DOLAN&DEAN
CONSULTING ENGINEERS, LLC

181 WEST HIGH STREET
SOMERVILLE, NJ 08876

908 927 0100 p
908 927 0181 f

UPDATED
TRAFFIC IMPACT ANALYSIS

FOR

ER/UDC WEST WINDSOR LLC

PROPOSED RESTAURANT WITH DRIVE-THRU
AND
CONVENIENCE STORE WITH FUEL SERVICE

BLOCK 47, LOTS 2–6
WEST WINDSOR TOWNSHIP
MERCER COUNTY, NEW JERSEY

MARCH 2, 2023

GARY W. DEAN, P.E., P.P.
NJ LICENSE NO. 33722

RIANNA KIRCHHOF, P.E.
NJ LICENSE NO. 54558

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TRAFFIC ENGINEERING
PARKING STUDIES
HIGHWAY DESIGN
DOT ACCESS PERMITS
MUNICIPAL CONSULTING

INTRODUCTION

This updated traffic engineering evaluation has been prepared for the site plan application submitted by ER/UDC West Windsor, LLC for the development of a 3.9+ acre site with frontage along Princeton-Hightstown Road, Southfield Road, and McGetrick Lane in West Windsor Township, Mercer County. The applicant proposes a new 4,541 square foot restaurant with drive-thru on the northwest portion of the property, and a 5,852 square foot convenience store with fuel service located on the southeastern portion of the property. The site location is shown on appended Figure 1.

Site access is proposed via one right-in/right-out driveway and a second, full ingress/right turn egress driveway along Princeton-Hightstown Road with secondary access via a right-in/right-out driveway along Southfield Road and two full-movement driveways on McGetrick Lane. The property is currently developed with four single-family homes and an office building, which will be razed. The lot lines will be adjusted to provide separate lots for the restaurant and for the convenience store with fuel service.

This updated study addresses the technical review comments from the Board's reviewing traffic consultant, Arora and Associates. Accordingly, this analysis includes the following information:

- A review of the existing roadway and current traffic conditions in the site vicinity, including roadway configuration, on-street traffic volumes, and a description of adjacent land uses.
- Estimation of the additional traffic volume expected to be generated by the proposed development.
- Re-evaluation of intersection and proposed driveway operations and identification of the impact resulting from the additional traffic generated by the proposal; and
- Evaluation of parking demand and supply as it relates to the proposed uses.

EXISTING ROADWAY CONDITIONS

Princeton-Hightstown Road is designated as Mercer County Route 571 and has a general east-west orientation. The roadway is classified by the New Jersey Department of Transportation as an urban principal arterial highway and provides two lanes for each direction of travel with a posted speed limit of 50 miles per hour.

The nearest major intersection is located at the northeast corner of the site at the traffic signal-controlled intersection of Southfield Road. Princeton-Hightstown Road and Southfield Road intersect to form a four-leg signalized intersection with protected left-turn phases on all approaches.

Southfield Road has a general north-south orientation running between Village Road to the south and Nostrand Road to the north. The roadway generally provides one lane per travel direction with additional widening for turning lanes at Princeton-Hightstown Road. There is a speed limit of 25 miles per hour within the general site vicinity. A bike lane is provided along the western side of Southfield Road, originating just south of McGetrick Lane, and continuing south.

McGetrick Lane is a local, roadway connecting Princeton-Hightstown Road with Southfield Road. The roadway is intended to operate with one lane in the eastbound direction and a non-posted (statutory) speed limit of 25 miles per hour.

Land uses at the intersection of Princeton-Hightstown Road and Southfield Road include two retail shopping centers and Valero gas station. The northbound approach on Southfield Road

provides one exclusive left-turn lane and one shared right-turn/through lane. The eastbound and westbound approaches provide an exclusive left-turn lane, a through lane, and a shared through/right-turn lane. The southbound approach provides an exclusive left-turn lane, through lane, and right-turn lane.

Through the development proposal, the existing 316-foot left-turn only lane on the western approach to the intersection will be shortened to a length of 205 feet to allow the provision of a left-turn only site access along Princeton-Hightstown Road. In addition, the eastern portion of McGetrick Lane will be shifted north on its approach to Southfield Road so that it aligns opposite the driveway for 350 Princeton-Hightstown Road.

EXISTING TRAFFIC VOLUMES

To evaluate existing traffic conditions in the area, morning, evening, and Saturday peak hour traffic volume data at the intersection of Southfield Road and Princeton-Hightstown Road were first reviewed. The weekday traffic data was collected in 2012 and 2019 by Langan Engineering. Upon review of the Langan data, over the 7-year period between counts, certain movements – particularly the eastbound left turn onto northbound Southfield Road - had actually decreased. However, to perform a conservative analysis, the highest movement volume from either count year was used throughout the analyses. Additionally, a 2% background growth factor was applied and traffic from the Tri State Petro site was conservatively included. The Saturday data was collected by D&D on February 4, 2023 from 11:00 a.m. to 2:00 p.m.

Traffic data was also collected by D&D at the driveway for 350 Princeton Hightstown Road, located along Southfield Road, opposite the site frontage, by way of manual turning movement counts on Wednesday, January 17, 2021, from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. and at the intersections of Southfield Road with MeGetrick Lane and Princeton-Hightstown Road on Saturday, April 9, 2022, from 11:00 a.m. to 2:00 p.m. Appended Figure 2 depicts the existing peak hour traffic volumes, as developed/collected through the above methodology.

TRAFFIC CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

Estimates of peak hour trip generation are customarily developed using the 10th Edition of the Trip Generation Manual by the Institute of Transportation Engineers (ITE). For the development proposal, the prior ITE land uses are "Convenience Market/Gas Station" and "Fast-Food Restaurant with Drive-Thru" is applicable. Following ITE standards and using the proposed building areas, the following trip generation is estimated for the site:

TABLE I
TRIP GENERATION ESTIMATES
5,852 SF CONVENIENCE MARKET WITH GASOLINE PUMPS
4,541 SF FAST-FOOD RESTAURANT WITH DRIVE-THRU

PEAK HOUR	USE	ENTER	EXIT	TOTAL
Morning	Convenience Store/Gas Station	267	267	534
	Fast Food Restaurant with drive-thru	102	102	204
	Total	369	369	738
Evening	Convenience Store/Gas Station	231	231	462
	Fast Food Restaurant with drive-thru	75	75	150
	Total	306	306	612
Saturday	Convenience Store/Gas Station	204	204	408
	Fast Food Restaurant with drive-thru	127	122	249
	Total	331	326	657

Internal trip credits were applied to the forecasted peak hour volumes utilizing ITE internal trip capture rates for mixed-use developments for the morning, evening, and Saturday peak hours where applicable. The internal capture worksheets have been appended to the report.

The vast majority of typical site traffic would not be "new" traffic particularly during peak commuting hours. Specifically, most of the site traffic will comprised of "pass-by" trips. Pass-by trips are defined as: *"...trips attracted to a particular development from the traffic "passing-by" on the adjacent street."*[1]

As noted in the ITE Trip Generation Handbook, certain retail-oriented developments such as convenience stores, gas stations, restaurants, etc. are ideally located adjacent to busy streets in order to attract existing motorists. These uses generally attract most of their customers from traffic passing the site on the way from an origin to an ultimate destination. These trips do not

[1] ITE Journal, May, 1992 - "Refinement of Procedures Used for Estimating Pass-By Trip Percentages

add new traffic to the adjacent street system and are instead, simply diverted to the site on their way by.

For the convenience store use, it is highly unlikely that customers would travel out of their way to make a special trip to the site – especially during peak traffic hours - and then return to the place of origin. The site's location along Princeton-Hightstown Road will make for a very convenient stop for motorists who are currently passing by the site traveling elsewhere, particularly eastbound vehicles.

Given the site's location along a busy corridor that carries work/commuting related traffic flows during peak hours, high percentages of pass-by traffic would be likely. Customer travel habit surveys were performed by this firm (and others) at convenience store locations in New Jersey. The data shows peak hour pass-by percentages in excess of 80%

Based on current practices accepted by the New Jersey Department of Transportation, 76% of the morning and evening, and 50% of the Saturday convenience store/gas station traffic and 49% of the morning and 50% of the evening restaurant traffic will consist of pass-by trips. Table II quantifies the trips based on the NJDOT methodology.

TABLE II
NEW AND PASS-BY TRIPS
5,852 SF CONVENIENCE MARKET WITH GASOLINE PUMPS
4,541 SF Fast-Food Restaurant with Drive-Thru

PEAK HOUR	TRIP TYPE	ENTER	EXIT	TOTAL
Morning	New	98	98	196
	Pass-By	222	222	444
	Total	320	320	640
Evening	New	74	74	148
	Pass-By	179	179	358
	Total	253	253	506
Saturday	New	197	192	389
	Pass-By	91	91	182
	Total	288	283	571

New trips have been assigned to the adjacent roadway system based on the site location, and the existing area volumes. Site generated traffic is shown on appended Figure 3.

FUTURE TRAFFIC CONDITIONS

FUTURE TRAFFIC VOLUMES

It is recognized that traffic routinely fluctuates along various state and county roadways, as well as local streets, and varies not only day-to-day, but also on a monthly and yearly basis. Normal "background" traffic increases regularly occur as attributed to continued regional growth and changes in driver demographics. There may also be additional traffic generated by specific projects that will lead to increased demands on the roadways in the site vicinity (at least to some degree), even if no changes were to occur on the subject property.

Therefore, to gauge the cumulative effects of the traffic generated by the proposed project, it is necessary to develop composite future traffic volumes that include the new site activity.

Regional traffic growth patterns as compiled by the NJDOT were examined for this analysis. Based on NJDOT growth patterns for Mercer County, traffic volumes at the study intersection are projected to increase by a modest 1.0% on an annual basis during the peak hours. The growth factor was applied to the existing volumes for an assumed two-year build-out to create the "no-build" traffic volumes shown on appended Figure 4.

Parenthetically, traffic "growth" is a conservative assumption in the volumes have actually decreased over the past two years attributed to the numerous changes principally associated with the COVID-19 pandemic including more work-from-home options and greater e-commerce use. Combined with population demographics with more people leaving the workforce than joining, the impact on traffic has resulting in a decrease. Consequently, by using "pre-pandemic" traffic counts combined with an assumed traffic growth rate has resulted in a very conservative and likely "over"-projection of future traffic activity.

The future build conditions were then developed by adding the forecasted site traffic volumes to the no-build volumes and are shown on appended Figure 5.

FUTURE "NO BUILD" & "BUILD" TRAFFIC ANALYSES

Levels of Service analyses based on the future "no-build" and "build" traffic volumes were conducted at the subject intersections and at the site driveways. While traffic volumes provide a measure of activity on the area roadway system, it is also important to evaluate how well that system can accommodate those volumes – i.e., a comparison of peak hour traffic volumes with available roadway capacity. By definition capacity represents the maximum number of vehicles that can be accommodated given the constraints of roadway geometry, environment, traffic characteristics, and controls.

Intersections are usually the critical point in any road network since it is at such points that conflicts exist between through, crossing, and turning traffic. It is at these locations where congestion is most likely to occur. A description of intersection Levels of Service is noted below:

INTERSECTION LEVELS OF SERVICE AND DELAY

Level of Service	Signalized Delay per Vehicle (seconds)	Unsignalized Delay per Vehicle (seconds)
A	< 10.0	<0-10
B	>10 and <20	>10 to <15
C	>20 and < 35	>15 to <25
D	>35 and < 55	> 25 to <35
E	>55 and < 80	> 35 to <50
F	> 80	>50

Under the future "build" scenario, movements at the Princeton-Hightstown Road and Southfield Road intersection will continue to operate at a Level of Service "D" or better, with the exception of northbound left movements, which will operate at a Level of Service "E" during the weekday morning peak hour. As previously discussed, due to the convenience nature of the use, a large percentage of the site traffic will already be traveling through the adjacent intersection. Consequently, the proposal will have a low impact on the adjacent roadway network.

Movements at the site driveways will operate at Level of Service "C" or better during all peak hours indicating that the site will operate with safe and efficient ingress and egress. Further, movements at the relocated McGetrick Lane intersection with Smithfield Road will operate with Levels of Service "C" or better during all peak hours.

In addition, to further support left turns into the stie from Princeton-Hightstown Road, D&D performed a gap study at the location of the proposed western site driveway on March 1, 2023, from 7:30 a.m. to 8:30 a.m., and from 4:45 p.m. to 5:45 p.m.

The gap study measured the gaps in Princeton-Hightstown Road traffic that will allow for left-turning vehicles into the subject site access. Through the study it was found that sufficient gaps in traffic are available during the morning and evening peak hours to process all site related left-turn movements. During the peak hours, the available gaps can process in excess of six hundred left-turns into the site. As shown on appended Figure 5, the Princeton-Hightstown Road site access will generate a maximum of 115 peak hour lefts into the site.

SITE ACCESS AND CIRCULATION

The Site Plans prepared by Bohler Engineering NJ, LLC. last revised on December 5, 2022 were reviewed with particular attention focused on the site circulation scheme, sufficiency of the proposed internal driveway circulation and parking supply, and overall access to the site. The following items address on-site design characteristics:

- Access will be provided via two driveways to Princeton-Hightstown Road, one to Southfield Road, and two full-movement driveways which will be located along McGetrick Lane that is also proposed to be realigned as part of this project. The access design provides efficient access to the parking spaces and fuel positions.

- The plan was reviewed with large wheelbase vehicle turning templates for WB-50, SU-30 and fire trucks to ensure that adequate geometry will be provided for any delivery trucks, refuse trucks, and emergency vehicles. Bohler has furnished those plans to the Board.

- The proposed parking lot will provide regular 9-foot wide by 18-foot-deep minimum parking spaces served by minimum 25-foot wide two-way access aisles for the restaurant with wider 10-foot spaces for the convenience store parking for greater customer convenience and maneuverability. As a result, complete two-way flow will be provided throughout the main parking fields and will afford convenient circulation through the site for all vehicle types.

- 8 fuel dispensers, allowing for 16 fueling positions are proposed. The provision of multiple fueling positions results in a more efficient operation, allowing vehicles to enter the site, readily access a fueling position which accommodate their gas tank location. By providing multiple fueling positions, vehicular queuing typically does not occur.

- To satisfy Ordinance parking requirements, between 74 and 87 total parking spaces are needed. The plan proposes 45 spaces for the restaurant use and 52 spaces for the convenience store/gas station for a total of 97 spaces. Based on studies of similar developments, the proposed parking supply will accommodate the typical demands.

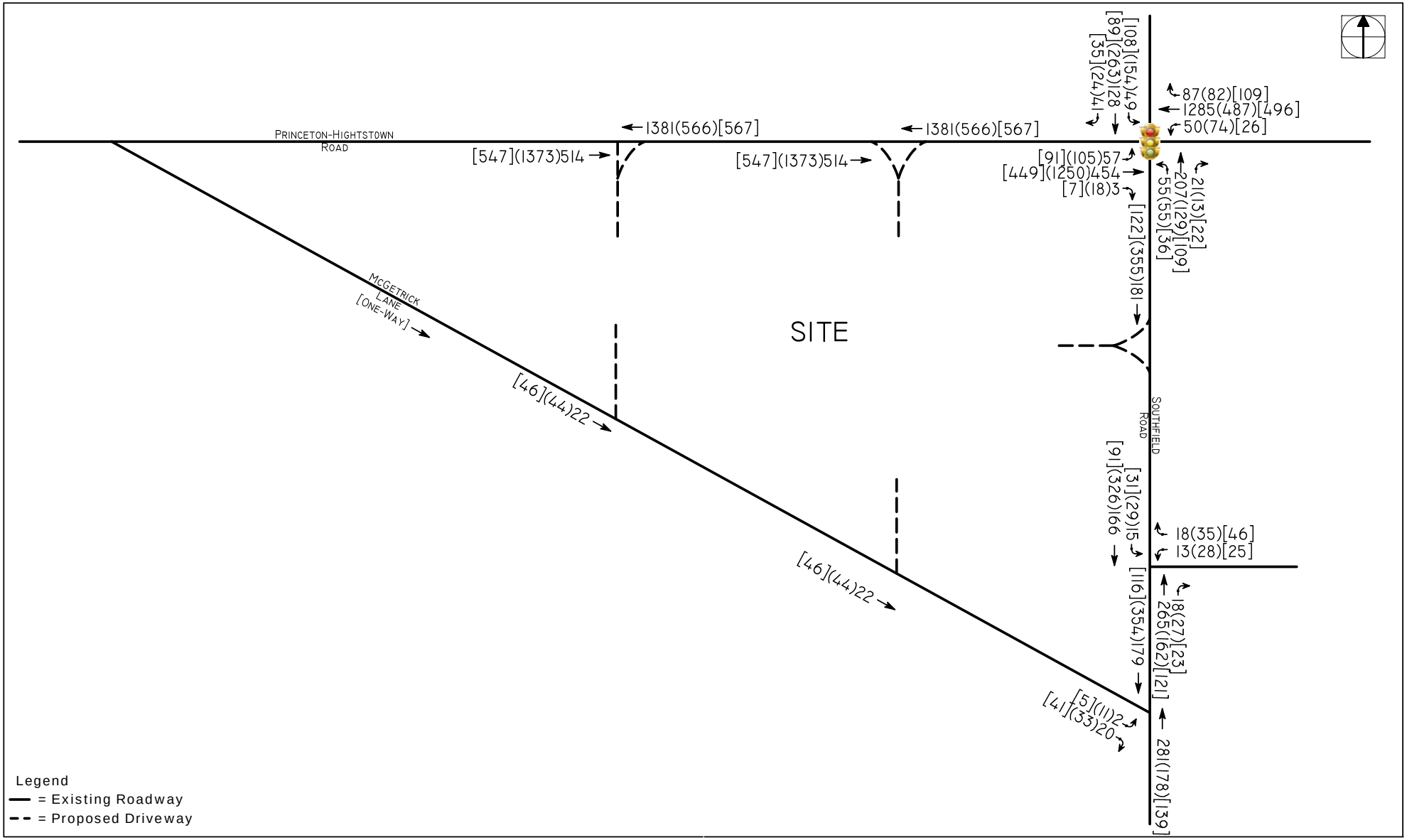
TECHNICAL APPENDIX

EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 1

DOLAN&DEAN CONSULTING ENGINEERS, LLC

SITE LOCATION MAP

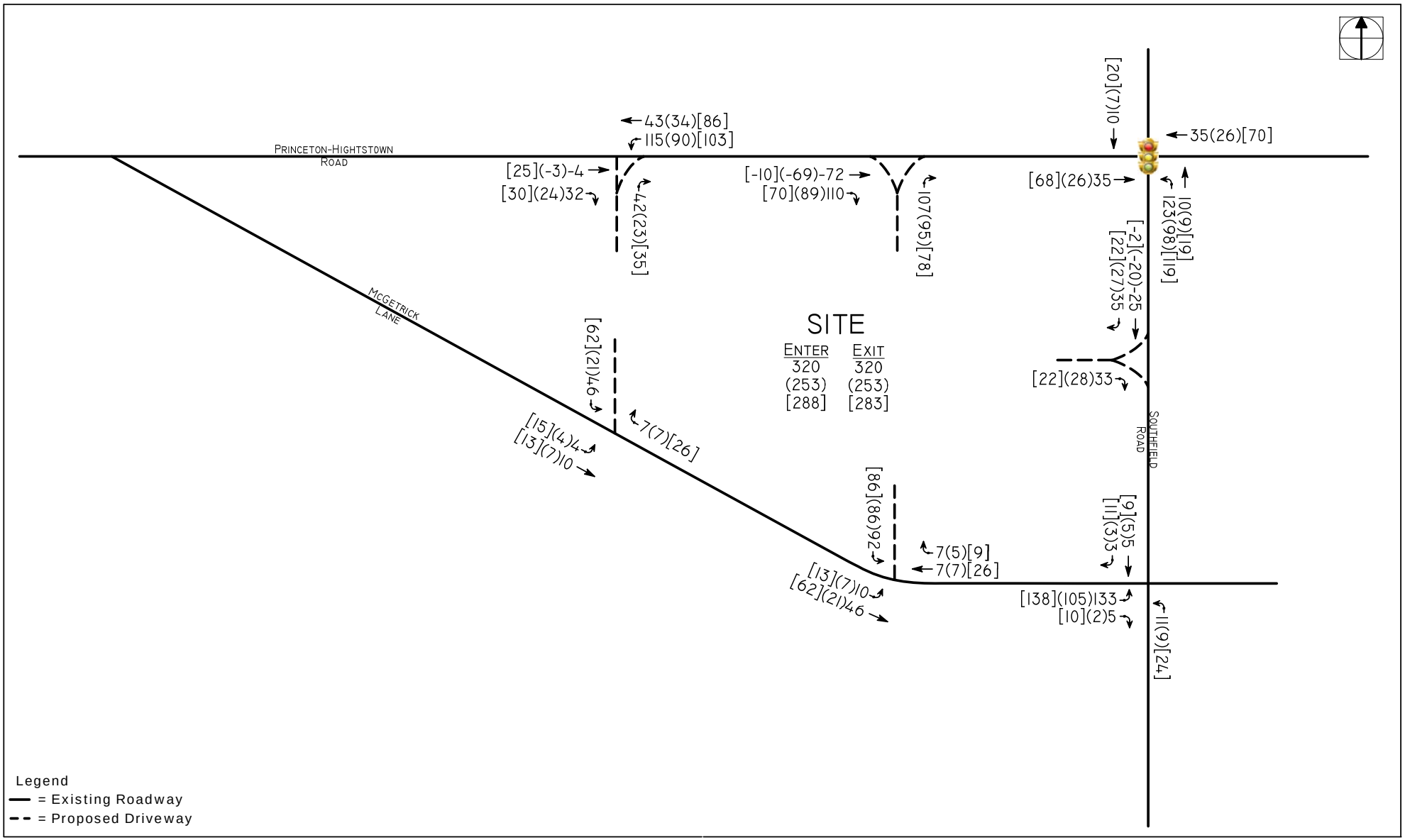


EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 2

DOLAN&DEAN CONSULTING ENGINEERS, LLC

EXISTING TRAFFIC VOLUMES
MORNING(EVENING)[SATURDAY] PEAK HOUR

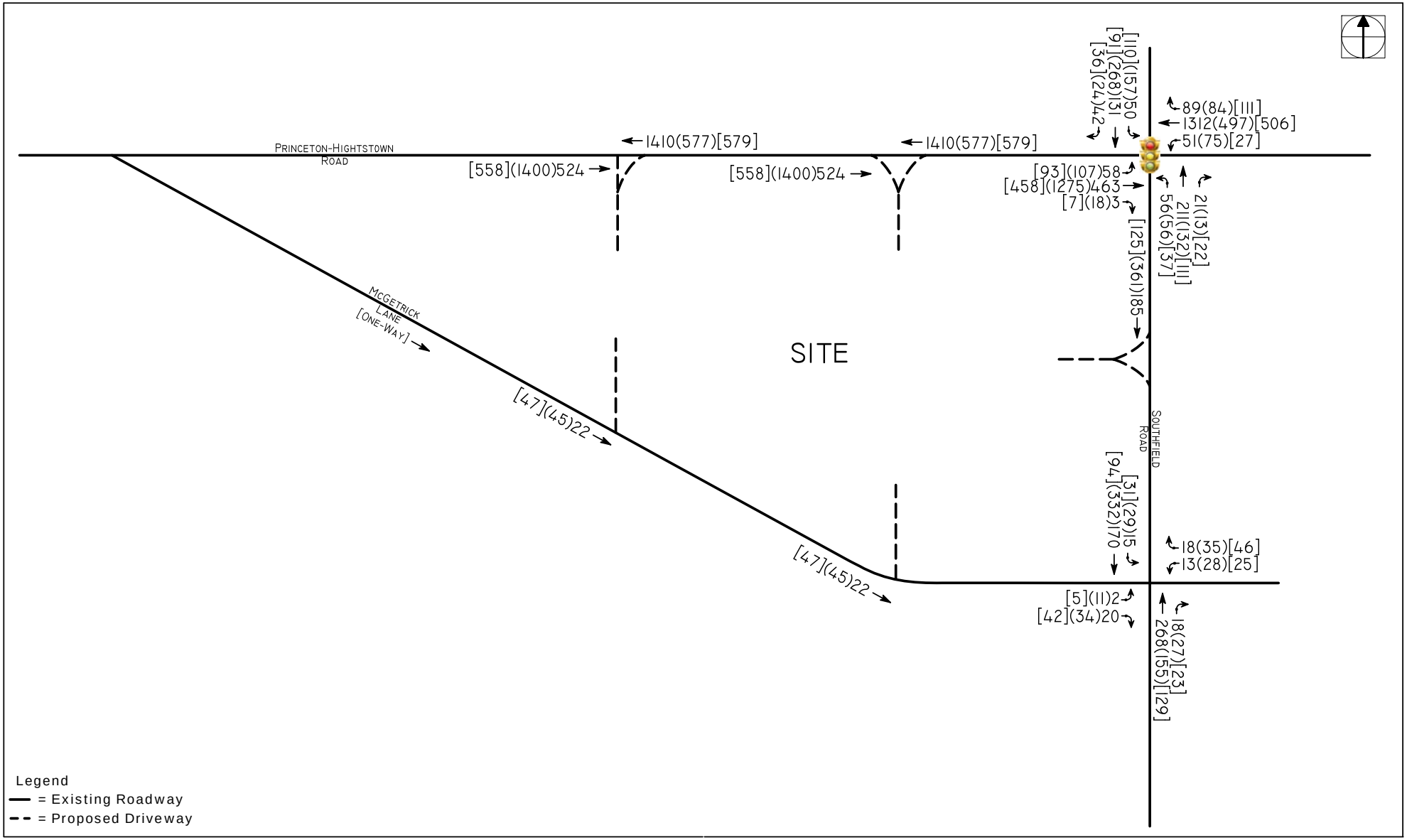


EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 3

DOLAN&DEAN CONSULTING ENGINEERS, LLC

SITE GENERATED TRAFFIC VOLUMES
MORNING(EVENING)[SATURDAY] PEAK HOUR

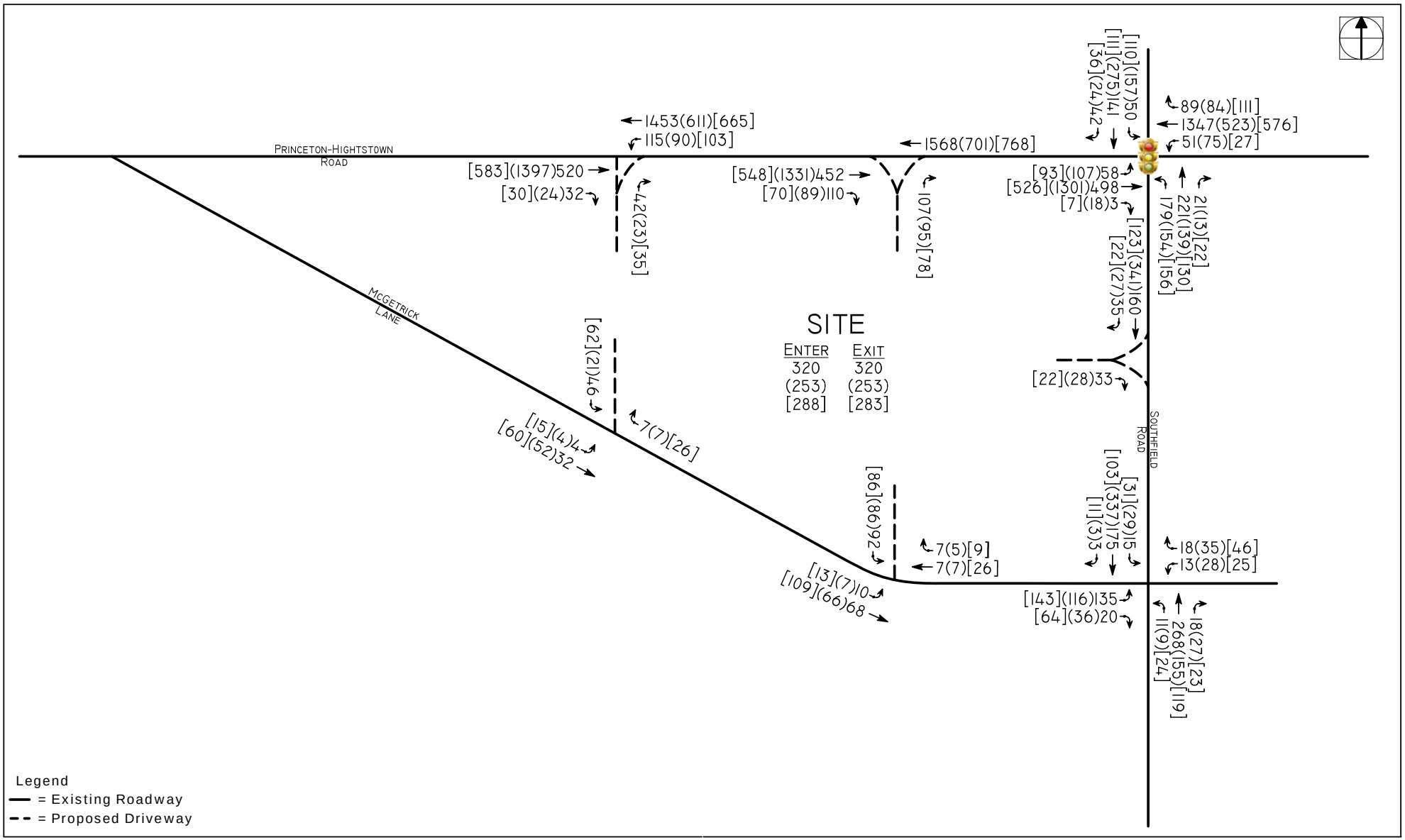


EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 4

DOLAN&DEAN CONSULTING ENGINEERS, LLC

NO-BUILD TRAFFIC VOLUMES
MORNING(EVENING)[SATURDAY] PEAK HOUR

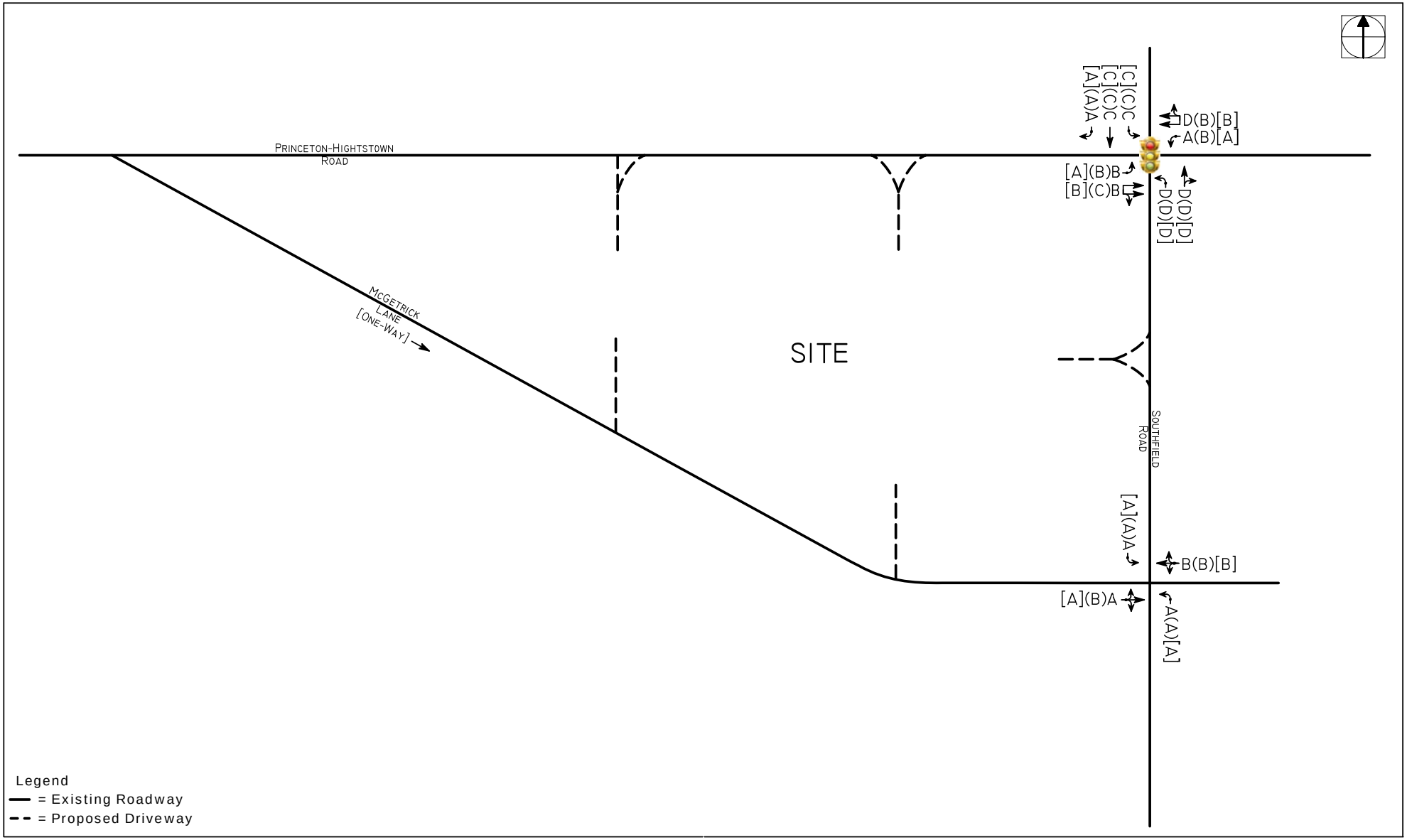


EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 5

DOLAN-DEAN CONSULTING ENGINEERS, LLC

BUILD TRAFFIC VOLUMES
MORNING(EVENING)[SATURDAY] PEAK HOUR

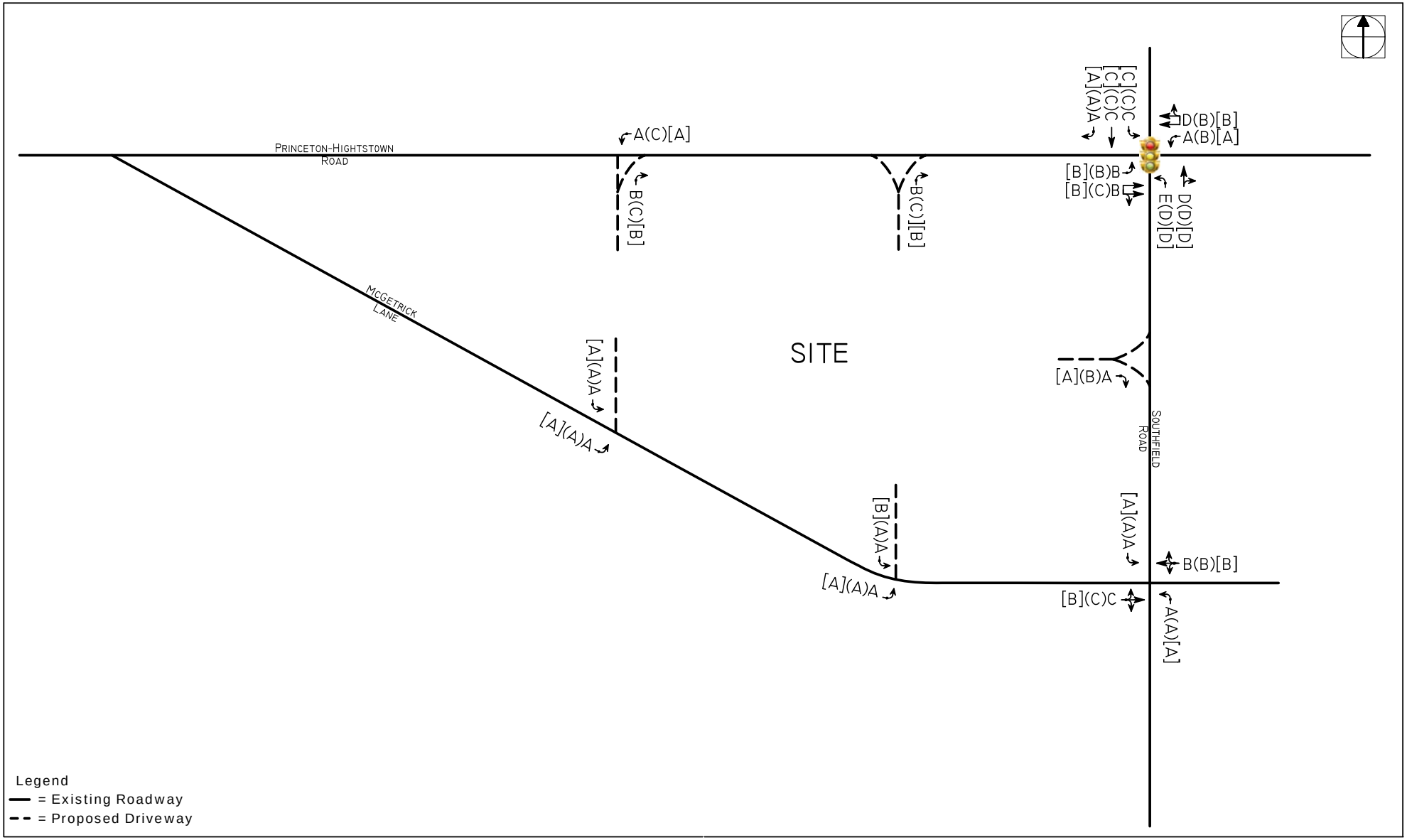


EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 6

DOLAN-DEAN CONSULTING ENGINEERS, LLC

NO-BUILD LEVELS OF SERVICE
MORNING(EVENING)[SATURDAY] PEAK HOUR



EAST RIDGE DEVELOPMENT, LLC
TOWNSHIP OF WEST WINDSOR
MERCER COUNTY, NEW JERSEY

FIGURE 7

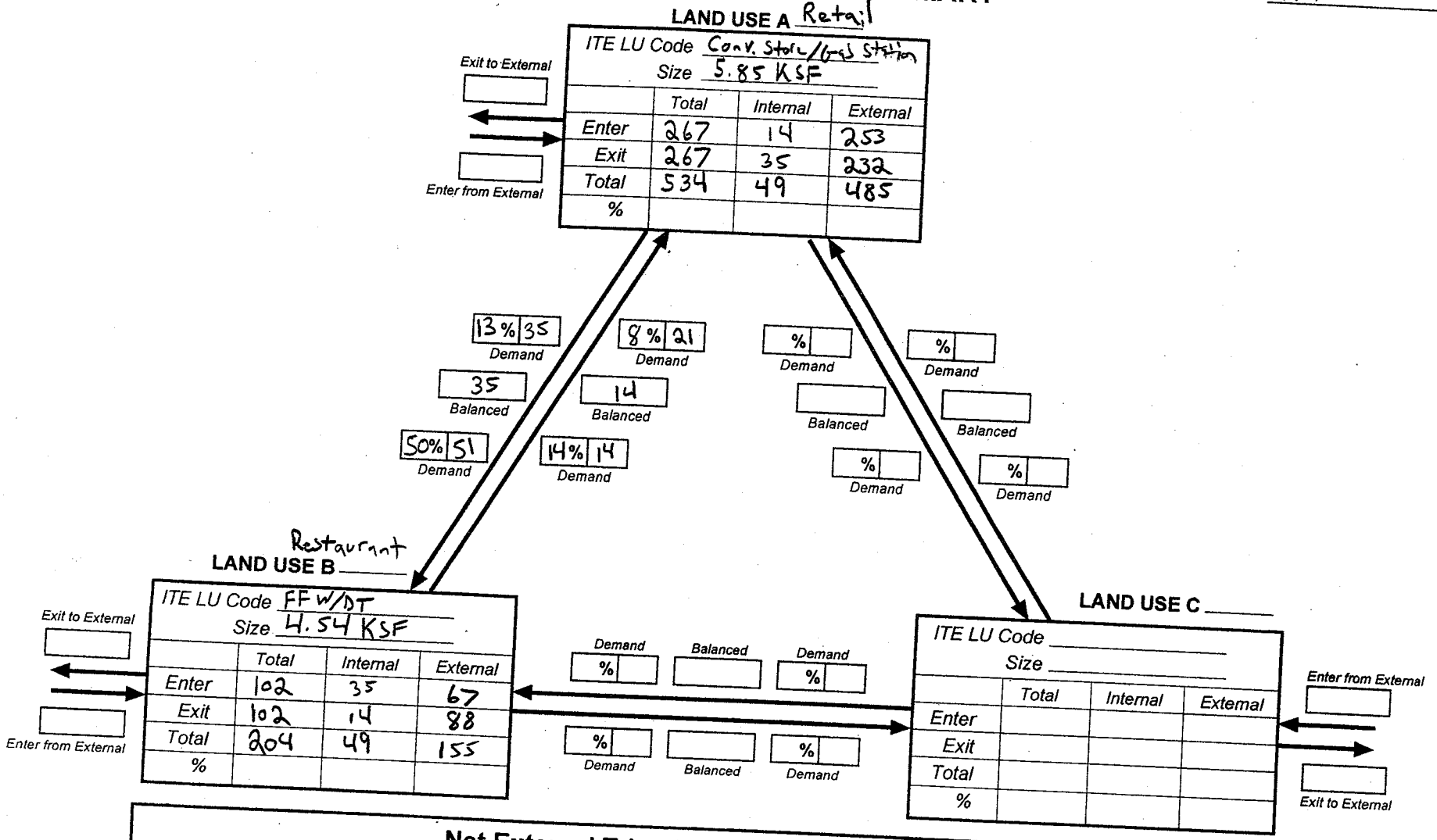
DOLAN&DEAN CONSULTING ENGINEERS, LLC

BUILD LEVELS OF SERVICE
MORNING(EVENING)[SATURDAY] PEAK HOUR

Analyst EIC
Date Nov 2021

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt East Ridge
Time Period AM



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	253	67		
Exit	232	88		
Total	485	155		
Single-Use Trip Gen. Est.	534	204		640
				738

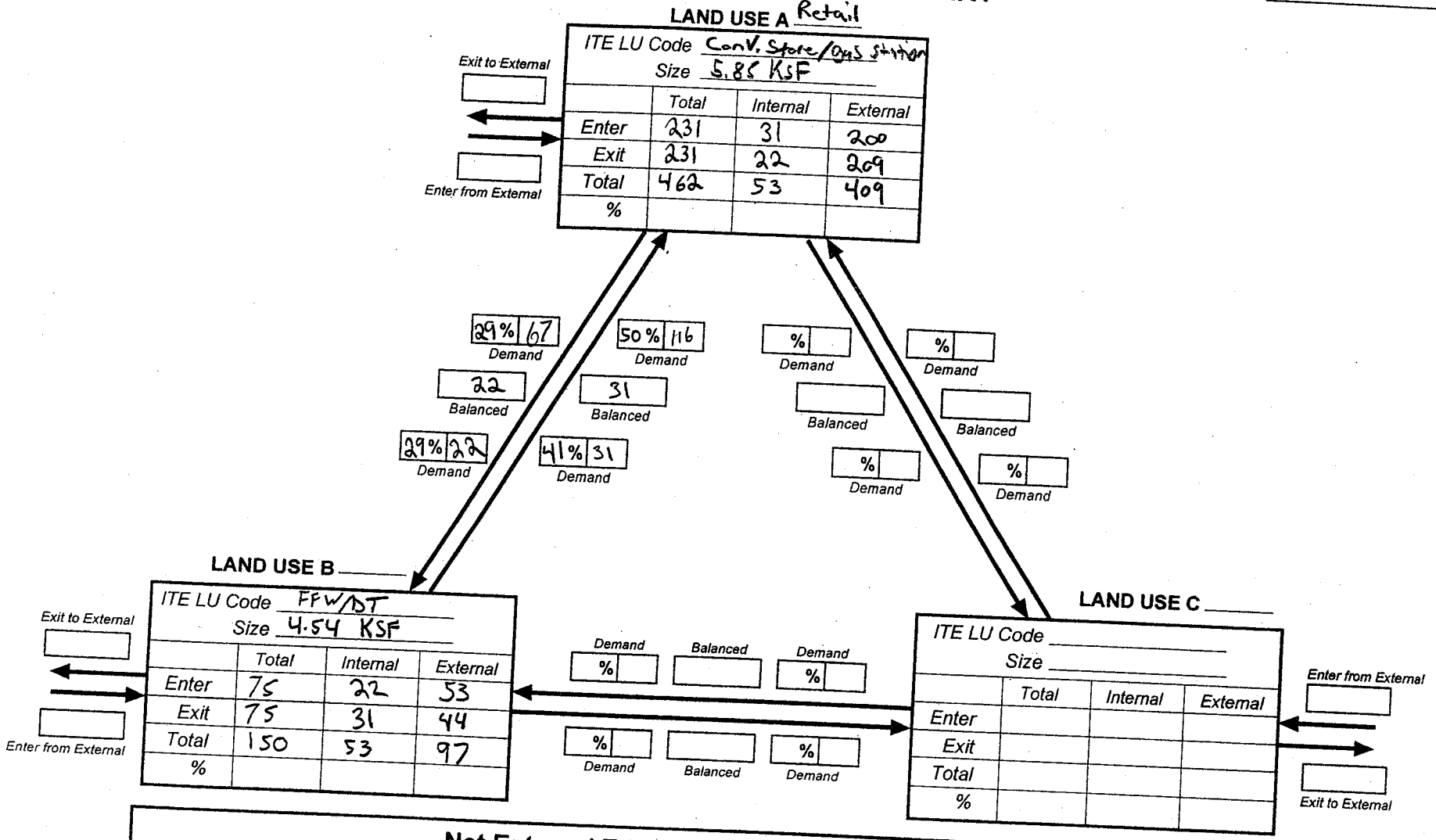
INTERNAL CAPTURE 13.3 %

Source: Kaku Associates, Inc.

Analyst ETC
Date Nov 2021

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt East Ridge
Time Period PM



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	200	53		
Exit	209	44		
Total	409	97		
Single-Use Trip Gen. Est.	462	150		506
				552

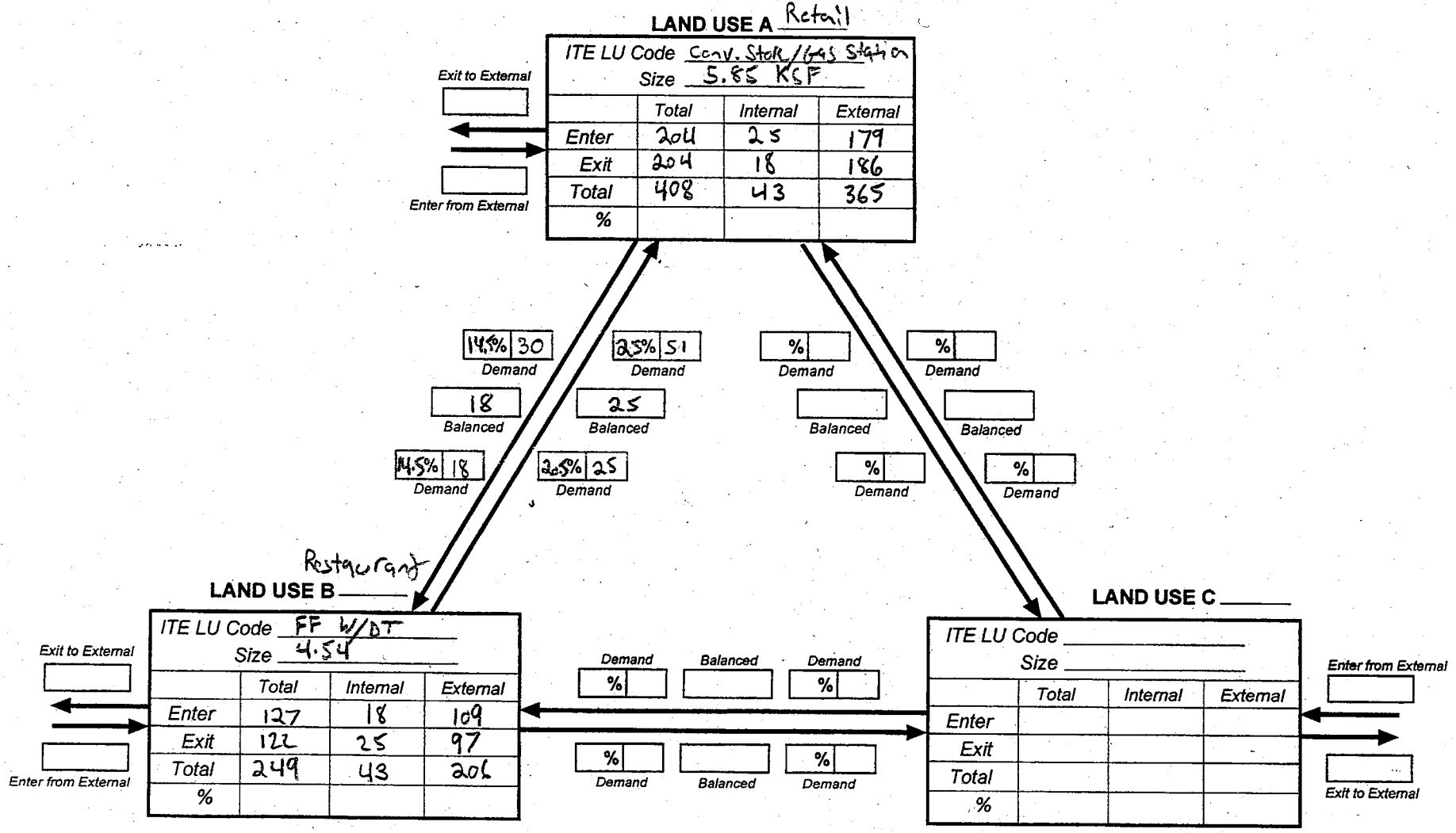
INTERNAL CAPTURE 8.3%

Source: Kaku Associates, Inc.

Analyst EIC
Date April 2022

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Name of Dvlpt East Ridge
Time Period SAT



Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	179	109		288
Exit	186	97		283
Total	365	206		571
Single-Use Trip Gen. Est.	408	249		657

Source: Kaku Associates, Inc.

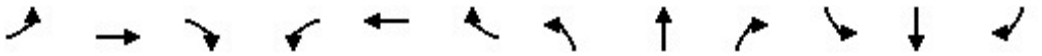
INTERNAL CAPTURE

Princeton Hightstown Rd at Proposed Site Driveway Location
Gaps Observed on Wednesday, March 1, 2023

	Gap Length and Vehicles Processed											
	1	2	3	4	5	6	7	8	9	10	11	Total Vehicles Processd
Time	4.1-6.3s	6.3-8.5s	8.5-10.7s	10.7-12.9s	12.9-15.1s	15.1-17.3s	17.3-19.5s	19.5-21.7s	21.7-23.9s	23.9-26.1s	>26.1s	
7:30 AM	9	26	15	20	35	6	14	16	18	10	77	246
7:45 AM	6	8	6	4	30	18	28	8	27	0	88	223
8:00 AM	7	18	9	28	25	24	7	16	18	30	55	237
8:15 AM	9	12	15	20	10	18	7	32	9	20	77	229
Total	31	64	45	72	100	66	56	72	72	60	297	935

Princeton Hightstown Rd at Proposed Site Driveway Location
Gaps Observed on Wednesday, March 1, 2023

	Gap Length and Vehicles Processed											
	1	2	3	4	5	6	7	8	9	10	11	Total Vehicles Processd
Time	4.1-6.3s	6.3-8.5s	8.5-10.7s	10.7-12.9s	12.9-15.1s	15.1-17.3s	17.3-19.5s	19.5-21.7s	21.7-23.9s	23.9-26.1s	>26.1s	
4:45 PM	21	22	9	24	10	12	28	24	0	0	33	183
5:00 PM	14	20	21	16	15	6	14	0	0	10	33	149
5:15 PM	14	16	15	12	5	12	14	24	9	20	0	141
5:30 PM	21	14	3	8	15	18	14	16	9	20	22	160
Total	70	72	48	60	45	48	70	64	18	50	88	633

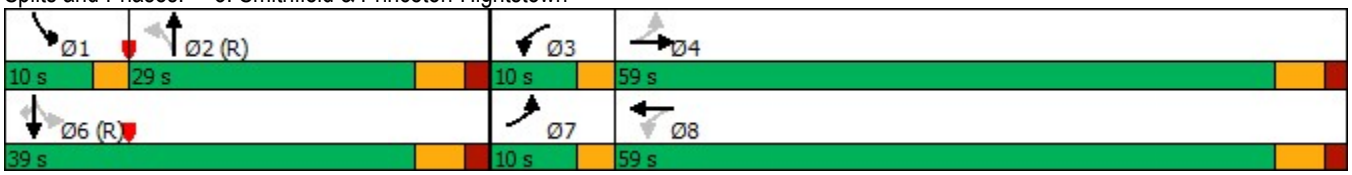


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	463	3	51	1312	89	56	211	21	50	131	42
Future Volume (vph)	58	463	3	51	1312	89	56	211	21	50	131	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	130		0	100		100	230		230
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.990			0.986				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3402	0	1703	3372	0	1703	1767	0	1703	1792	1524
Flt Permitted	0.075			0.435			0.666			0.352		
Satd. Flow (perm)	134	3402	0	780	3372	0	1194	1767	0	631	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			9			4				61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		971			1046			428			372	
Travel Time (s)		22.1			23.8			9.7			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	63	503	3	55	1426	97	61	229	23	54	142	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	506	0	55	1523	0	61	252	0	54	142	46
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		6
Minimum Split (s)	10.0	24.0		10.0	24.0		24.0	24.0		10.0	24.0	24.0
Total Split (s)	10.0	59.0		10.0	59.0		29.0	29.0		10.0	39.0	39.0
Total Split (%)	9.3%	54.6%		9.3%	54.6%		26.9%	26.9%		9.3%	36.1%	36.1%
Maximum Green (s)	7.0	53.0		7.0	53.0		23.0	23.0		7.0	33.0	33.0
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0		3.0	6.0		6.0	6.0		3.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0			0	0
Act Effct Green (s)	63.0	53.0		63.0	53.0		23.0	23.0		36.0	33.0	33.0
Actuated g/C Ratio	0.58	0.49		0.58	0.49		0.21	0.21		0.33	0.31	0.31

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.35	0.30		0.11	0.92		0.24	0.66		0.19	0.26	0.09
Control Delay	14.2	17.0		9.0	35.6		38.3	47.9		26.7	29.9	5.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	14.2	17.0		9.0	35.6		38.3	47.9		26.7	29.9	5.0
LOS	B	B		A	D		D	D		C	C	A
Approach Delay		16.7			34.7			46.1			24.4	
Approach LOS		B			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 108			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 31.3		Intersection LOS: C	
Intersection Capacity Utilization 76.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Smithfield & Princeton-Hightstown



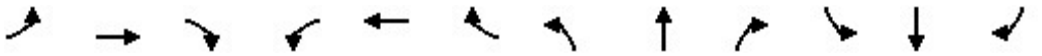
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	20	13	0	18	0	268	18	15	170	0
Future Vol, veh/h	2	0	20	13	0	18	0	268	18	15	170	0
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	2	0	22	14	0	20	0	291	20	16	185	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	528	528	185	529	518	301	185	0	0	311	0	0
Stage 1	217	217	-	301	301	-	-	-	-	-	-	-
Stage 2	311	311	-	228	217	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	459	454	855	459	460	736	1384	-	-	1244	-	-
Stage 1	783	721	-	706	663	-	-	-	-	-	-	-
Stage 2	697	656	-	772	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	442	448	855	442	454	736	1384	-	-	1244	-	-
Mov Cap-2 Maneuver	442	448	-	442	454	-	-	-	-	-	-	-
Stage 1	783	711	-	706	663	-	-	-	-	-	-	-
Stage 2	678	656	-	742	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	11.7	0	0.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	788	575	1244	-	-
HCM Lane V/C Ratio	-	-	-	0.03	0.059	0.013	-	-
HCM Control Delay (s)	0	-	-	9.7	11.7	7.9	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

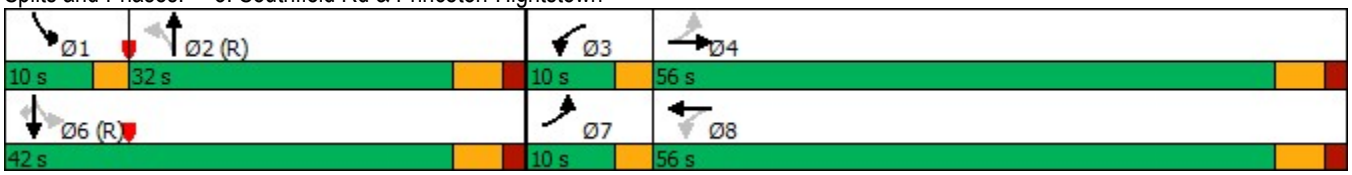


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	1275	18	75	497	84	56	132	13	157	268	24
Future Volume (vph)	107	1275	18	75	497	84	56	132	13	157	268	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	130		0	100		100	230		230
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.978			0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3498	0	1752	3428	0	1752	1821	0	1752	1845	1568
Flt Permitted	0.354			0.080			0.582			0.548		
Satd. Flow (perm)	653	3498	0	148	3428	0	1074	1821	0	1011	1845	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			23			4				61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		971			1046			428			372	
Travel Time (s)		22.1			23.8			9.7			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	116	1386	20	82	540	91	61	143	14	171	291	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	1406	0	82	631	0	61	157	0	171	291	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		6
Minimum Split (s)	10.0	24.0		10.0	24.0		24.0	24.0		10.0	24.0	24.0
Total Split (s)	10.0	56.0		10.0	56.0		32.0	32.0		10.0	42.0	42.0
Total Split (%)	9.3%	51.9%		9.3%	51.9%		29.6%	29.6%		9.3%	38.9%	38.9%
Maximum Green (s)	7.0	50.0		7.0	50.0		26.0	26.0		7.0	36.0	36.0
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0		3.0	6.0		6.0	6.0		3.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0			0	0
Act Effct Green (s)	60.0	50.0		60.0	50.0		26.0	26.0		39.0	36.0	36.0
Actuated g/C Ratio	0.56	0.46		0.56	0.46		0.24	0.24		0.36	0.33	0.33

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.87		0.44	0.39		0.24	0.36		0.41	0.47	0.05
Control Delay	11.8	33.1		18.6	19.2		36.0	35.9		28.2	31.6	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	11.8	33.1		18.6	19.2		36.0	35.9		28.2	31.6	0.7
LOS	B	C		B	B		D	D		C	C	A
Approach Delay		31.5			19.1			36.0			28.8	
Approach LOS		C			B			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 108			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Pretimed			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 28.4		Intersection LOS: C	
Intersection Capacity Utilization 76.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Southfield Rd & Princeton-Hightstown



Intersection	
Int Delay, s/veh	2.4

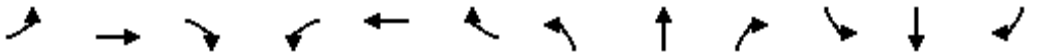
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	0	34	28	0	35	0	155	27	29	332	0
Future Vol, veh/h	11	0	34	28	0	35	0	155	27	29	332	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	0	37	30	0	38	0	168	29	32	361	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	627	622	361	627	608	183	361	0	0	197	0	0
Stage 1	425	425	-	183	183	-	-	-	-	-	-	-
Stage 2	202	197	-	444	425	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	395	402	681	395	409	857	1192	-	-	1370	-	-
Stage 1	605	585	-	816	746	-	-	-	-	-	-	-
Stage 2	798	736	-	591	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	369	390	681	365	397	857	1192	-	-	1370	-	-
Mov Cap-2 Maneuver	369	390	-	365	397	-	-	-	-	-	-	-
Stage 1	605	568	-	816	746	-	-	-	-	-	-	-
Stage 2	763	736	-	543	568	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.7	0	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	564	536	1370	-	-
HCM Lane V/C Ratio	-	-	-	0.087	0.128	0.023	-	-
HCM Control Delay (s)	0	-	-	12	12.7	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0.1	-	-

3: Smithfield & Princeton-Hightstown



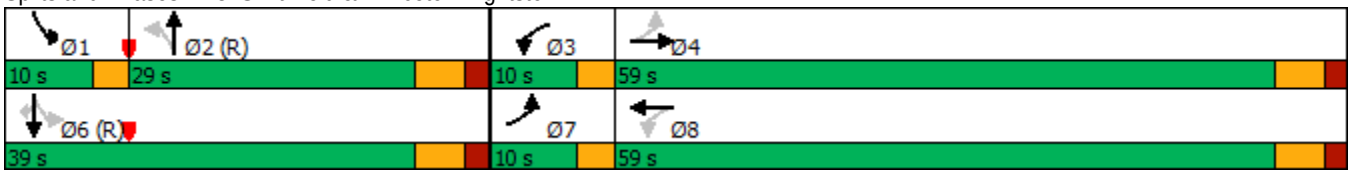
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	458	7	27	506	111	37	111	22	110	91	36
Future Volume (vph)	93	458	7	27	506	111	37	111	22	110	91	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	130		0	100		100	230		230
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.973			0.975				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3560	0	1805	3494	0	1805	1852	0	1805	1900	1615
Flt Permitted	0.360			0.452			0.696			0.566		
Satd. Flow (perm)	677	3560	0	859	3494	0	1322	1852	0	1075	1900	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			34			9				61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		971			1046			428			372	
Travel Time (s)		22.1			23.8			9.7			8.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	14%	0%	0%	3%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	96	472	7	28	522	114	38	114	23	113	94	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	479	0	28	636	0	38	137	0	113	94	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		6
Minimum Split (s)	10.0	24.0		10.0	24.0		24.0	24.0		10.0	24.0	24.0
Total Split (s)	10.0	59.0		10.0	59.0		29.0	29.0		10.0	39.0	39.0
Total Split (%)	9.3%	54.6%		9.3%	54.6%		26.9%	26.9%		9.3%	36.1%	36.1%
Maximum Green (s)	7.0	53.0		7.0	53.0		23.0	23.0		7.0	33.0	33.0
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0		3.0	6.0		6.0	6.0		3.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0			0	0
Act Effct Green (s)	63.0	53.0		63.0	53.0		23.0	23.0		36.0	33.0	33.0
Actuated g/C Ratio	0.58	0.49		0.58	0.49		0.21	0.21		0.33	0.31	0.31

3: Smithfield & Princeton-Hightstown

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.21	0.27		0.05	0.37		0.14	0.34		0.28	0.16	0.07
Control Delay	9.8	16.6		8.6	16.8		36.1	36.5		27.7	28.4	3.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	9.8	16.6		8.6	16.8		36.1	36.5		27.7	28.4	3.1
LOS	A	B		A	B		D	D		C	C	A
Approach Delay		15.5			16.5			36.4			24.3	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	25	98		7	131		21	75		55	47	0
Queue Length 95th (ft)	47	133		18	173		51	133		99	88	12
Internal Link Dist (ft)		891			966			348			292	
Turn Bay Length (ft)	250			130			100			230		230
Base Capacity (vph)	466	1748		562	1731		281	401		405	580	535
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.21	0.27		0.05	0.37		0.14	0.34		0.28	0.16	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 108			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 52.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Smithfield & Princeton-Hightstown



6: Smithfield & McGetrick Lane/350 PH Shopping Center DW

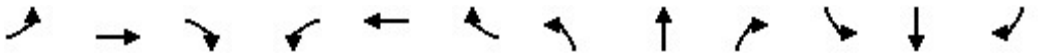
Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	42	25	0	46	0	129	23	31	94	0
Future Vol, veh/h	5	0	42	25	0	46	0	129	23	31	94	0
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	0	46	27	0	50	0	140	25	34	102	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	348	335	102	346	323	153	-	0	0	165	0	0
Stage 1	170	170	-	153	153	-	-	-	-	-	-	-
Stage 2	178	165	-	193	170	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	-	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	-	-	-	2.227	-	-
Pot Cap-1 Maneuver	605	584	950	606	593	890	0	-	-	1407	-	0
Stage 1	830	756	-	847	769	-	0	-	-	-	-	0
Stage 2	821	760	-	806	756	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	560	569	950	565	578	890	-	-	-	1407	-	-
Mov Cap-2 Maneuver	560	569	-	565	578	-	-	-	-	-	-	-
Stage 1	830	736	-	847	769	-	-	-	-	-	-	-
Stage 2	775	760	-	747	736	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10.4	0	1.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	884	740	1407	-
HCM Lane V/C Ratio	-	-	0.058	0.104	0.024	-
HCM Control Delay (s)	-	-	9.3	10.4	7.6	0
HCM Lane LOS	-	-	A	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.3	0.1	-



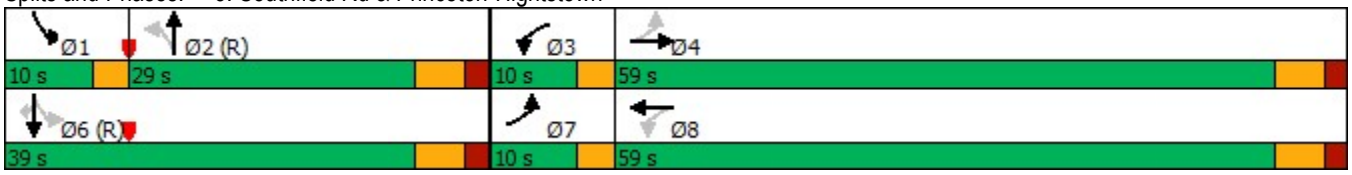
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	498	3	51	1347	89	179	221	21	50	141	42
Future Volume (vph)	58	498	3	51	1347	89	179	221	21	50	141	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205		0	130		0	100		100	230		230
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991			0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3402	0	1703	3375	0	1703	1769	0	1703	1792	1524
Flt Permitted	0.075			0.412			0.660			0.332		
Satd. Flow (perm)	134	3402	0	738	3375	0	1183	1769	0	595	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			9			4				61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		221			1046			232			372	
Travel Time (s)		5.0			23.8			5.3			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	63	541	3	55	1464	97	195	240	23	54	153	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	544	0	55	1561	0	195	263	0	54	153	46
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		6
Minimum Split (s)	10.0	24.0		10.0	24.0		24.0	24.0		10.0	24.0	24.0
Total Split (s)	10.0	59.0		10.0	59.0		29.0	29.0		10.0	39.0	39.0
Total Split (%)	9.3%	54.6%		9.3%	54.6%		26.9%	26.9%		9.3%	36.1%	36.1%
Maximum Green (s)	7.0	53.0		7.0	53.0		23.0	23.0		7.0	33.0	33.0
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0		3.0	6.0		6.0	6.0		3.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0			0	0
Act Effct Green (s)	63.0	53.0		63.0	53.0		23.0	23.0		36.0	33.0	33.0
Actuated g/C Ratio	0.58	0.49		0.58	0.49		0.21	0.21		0.33	0.31	0.31

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.35	0.33		0.11	0.94		0.78	0.69		0.20	0.28	0.09
Control Delay	14.2	17.3		9.1	38.4		62.1	49.4		26.8	30.2	5.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	14.2	17.3		9.1	38.4		62.1	49.4		26.8	30.2	5.0
LOS	B	B		A	D		E	D		C	C	A
Approach Delay		17.0			37.4			54.8			24.9	
Approach LOS		B			D			D			C	
Queue Length 50th (ft)	16	115		14	516		128	167		26	80	0
Queue Length 95th (ft)	33	154		30	#692		#244	258		55	135	19
Internal Link Dist (ft)		141			966			152			292	
Turn Bay Length (ft)	205			130			100			230		230
Base Capacity (vph)	179	1670		493	1660		251	379		270	547	508
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.35	0.33		0.11	0.94		0.78	0.69		0.20	0.28	0.09

Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 34.8 Intersection LOS: C
Intersection Capacity Utilization 79.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Southfield Rd & Princeton-Hightstown



Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	135	0	20	13	0	18	11	268	18	15	175	3
Future Vol, veh/h	135	0	20	13	0	18	11	268	18	15	175	3
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	147	0	22	14	0	20	12	291	20	16	190	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	559	559	192	560	550	301	193	0	0	311	0	0
Stage 1	224	224	-	325	325	-	-	-	-	-	-	-
Stage 2	335	335	-	235	225	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	438	436	847	437	441	736	1374	-	-	1244	-	-
Stage 1	776	716	-	685	647	-	-	-	-	-	-	-
Stage 2	677	641	-	766	716	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	418	425	847	418	430	736	1374	-	-	1244	-	-
Mov Cap-2 Maneuver	418	425	-	418	430	-	-	-	-	-	-	-
Stage 1	767	706	-	677	640	-	-	-	-	-	-	-
Stage 2	652	634	-	736	706	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	11.9	0.3	0.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1374	-	-	447	558	1244	-	-
HCM Lane V/C Ratio	0.009	-	-	0.377	0.06	0.013	-	-
HCM Control Delay (s)	7.6	0	-	17.8	11.9	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.7	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	520	32	115	1453	0	42
Future Vol, veh/h	520	32	115	1453	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	565	35	125	1579	0	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	600	0	-	300
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	973	-	0	696
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	973	-	-	696
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	696	-	-	973	-
HCM Lane V/C Ratio	0.066	-	-	0.128	-
HCM Control Delay (s)	10.5	-	-	9.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-

Intersection	
Int Delay, s/veh	5

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	46	0	4	32	0	7
Future Vol, veh/h	46	0	4	32	0	7
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	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	50	0	4	35	0	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	47	-	8	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.46	-	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	-	2.254	-	-	-
Pot Cap-1 Maneuver	953	0	1586	-	-	-
Stage 1	1009	0	-	-	-	-
Stage 2	969	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	950	-	1586	-	-	-
Mov Cap-2 Maneuver	950	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	969	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	9	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1586	-	950
HCM Lane V/C Ratio	-	-	0.003	-	0.053
HCM Control Delay (s)	-	-	7.3	0	9
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	452	110	0	1568	0	107
Future Vol, veh/h	452	110	0	1568	0	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	491	120	0	1704	0	116

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	306
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.36
Pot Cap-1 Maneuver	-	-	0	-	0	678
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	678
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	678	-	-	-
HCM Lane V/C Ratio	0.172	-	-	-
HCM Control Delay (s)	11.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	68	7	7	92	0
Future Vol, veh/h	10	68	7	7	92	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	11	74	8	8	100	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	16	0	-	0	108	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	4.16	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.254	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1576	-	-	-	880	1057
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	918	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1576	-	-	-	874	1057
Mov Cap-2 Maneuver	-	-	-	-	874	-
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	918	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1576	-	-	-	874
HCM Lane V/C Ratio	0.007	-	-	-	0.114
HCM Control Delay (s)	7.3	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4

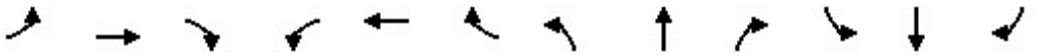
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	421	160	35
Future Vol, veh/h	0	33	0	421	160	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	Free
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	36	0	458	174	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	174	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	869	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	869	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	869	-
HCM Lane V/C Ratio	-	0.041	-
HCM Control Delay (s)	-	9.3	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

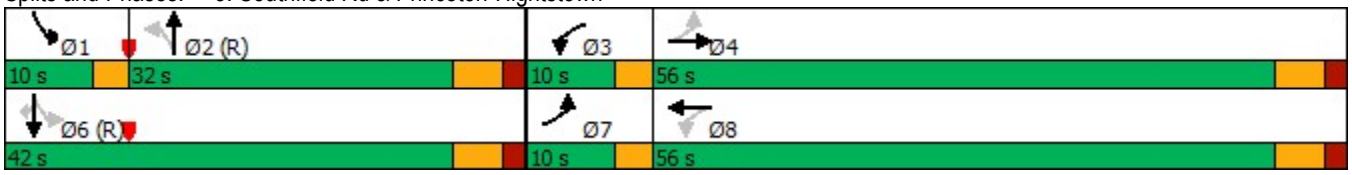


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	1301	18	75	523	84	154	139	13	157	275	24
Future Volume (vph)	107	1301	18	75	523	84	154	139	13	157	275	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205		0	130		0	100		100	230		230
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.979			0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3498	0	1752	3431	0	1752	1821	0	1752	1845	1568
Flt Permitted	0.338			0.080			0.578			0.534		
Satd. Flow (perm)	623	3498	0	148	3431	0	1066	1821	0	985	1845	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			22			4				61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		221			1046			220			372	
Travel Time (s)		5.0			23.8			5.0			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	1414	20	82	568	91	167	151	14	171	299	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	1434	0	82	659	0	167	165	0	171	299	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		6
Minimum Split (s)	10.0	24.0		10.0	24.0		24.0	24.0		10.0	24.0	24.0
Total Split (s)	10.0	56.0		10.0	56.0		32.0	32.0		10.0	42.0	42.0
Total Split (%)	9.3%	51.9%		9.3%	51.9%		29.6%	29.6%		9.3%	38.9%	38.9%
Maximum Green (s)	7.0	50.0		7.0	50.0		26.0	26.0		7.0	36.0	36.0
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0		3.0	6.0		6.0	6.0		3.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0			0	0
Act Effct Green (s)	60.0	50.0		60.0	50.0		26.0	26.0		39.0	36.0	36.0
Actuated g/C Ratio	0.56	0.46		0.56	0.46		0.24	0.24		0.36	0.33	0.33
v/c Ratio	0.28	0.89		0.44	0.41		0.65	0.37		0.42	0.49	0.05

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	11.9	34.4		18.6	19.5		50.4	36.3		28.4	31.9	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	11.9	34.4		18.6	19.5		50.4	36.3		28.4	31.9	0.7
LOS	B	C		B	B		D	D		C	C	A
Approach Delay		32.7			19.4			43.4			29.1	
Approach LOS		C			B			D			C	
Queue Length 50th (ft)	34	461		23	149		105	93		83	164	0
Queue Length 95th (ft)	60	569		49	196		#187	156		137	247	3
Internal Link Dist (ft)		141			966			140			292	
Turn Bay Length (ft)	205			130			100			230		230
Base Capacity (vph)	419	1620		186	1600		256	441		405	615	563
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.28	0.89		0.44	0.41		0.65	0.37		0.42	0.49	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 108			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Pretimed			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 30.1		Intersection LOS: C	
Intersection Capacity Utilization 82.0%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Southfield Rd & Princeton-Hightstown



Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	116	0	36	28	0	35	9	155	27	29	337	3
Future Vol, veh/h	116	0	36	28	0	35	9	155	27	29	337	3
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	126	0	39	30	0	38	10	168	29	32	366	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	654	649	368	654	636	183	369	0	0	197	0	0
Stage 1	432	432	-	203	203	-	-	-	-	-	-	-
Stage 2	222	217	-	451	433	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	379	387	675	379	394	857	1184	-	-	1370	-	-
Stage 1	600	581	-	797	732	-	-	-	-	-	-	-
Stage 2	778	721	-	586	580	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	351	372	675	346	379	857	1184	-	-	1370	-	-
Mov Cap-2 Maneuver	351	372	-	346	379	-	-	-	-	-	-	-
Stage 1	594	564	-	789	725	-	-	-	-	-	-	-
Stage 2	736	714	-	536	563	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.4	13	0.4	0.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1184	-	-	396	517	1370	-	-
HCM Lane V/C Ratio	0.008	-	-	0.417	0.132	0.023	-	-
HCM Control Delay (s)	8.1	0	-	20.4	13	7.7	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	2	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1397	24	90	611	0	23
Future Vol, veh/h	1397	24	90	611	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1518	26	98	664	0	25

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1544	0	-	772
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	421	-	0	340
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	421	-	-	340
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	340	-	-	421	-
HCM Lane V/C Ratio	0.074	-	-	0.232	-
HCM Control Delay (s)	16.4	-	-	16.1	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	-

Intersection	
Int Delay, s/veh	2.6

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	21	0	4	52	0	7
Future Vol, veh/h	21	0	4	52	0	7
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	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	0	4	57	0	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	69	-	8	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	65	-	-	-	-	-
Critical Hdwy	6.43	-	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	-	2.227	-	-	-
Pot Cap-1 Maneuver	933	0	1606	-	-	-
Stage 1	1017	0	-	-	-	-
Stage 2	955	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	930	-	1606	-	-	-
Mov Cap-2 Maneuver	930	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	955	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	9	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1606	-	930
HCM Lane V/C Ratio	-	-	0.003	-	0.025
HCM Control Delay (s)	-	-	7.2	0	9
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1331	89	0	701	0	95
Future Vol, veh/h	1331	89	0	701	0	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1447	97	0	762	0	103

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	772
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.33
Pot Cap-1 Maneuver	-	-	0	-	0	340
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	340
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	340	-	-	-
HCM Lane V/C Ratio	0.304	-	-	-
HCM Control Delay (s)	20.1	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.3	-	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	66	7	5	86	0
Future Vol, veh/h	7	66	7	5	86	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	8	72	8	5	93	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	13	0	-	0	99	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1599	-	-	-	897	1067
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	933	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1599	-	-	-	893	1067
Mov Cap-2 Maneuver	-	-	-	-	893	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	933	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1599	-	-	-	893
HCM Lane V/C Ratio	0.005	-	-	-	0.105
HCM Control Delay (s)	7.3	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

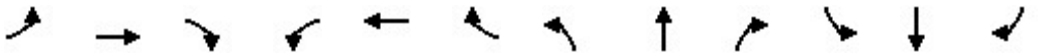
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	28	0	306	341	27
Future Vol, veh/h	0	28	0	306	341	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	Free
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	30	0	333	371	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	371	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.327	-	-	-	-
Pot Cap-1 Maneuver	0	673	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	673	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	673	-
HCM Lane V/C Ratio	-	0.045	-
HCM Control Delay (s)	-	10.6	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-



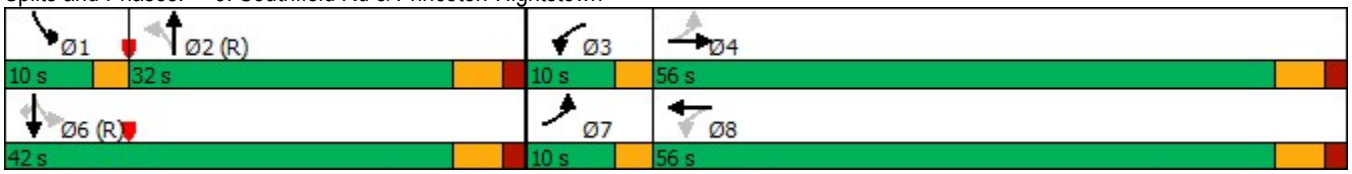
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	526	7	27	576	111	156	130	22	110	111	36
Future Volume (vph)	93	526	7	27	576	111	156	130	22	110	111	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	205		0	130		0	100		100	230		230
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.976			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3561	0	1805	3506	0	1805	1858	0	1805	1900	1615
Flt Permitted	0.313			0.401			0.684			0.548		
Satd. Flow (perm)	589	3561	0	762	3506	0	1300	1858	0	1041	1900	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27			8				61
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		221			1046			220			372	
Travel Time (s)		5.0			23.8			5.0			8.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	14%	0%	0%	3%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	96	542	7	28	594	114	161	134	23	113	114	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	549	0	28	708	0	161	157	0	113	114	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		6
Minimum Split (s)	10.0	24.0		10.0	24.0		24.0	24.0		10.0	24.0	24.0
Total Split (s)	10.0	56.0		10.0	56.0		32.0	32.0		10.0	42.0	42.0
Total Split (%)	9.3%	51.9%		9.3%	51.9%		29.6%	29.6%		9.3%	38.9%	38.9%
Maximum Green (s)	7.0	50.0		7.0	50.0		26.0	26.0		7.0	36.0	36.0
Yellow Time (s)	3.0	4.0		3.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	2.0		0.0	2.0		2.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	6.0		3.0	6.0		6.0	6.0		3.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0			0	0
Act Effct Green (s)	60.0	50.0		60.0	50.0		26.0	26.0		39.0	36.0	36.0
Actuated g/C Ratio	0.56	0.46		0.56	0.46		0.24	0.24		0.36	0.33	0.33

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.24	0.33		0.06	0.43		0.52	0.35		0.27	0.18	0.06
Control Delay	11.5	19.1		9.9	19.7		42.4	34.8		25.4	26.5	2.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	11.5	19.1		9.9	19.7		42.4	34.8		25.4	26.5	2.9
LOS	B	B		A	B		D	C		C	C	A
Approach Delay		17.9			19.3			38.6			22.7	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	28	122		8	161		97	86		53	56	0
Queue Length 95th (ft)	51	163		20	211		167	146		95	99	12
Internal Link Dist (ft)		141			966			140			292	
Turn Bay Length (ft)	205			130			100			230		230
Base Capacity (vph)	404	1649		490	1637		312	453		425	633	579
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.24	0.33		0.06	0.43		0.52	0.35		0.27	0.18	0.06

Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 57.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Southfield Rd & Princeton-Hightstown



Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	143	0	64	25	0	46	24	119	23	31	103	11
Future Vol, veh/h	143	0	64	25	0	46	24	119	23	31	103	11
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	155	0	70	27	0	50	26	129	25	34	112	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	405	392	118	415	386	142	124	0	0	154	0	0
Stage 1	186	186	-	194	194	-	-	-	-	-	-	-
Stage 2	219	206	-	221	192	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	554	542	931	546	547	903	1457	-	-	1420	-	-
Stage 1	813	744	-	805	738	-	-	-	-	-	-	-
Stage 2	781	729	-	779	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	505	518	931	488	522	903	1457	-	-	1420	-	-
Mov Cap-2 Maneuver	505	518	-	488	522	-	-	-	-	-	-	-
Stage 1	797	725	-	789	723	-	-	-	-	-	-	-
Stage 2	723	714	-	702	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	10.8	1.1	1.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1457	-	-	588	695	1420	-	-
HCM Lane V/C Ratio	0.018	-	-	0.383	0.111	0.024	-	-
HCM Control Delay (s)	7.5	0	-	14.9	10.8	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.8	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	583	30	103	665	0	35
Future Vol, veh/h	583	30	103	665	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	634	33	112	723	0	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	667	0	-	334
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	912	-	0	659
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	912	-	-	659
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	659	-	-	912	-
HCM Lane V/C Ratio	0.058	-	-	0.123	-
HCM Control Delay (s)	10.8	-	-	9.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-

Intersection	
Int Delay, s/veh	4.3

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	62	0	15	60	0	26
Future Vol, veh/h	62	0	15	60	0	26
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	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	67	0	16	65	0	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	111	-	28	0	-	0
Stage 1	14	-	-	-	-	-
Stage 2	97	-	-	-	-	-
Critical Hdwy	6.43	-	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	-	2.227	-	-	-
Pot Cap-1 Maneuver	883	0	1579	-	-	-
Stage 1	1006	0	-	-	-	-
Stage 2	924	0	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	873	-	1579	-	-	-
Mov Cap-2 Maneuver	873	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	924	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	9.5	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1579	-	873
HCM Lane V/C Ratio	-	-	0.01	-	0.077
HCM Control Delay (s)	-	-	7.3	0	9.5
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	548	70	0	768	0	78
Future Vol, veh/h	548	70	0	768	0	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	596	76	0	835	0	85

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	336
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.33
Pot Cap-1 Maneuver	-	-	0	-	0	657
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	657
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	657	-	-	-
HCM Lane V/C Ratio	0.129	-	-	-
HCM Control Delay (s)	11.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	109	26	9	98	0
Future Vol, veh/h	13	109	26	9	98	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	14	118	28	10	107	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	38	0	-	0	179	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1566	-	-	-	808	1038
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1566	-	-	-	800	1038
Mov Cap-2 Maneuver	-	-	-	-	800	-
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	879	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	-	800
HCM Lane V/C Ratio	0.009	-	-	-	0.133
HCM Control Delay (s)	7.3	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	22	0	308	123	22
Future Vol, veh/h	0	22	0	308	123	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	Free
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	24	0	335	134	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	134	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.327	-	-	-	-
Pot Cap-1 Maneuver	0	912	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	912	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

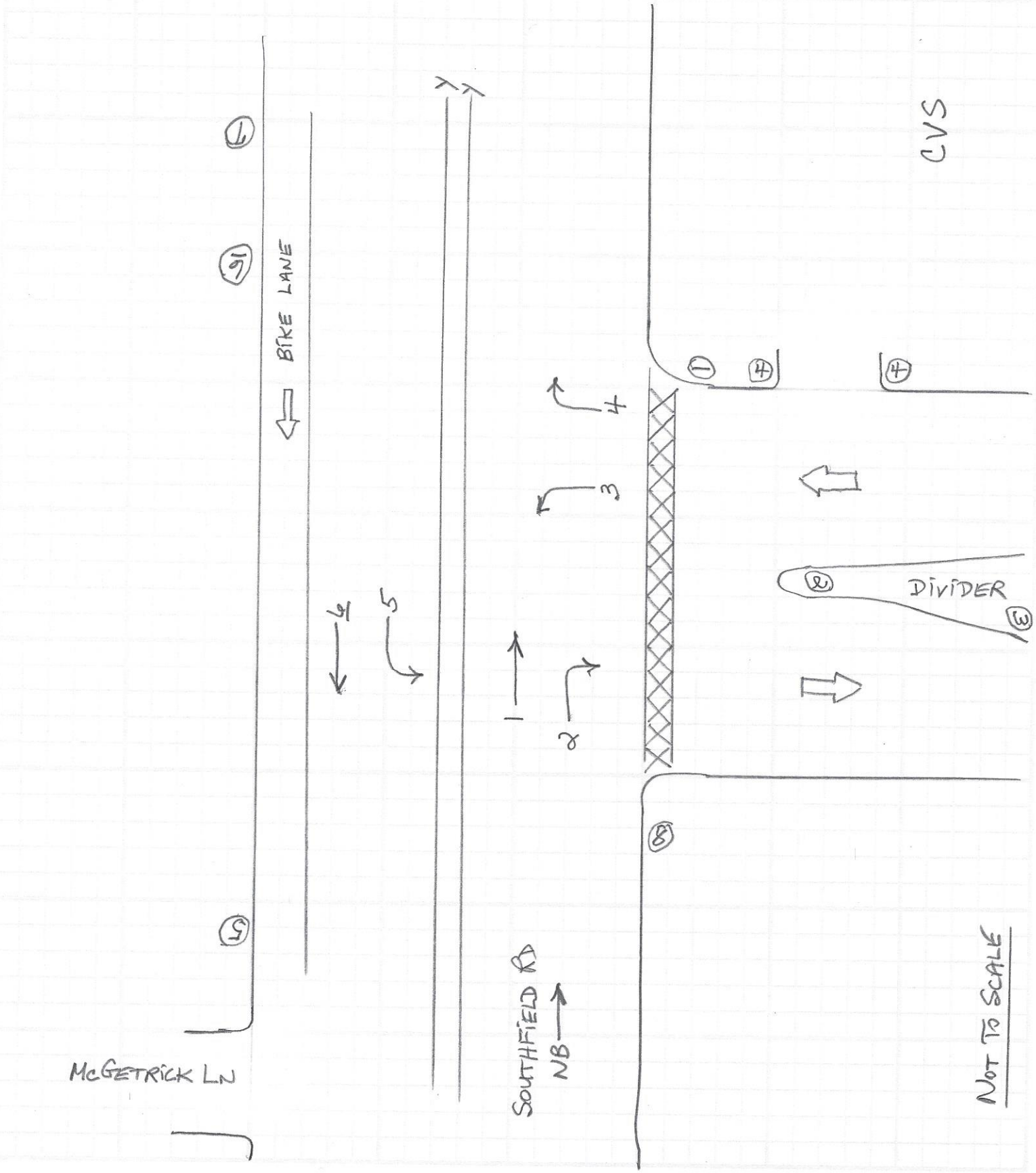
Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	912	-
HCM Lane V/C Ratio	-	0.026	-
HCM Control Delay (s)	-	9.1	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

CLIENT EAST RIDGE PROJECT WEST WINDSOR

DATE 1/27/2021 SUBJECT KEN DONATELLI

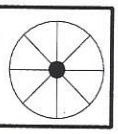
SOUTHFIELD RD & SITE ACCESS



(2)

TRAFFIC SURVEY SHEET

INDICATE NORTH BY ARROW



DOLAN & DEAN
CONSULTING ENGINEERS

181 West High Street
Somerville, NJ 08876

908-927-0100
908-927-0181 fax

PROJECT #: CLIENT: EAST RIDGE

INTERSECTION: SOUTHFIELD RD & SITE ACCESS

MUNICIPALITY: WEST WINDSOR

COUNT BY: K. DONATELLI DATE: 1/27/2021

TIME from 7^00a to 9^00a & 4^00p - 6^00p

S M T (W) T F S (CIRCLE DAY)

SKETCH SURVEY AREA (INCLUDE LANDMARKS)

START TIME	CARS MOVEMENT NUMBER								TRUCKS MOVEMENT NUMBER								TOTAL
	1	2	3	4	5	6			1	2	3	4	5	6			
7^00	13	1	1	2	—	10			3	—	—	—	—	—			
7^15	22	3	2	2	3	13			10	—	—	—	—	10			
7^30	32	3	1	2	5	15			6	—	—	—	—	1			
7^45	20	1	—	—	2	13			—	—	—	—	—	2			
8^00	19	1	1	5	4	19			4	—	—	—	—	3			
8^15	24	1	1	2	4	19			3	—	1	—	1	5			
8^30	20	9	8	4	2	14			1	—	—	—	—	3			
8^45	28	7	2	7	2	13			—	—	—	—	—	1			
4^00	18	7	3	3	10	23			—	—	—	—	—	—			
4^15	27	3	7	6	7	19			—	—	—	—	—	—			
4^30	22	6	6	7	4	28			—	—	—	—	—	—			
4^45	14	5	7	10	3	19			—	—	—	—	—	—			
5^00	20	8	7	7	7	25			—	—	—	—	—	—			
5^15	17	8	8	11	15	31			—	—	—	—	—	—			
5^30	24	3	6	7	4	22			—	—	—	—	—	—			
5^45	12	5	7	7	9	13			—	—	—	—	—	—			
PEAK HOUR TOTAL																	

(3)

TRAFFIC SURVEY SHEET

INDICATE NORTH BY ARROW

DOLAN & DEAN
CONSULTING ENGINEERS

181 West High Street
Somerville, NJ 08876

908-927-0100
908-927-0181 fax

PROJECT #: CLIENT: EAST RIDGE

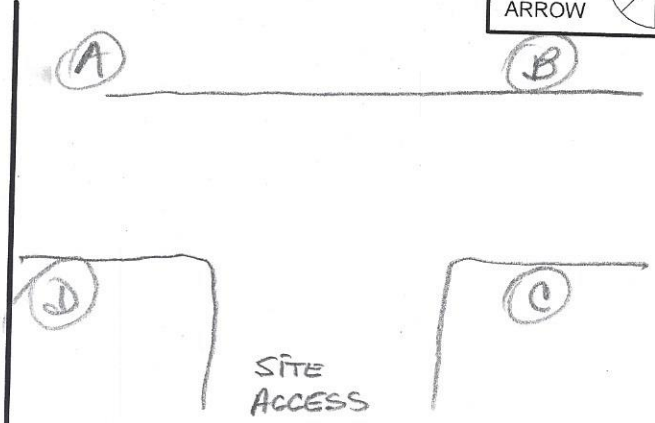
INTERSECTION: SOUTHFIELD RD & SITE ACCESS

MUNICIPALITY: WEST WINDSOR

COUNT BY: K. DONATELLI DATE: 1/27/2021

TIME from 7:00a to 9:00a & 4:00p - 6:00p

S M T (W) T F S (CIRCLE DAY)



SKETCH SURVEY AREA (INCLUDE LANDMARKS)

PEDESTRIANS

START TIME	MOVEMENT NUMBER A→B	B→A	B→C	C→B	C→D	D→C	D→A	A→D	TOTAL
7:00	—	—	—	—	—	—	—	—	
7:15	—	—	—	—	—	—	—	—	
7:30	—	—	—	—	—	1	—	—	
7:45	—	—	—	—	—	—	—	—	
8:00	—	—	—	—	—	—	—	—	
8:15	—	—	—	—	—	—	—	—	
8:30	—	—	—	—	—	—	—	—	
8:45	—	—	—	—	—	—	—	—	
4:00	—	—	—	—	—	—	—	—	
4:15	—	—	—	—	—	—	—	—	
4:30	—	—	—	—	—	—	—	—	
4:45	—	—	—	—	—	—	—	—	
5:00	—	—	—	—	—	—	—	—	
5:15	—	—	—	—	—	—	—	—	
5:30	—	—	—	—	1	—	—	—	
5:45	—	—	—	—	—	—	—	—	
PEAK HOUR TOTAL									

(4)

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

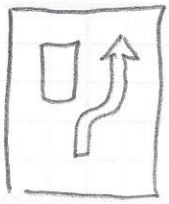
CLIENT EAST RIDGE PROJECT WEST WINDSOR

DATE 1/27/2021 SUBJECT KEN DONATELLI

SOUTHFIELD RD & SITE ACCESS

SIGN LEGEND

(1) STOP

(2) 

(3) SPEED LIMIT 20

(4) DO NOT ENTER

(5) PEDESTRIAN CROSSING AHEAD

(6) CAUTION TRUCKS MAKING LEFT TURNS 600 FT. AHEAD

(7) BIKE LANE NO PARKING

(8) PEDESTRIAN CROSSING

NOTES

- BUSES INCLUDED IN TRUCK COUNT

Prepared by National Data & Surveying Services

Southfield Rd & Princeton Hightstown Rd

Peak Hour Turning Movement Count

ID: 23-340018-001
City: West Windsor Townshi

Day: Saturday
Date: 2/4/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 02:00 PM
NONE	NONE

SOUTHBOUND (Southfield Rd)

AM	0	0	0	0	0	AM
NOON	35	89	108	0	309	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Princeton Hightstown Rd)

AM	NOON	PM	
0	567	0	
0	0	0	0
0	91	0	1
0	449	0	2
0	7	0	0
AM	NOON	PM	

WESTBOUND (Princeton Hightstown Rd)

PM	NOON	AM	
0	109	0	0
0	496	0	2
0	26	0	1
0	0	0	0
0	579	0	
PM	NOON	AM	

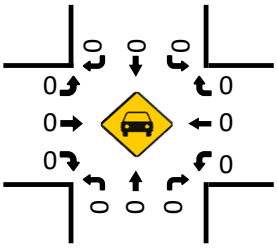
NORTHBOUND (Southfield Rd)

PM	0	0	0	0	0	PM
NOON	122	0	36	109	22	NOON
AM	0	0	0	0	0	AM

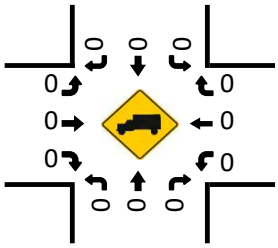
	1	1	1	0
	0	1	1	0

CONTROL			
Signalized			
TEV	0 AM	1577 NOON	0 PM
PHF		0.97	

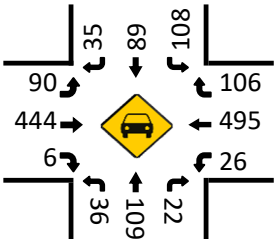
Cars (AM)



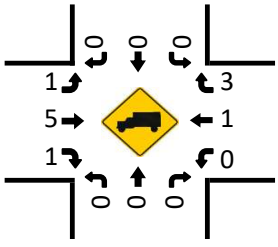
HT (AM)



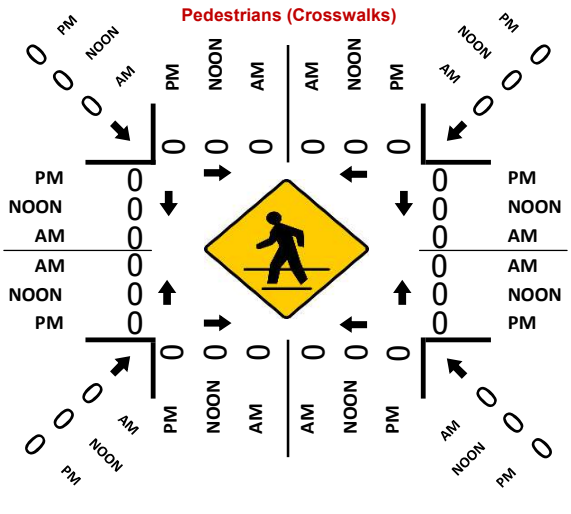
Cars (NOON)



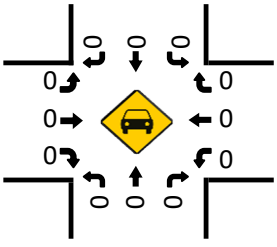
HT (NOON)



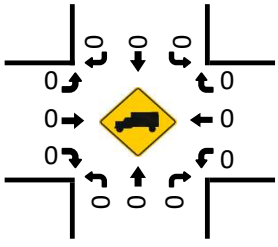
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Southfield Rd & McGetrick Ln/ CVS 350 Princeton Hightstown Rd

Peak Hour Turning Movement Count

ID: 22-340043-002
City: West Windsor Townshi

Day: Saturday
Date: 4/9/2022

	PEAK HOURS	COUNT PERIODS
AM	NONE	NONE
NOON	11:45 AM - 12:45 PM	11:00 AM - 02:00 PM
PM	NONE	NONE

Southfield Rd — SOUTHBOUND

	U-turn	Right	Thru	Left	Outbound
AM	0	0	0	0	0
NOON	0	121	31	0	261
PM	0	0	0	0	0
Peds/Bikes (red)	0	1	0	0	

McGetrick Ln/ CVS 350 Princeton Hightstown Rd — EASTBOUND

	AM	NOON	PM	Red
Outbound	0	6	0	
U-turn	0	0	0	0
Left	0	1	0	0
Thru	0	4	0	1
Right	0	41	0	0

McGetrick Ln/ CVS 350 Princeton Hightstown Rd — WESTBOUND

	Red	PM	NOON	AM
Right	0	0	46	0
Thru	1	0	1	0
Left	0	0	25	0
U-turn	0	0	0	0
Outbound		0	54	0

Southfield Rd — NORTHBOUND

	Outbound	U-turn	Left	Thru	Right
Red		0	0	1	0
PM	0	0	0	0	0
NOON	187	0	5	214	19
AM	0	0	0	0	0

CONTROL: 2-Way Stop (EB/WB)

	AM	NOON	PM
TEV	0	508	0
PHF		0.89	

Cars (AM)

	Left	Thru	Right	U-turn
SB	0	0	0	
EB	0	0	0	
WB	0	0	0	
NB	0	0	0	

Cars (NOON)

	Left	Thru	Right
SB	30	119	0
EB	1	4	41
WB	25	1	44
NB	4	211	18

Cars (PM)

	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

HT (AM)

	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

HT (NOON)

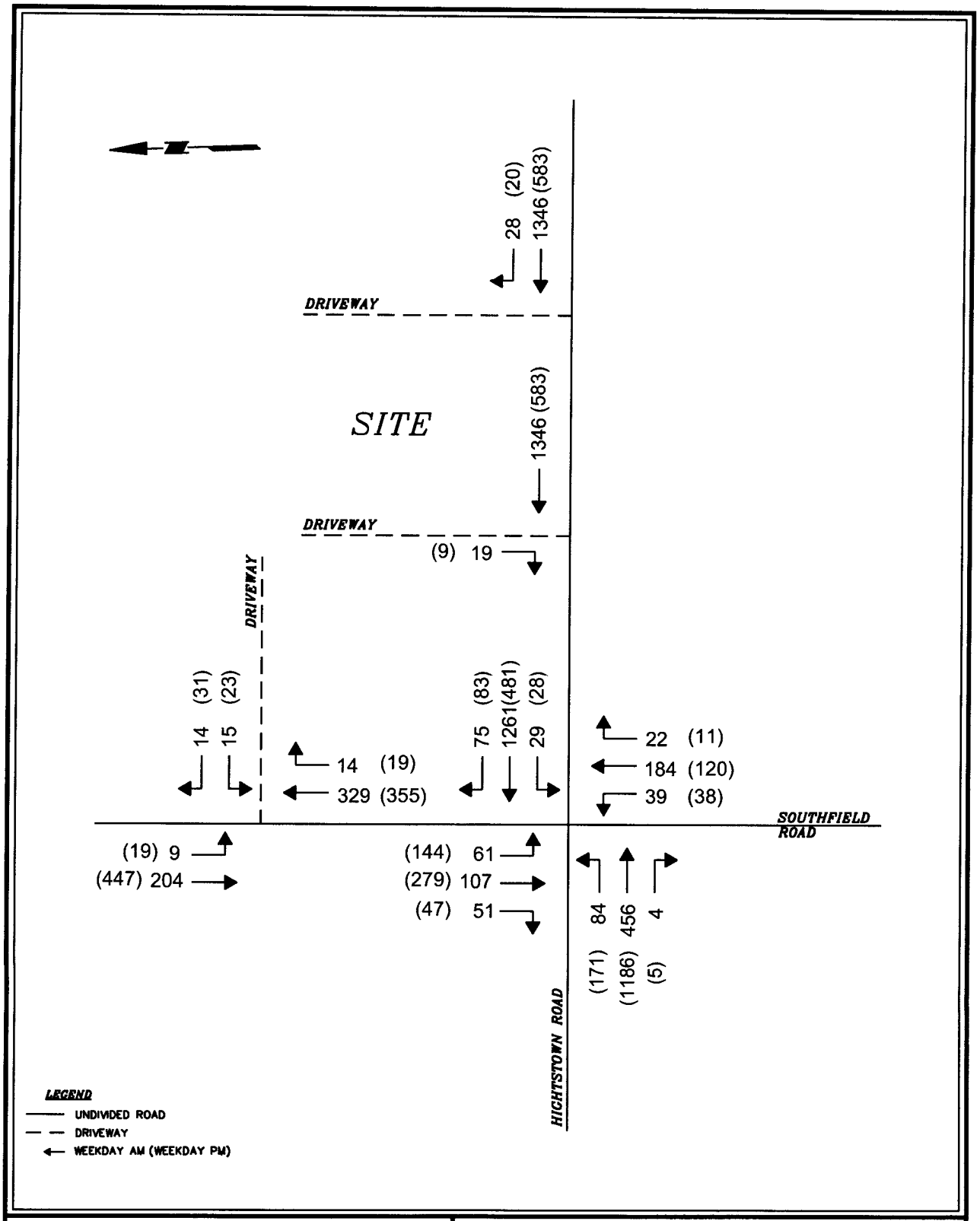
	Left	Thru	Right
SB	1	2	0
EB	0	0	0
WB	0	0	2
NB	1	3	1

HT (PM)

	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North	0	0	0
South	0	0	0
East	0	0	0
West	0	0	0
NW diagonal	0	0	0
NE diagonal	0	0	0
SW diagonal	0	0	0
SE diagonal	0	0	0



LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES
989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648
P: 609.282.8000 F: 609.282.8001
www.langan.com
NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NEVADA
NJ Certificate of Authorization No: 24GA27996400

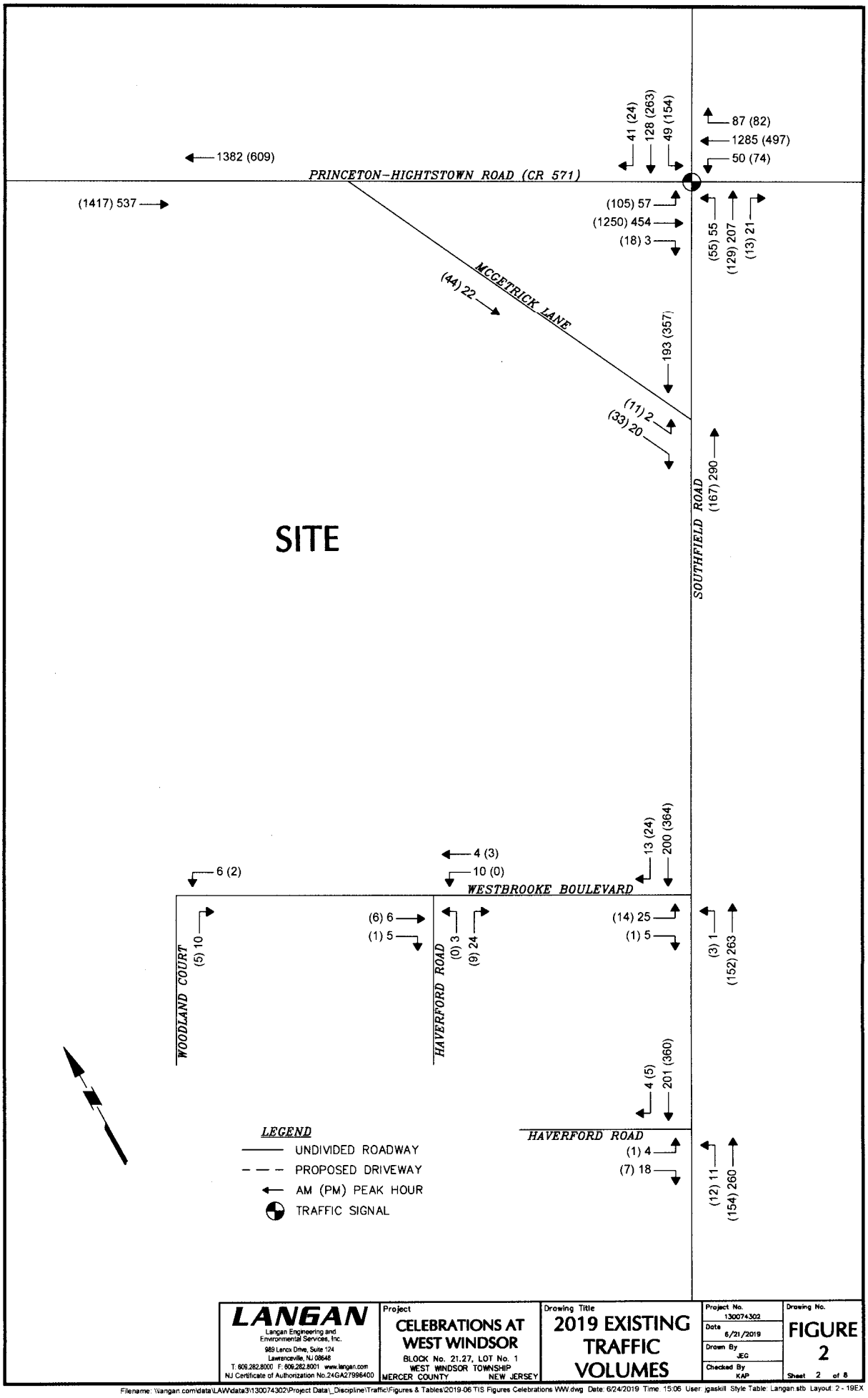
APCO WEST WINDSOR

2012 EXISTING TRAFFIC VOLUMES

WEST WINDSOR NEW JERSEY

Project No.	Date	Scale	Dwg. No.
130050201	3/6/2012	N.T.S.	FIGURE 2

Filename: \\langan.com\data\TR\data2\130050201\Office Data\Reports\Traffic\Figures & Tables\2-Existing.dwg Date: 3/16/2012 Time: 09:41 User: merickson Style Table: Langan.stb Layout: Existing



LANGAN Langan Engineering and Environmental Services, Inc. 969 Lenox Drive, Suite 124 Lawrenceville, NJ 08648 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ Certificate of Authorization No.24GA27996400	Project CELEBRATIONS AT WEST WINDSOR BLOCK No. 21.27, LOT No. 1 WEST WINDSOR TOWNSHIP MERCER COUNTY NEW JERSEY	Drawing Title 2019 EXISTING TRAFFIC VOLUMES	Project No. 130074302 Date 6/21/2019 Drawn By JEG Checked By KAP	Drawing No. FIGURE 2 Sheet 2 of 8

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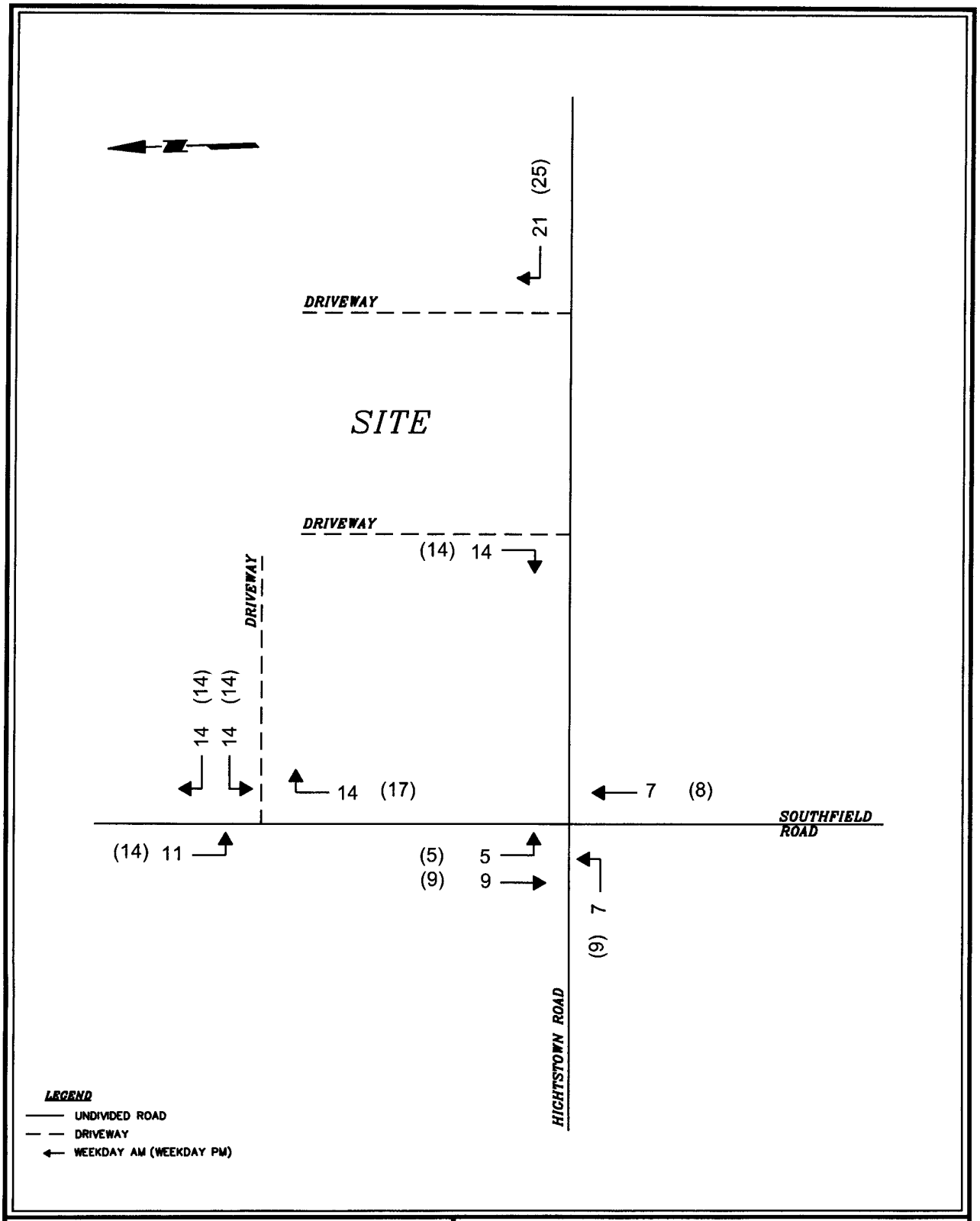

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989 Lenox Drive, Suite 124 Lawrenceville, NJ 08648
P: 609.282.8000 F: 609.282.8001
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NEW SITE GENERATED TRIPS

WEST WINDSOR NEW JERSEY

Project No.	Date	Scale	Dwg. No.
130050201	3/8/2012	N.T.S.	FIGURE 5

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