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September 27, 2018

VIA EMAIL

Mr. Edward J. Pietrowski, Jr.
PIE Development Company, Inc.
53 Eliza Street
Beacon, New York 12508

Re: Traffic Evaluation
53 Eliza Street, City of Beacon, Dutchess County, New York
Use Variance & Site Plan Applications for Nine (9) Multi-family Residential Units
MC Project No. 18006445A

Dear Mr. Pietrowski:

In response to comments from the City of Beacon Planning Board and the Zoning Board of Appeals, Maser Consulting conducted a review of the potential traffic impacts associated with the proposed Multi-family Residential Developed at 53 Eliza Street in the City of Beacon, Dutchess County, NY (the "Site"). The Project, which is proposed to be located on the east side of Eliza Street opposite Oak Street (See Exhibit No. 1 below), would consist of nine (9) multi-family residential units (the "Proposed Development"). The Site will be accessed via a driveway connection to Eliza Street offset approximately 30 feet to the south of Oak Street. Note that the Proposed Development will eliminate the two (2) existing driveways located on each side of the existing building fronting on Eliza Street will be consolidated into one (1) central two-way access driveway for circulation into and out of the Site.

The Site is presently zoned in the R1-5 District and contains P&D Electric of Hudson Valley Inc.'s ("P&D Electric") commercial office and contractor storage use, which is considered a legal pre-existing non-conforming commercial use for the residentially zoned property. Under the current R1-5 zoning, the Site could be subdivided as-of-right and redeveloped with three (3) single-family residential dwellings. The Proposed Development requires a use variance to be granted by the City of Beacon Zoning Board of Appeals in order to permit nine (9) multi-family units in the R1-5 District, as well as site plan approval from the Planning Board. The following is a summary of the procedures utilized to assess any potential future traffic impacts associated with the Proposed Development of the Site.

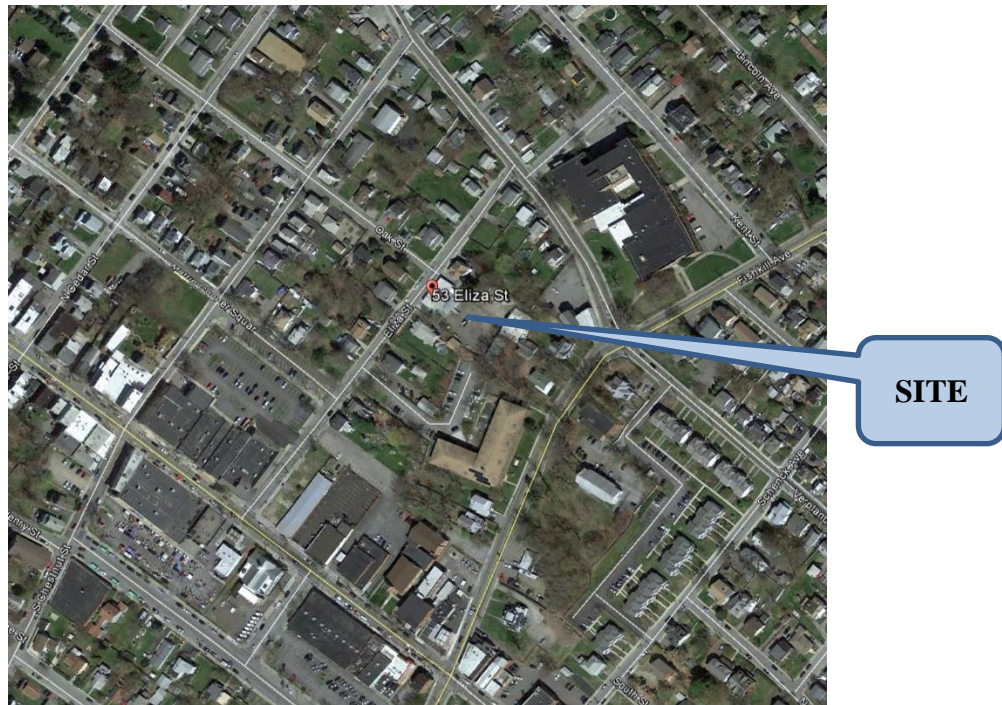


EXHIBIT NO. 1 – SITE LOCATION MAP

1) Existing Traffic Conditions

Eliza Street is a City roadway that originates at an unsignalized intersection with Main Street. The roadway traverses in a northeasterly direction, providing access to various residential uses. The roadway consists of a single lane in each direction with a speed limit of 30 mph and sidewalks located on both sides. Parking is permitted on both sides of Eliza Street. It should be noted that between Main Street and Church Street, Eliza Street serves as a one-way roadway in the northeasterly direction.

Representatives of Maser Consulting conducted turning movement traffic counts at the intersection of Eliza Street and Oak Street on Tuesday September 25, 2018 during the AM and PM Peak Periods, in order to document existing traffic conditions in the vicinity of the Site. These turning movement traffic counts (detailed traffic volume summaries attached for reference), also included observations of the amount of traffic currently entering and exiting the P&D Electric facility during the AM and PM Peak Periods. Table No. 1 below, indicates the total volumes observed at the Eliza Street/Oak Street intersection during each of the Peak Hours. Table No. 1 also identifies the observed peak traffic generation of the P&D Electric facility during the AM and PM Peak Hours. Note that based on the observations of the existing facility, the peak generation of the P&D Electric facility occurs outside of the AM and PM Peak Hours of traffic along Eliza Street.

TABLE NO. 1 ELIZA STREET AND OAK STREET EXISTING TRAFFIC VOLUMES				
INTERSECTION APPROACH	EXISTING 2018 TRAFFIC VOLUMES			
	AM PEAK HOUR		PM PEAK HOUR	
OAK STREET EASTBOUND	2		5	
P&D ELECTRIC DRIVEWAY	2		1	
ELIZA STREET NORTHBOUND	27		90	
ELIZA STREET SOUTHBOUND	21		17	
TOTAL	52		113	
P&D ELECTRIC EXISTING TRAFFIC GENERATION				
TIME PERIOD	AM PEAK HOUR		PM PEAK HOUR	
	ENTRY	EXIT	ENTRY	EXIT
VOLUME	2	4	1	2
NOTES: 1) 2018 EXISTING TRAFFIC VOLUMES BASED ON MANUAL TURNING MOVEMENT TRAFFIC COUNTS COLLECTED BY MASER CONSULTING, P.A. ON TUESDAY SEPTEMBER 25, 2018. 2) P&D ELECTRIC EXISTING TRAFFIC GENERATION VOLUMES REPRESENT PEAK TRAFFIC GENERATED BY THE SITE, WHICH DOES NOT NECESSARILY ALIGN WITH THE PEAK HOUR OF TRAFFIC ALONG ELIZA STREET.				

2) Proposed Development Site Generated Traffic

In order to assess the potential traffic impacts of the Proposed Development, estimates of the anticipated Site Generated Traffic Volumes were made based on information provided by the Institute of Transportation Engineers (ITE) as contained in their publication Trip Generation, 10th Edition dated 2017 based on ITE Land Use Code 220 – Multi-Family Low Rise Residential. The Table No. 2 below summarizes the anticipated traffic generation of the proposed nine (9) unit multifamily development during both the Weekday AM and PM Peak Hours. It should be noted that the proximity of the Proposed Development to Main Street (i.e. less than 700 ft.) would likely result in pedestrian trips from the Site to the Main Street area, thereby reducing the vehicle trips generated by the development on a daily basis. However, this has not been accounted for in the Site Generated Traffic Volumes identified below in order to provide a somewhat conservative analysis and also because these pedestrian trips may be less likely to occur during the Peak Hours analyzed.

TABLE NO. 2 HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES				
TIME PERIOD	ENTRY		EXIT	
	HTGR ¹	VOLUME	HTGR1	VOLUME
AM PEAK HOUR	0.11	1	0.44	4
PM PEAK HOUR	0.44	4	0.33	3
NOTES: 1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (LOW-RISE).				

In addition, for comparison purposes, estimates of the potential traffic generation of the as-of-right use for the property, i.e. three (3) single family residential dwellings, were also computed based on ITE Land Use Code – 210 – Single Family Housing. These are summarized in Table No. 3 below. As indicated in Table No. 3, the proposed nine (9) unit multi-family development and the as-of-right three-unit single family homes would have similar traffic generation during each of the Peak Hours.

TABLE NO. 3 TRIP GENERATION COMPARISON AS-OF-RIGHT VS. PROPOSED DEVELOPMENT				
TIME PERIOD	AS-OF-RIGHT DEVELOPMENT TRAFFIC GENERATION (SINGLE FAMILY HOMES)		PROPOSED DEVELOPMENT TRIP GENERATION (MULTI-FAMILY RESIDENTIAL)	
	ENTRY	EXIT	ENTRY	EXIT
AM PEAK HOUR	2	5	1	4
PM PEAK HOUR	2	2	4	3
TOTAL	4	7	5	7
NOTES: 1) AS-OF-RIGHT TRIP GENERATION WAS CONDUCTED BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017. ITE LAND USE CODE - 210 - SINGLE-FAMILY DETACHED HOUSING FOR THREE (3) UNITS.				

3) Potential Traffic Impacts of the Proposed Development

As indicated above, the Proposed Development is anticipated to generate approximately 5 and 7 total vehicle trips during the Weekday AM and PM Peak Hours, respectively. In comparison to the existing P&D Electric facility, which was found to currently generate 6 total vehicle trips during the AM time period and 3 total vehicles during the PM time period. The Proposed Development will generate similar traffic to current conditions with the P&D Electric facility, whose traffic will no longer be present after completion of the project.

Furthermore, the traffic generated by the Proposed Development equates to less than ten percent (10%) of the existing AM Peak Hour traffic volume at the Eliza Street/Oak Street intersection, while during the PM Peak Hour the Site generated traffic will equate to approximately six percent (6%) of the total existing traffic volume at the intersection. This percentage increase in traffic is not considered to be significant. Therefore, it can be concluded that the proposed nine (9) unit development will not have a significant impact on traffic conditions in the vicinity of the Site.

Additionally, a capacity analysis of the Eliza Street/Oak Street/Site Access intersection has been conducted under future conditions with the Proposed Development utilizing the procedures of the Highway Capacity Manual. Table No. 4 below summarizes the level of service results for the Eliza Street and Oak Street intersection under future conditions with the Project Development. As indicated below the intersection will operate at a Level of Service "A" with under ten (10) seconds of delay on all approaches in the future with the Proposed Development. Note that Level of Service "A" indicates optimal operation for an intersection or intersection approach with minimal delay to vehicles traveling through the intersection.

TABLE NO. 4 LEVEL OF SERVICE SUMMARY TABLE ELIZA STREET AT OAK STREET				
INTERSECTION APPROACH			BUILD TRAFFIC VOLUMES	
			AM PEAK HOUR	PM PEAK HOUR
OAK STREET	EB	LTR	A [8.9]	A [9.2]
SITE ACCESS	WB	LTR	A [8.8]	A [9.0]
ELIZA STREET	NB	LTR	A [7.3]	A [7.3]
ELIZA STREET	SB	LTR	A [7.3]	A [7.4]
NOTES: 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH INTERSECTION APPROACH.				



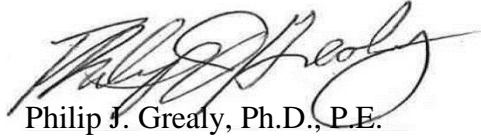
4) Recommendations & Conclusions

With respect to the proposed Site Plan for the Proposed Development, it is our recommendation that the driveway access to Eliza Street be stop controlled, and that plantings on the Site frontage be arranged in order to maximize site distance. It may also be necessary to install no parking signage along the Site frontage in order to ensure parked vehicles on Eliza Street do not impact sight lines for vehicles exiting the Site.

As noted above, it is anticipated that with the Proposed Development, similar Levels of Service will be maintained in the future. As a result, it can be concluded that the Proposed Development is not anticipated to have a significant impact on traffic operating conditions in the vicinity of the Site. Furthermore, as previously indicated, the proposed nine (9) unit multi-family development and the as-of-right three-unit single family homes would have similar traffic generation during each of the Peak Hours analyzed.

Very truly yours,

MASER CONSULTING P.A.

A handwritten signature in black ink, appearing to read 'Philip J. Greal'.

Philip J. Greal, Ph.D., P.E.
Principal/Department Manager

A handwritten signature in black ink, appearing to read 'Richard G. D'Andrea'.

Richard G. D'Andrea, P.E., PTOE
Sr. Associate/Project Manager

RGD/ces
Enclosures
cc: Taylor M. Palmer, Esq. – Cuddy & Feder LLP

LOCATION: ELIZA STREET & 53 ELIZA STREET/OAK STEET	PROJECT: 53 ELIZA STREET	
DATE OF COUNT: 09/25/18	DAY: TUESDAY	JCE JOB #: 18006445A START TIME : 07:00 AM

ENTER 15-MINUTE COUNT VOLUMES BY MOVEMENT															
	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND					
AM PEAK HOUR	1	2	3	4	5	6	7	8	9	10	11	12	total		
07:00 AM 07:15 AM	0	0	0	0	1	1	1	8	0	0	2	0	13	A	
07:15 AM 07:30 AM	0	0	0	0	1	0	0	7	0	0	0	0	8	A	
07:30 AM 07:45 AM	1	0	0	0	0	1	1	3	0	0	1	0	7	A	
07:45 AM 08:00 AM	3	0	0	0	0	0	0	6	1	1	2	1	14	A	42
08:00 AM 08:15 AM	2	0	0	0	0	1	0	6	0	0	0	1	10	A	39
08:15 AM 08:30 AM	0	0	0	0	0	1	0	7	0	0	4	0	12	A	43
08:30 AM 08:45 AM	0	0	0	0	0	0	0	6	0	1	2	0	9	X	45
08:45 AM 09:00 AM	0	0	0	0	0	0	1	6	0	0	8	1	16	X	47
09:00 AM 09:15 AM	2	0	0	0	0	0	0	8	0	0	4	1	15	X	52
09:15 AM 09:30 AM	0	0	0	0	1	1	0	6	0	0	4	0	12	X	52
09:30 AM 09:45 AM													0	A	43
09:45 AM 10:00 AM													0	A	27
10:00 AM 10:15 AM													0	A	12
10:15 AM 10:30 AM													0	A	0
10:30 AM 10:45 AM													0	A	0
10:45 AM 11:00 AM													0	A	0

CALCULATED PEAK 15-MINUTE VOLUMES															
07:00 AM 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:15 AM 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:30 AM 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:45 AM 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
08:00 AM 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
08:15 AM 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
08:30 AM 08:45 AM	0	0	0	0	0	0	0	6	0	1	2	0	9		
08:45 AM 09:00 AM	0	0	0	0	0	0	1	6	0	0	8	1	16		
09:00 AM 09:15 AM	2	0	0	0	0	0	0	8	0	0	4	1	15		
09:15 AM 09:30 AM	0	0	0	0	1	1	0	6	0	0	4	0	12		
09:30 AM 09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
09:45 AM 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:00 AM 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:15 AM 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:30 AM 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 AM 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		

CALCULATED PEAK HOUR VOLUMES															
AM PEAK HOUR	1	2	3	4	5	6	7	8	9	10	11	12	total	PHF	
08:30 AM 09:30 AM	2	0	0	0	1	1	1	26	0	1	18	2	52	0.8125	
PHF BY MOVEMENT	0.25	#DIV/0!	#DIV/0!	#DIV/0!	0.25	0.25	0.25	0.81	#DIV/0!	0.25	0.56	0.50			
PHF BY APPROACH		0.25			0.25			0.84			0.58				

2	18	1	^	6	1
12	11	10	<	5	1
<	v	>	v	4	0
2	1	^	<	^	>
0	2	>	7	8	9
0	3	v	1	26	0

2	15	0	^	6	1
12	11	10	<	5	0
<	v	>	v	4	0
4	1	^	<	^	>
0	2	>	7	8	9
1	3	v	3	87	0

LOCATION:		ELIZA STREET & 53 ELIZA STREET/OAK STEET						PROJECT:		53 ELIZA STREET							
DATE OF COUNT:		09/24/18		DAY: MONDAY		JCE JOB #:		18006445A		START TIME :		15:00		PM			
ENTER 15-MINUTE COUNT VOLUMES BY MOVEMENT																	
		EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND						
PM PEAK HOUR		1	2	3	4	5	6	7	8	9	10	11	12	total			
03:00 PM	03:15 PM	0	0	0	0	1	0	1	15	0	0	4	0	21	A		
03:15 PM	03:30 PM	1	1	0	0	1	0	0	10	0	0	2	1	16	A		
03:30 PM	03:45 PM	0	1	1	0	0	0	1	21	1	0	3	3	31	A		
03:45 PM	04:00 PM	1	0	0	0	0	0	0	11	0	0	5	2	19	A	87	
04:00 PM	04:15 PM	0	0	0	0	0	0	0	15	0	0	2	0	17	A	83	
04:15 PM	04:30 PM	0	0	0	0	0	0	0	13	0	0	2	0	15	A	82	
04:30 PM	04:45 PM	1	0	0	0	0	0	0	16	0	0	4	0	21	A	72	
04:45 PM	05:00 PM	1	0	0	0	0	0	0	14	0	0	4	0	19	A	72	
05:00 PM	05:15 PM	0	0	0	0	0	0	0	22	0	0	5	2	29	X	84	
05:15 PM	05:30 PM	1	0	0	0	0	1	0	27	0	0	5	0	34	X	103	
05:30 PM	05:45 PM	1	0	1	0	0	0	0	22	0	0	4	0	28	X	110	
05:45 PM	06:00 PM	2	0	0	0	0	0	3	16	0	0	1	0	22	X	113	
06:00 PM	06:15 PM													0	A	84	
06:15 PM	06:30 PM													0	A	50	
06:30 PM	06:45 PM													0	A	22	
06:45 PM	07:00 PM													0	A	0	
CALCULATED PEAK 15-MINUTE VOLUMES																	
03:00 PM	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
03:15 PM	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
03:30 PM	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
03:45 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:00 PM	04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:15 PM	04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:30 PM	04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:45 PM	05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
05:00 PM	05:15 PM	0	0	0	0	0	0	0	22	0	0	5	2	29			
05:15 PM	05:30 PM	1	0	0	0	0	1	0	27	0	0	5	0	34			
05:30 PM	05:45 PM	1	0	1	0	0	0	0	22	0	0	4	0	28			
05:45 PM	06:00 PM	2	0	0	0	0	0	3	16	0	0	1	0	22			
06:00 PM	06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
06:15 PM	06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
06:30 PM	06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
06:45 PM	07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0			
CALCULATED PEAK HOUR VOLUMES																	
PM PEAK HOUR		1	2	3	4	5	6	7	8	9	10	11	12	total	PHF		
05:00 PM 06:00 PM		4	0	1	0	0	1	3	87	0	0	15	2	113	0.830882		
PHF BY MOVEMENT		0.50	#DIV/0!	0.25	#DIV/0!	#DIV/0!	0.25	0.25	0.81	#DIV/0!	#DIV/0!	0.75	0.25				
PHF BY APPROACH		0.63			0.25			0.83			0.61						

HCS 2010 Two-Way Stop-Control Report

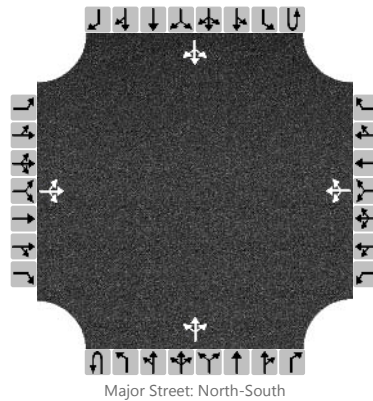
General Information

Analyst	J.F.M.
Agency/Co.	
Date Performed	9/27/2018
Analysis Year	
Time Analyzed	Weekday Peak AM Hour
Intersection Orientation	North-South
Project Description	Build Traffic Volumes

Site Information

Intersection	Eliza Street & Oak Street
Jurisdiction	
East/West Street	Oak Street
North/South Street	Eliza Street
Peak Hour Factor	0.81
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		2	0	0		3	1	2		1	27	1		1	18	2
Percent Heavy Vehicles (%)		2	2	2		2	2	2		2				2		
Proportion Time Blocked																
Percent Grade (%)	-2				-3											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		6.72	6.12	6.02		6.52	5.92	5.92		4.12				4.12		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.52	4.02	3.32		3.52	4.02	3.32		2.22				2.22		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			2				7					1				1
Capacity, c (veh/h)			935				952					1590				1576
v/c Ratio			0.00				0.01					0.00				0.00
95% Queue Length, Q ₉₅ (veh)			0.0				0.0					0.0				0.0
Control Delay (s/veh)			8.9				8.8					7.3				7.3
Level of Service, LOS			A				A					A				A
Approach Delay (s/veh)	8.9				8.8				0.2				0.3			
Approach LOS	A				A											

HCS 2010 Two-Way Stop-Control Report

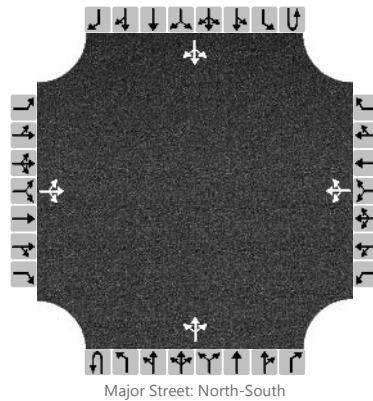
General Information

Analyst	J.F.M.
Agency/Co.	
Date Performed	9/27/2018
Analysis Year	
Time Analyzed	Weekday Peak PM Hour
Intersection Orientation	North-South
Project Description	Build Traffic Volumes

Site Information

Intersection	Eliza Street & Oak Street
Jurisdiction	
East/West Street	Oak Street
North/South Street	Eliza Street
Peak Hour Factor	0.83
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume, V (veh/h)		4	0	1		2	0	2		3	87	3		1	15	2
Percent Heavy Vehicles (%)		2	2	2		2	2	2		2				2		
Proportion Time Blocked																
Percent Grade (%)	-2				-3											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		6.72	6.12	6.02		6.52	5.92	5.92		4.12				4.12		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.52	4.02	3.32		3.52	4.02	3.32		2.22				2.22		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			6				4			4				1		
Capacity, c (veh/h)			872				900			1595				1480		
v/c Ratio			0.01				0.00			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)			0.0				0.0			0.0				0.0		
Control Delay (s/veh)			9.2				9.0			7.3				7.4		
Level of Service, LOS			A				A			A				A		
Approach Delay (s/veh)	9.2				9.0				0.3				0.4			
Approach LOS	A				A											