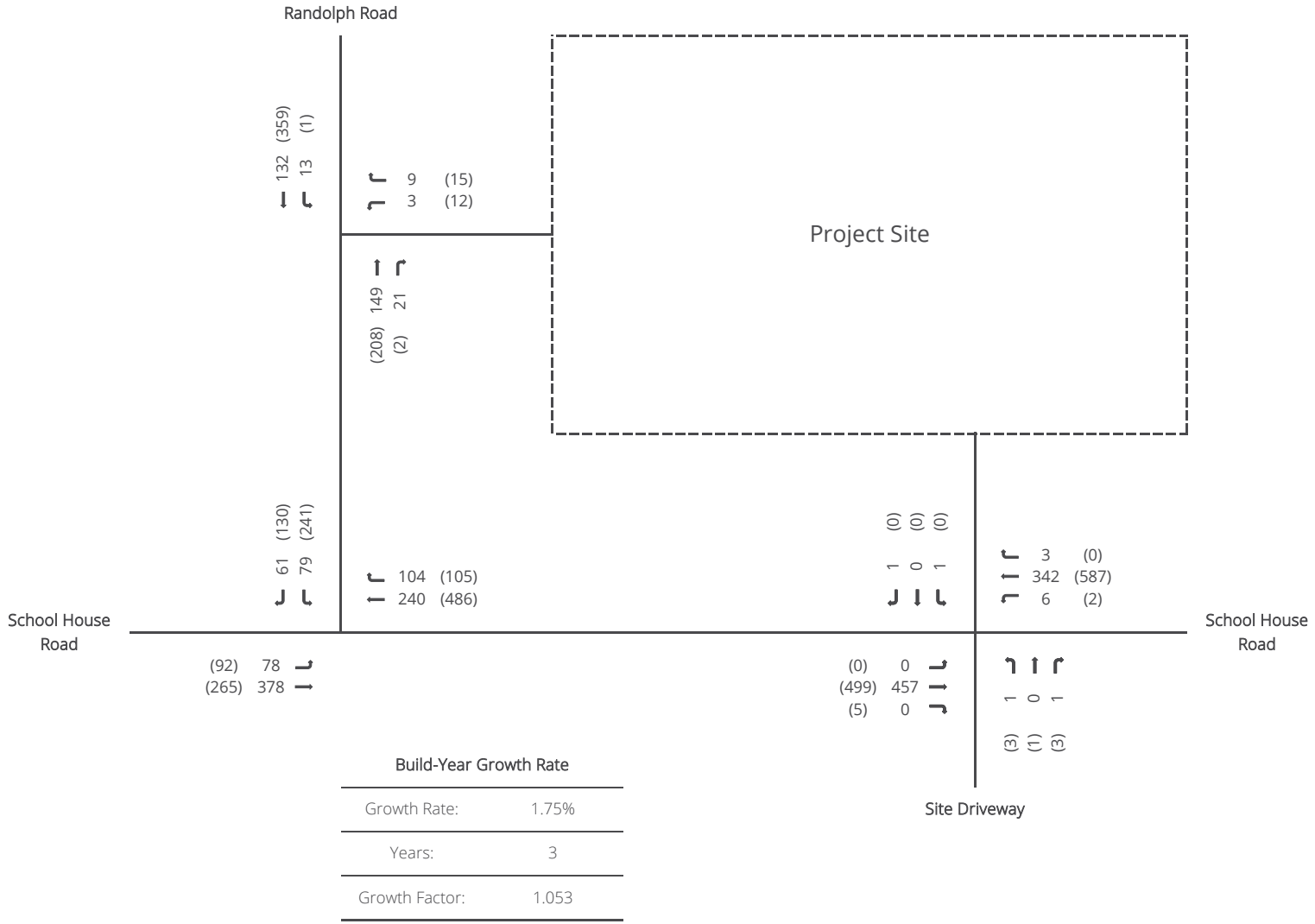
Peak Hour	Enter	Exit	Total
AM	5	3	8
PM	2	6	8

Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 7**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⮌	**Truck Site Generated Trips**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**



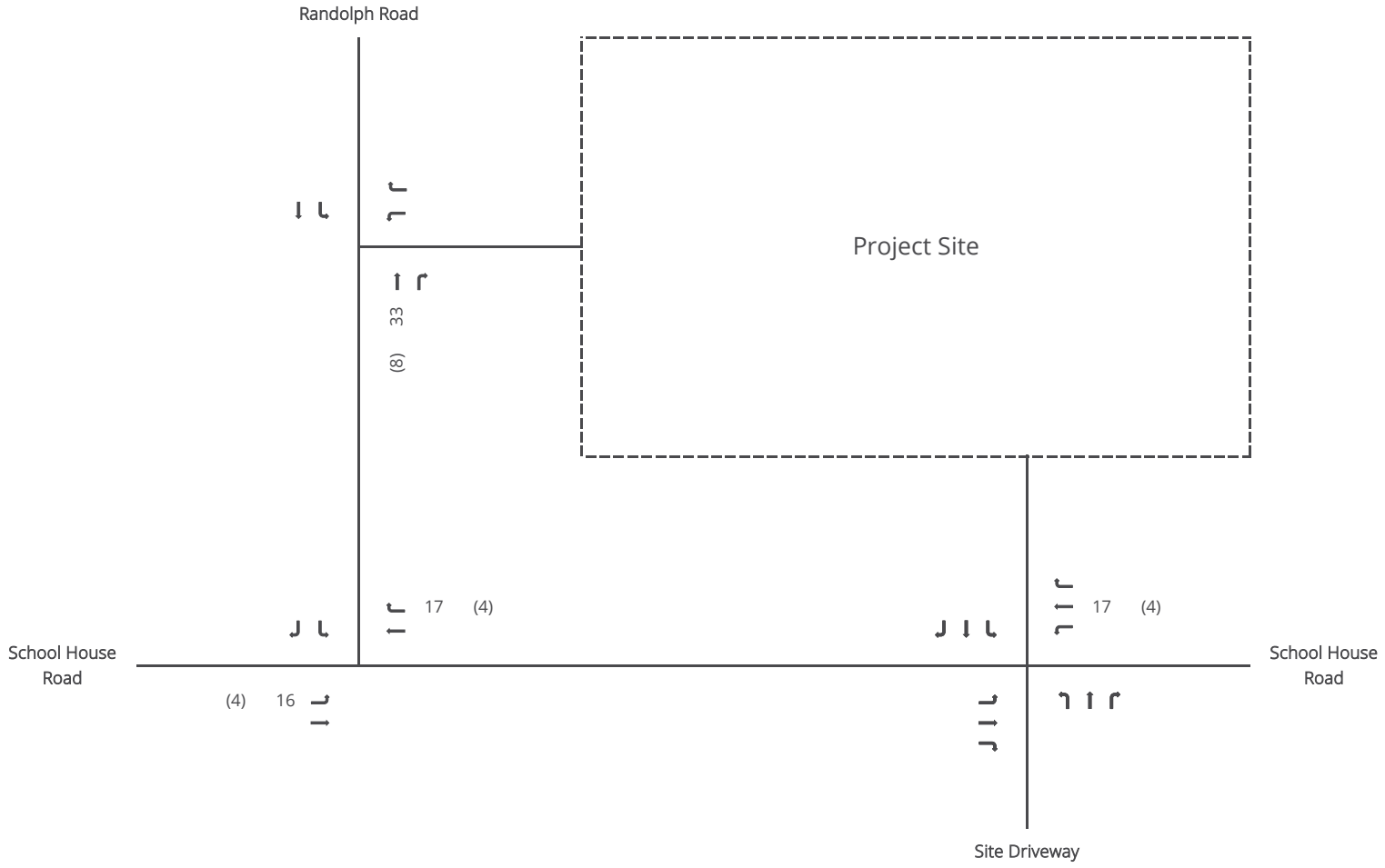
Peak Hour	Enter	Exit	Total
AM	27	14	41
PM	9	29	38

Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 8**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⟙	**Total Site Generated Trips**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**

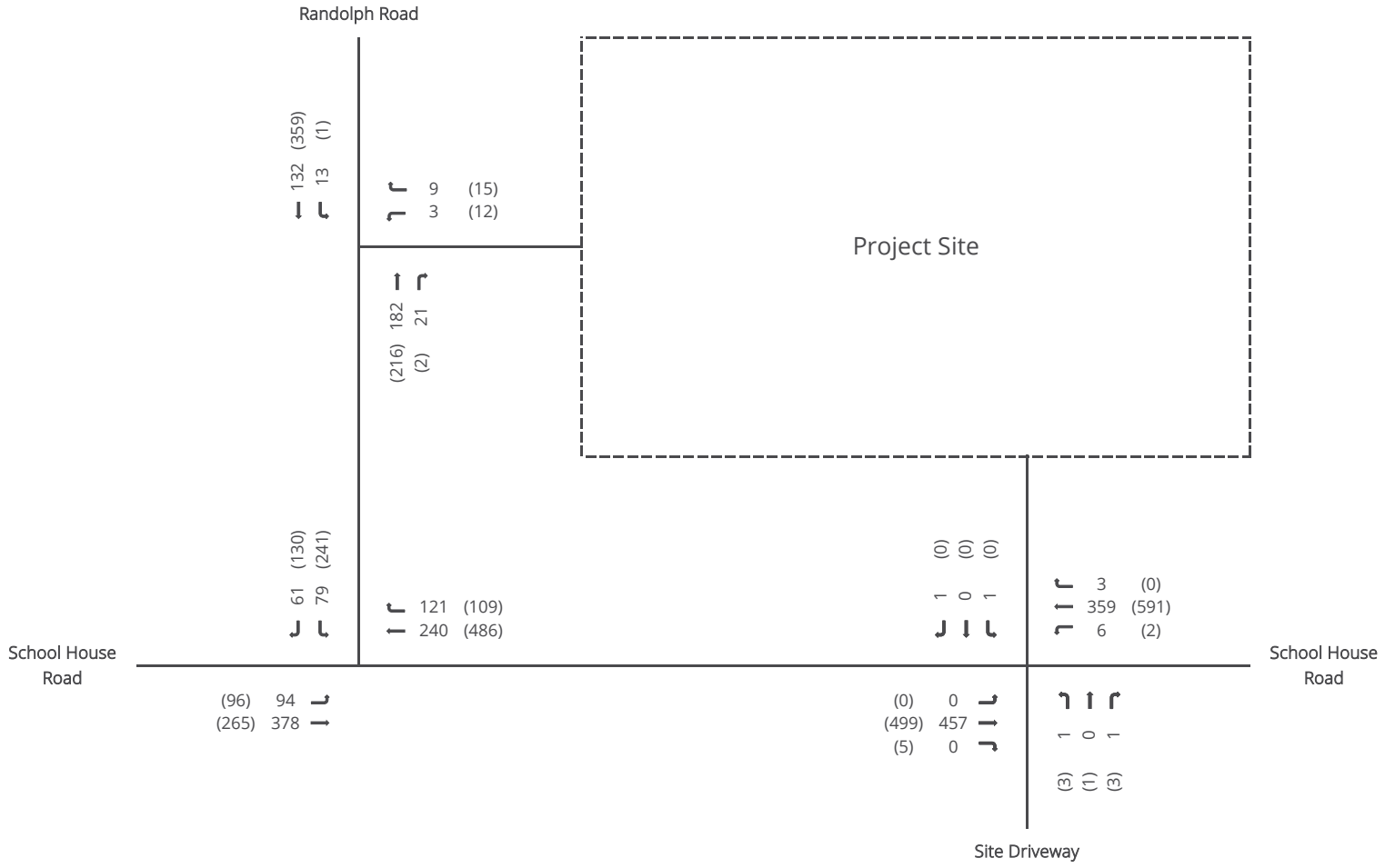


Build-Year Growth Rate	
Growth Rate:	1.75%
Years:	3
Growth Factor:	1.053

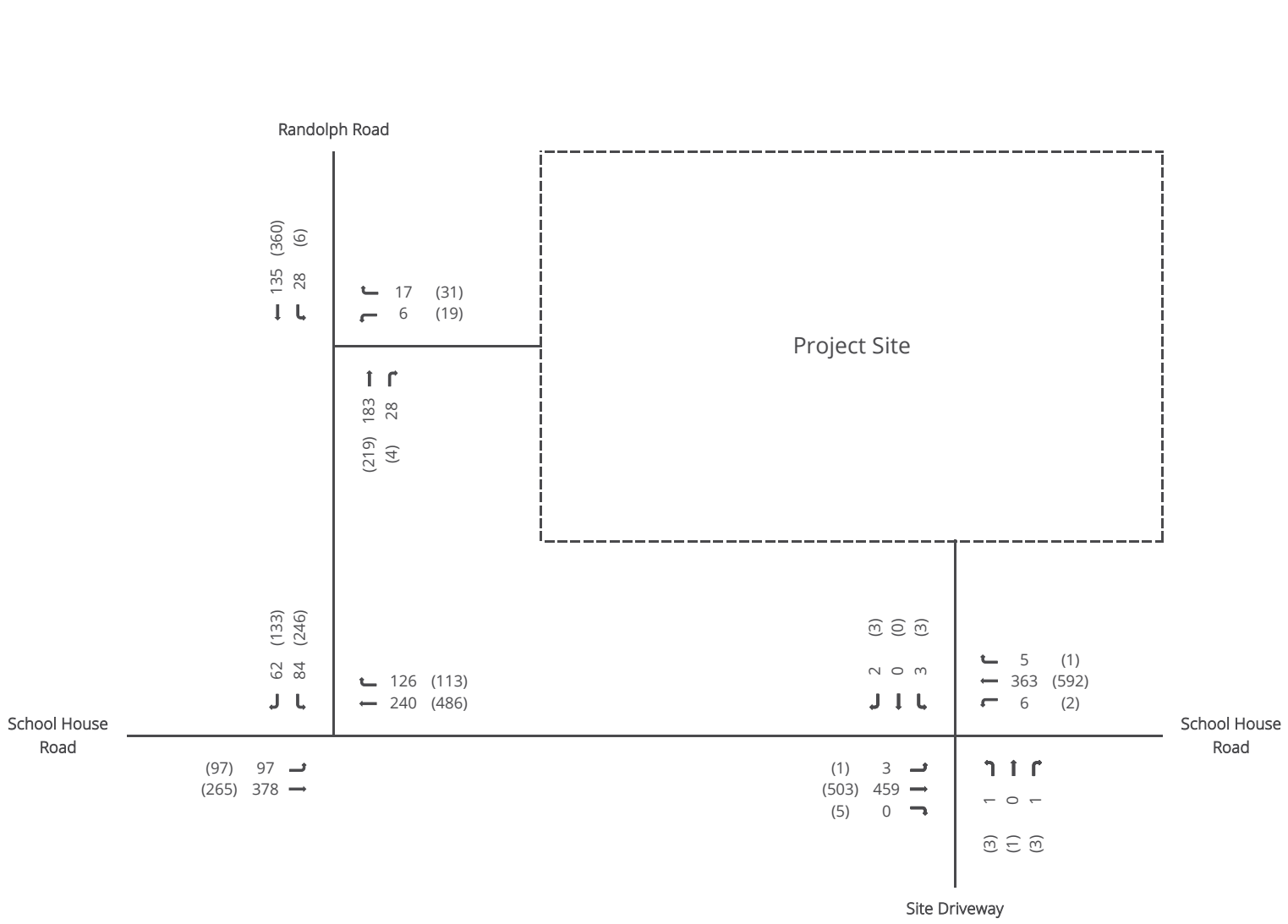
Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 9**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⟙	**2024 Base Conditions**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**



Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 10**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⮌	**Adjacent Development Volumes - Ivy River Property LLC**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**



Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 11**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⟙	**2024 No-Build Conditions**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**



Colliers Engineering & Design	1100 Randolph Road	**Legend**	**Figure 12**
	Project No. 20001469A	AM Peak Hour: ### Thru Movement: ⟵ PM Peak Hour: (###) Turning Movement: ⮢	**2024 Build Conditions**
	Township of Franklin, Somerset County, New Jersey		**AM & PM Peak Hours**

Colliers Engineering & Design

Traffic Impact Study

Appendix B | Traffic Count Data

Project: Randolph & Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.528774, -74.553694

Imperial Traffic & Data Collection
www.imperialtdc.com
PO BOX 4637
Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Count Name: 1. Schoolhouse Road & Existing Site Access
Site Code: 3
Start Date: 07/13/2021

Turning Movement Data

Start Time	Schoolhouse Road Eastbound						Schoolhouse Road Westbound						Driveway Northbound						Site Access Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	2	48	1	0	51	0	2	60	0	0	62	0	0	0	1	0	1	0	0	0	0	0	0	114
7:15 AM	0	0	57	1	0	58	0	1	30	0	0	31	0	0	0	3	0	3	0	0	0	0	0	0	92
7:30 AM	0	0	62	0	0	62	0	1	47	0	0	48	0	0	0	3	0	3	0	0	0	0	0	0	113
7:45 AM	0	0	82	2	0	84	0	2	57	0	0	59	0	2	0	1	0	3	0	0	0	0	0	0	146
Hourly Total	0	2	249	4	0	255	0	6	194	0	0	200	0	2	0	8	0	10	0	0	0	0	0	0	465
8:00 AM	0	0	68	0	0	68	0	3	59	1	0	63	0	0	0	1	1	1	0	1	0	1	0	2	134
8:15 AM	0	0	82	0	0	82	0	1	61	1	0	63	0	1	0	0	0	1	0	0	0	0	0	0	146
8:30 AM	0	0	85	0	0	85	0	1	69	1	0	71	0	0	0	0	0	0	0	0	0	0	0	0	156
8:45 AM	0	0	112	0	0	112	0	1	71	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0	184
Hourly Total	0	0	347	0	0	347	0	6	260	3	0	269	0	1	0	1	1	2	0	1	0	1	0	2	620
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	60	2	0	63	0	1	98	0	0	99	0	1	0	2	0	3	0	0	0	0	0	0	165
4:15 PM	0	0	53	0	0	53	0	0	91	0	0	91	0	2	0	0	0	2	0	2	0	0	0	2	148
4:30 PM	0	0	69	1	0	70	0	0	100	0	0	100	0	7	0	0	0	7	0	5	0	5	0	10	187
4:45 PM	0	0	77	0	0	77	0	0	93	0	0	93	0	0	0	2	0	2	0	0	0	1	0	1	173
Hourly Total	0	1	259	3	0	263	0	1	382	0	0	383	0	10	0	4	0	14	0	7	0	6	0	13	673
5:00 PM	0	0	94	1	0	95	0	1	131	0	0	132	0	0	1	1	0	2	0	0	0	0	0	0	229
5:15 PM	0	0	95	0	0	95	0	0	100	0	0	100	0	1	0	0	0	1	0	0	0	0	0	0	196
5:30 PM	0	0	121	2	0	123	0	0	109	0	0	109	0	0	0	1	0	1	0	0	0	0	0	0	233
5:45 PM	0	0	69	2	0	71	0	1	105	0	0	106	0	2	0	1	0	3	0	0	0	0	0	0	180
Hourly Total	0	0	379	5	0	384	0	2	445	0	0	447	0	3	1	3	0	7	0	0	0	0	0	0	838
Grand Total	0	3	1234	12	0	1249	0	15	1281	3	0	1299	0	16	1	16	1	33	0	8	0	7	0	15	2596
Approach %	0.0	0.2	98.8	1.0	-	-	0.0	1.2	98.6	0.2	-	-	0.0	48.5	3.0	48.5	-	-	0.0	53.3	0.0	46.7	-	-	-
Total %	0.0	0.1	47.5	0.5	-	48.1	0.0	0.6	49.3	0.1	-	50.0	0.0	0.6	0.0	0.6	-	1.3	0.0	0.3	0.0	0.3	-	0.6	-
Lights	0	1	1205	4	-	1210	0	5	1238	3	-	1246	0	5	1	5	-	11	0	4	0	7	-	11	2478
% Lights	-	33.3	97.6	33.3	-	96.9	-	33.3	96.6	100.0	-	95.9	-	31.3	100.0	31.3	-	33.3	-	50.0	-	100.0	-	73.3	95.5
Mediums	0	1	16	5	-	22	0	2	28	0	-	30	0	3	0	4	-	7	0	1	0	0	-	1	60
% Mediums	-	33.3	1.3	41.7	-	1.8	-	13.3	2.2	0.0	-	2.3	-	18.8	0.0	25.0	-	21.2	-	12.5	-	0.0	-	6.7	2.3
Articulated Trucks	0	1	13	3	-	17	0	8	15	0	-	23	0	8	0	7	-	15	0	3	0	0	-	3	58
% Articulated Trucks	-	33.3	1.1	25.0	-	1.4	-	53.3	1.2	0.0	-	1.8	-	50.0	0.0	43.8	-	45.5	-	37.5	-	0.0	-	20.0	2.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-

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Project: Randolph & Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.528774, -74.553694

Count Name: 1. Schoolhouse Road & Existing Site Access
Site Code: 3
Start Date: 07/13/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Schoolhouse Road Eastbound						Schoolhouse Road Westbound						Driveway Northbound						Site Access Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	0	68	0	0	68	0	3	59	1	0	63	0	0	0	1	1	1	0	1	0	1	0	2	134
8:15 AM	0	0	82	0	0	82	0	1	61	1	0	63	0	1	0	0	0	1	0	0	0	0	0	0	146
8:30 AM	0	0	85	0	0	85	0	1	69	1	0	71	0	0	0	0	0	0	0	0	0	0	0	0	156
8:45 AM	0	0	112	0	0	112	0	1	71	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0	184
Total	0	0	347	0	0	347	0	6	260	3	0	269	0	1	0	1	1	2	0	1	0	1	0	2	620
Approach %	0.0	0.0	100.0	0.0	-	-	0.0	2.2	96.7	1.1	-	-	0.0	50.0	0.0	50.0	-	-	0.0	50.0	0.0	50.0	-	-	-
Total %	0.0	0.0	56.0	0.0	-	56.0	0.0	1.0	41.9	0.5	-	43.4	0.0	0.2	0.0	0.2	-	0.3	0.0	0.2	0.0	0.2	-	0.3	-
PHF	0.000	0.000	0.775	0.000	-	0.775	0.000	0.500	0.915	0.750	-	0.934	0.000	0.250	0.000	0.250	-	0.500	0.000	0.250	0.000	0.250	-	0.250	0.842
Lights	0	0	332	0	-	332	0	4	243	3	-	250	0	0	0	0	-	0	0	0	0	1	-	1	583
% Lights	-	-	95.7	-	-	95.7	-	66.7	93.5	100.0	-	92.9	-	0.0	-	0.0	-	0.0	-	0.0	-	100.0	-	50.0	94.0
Mediums	0	0	13	0	-	13	0	0	15	0	-	15	0	0	0	0	-	0	0	1	0	0	-	1	29
% Mediums	-	-	3.7	-	-	3.7	-	0.0	5.8	0.0	-	5.6	-	0.0	-	0.0	-	0.0	-	100.0	-	0.0	-	50.0	4.7
Articulated Trucks	0	0	2	0	-	2	0	2	2	0	-	4	0	1	0	1	-	2	0	0	0	0	-	0	8
% Articulated Trucks	-	-	0.6	-	-	0.6	-	33.3	0.8	0.0	-	1.5	-	100.0	-	100.0	-	100.0	-	0.0	-	0.0	-	0.0	1.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Project: Randolph & Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.528774, -74.553694

Count Name: 1. Schoolhouse Road & Existing Site Access
Site Code: 3
Start Date: 07/13/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Schoolhouse Road Eastbound						Schoolhouse Road Westbound						Driveway Northbound						Site Access Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	94	1	0	95	0	1	131	0	0	132	0	0	1	1	0	2	0	0	0	0	0	0	229
5:15 PM	0	0	95	0	0	95	0	0	100	0	0	100	0	1	0	0	0	1	0	0	0	0	0	0	196
5:30 PM	0	0	121	2	0	123	0	0	109	0	0	109	0	0	0	1	0	1	0	0	0	0	0	0	233
5:45 PM	0	0	69	2	0	71	0	1	105	0	0	106	0	2	0	1	0	3	0	0	0	0	0	0	180
Total	0	0	379	5	0	384	0	2	445	0	0	447	0	3	1	3	0	7	0	0	0	0	0	0	838
Approach %	0.0	0.0	98.7	1.3	-	-	0.0	0.4	99.6	0.0	-	-	0.0	42.9	14.3	42.9	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	45.2	0.6	-	45.8	0.0	0.2	53.1	0.0	-	53.3	0.0	0.4	0.1	0.4	-	0.8	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.783	0.625	-	0.780	0.000	0.500	0.849	0.000	-	0.847	0.000	0.375	0.250	0.750	-	0.583	0.000	0.000	0.000	0.000	-	0.000	0.899
Lights	0	0	375	2	-	377	0	0	438	0	-	438	0	2	1	3	-	6	0	0	0	0	-	0	821
% Lights	-	-	98.9	40.0	-	98.2	-	0.0	98.4	-	-	98.0	-	66.7	100.0	100.0	-	85.7	-	-	-	-	-	-	98.0
Mediums	0	0	2	2	-	4	0	1	4	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	9
% Mediums	-	-	0.5	40.0	-	1.0	-	50.0	0.9	-	-	1.1	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	1.1
Articulated Trucks	0	0	2	1	-	3	0	1	3	0	-	4	0	1	0	0	-	1	0	0	0	0	-	0	8
% Articulated Trucks	-	-	0.5	20.0	-	0.8	-	50.0	0.7	-	-	0.9	-	33.3	0.0	0.0	-	14.3	-	-	-	-	-	-	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Project: Randolph & Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.53046, -74.556151

Imperial Traffic & Data Collection
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PO BOX 4637
Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Count Name: 2. Randolph Road & Existing Site Access
Site Code: 2
Start Date: 07/13/2021

Turning Movement Data

Start Time	Site Access Westbound					Randolph Road Northbound					Randolph Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	0	1	0	1	0	46	0	0	46	0	0	32	0	32	79
7:15 AM	0	0	0	0	0	0	25	0	1	25	0	0	21	0	21	46
7:30 AM	0	0	0	0	0	0	24	1	0	25	0	2	23	0	25	50
7:45 AM	0	0	0	1	0	0	39	0	0	39	0	1	25	0	26	65
Hourly Total	0	0	1	1	1	0	134	1	1	135	0	3	101	0	104	240
8:00 AM	0	2	3	0	5	0	29	7	1	36	0	4	22	0	26	67
8:15 AM	0	1	4	0	5	0	29	10	1	39	0	6	25	0	31	75
8:30 AM	0	0	0	0	0	0	29	2	0	31	0	1	25	0	26	57
8:45 AM	0	0	2	0	2	0	26	1	0	27	0	1	28	0	29	58
Hourly Total	0	3	9	0	12	0	113	20	2	133	0	12	100	0	112	257
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	0	0	38	0	0	38	0	0	32	0	32	70
4:15 PM	0	0	0	0	0	0	40	0	0	40	0	0	20	0	20	60
4:30 PM	0	0	1	0	1	0	47	2	0	49	0	1	49	0	50	100
4:45 PM	0	1	6	0	7	0	27	2	0	29	0	3	25	0	28	64
Hourly Total	0	1	7	0	8	0	152	4	0	156	0	4	126	0	130	294
5:00 PM	0	9	10	0	19	0	48	2	1	50	0	0	47	0	47	116
5:15 PM	0	2	2	0	4	0	36	0	0	36	0	1	75	0	76	116
5:30 PM	0	0	1	0	1	0	39	0	0	39	0	0	99	0	99	139
5:45 PM	0	0	1	0	1	0	35	0	0	35	0	0	52	0	52	88
Hourly Total	0	11	14	0	25	0	158	2	1	160	0	1	273	0	274	459
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	15	31	1	46	0	557	27	4	584	0	20	600	0	620	1250
Approach %	0.0	32.6	67.4	-	-	0.0	95.4	4.6	-	-	0.0	3.2	96.8	-	-	-
Total %	0.0	1.2	2.5	-	3.7	0.0	44.6	2.2	-	46.7	0.0	1.6	48.0	-	49.6	-
Lights	0	15	31	-	46	0	512	26	-	538	0	19	569	-	588	1172
% Lights	-	100.0	100.0	-	100.0	-	91.9	96.3	-	92.1	-	95.0	94.8	-	94.8	93.8
Mediums	0	0	0	-	0	0	23	0	-	23	0	0	18	-	18	41
% Mediums	-	0.0	0.0	-	0.0	-	4.1	0.0	-	3.9	-	0.0	3.0	-	2.9	3.3
Articulated Trucks	0	0	0	-	0	0	22	1	-	23	0	1	13	-	14	37
% Articulated Trucks	-	0.0	0.0	-	0.0	-	3.9	3.7	-	3.9	-	5.0	2.2	-	2.3	3.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	50.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	50.0	-	-	-	-	-	-	-

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Project: Randolph & Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.53046, -74.556151

Count Name: 2. Randolph Road & Existing Site Access
Site Code: 2
Start Date: 07/13/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Site Access Westbound					Randolph Road Northbound					Randolph Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
8:00 AM	0	2	3	0	5	0	29	7	1	36	0	4	22	0	26	67
8:15 AM	0	1	4	0	5	0	29	10	1	39	0	6	25	0	31	75
8:30 AM	0	0	0	0	0	0	29	2	0	31	0	1	25	0	26	57
8:45 AM	0	0	2	0	2	0	26	1	0	27	0	1	28	0	29	58
Total	0	3	9	0	12	0	113	20	2	133	0	12	100	0	112	257
Approach %	0.0	25.0	75.0	-	-	0.0	85.0	15.0	-	-	0.0	10.7	89.3	-	-	-
Total %	0.0	1.2	3.5	-	4.7	0.0	44.0	7.8	-	51.8	0.0	4.7	38.9	-	43.6	-
PHF	0.000	0.375	0.563	-	0.600	0.000	0.974	0.500	-	0.853	0.000	0.500	0.893	-	0.903	0.857
Lights	0	3	9	-	12	0	107	20	-	127	0	12	95	-	107	246
% Lights	-	100.0	100.0	-	100.0	-	94.7	100.0	-	95.5	-	100.0	95.0	-	95.5	95.7
Mediums	0	0	0	-	0	0	5	0	-	5	0	0	3	-	3	8
% Mediums	-	0.0	0.0	-	0.0	-	4.4	0.0	-	3.8	-	0.0	3.0	-	2.7	3.1
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	2	-	2	3
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.9	0.0	-	0.8	-	0.0	2.0	-	1.8	1.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	-

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Project: Randolph & Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.53046, -74.556151

Count Name: 2. Randolph Road & Existing Site Access
Site Code: 2
Start Date: 07/13/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Site Access Westbound					Randolph Road Northbound					Randolph Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
5:00 PM	0	9	10	0	19	0	48	2	1	50	0	0	47	0	47	116
5:15 PM	0	2	2	0	4	0	36	0	0	36	0	1	75	0	76	116
5:30 PM	0	0	1	0	1	0	39	0	0	39	0	0	99	0	99	139
5:45 PM	0	0	1	0	1	0	35	0	0	35	0	0	52	0	52	88
Total	0	11	14	0	25	0	158	2	1	160	0	1	273	0	274	459
Approach %	0.0	44.0	56.0	-	-	0.0	98.8	1.3	-	-	0.0	0.4	99.6	-	-	-
Total %	0.0	2.4	3.1	-	5.4	0.0	34.4	0.4	-	34.9	0.0	0.2	59.5	-	59.7	-
PHF	0.000	0.306	0.350	-	0.329	0.000	0.823	0.250	-	0.800	0.000	0.250	0.689	-	0.692	0.826
Lights	0	11	14	-	25	0	150	2	-	152	0	1	263	-	264	441
% Lights	-	100.0	100.0	-	100.0	-	94.9	100.0	-	95.0	-	100.0	96.3	-	96.4	96.1
Mediums	0	0	0	-	0	0	5	0	-	5	0	0	7	-	7	12
% Mediums	-	0.0	0.0	-	0.0	-	3.2	0.0	-	3.1	-	0.0	2.6	-	2.6	2.6
Articulated Trucks	0	0	0	-	0	0	3	0	-	3	0	0	3	-	3	6
% Articulated Trucks	-	0.0	0.0	-	0.0	-	1.9	0.0	-	1.9	-	0.0	1.1	-	1.1	1.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-

Project: Randolph and Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.52896, -74.556216

Imperial Traffic & Data Collection
www.imperialtdc.com
PO BOX 4637
Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Count Name: 3. Randolph Road & Schoolhouse Road
Site Code: 2
Start Date: 07/13/2021

Turning Movement Data

Start Time	Schoolhouse Road Eastbound					Schoolhouse Road Westbound					Randolph Road Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	15	35	0	50	0	27	30	0	57	0	13	18	0	31	138
7:15 AM	0	14	52	0	66	0	25	10	0	35	0	6	12	0	18	119
7:30 AM	0	14	48	0	62	0	34	12	0	46	0	15	9	0	24	132
7:45 AM	0	24	76	0	100	0	44	14	1	58	0	7	14	0	21	179
Hourly Total	0	67	211	0	278	0	130	66	1	196	0	41	53	0	94	568
8:00 AM	0	18	54	0	72	1	39	24	0	64	0	14	12	0	26	162
8:15 AM	0	13	71	1	84	0	37	24	0	61	0	13	14	0	27	172
8:30 AM	0	12	74	0	86	0	50	18	0	68	0	14	9	0	23	177
8:45 AM	0	16	88	0	104	0	55	13	0	68	0	19	11	0	30	202
Hourly Total	0	59	287	1	346	1	181	79	0	261	0	60	46	0	106	713
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	18	48	0	66	0	80	20	0	100	0	16	15	0	31	197
4:15 PM	0	20	44	0	64	0	74	18	0	92	0	8	12	0	20	176
4:30 PM	0	26	45	0	71	0	81	27	0	108	0	26	26	0	52	231
4:45 PM	0	12	61	0	73	0	73	20	0	93	0	15	17	0	32	198
Hourly Total	0	76	198	0	274	0	308	85	0	393	0	65	70	0	135	802
5:00 PM	0	24	64	0	88	0	106	22	0	128	0	29	27	0	56	272
5:15 PM	0	15	49	0	64	0	81	23	0	104	0	47	23	0	70	238
5:30 PM	0	17	45	0	62	0	94	15	0	109	0	76	29	0	105	276
5:45 PM	0	14	41	0	55	0	88	20	0	108	0	30	20	0	50	213
Hourly Total	0	70	199	0	269	0	369	80	0	449	0	182	99	0	281	999
Grand Total	0	272	895	1	1167	1	988	310	1	1299	0	348	268	0	616	3082
Approach %	0.0	23.3	76.7	-	-	0.1	76.1	23.9	-	-	0.0	56.5	43.5	-	-	-
Total %	0.0	8.8	29.0	-	37.9	0.0	32.1	10.1	-	42.1	0.0	11.3	8.7	-	20.0	-
Lights	0	261	875	-	1136	1	961	281	-	1243	0	331	259	-	590	2969
% Lights	-	96.0	97.8	-	97.3	100.0	97.3	90.6	-	95.7	-	95.1	96.6	-	95.8	96.3
Mediums	0	7	15	-	22	0	18	14	-	32	0	9	5	-	14	68
% Mediums	-	2.6	1.7	-	1.9	0.0	1.8	4.5	-	2.5	-	2.6	1.9	-	2.3	2.2
Articulated Trucks	0	4	5	-	9	0	9	15	-	24	0	8	4	-	12	45
% Articulated Trucks	-	1.5	0.6	-	0.8	0.0	0.9	4.8	-	1.8	-	2.3	1.5	-	1.9	1.5
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	100.0	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	0.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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Project: Randolph and Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.52896, -74.556216

Count Name: 3. Randolph Road & Schoolhouse Road
Site Code: 2
Start Date: 07/13/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Schoolhouse Road Eastbound					Schoolhouse Road Westbound					Randolph Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
8:00 AM	0	18	54	0	72	1	39	24	0	64	0	14	12	0	26	162
8:15 AM	0	13	71	1	84	0	37	24	0	61	0	13	14	0	27	172
8:30 AM	0	12	74	0	86	0	50	18	0	68	0	14	9	0	23	177
8:45 AM	0	16	88	0	104	0	55	13	0	68	0	19	11	0	30	202
Total	0	59	287	1	346	1	181	79	0	261	0	60	46	0	106	713
Approach %	0.0	17.1	82.9	-	-	0.4	69.3	30.3	-	-	0.0	56.6	43.4	-	-	-
Total %	0.0	8.3	40.3	-	48.5	0.1	25.4	11.1	-	36.6	0.0	8.4	6.5	-	14.9	-
PHF	0.000	0.819	0.815	-	0.832	0.250	0.823	0.823	-	0.960	0.000	0.789	0.821	-	0.883	0.882
Lights	0	58	276	-	334	1	168	74	-	243	0	57	45	-	102	679
% Lights	-	98.3	96.2	-	96.5	100.0	92.8	93.7	-	93.1	-	95.0	97.8	-	96.2	95.2
Mediums	0	1	10	-	11	0	10	4	-	14	0	2	1	-	3	28
% Mediums	-	1.7	3.5	-	3.2	0.0	5.5	5.1	-	5.4	-	3.3	2.2	-	2.8	3.9
Articulated Trucks	0	0	1	-	1	0	3	1	-	4	0	1	0	-	1	6
% Articulated Trucks	-	0.0	0.3	-	0.3	0.0	1.7	1.3	-	1.5	-	1.7	0.0	-	0.9	0.8
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-

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Project: Randolph and Schoolhouse
Municipality: Franklin, Somerset County, NJ
Setup: NR
Location: 40.52896, -74.556216

Count Name: 3. Randolph Road & Schoolhouse Road
Site Code: 2
Start Date: 07/13/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Schoolhouse Road Eastbound					Schoolhouse Road Westbound					Randolph Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	24	64	0	88	0	106	22	0	128	0	29	27	0	56	272
5:15 PM	0	15	49	0	64	0	81	23	0	104	0	47	23	0	70	238
5:30 PM	0	17	45	0	62	0	94	15	0	109	0	76	29	0	105	276
5:45 PM	0	14	41	0	55	0	88	20	0	108	0	30	20	0	50	213
Total	0	70	199	0	269	0	369	80	0	449	0	182	99	0	281	999
Approach %	0.0	26.0	74.0	-	-	0.0	82.2	17.8	-	-	0.0	64.8	35.2	-	-	-
Total %	0.0	7.0	19.9	-	26.9	0.0	36.9	8.0	-	44.9	0.0	18.2	9.9	-	28.1	-
PHF	0.000	0.729	0.777	-	0.764	0.000	0.870	0.870	-	0.877	0.000	0.599	0.853	-	0.669	0.905
Lights	0	68	196	-	264	0	367	74	-	441	0	177	96	-	273	978
% Lights	-	97.1	98.5	-	98.1	-	99.5	92.5	-	98.2	-	97.3	97.0	-	97.2	97.9
Mediums	0	2	2	-	4	0	1	4	-	5	0	3	2	-	5	14
% Mediums	-	2.9	1.0	-	1.5	-	0.3	5.0	-	1.1	-	1.6	2.0	-	1.8	1.4
Articulated Trucks	0	0	1	-	1	0	1	2	-	3	0	2	1	-	3	7
% Articulated Trucks	-	0.0	0.5	-	0.4	-	0.3	2.5	-	0.7	-	1.1	1.0	-	1.1	0.7
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Colliers Engineering & Design

Traffic Impact Study

Appendix C | Trip Generation Calculations

Warehousing
(150)

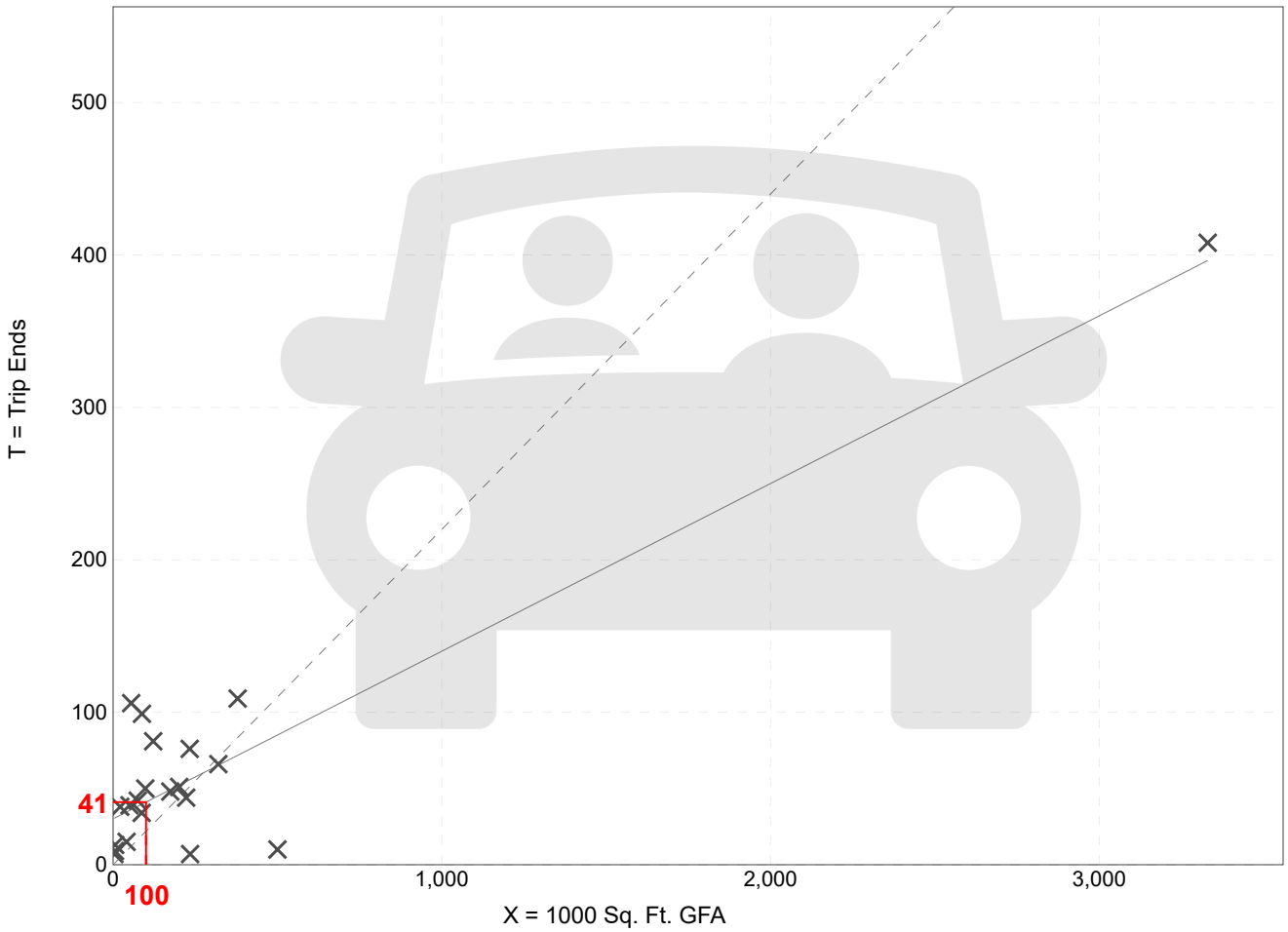
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 23
Avg. 1000 Sq. Ft. GFA: 274
Directional Distribution: 65% entering, 35% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.22	0.02 - 2.08	0.28

Data Plot and Equation



Fitted Curve Equation: T = 0.11(X) + 30.07

R^2= 0.85

Warehousing
(150)

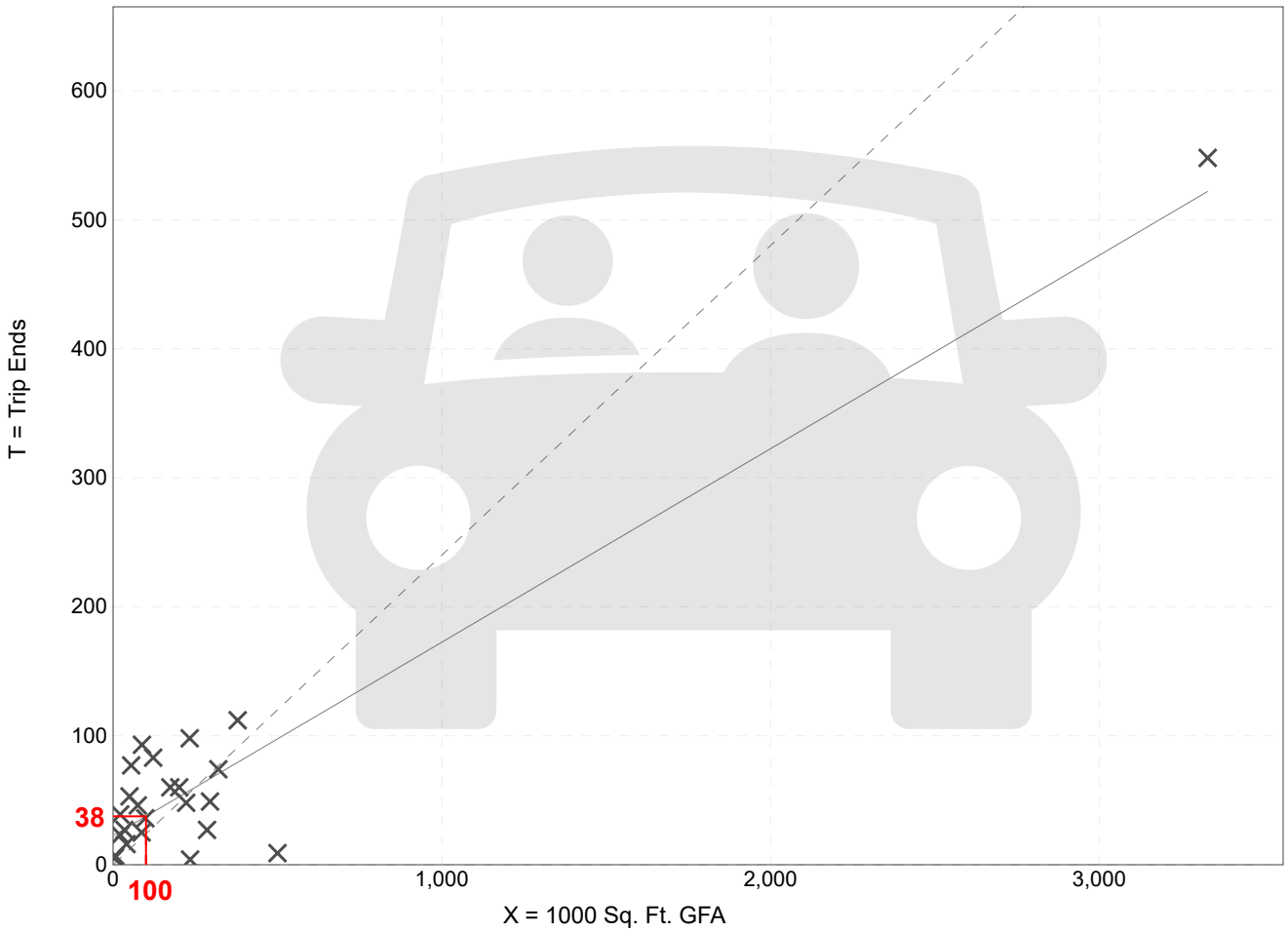
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 25
Avg. 1000 Sq. Ft. GFA: 275
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.24	0.02 - 1.80	0.24

Data Plot and Equation



Fitted Curve Equation: T = 0.15(X) + 22.52

R^2= 0.91

Colliers Engineering & Design

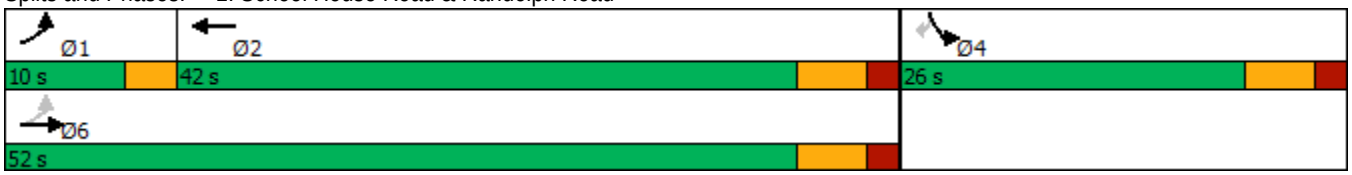
Traffic Impact Study

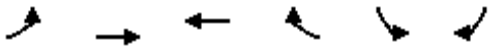
Appendix D | Capacity Analysis

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	94	378	240	79	61
Future Volume (vph)	94	378	240	79	61
Lane Group Flow (vph)	107	430	411	90	69
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	1	6	2	4	
Permitted Phases	6				4
Detector Phase	1	6	2	4	4
Switch Phase					
Minimum Initial (s)	7.0	22.0	22.0	7.0	7.0
Minimum Split (s)	10.0	28.0	28.0	13.0	13.0
Total Split (s)	10.0	52.0	42.0	26.0	26.0
Total Split (%)	12.8%	66.7%	53.8%	33.3%	33.3%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Max	Max	Min	Min
v/c Ratio	0.15	0.34	0.41	0.41	0.27
Control Delay	3.2	5.2	9.6	32.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.2	5.2	9.6	32.7	10.4
Queue Length 50th (ft)	9	54	78	34	0
Queue Length 95th (ft)	23	106	149	72	30
Internal Link Dist (ft)		666	638	495	
Turn Bay Length (ft)	75			150	
Base Capacity (vph)	716	1265	993	517	524
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.34	0.41	0.17	0.13

Intersection Summary
Cycle Length: 78
Actuated Cycle Length: 66.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: School House Road & Randolph Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	94	378	240	121	79	61
Future Volume (veh/h)	94	378	240	121	79	61
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1841	1796	1811	1826	1870
Adj Flow Rate, veh/h	107	430	273	138	90	69
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	4	7	6	5	2
Cap, veh/h	695	1303	641	324	187	171
Arrive On Green	0.09	0.71	0.57	0.57	0.11	0.11
Sat Flow, veh/h	1781	1841	1125	569	1739	1585
Grp Volume(v), veh/h	107	430	0	411	90	69
Grp Sat Flow(s),veh/h/ln	1781	1841	0	1694	1739	1585
Q Serve(g_s), s	1.3	5.8	0.0	9.0	3.2	2.6
Cycle Q Clear(g_c), s	1.3	5.8	0.0	9.0	3.2	2.6
Prop In Lane	1.00			0.34	1.00	1.00
Lane Grp Cap(c), veh/h	695	1303	0	965	187	171
V/C Ratio(X)	0.15	0.33	0.00	0.43	0.48	0.40
Avail Cap(c_a), veh/h	723	1303	0	965	535	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.3	3.6	0.0	8.0	27.3	27.1
Incr Delay (d2), s/veh	0.0	0.7	0.0	1.4	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.3	0.0	3.0	1.2	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.4	4.3	0.0	9.3	28.0	27.6
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		537	411		159	
Approach Delay, s/veh		4.3	9.3		27.8	
Approach LOS		A	A		C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.0	43.0		13.0		52.0
Change Period (Y+Rc), s	3.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	7.0	36.0		20.0		46.0
Max Q Clear Time (g_c+I1), s	3.3	11.0		5.2		7.8
Green Ext Time (p_c), s	0.0	1.8		0.2		1.6

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	9	182	21	13	132
Future Vol, veh/h	3	9	182	21	13	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	3	10	212	24	15	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	407	224	0	0	236	0
Stage 1	224	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	604	820	-	-	1343	-
Stage 1	818	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	597	820	-	-	1343	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	843	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	750	1343	-
HCM Lane V/C Ratio	-	-	0.019	0.011	-
HCM Control Delay (s)	-	-	9.9	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	457	1	6	359	3	1	1	1	1	1	1
Future Vol, veh/h	1	457	1	6	359	3	1	1	1	1	1	1
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	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	4	0	33	6	0	100	0	100	100	0	0
Mvmt Flow	1	544	1	7	427	4	1	1	1	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	431	0	0	545	0	0	991	992	545	991	990	429
Stage 1	-	-	-	-	-	-	547	547	-	443	443	-
Stage 2	-	-	-	-	-	-	444	445	-	548	547	-
Critical Hdwy	4.1	-	-	4.43	-	-	8.1	6.5	7.2	8.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	7.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	7.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.497	-	-	4.4	4	4.2	4.4	4	3.3
Pot Cap-1 Maneuver	1139	-	-	885	-	-	152	248	389	152	248	630
Stage 1	-	-	-	-	-	-	381	521	-	442	579	-
Stage 2	-	-	-	-	-	-	442	578	-	381	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1139	-	-	885	-	-	150	245	389	150	245	630
Mov Cap-2 Maneuver	-	-	-	-	-	-	150	245	-	150	245	-
Stage 1	-	-	-	-	-	-	381	520	-	442	573	-
Stage 2	-	-	-	-	-	-	436	572	-	379	520	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	21.3	20
HCM LOS			C	C

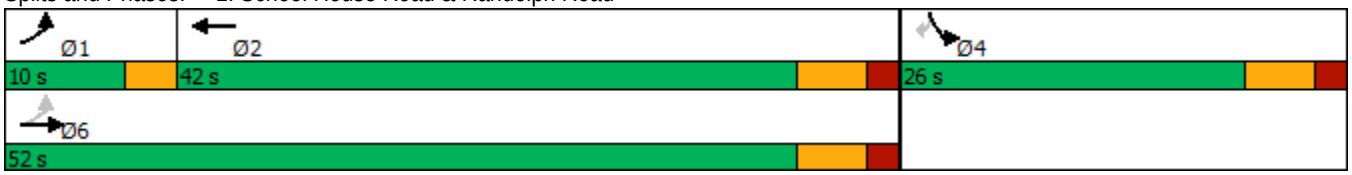
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	225	1139	-	-	885	-	-	243
HCM Lane V/C Ratio	0.016	0.001	-	-	0.008	-	-	0.015
HCM Control Delay (s)	21.3	8.2	0	-	9.1	0	-	20
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

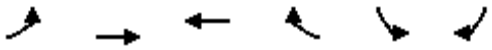
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	96	265	486	241	130
Future Volume (vph)	96	265	486	241	130
Lane Group Flow (vph)	105	291	654	265	143
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	1	6	2	4	
Permitted Phases	6				4
Detector Phase	1	6	2	4	4
Switch Phase					
Minimum Initial (s)	7.0	22.0	22.0	7.0	7.0
Minimum Split (s)	10.0	28.0	28.0	13.0	13.0
Total Split (s)	10.0	52.0	42.0	26.0	26.0
Total Split (%)	12.8%	66.7%	53.8%	33.3%	33.3%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Max	Max	Min	Min
v/c Ratio	0.25	0.25	0.69	0.71	0.32
Control Delay	6.7	7.5	19.8	38.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	7.5	19.8	38.3	6.7
Queue Length 50th (ft)	15	53	221	113	0
Queue Length 95th (ft)	36	102	387	188	41
Internal Link Dist (ft)		666	638	495	
Turn Bay Length (ft)	75			150	
Base Capacity (vph)	418	1164	948	476	530
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.25	0.69	0.56	0.27

Intersection Summary

Cycle Length: 78
Actuated Cycle Length: 73.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: School House Road & Randolph Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	265	486	109	241	130
Future Volume (veh/h)	96	265	486	109	241	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1870	1885	1781	1856	1856
Adj Flow Rate, veh/h	105	291	534	120	265	143
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	1	8	3	3
Cap, veh/h	447	1211	774	174	324	289
Arrive On Green	0.09	0.65	0.52	0.52	0.18	0.18
Sat Flow, veh/h	1767	1870	1490	335	1767	1572
Grp Volume(v), veh/h	105	291	0	654	265	143
Grp Sat Flow(s),veh/h/ln	1767	1870	0	1825	1767	1572
Q Serve(g_s), s	1.6	4.6	0.0	19.1	10.2	5.8
Cycle Q Clear(g_c), s	1.6	4.6	0.0	19.1	10.2	5.8
Prop In Lane	1.00			0.18	1.00	1.00
Lane Grp Cap(c), veh/h	447	1211	0	947	324	289
V/C Ratio(X)	0.23	0.24	0.00	0.69	0.82	0.50
Avail Cap(c_a), veh/h	469	1211	0	947	498	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	5.2	0.0	12.8	27.9	26.0
Incr Delay (d2), s/veh	0.3	0.5	0.0	4.1	6.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.4	0.0	7.8	4.5	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.0	5.7	0.0	16.9	34.0	27.4
LnGrp LOS	A	A	A	B	C	C
Approach Vol, veh/h		396	654		408	
Approach Delay, s/veh		6.6	16.9		31.7	
Approach LOS		A	B		C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.1	42.9		19.0		52.0
Change Period (Y+Rc), s	3.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	7.0	36.0		20.0		46.0
Max Q Clear Time (g_c+I1), s	3.6	21.1		12.2		6.6
Green Ext Time (p_c), s	0.1	4.1		0.8		1.7

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	15	216	2	1	359
Future Vol, veh/h	12	15	216	2	1	359
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	5	0	0	4
Mvmt Flow	14	18	260	2	1	433

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	696	261	0	0	262	0
Stage 1	261	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	411	783	-	-	1314	-
Stage 1	787	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	411	783	-	-	1314	-
Mov Cap-2 Maneuver	411	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	558	1314	-
HCM Lane V/C Ratio	-	-	0.058	0.001	-
HCM Control Delay (s)	-	-	11.9	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	499	5	2	591	1	3	1	3	1	1	1
Future Vol, veh/h	1	499	5	2	591	1	3	1	3	1	1	1
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	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	60	100	2	0	33	0	0	0	0	0
Mvmt Flow	1	554	6	2	657	1	3	1	3	1	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	658	0	0	560	0	0	1222	1221	557	1223	1224	658
Stage 1	-	-	-	-	-	-	559	559	-	662	662	-
Stage 2	-	-	-	-	-	-	663	662	-	561	562	-
Critical Hdwy	4.1	-	-	5.1	-	-	7.43	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	3.1	-	-	3.797	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	939	-	-	662	-	-	135	181	534	158	181	468
Stage 1	-	-	-	-	-	-	462	514	-	454	462	-
Stage 2	-	-	-	-	-	-	403	462	-	516	513	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	939	-	-	662	-	-	133	180	534	155	180	468
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	180	-	155	180	-
Stage 1	-	-	-	-	-	-	461	513	-	453	460	-
Stage 2	-	-	-	-	-	-	399	460	-	511	512	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	23	22.3
HCM LOS			C	C

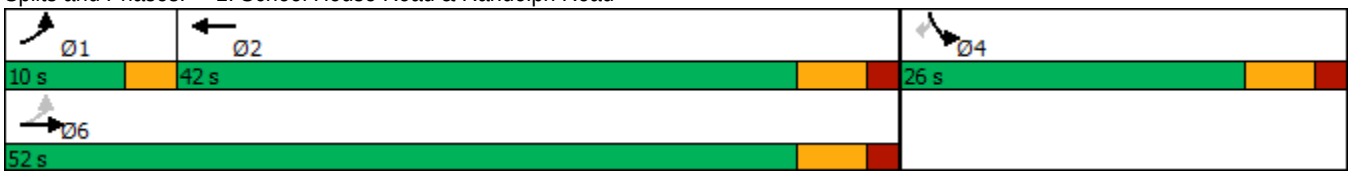
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	208	939	-	-	662	-	-	212
HCM Lane V/C Ratio	0.037	0.001	-	-	0.003	-	-	0.016
HCM Control Delay (s)	23	8.8	0	-	10.5	0	-	22.3
HCM Lane LOS	C	A	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

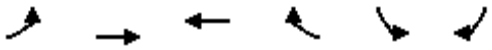
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	97	378	240	84	62
Future Volume (vph)	97	378	240	84	62
Lane Group Flow (vph)	110	430	416	95	70
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	1	6	2	4	
Permitted Phases	6				4
Detector Phase	1	6	2	4	4
Switch Phase					
Minimum Initial (s)	7.0	22.0	22.0	7.0	7.0
Minimum Split (s)	10.0	28.0	28.0	13.0	13.0
Total Split (s)	10.0	52.0	42.0	26.0	26.0
Total Split (%)	12.8%	66.7%	53.8%	33.3%	33.3%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Max	Max	Min	Min
v/c Ratio	0.16	0.34	0.42	0.40	0.25
Control Delay	3.5	5.6	10.1	31.7	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	5.6	10.1	31.7	9.9
Queue Length 50th (ft)	10	59	83	36	0
Queue Length 95th (ft)	25	113	157	75	30
Internal Link Dist (ft)		666	638	495	
Turn Bay Length (ft)	75			150	
Base Capacity (vph)	699	1249	981	511	520
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.34	0.42	0.19	0.13

Intersection Summary

Cycle Length: 78
Actuated Cycle Length: 67.3
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: School House Road & Randolph Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	97	378	240	126	84	62
Future Volume (veh/h)	97	378	240	126	84	62
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1841	1796	1811	1826	1870
Adj Flow Rate, veh/h	110	430	273	143	95	70
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	4	7	6	5	2
Cap, veh/h	692	1303	631	331	187	171
Arrive On Green	0.09	0.71	0.57	0.57	0.11	0.11
Sat Flow, veh/h	1781	1841	1110	581	1739	1585
Grp Volume(v), veh/h	110	430	0	416	95	70
Grp Sat Flow(s),veh/h/ln	1781	1841	0	1692	1739	1585
Q Serve(g_s), s	1.3	5.8	0.0	9.1	3.4	2.7
Cycle Q Clear(g_c), s	1.3	5.8	0.0	9.1	3.4	2.7
Prop In Lane	1.00			0.34	1.00	1.00
Lane Grp Cap(c), veh/h	692	1303	0	962	187	171
V/C Ratio(X)	0.16	0.33	0.00	0.43	0.51	0.41
Avail Cap(c_a), veh/h	718	1303	0	962	535	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	3.6	0.0	8.0	27.4	27.1
Incr Delay (d2), s/veh	0.1	0.7	0.0	1.4	2.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.3	0.0	3.1	1.4	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.5	4.3	0.0	9.4	29.5	28.6
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h		540	416		165	
Approach Delay, s/veh		4.3	9.4		29.1	
Approach LOS		A	A		C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.0	43.0		13.0		52.0
Change Period (Y+Rc), s	3.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	7.0	36.0		20.0		46.0
Max Q Clear Time (g_c+I1), s	3.3	11.1		5.4		7.8
Green Ext Time (p_c), s	0.1	2.8		0.4		2.7

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	17	183	28	28	135
Future Vol, veh/h	6	17	183	28	28	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	7	20	213	33	33	157

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	453	230	0	0	246	0
Stage 1	230	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	568	814	-	-	1332	-
Stage 1	813	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	553	814	-	-	1332	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	725	1332	-
HCM Lane V/C Ratio	-	-	0.037	0.024	-
HCM Control Delay (s)	-	-	10.2	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	459	1	6	363	5	1	1	1	3	1	2
Future Vol, veh/h	3	459	1	6	363	5	1	1	1	3	1	2
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	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	100	4	0	33	6	40	100	0	100	100	0	0
Mvmt Flow	4	546	1	7	432	6	1	1	1	4	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	438	0	0	547	0	0	1006	1007	547	1005	1004	435
Stage 1	-	-	-	-	-	-	555	555	-	449	449	-
Stage 2	-	-	-	-	-	-	451	452	-	556	555	-
Critical Hdwy	5.1	-	-	4.43	-	-	8.1	6.5	7.2	8.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	7.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	7.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.497	-	-	4.4	4	4.2	4.4	4	3.3
Pot Cap-1 Maneuver	750	-	-	884	-	-	148	243	388	148	244	625
Stage 1	-	-	-	-	-	-	377	516	-	439	576	-
Stage 2	-	-	-	-	-	-	437	574	-	377	516	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	750	-	-	884	-	-	145	239	388	145	240	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	145	239	-	145	240	-
Stage 1	-	-	-	-	-	-	374	512	-	435	570	-
Stage 2	-	-	-	-	-	-	430	568	-	372	512	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	21.6	22.4
HCM LOS			C	C

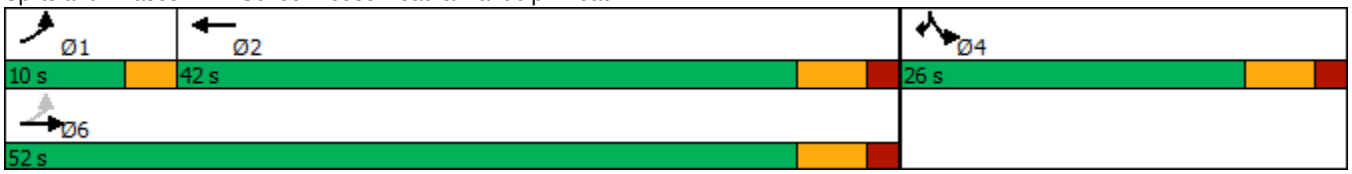
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	220	750	-	-	884	-	-	214
HCM Lane V/C Ratio	0.016	0.005	-	-	0.008	-	-	0.033
HCM Control Delay (s)	21.6	9.8	0	-	9.1	0	-	22.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

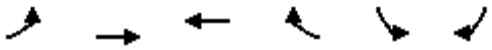
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	97	265	486	246	133
Future Volume (vph)	97	265	486	246	133
Lane Group Flow (vph)	107	291	658	270	146
Turn Type	pm+pt	NA	NA	Prot	Prot
Protected Phases	1	6	2	4	4
Permitted Phases	6				
Detector Phase	1	6	2	4	4
Switch Phase					
Minimum Initial (s)	7.0	22.0	22.0	7.0	7.0
Minimum Split (s)	10.0	28.0	28.0	13.0	13.0
Total Split (s)	10.0	52.0	42.0	26.0	26.0
Total Split (%)	12.8%	66.7%	53.8%	33.3%	33.3%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Max	Max	None	None
v/c Ratio	0.26	0.25	0.69	0.72	0.33
Control Delay	6.8	7.5	20.0	38.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.5	20.0	38.6	6.6
Queue Length 50th (ft)	15	54	225	115	0
Queue Length 95th (ft)	36	102	#396	193	42
Internal Link Dist (ft)		666	638	495	
Turn Bay Length (ft)	75			150	
Base Capacity (vph)	412	1162	947	474	530
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.26	0.25	0.69	0.57	0.28

Intersection Summary

Cycle Length: 78
Actuated Cycle Length: 74.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: School House Road & Randolph Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	97	265	486	113	246	133
Future Volume (veh/h)	97	265	486	113	246	133
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1870	1885	1781	1856	1856
Adj Flow Rate, veh/h	107	291	534	124	270	146
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	1	8	3	3
Cap, veh/h	442	1207	765	178	329	293
Arrive On Green	0.09	0.65	0.52	0.52	0.19	0.19
Sat Flow, veh/h	1767	1870	1480	344	1767	1572
Grp Volume(v), veh/h	107	291	0	658	270	146
Grp Sat Flow(s),veh/h/ln	1767	1870	0	1823	1767	1572
Q Serve(g_s), s	1.7	4.7	0.0	19.4	10.5	5.9
Cycle Q Clear(g_c), s	1.7	4.7	0.0	19.4	10.5	5.9
Prop In Lane	1.00			0.19	1.00	1.00
Lane Grp Cap(c), veh/h	442	1207	0	943	329	293
V/C Ratio(X)	0.24	0.24	0.00	0.70	0.82	0.50
Avail Cap(c_a), veh/h	463	1207	0	943	496	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	5.3	0.0	13.0	27.9	26.0
Incr Delay (d2), s/veh	0.3	0.5	0.0	4.3	6.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.4	0.0	8.0	4.7	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2	5.8	0.0	17.3	34.5	27.3
LnGrp LOS	A	A	A	B	C	C
Approach Vol, veh/h		398	658		416	
Approach Delay, s/veh		6.7	17.3		32.0	
Approach LOS		A	B		C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.2	42.8		19.3		52.0
Change Period (Y+Rc), s	3.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	7.0	36.0		20.0		46.0
Max Q Clear Time (g_c+I1), s	3.7	21.4		12.5		6.7
Green Ext Time (p_c), s	0.1	4.0		0.8		1.7

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	31	219	4	6	360
Future Vol, veh/h	19	31	219	4	6	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	5	0	0	4
Mvmt Flow	23	37	264	5	7	434

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	715	267	0	0	269	0
Stage 1	267	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	400	777	-	-	1306	-
Stage 1	782	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	397	777	-	-	1306	-
Mov Cap-2 Maneuver	397	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1306	-
HCM Lane V/C Ratio	-	-	0.106	0.006	-
HCM Control Delay (s)	-	-	12.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	503	5	2	592	1	3	1	3	3	1	3
Future Vol, veh/h	1	503	5	2	592	1	3	1	3	3	1	3
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	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	60	100	2	0	33	0	0	0	0	0
Mvmt Flow	1	559	6	2	658	1	3	1	3	3	1	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	659	0	0	565	0	0	1229	1227	562	1229	1230	659
Stage 1	-	-	-	-	-	-	564	564	-	663	663	-
Stage 2	-	-	-	-	-	-	665	663	-	566	567	-
Critical Hdwy	4.1	-	-	5.1	-	-	7.43	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	3.1	-	-	3.797	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	939	-	-	659	-	-	134	180	530	156	179	467
Stage 1	-	-	-	-	-	-	459	512	-	454	462	-
Stage 2	-	-	-	-	-	-	402	462	-	513	510	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	939	-	-	659	-	-	132	179	530	154	178	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	179	-	154	178	-
Stage 1	-	-	-	-	-	-	458	511	-	453	460	-
Stage 2	-	-	-	-	-	-	396	460	-	508	509	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	23.2	21.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	206	939	-	-	659	-	-	222
HCM Lane V/C Ratio	0.038	0.001	-	-	0.003	-	-	0.035
HCM Control Delay (s)	23.2	8.8	0	-	10.5	0	-	21.8
HCM Lane LOS	C	A	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

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