



181 WEST HIGH STREET
SOMERVILLE, NJ 08876

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TRAFFIC IMPACT STUDY
FOR
PROPOSED TOWNHOMES

BLOCK 1501, LOTS 2 & 3
BOROUGH OF WESTWOOD
BERGEN COUNTY, NEW JERSEY

MAY 8, 2020

A handwritten signature in black ink that reads "Elizabeth Dolan". The signature is written in a cursive style with a long horizontal stroke at the end.

ELIZABETH DOLAN, P.E.
NJ LICENSE NO. 37071

A handwritten signature in black ink that reads "Gary W. Dean". The signature is written in a cursive style with a long horizontal stroke at the end.

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

INTRODUCTION

Dolan & Dean Consulting Engineers, LLC (D&D) has prepared this traffic study for the redevelopment of a site with dual frontage along Kinderkamack Road and Fairview Avenue in the Borough of Westwood, Bergen County, New Jersey. The proposal includes the elimination of an existing single-family home, construction of four townhomes, and the relocation of access and on-site parking for an existing office building. Vehicular access for the townhouses is proposed via four individual driveways along Fairview Avenue. An existing residential driveway on Kinderkamack Road will be replaced with a new full-movement driveway to serve the existing office.

This report provides an assessment of the existing roadway conditions in the vicinity of the site, identification of existing traffic activity, projection of future traffic volumes inclusive of site-generated traffic, and an assessment of future driveway and intersection conditions.



EXISTING CONDITIONS

The subject property is designated as Lots 2 & 3 in Block 1501 and has frontage along Kinderkamack Road and Fairview Avenue. Lot 2 is currently developed with a 7,840 square foot office building with a parking lot accessed via a driveway on Fairview Avenue. Lot 3 is developed with a single-family home with one driveway on Kinderkamack Road. The site location is shown on Figure 1 in the technical appendix.

EXISTING ROADWAY CONDITIONS

Kinderkamack Road is designated as County Route 503, a north-south arterial providing one lane per direction within the general site vicinity. Kinderkamack Road operates with a posted speed limit of 35 miles per hour. Sidewalks are present on both sides of the road.

Fairview Avenue is parallel to and west of Kinderkamack Road. The roadway operates between Jefferson Avenue to the south and Lawrence Street to the north and provides one lane of travel in each direction. Sidewalks are present on both sides of Fairview Avenue, and the speed limit is 25 miles per hour.

The Westwood Train Station is located two blocks west and one block north of the site along Broadway. Sufficient pedestrian accommodations exist between the two locations, making the site easily accessible from the station.



TRAFFIC CHARACTERISTICS OF THE PROPOSED USE

Estimates of peak hour trip generation associated with the new townhomes were prepared using the 10th Edition of the Trip Generation Manual by the Institute of Transportation Engineers (ITE). For the townhomes, ITE Multifamily Housing (Low Rise) rates are applicable. The resultant trip generation is summarized in Table I.

TABLE I
TRIP GENERATION PROJECTIONS
4 TOWNHOMES

PEAK HOUR	ENTER	EXIT	TOTAL
Morning	0	2	2
Evening	2	1	3

As shown, peak hour activity associated with the development will be low, without taking credit for mass transit or trips associated with the single-family home on site. The peak hour volumes are well below “significant” which is defined as 100 or more peak hour trips. The ITE Manual of Transportation Engineering Studies recommends that traffic impact studies be performed for developments that will generate 100 or more peak hour trips.



TRAFFIC COUNTS, OBSERVATIONS & ANALYSIS

Although the low trip generation does not warrant a formal analysis, a series of counts and observations were performed, particularly to evaluate future intersection and driveway operations. D&D therefore performed the following counts:

- ▶ Manual turning movement traffic counts at the Lowell Street and Kinderkamack Road intersection on Tuesday, February 11, 2020 from 7:00 a.m. to 9:00 a.m.
- ▶ Manual turning movement traffic volume counts at the existing office driveway on Fairview Avenue from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 5:00 p.m. on Tuesday, February 11, 2020.

The traffic counts are appended. Appended Figure 2 shows the peak hour volumes recorded at the existing driveway and intersection during the morning and evening peak hour. As shown, trip generation associated with the existing office is also low, with 6 trips using the driveway during the morning peak hour and 5 entering and exiting movements during the evening peak hour.

Figure 3 shows future traffic volumes at the subject intersections. These volumes have been developed by applying NJDOT's Bergen County Principal Arterial 1.5% growth rate over a two-year period, then adding site generated traffic. The existing office traffic was routed to the proposed Kinderkamack Road driveway and assigned based on the existing distribution. Although four driveways are proposed on Fairview Avenue, one driveway was modeled for analysis, as shown on Figure 3.

Level of Service analyses were performed for existing and projected future peak hour volumes at the Kinderkamack Road and Lowell Street intersection. Analyses were also performed for



the new office driveway on Kinderkamack Road and the residential access proposed on Fairview Avenue.

The appended analyses show no changes in levels of service with the addition of background growth and site generated traffic at the Lowell Street intersection with Kinderkamack Road.

The new office driveway along Kinderkamack Road will operate at a Level of Service “B” during the morning peak hour, and a level of service “C” during the evening peak hour. The minimal residential activity on Fairview Avenue will operate at Level of Service “A” during the morning and evening peak hours.

As a result, there is ample capacity to accommodate site generated traffic. The proposed development will not create a negative traffic impact.



PARKING

The required parking is based on the Ordinance ratio of 1 space per 250 square feet of office area, and the Residential Site Improvement Standards (RSIS) ratio of 2.4 spaces for each 3-bedroom townhouse. The following table summarizes the required parking:

TABLE II
PARKING REQUIREMENTS

USE	PARKING RATIO	REQUIRED PARKING SPACES	PROPOSED PARKING SPACES
4 Two-Bedroom Townhomes	2 spaces/unit	10	10
7,840 SF Office	1 space/250 SF	32	17
TOTAL PARKING REQUIRED		42	27

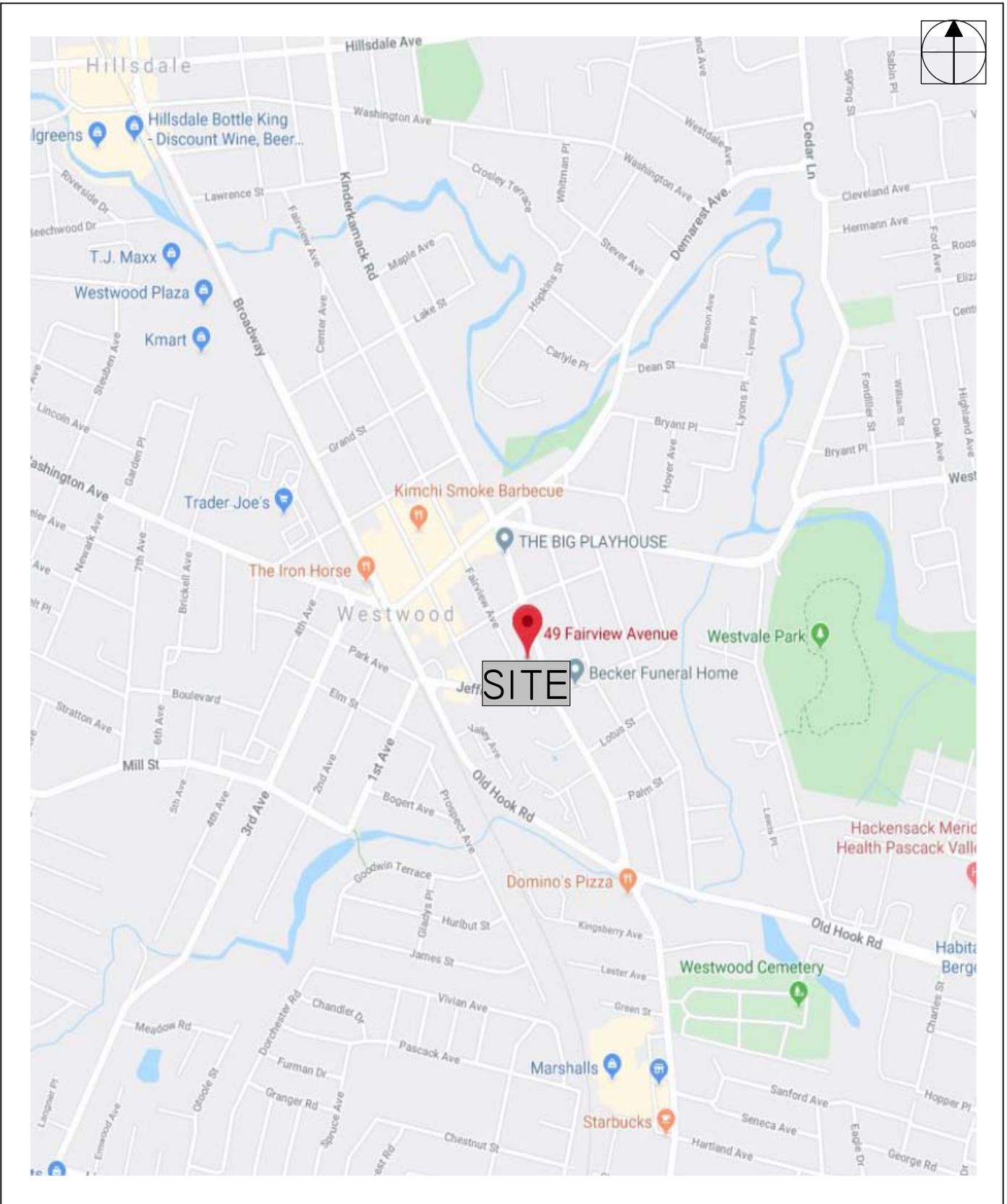
The site plan provides 17 spaces for office use, which is the number of existing office spaces. Each residence will have a one-car garage, and there will be 6 driveway spaces, meeting the RSIS requirement of 10 spaces.

Reference is made to the ITE Parking Generation Manual. For a “General Office Building” the average parking ratio is 2.39 spaces/1,000 square feet. For a “Small Office Building” (defined as 5,000 square feet or less) the average parking ratio is 2.56 spaces/1,000 square feet. Applying the higher ratio to the building area results in a demand of 15 spaces. The office has historically operated with 17 spaces, which is the number of spaces that will continue to be provided.

Based on these findings the proposed parking supply will adequately provide available parking under peak demand periods.



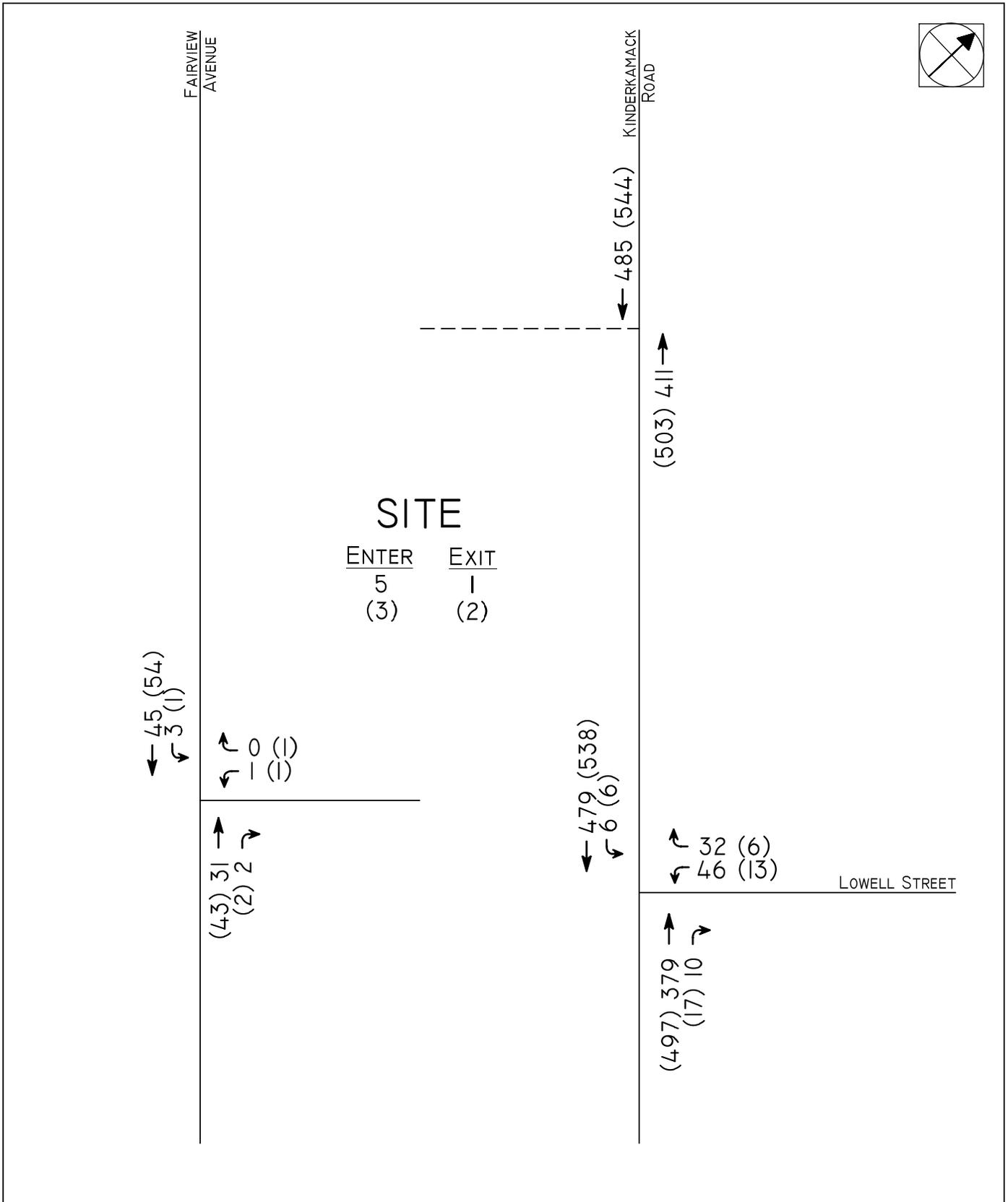
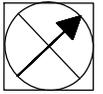
TECHNICAL APPENDIX



WESTWOOD INVESTMENTS
 BOROUGH OF WESTWOOD
 BERGEN COUNTY, NEW JERSEY

FIGURE I



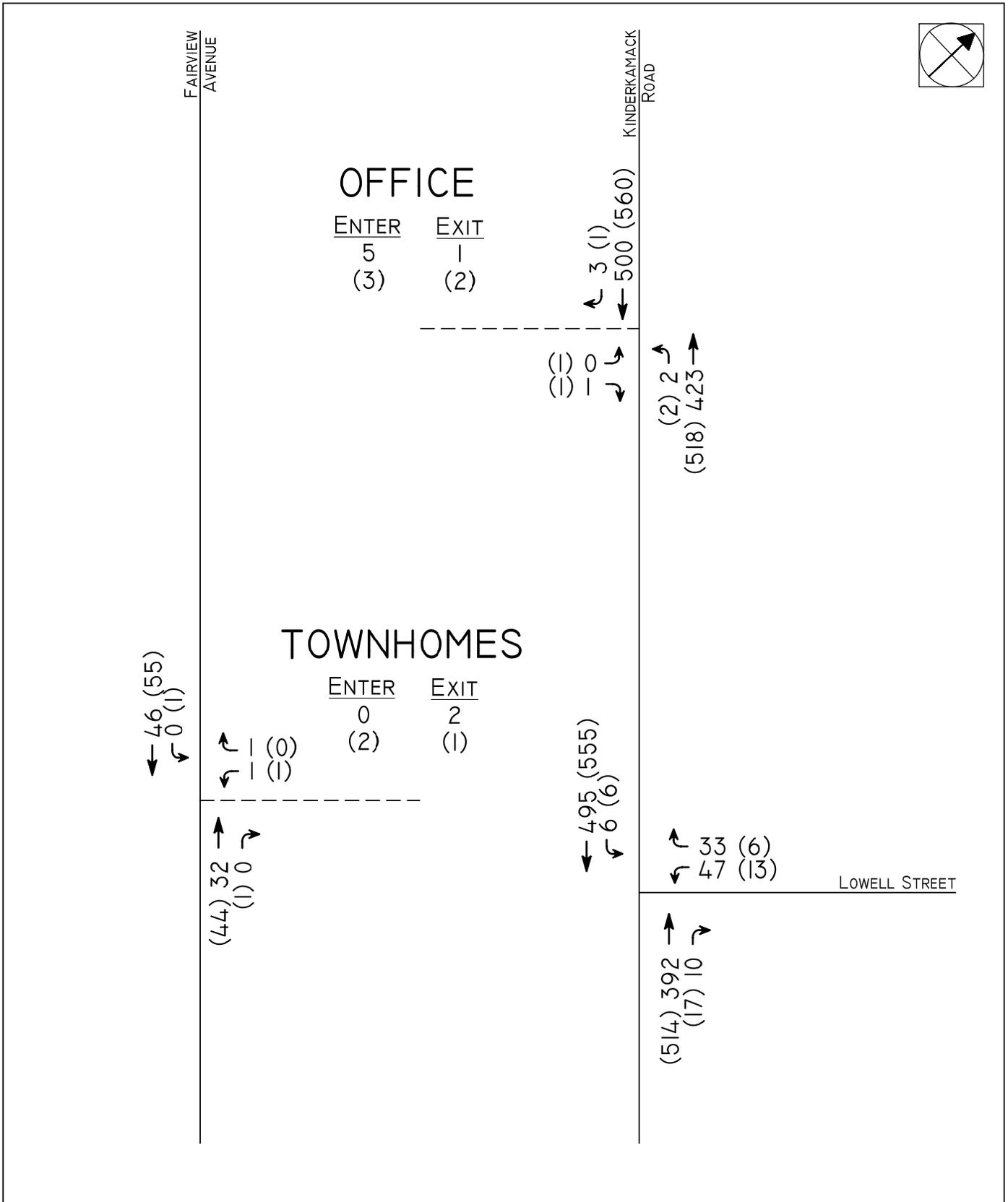


WESTWOOD INVESTMENTS
BOROUGH OF WESTWOOD
BERGEN COUNTY, NEW JERSEY

FIGURE 2



EXISTING TRAFFIC VOLUMES
MORNING (EVENING) PEAK HOUR



WESTWOOD INVESTMENTS
 BOROUGH OF WESTWOOD
 BERGEN COUNTY, NEW JERSEY

FIGURE 3



BUILD TRAFFIC VOLUMES
 MORNING (EVENING) PEAK HOUR

Kinderkamack Rd & Lowell Street, Westwood, NJ
 Tuesday, February 11, 2020 From 7:00 to 9:00 Am, and from 4:00 to 6:00 Pm

	Passenger Vehicles						Heavy Vehicles						Total	Hour Total
	1	2	3	4	5	6	1	2	3	4	5	6		
7:00 AM	54	1	9	3	0	82	7	0	0	0	0	1	157	
7:15 AM	69	1	8	4	0	120	0	1	0	0	0	3	206	
7:30 AM	86	1	7	0	1	103	6	0	0	0	0	6	210	
7:45 AM	91	4	5	1	1	125	4	0	0	0	0	2	233	806
8:00 AM	68	1	11	6	3	130	4	0	0	0	0	3	226	875
8:15 AM	109	2	11	3	0	108	2	0	0	0	0	7	242	911
8:30 AM	96	3	19	22	2	102	5	0	0	0	0	2	251	952
8:45 AM	95	1	9	11	1	107	3	0	0	1	0	3	231	950
Peak	364	10	46	32	6	465							PHF =	0.95
Heavy	15	0	0	0	0	14							HV =	3%
Total	379	10	46	32	6	479								

	Passenger Vehicles						Heavy Vehicles						Total	Hour Total
	1	2	3	4	5	6	1	2	3	4	5	6		
4:00 PM	129	4	7	6	1	111	4	0	0	0	0	1	263	
4:15 PM	100	3	6	8	1	104	1	0	0	0	0	5	228	
4:30 PM	126	1	5	2	2	96	0	0	0	0	0	4	236	
4:45 PM	121	5	5	0	4	112	3	0	0	0	0	2	252	979
5:00 PM	126	2	2	1	0	120	2	0	0	0	0	2	255	971
5:15 PM	111	2	2	1	1	149	1	0	0	0	0	2	269	1012
5:30 PM	133	8	4	4	1	150	0	0	0	0	0	1	301	1077
5:45 PM	106	1	5	1	0	118	3	0	0	0	0	3	237	1062
Peak	491	17	13	6	6	531							PHF =	0.89
Heavy	6	0	0	0	0	7							HV =	1%
Total	497	17	13	6	6	538								

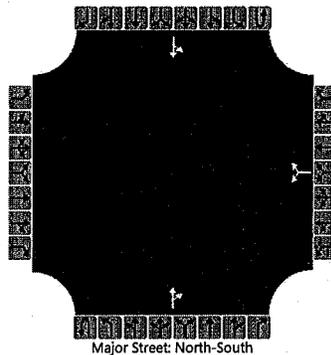
Fairview Ave & Site DW
 Tuesday, February 11, 2020 From 7:00 to 9:00 Am, and from 4:00 to 6:00 Pm

	Passenger Vehicles						Heavy Vehicles						Total	Hour Total
	1	2	3	4	5	6	1	2	3	4	5	6		
7:00 AM	4	0	0	0	0	1	0	0	0	0	0	0	5	
7:15 AM	6	0	0	0	0	4	0	0	0	0	0	0	10	
7:30 AM	7	0	0	0	0	2	0	0	0	0	0	0	9	
7:45 AM	7	0	0	0	1	5	3	0	0	0	0	0	16	40
8:00 AM	6	1	0	0	1	12	0	0	0	0	0	0	20	55
8:15 AM	19	1	0	0	0	9	0	0	0	0	0	0	29	74
8:30 AM	10	1	0	1	0	5	0	0	0	0	0	0	17	82
8:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	4	70
Peak	42	3	0	1	2	31							PHF =	0.71
Heavy	3	0	0	0	0	0							HV =	4%
Total	45	3	0	1	2	31								

	Passenger Vehicles						Heavy Vehicles						Total	Hour Total
	1	2	3	4	5	6	1	2	3	4	5	6		
4:00 PM	10	0	0	0	1	12	0	0	0	0	0	0	23	
4:15 PM	17	0	0	0	1	6	0	0	0	0	0	0	24	
4:30 PM	15	0	1	0	0	11	0	0	0	0	0	0	27	
4:45 PM	12	1	0	1	0	14	0	0	0	0	0	0	28	102
Peak	54	1	1	1	2	43							PHF =	0.91
Heavy	0	0	0	0	0	0							HV =	0%
Total	54	1	1	1	2	43								

General Information				Site Information			
Analyst	EIC			Intersection	Kinderkamack & Lowell		
Agency/Co.	DD			Jurisdiction			
Date Performed	2/28/2020			East/West Street	Lowell Street		
Analysis Year	2020			North/South Street	Kinderkamack Road		
Time Analyzed	Am Existing			Peak Hour Factor	0.95		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR			LT	
Volume (veh/h)						46		32			379	10		6	479	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type Storage							Undivided									

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						643		623						413		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						353		333						223		

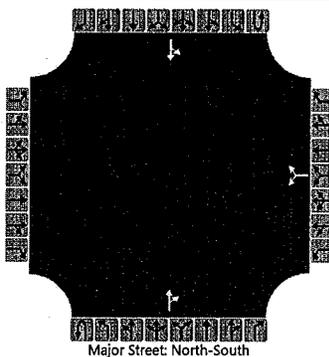
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						82								6		
Capacity, c (veh/h)						381								1144		
v/c Ratio						0.22								0.01		
95% Queue Length, Q ₉₅ (veh)						0.8								0.0		
Control Delay (s/veh)						17.0								8.2		
Level of Service (LOS)						C								A		
Approach Delay (s/veh)						17.0								0.2		
Approach LOS						C								A		

HCS / Two-Way Stop-Control Report

General Information				Site Information			
Analyst	EIC			Intersection	Kinderkamack & Lowell		
Agency/Co.	DD			Jurisdiction			
Date Performed	2/28/2020			East/West Street	Lowell Street		
Analysis Year	2020			North/South Street	Kinderkamack Road		
Time Analyzed	Am Build			Peak Hour Factor	0.95		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						47		33			392	10		6	495	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type Storage							Undivided									

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

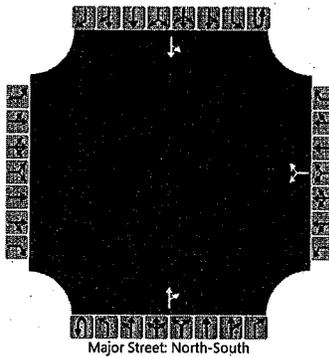
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						84								6		
Capacity, c (veh/h)						368								1131		
v/c Ratio						0.23								0.01		
95% Queue Length, Q ₉₅ (veh)						0.9								0.0		
Control Delay (s/veh)						17.7								8.2		
Level of Service (LOS)						C								A		
Approach Delay (s/veh)						17.7								0.2		
Approach LOS						C										

HCS / Two-Way Stop-Control Report

General Information				Site Information			
Analyst	EIC			Intersection	Kinderkamack & Lowell		
Agency/Co.	DD			Jurisdiction			
Date Performed	2/28/2020			East/West Street	Lowell Street		
Analysis Year	2020			North/South Street	Kinderkamack Road		
Time Analyzed	Pm Existing			Peak Hour Factor	0.89		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						13		6			497	17		6	538	
Percent Heavy Vehicles (%)						1		1						1		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type Storage						Undivided										

Critical and Follow-up Headways

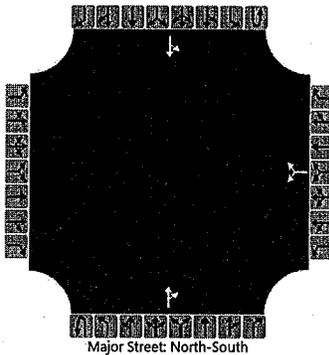
Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.41		6.21							4.11	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.51		3.31							2.21	

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						21								7		
Capacity, c (veh/h)						256								1001		
v/c Ratio						0.08								0.01		
95% Queue Length, Q ₉₅ (veh)						0.3								0.0		
Control Delay (s/veh)						20.3								8.6		
Level of Service (LOS)						C								A		
Approach Delay (s/veh)						20.3								0.2		
Approach LOS						C								A		

General Information				Site Information			
Analyst	EIC			Intersection	Kinderkamack & Lowell		
Agency/Co.	DD			Jurisdiction			
Date Performed	2/28/2020			East/West Street	Lowell Street		
Analysis Year	2020			North/South Street	Kinderkamack Road		
Time Analyzed	Pm Build			Peak Hour Factor	0.89		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR			LT	
Volume (veh/h)						13		6			514	17		6	555	
Percent Heavy Vehicles (%)						1		1						1		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type Storage							Undivided									

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.41		6.21						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.51		3.31						2.21		

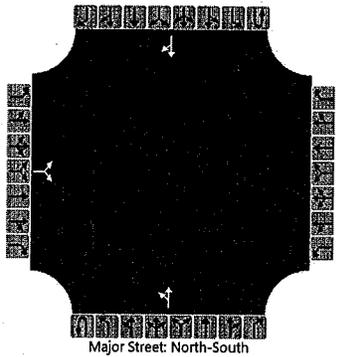
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						21								7		
Capacity, c (veh/h)						244								985		
v/c Ratio						0.09								0.01		
95% Queue Length, Q ₉₅ (veh)						0.3								0.0		
Control Delay (s/veh)						21.2								8.7		
Level of Service (LOS)						C								A		
Approach Delay (s/veh)						21.2								0.2		
Approach LOS						C										

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	EIC			Intersection	Kinderkamack & Office Dw		
Agency/Co	DD			Jurisdiction			
Date Performed	3/2/2020			East/West Street	New Office Driveway		
Analysis Year	2020			North/South Street	Kinderkamack Road		
Time Analyzed	Am Build			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		0		1						2	423					500
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

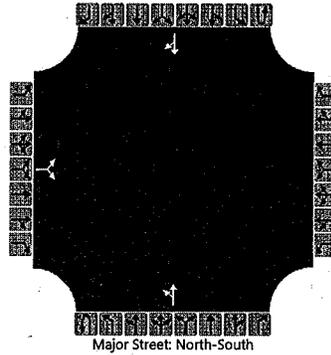
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			1							2						
Capacity, c (veh/h)			536							1018						
v/c Ratio			0.00							0.00						
95% Queue Length, Q ₉₅ (veh)			0.0							0.0						
Control Delay (s/veh)			11.7							8.5						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)	11.7								0.1							
Approach LOS	B															

General Information				Site Information			
Analyst	EIC			Intersection	Kinderkamack & Office Dw		
Agency/Co.	DD			Jurisdiction			
Date Performed	3/2/2020			East/West Street	New Office Driveway		
Analysis Year	2020			North/South Street	Kinderkamack Road		
Time Analyzed	Pm Build			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		1						2	518				560	2
Percent Heavy Vehicles (%)		1		1						1						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type Storage		Undivided														

Critical and Follow-up Headways

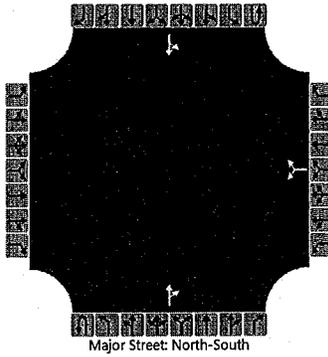
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.41		6.21						4.11						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.51		3.31						2.21						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			2							2						
Capacity, c (veh/h)			296							973						
v/c Ratio			0.01							0.00						
95% Queue Length, Q ₉₅ (veh)			0.0							0.0						
Control Delay (s/veh)			17.2							8.7						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		17.2								0.1						
Approach LOS		C								A						

General Information		Site Information	
Analyst	EIC	Intersection	Fairview & Townhouse Dw's
Agency/Co.	DD	Jurisdiction	
Date Performed	3/2/2020	East/West Street	Townhouse Driveways
Analysis Year	2020	North/South Street	Fairview Avenue
Time Analyzed	Am Build	Peak Hour Factor	0.71
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						1		1			32	0		0	46	
Percent Heavy Vehicles (%)						4		4						4		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1	6.2									4.1		
Critical Headway (sec)					6.44	6.24									4.14		
Base Follow-Up Headway (sec)					3.5	3.3									2.2		
Follow-Up Headway (sec)					3.54	3.34									2.24		

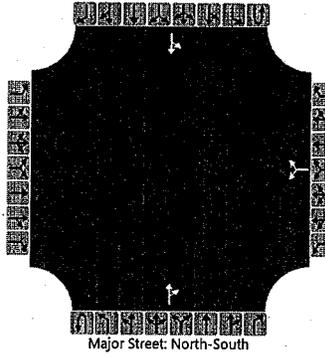
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					3									0		
Capacity, c (veh/h)					946									1550		
v/c Ratio					0.00									0.00		
95% Queue Length, Q ₉₅ (veh)					0.0									0.0		
Control Delay (s/veh)					8.8									7.3		
Level of Service (LOS)					A									A		
Approach Delay (s/veh)					8.8								0.0			
Approach LOS					A											

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	EIC			Intersection	Fairview & Townhouse Dw's		
Agency/Co.	DD			Jurisdiction			
Date Performed	3/2/2020			East/West Street	Townhouse Driveways		
Analysis Year	2020			North/South Street	Fairview Avenue		
Time Analyzed	Pm Build			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR			LT	
Volume (veh/h)						1		0			44	1		1	55	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1								1		
Capacity, c (veh/h)						889								1570		
v/c Ratio						0.00								0.00		
95% Queue Length, Q ₉₅ (veh)						0.0								0.0		
Control Delay (s/veh)						9.1								7.3		
Level of Service (LOS)						A								A		
Approach Delay (s/veh)					9.1								0.1			
Approach LOS					A											