

March 4, 2024

Watchung Saints, LLC
1296 Van Houten Avenue
Clifton, NJ 07013.

Attn: Dean Maroulakos

**Re: Traffic and Parking Assessment Study
Proposed Mixed-Use Development –
Residential and Restaurant
Block 1606 – Lot 70
698-700 Bloomfield Avenue
Township of Verona, Essex County, NJ
DT #5128-24-00125**

Dear Mr. Maroulakos:

Dynamic Traffic has prepared the following assessment to determine the traffic impact and adequacy of access, circulation, and parking associated with the redevelopment of a site located at the northwest corner of Bloomfield Avenue with Rockland Terrace in the Township of Verona, Essex County, New Jersey. The site is designated as Block 1606 – Lot 13 on the Township of Verona Tax Maps. The site is currently occupied by a one/two story building, with the first floor vacant and two (2) existing residential apartments on the second floor. The first floor was previously occupied by a dry cleaner. It is now proposed to convert the first floor to a restaurant and maintain the existing 2-unit multifamily residential apartments, as well as improve and expand the parking lot from five (5) parking spaces to eight (8) parking spaces. (The Project). Access to the site is currently provided via a curb cut that will remain along Rockland Terrace.

This assessment documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Projections of traffic to be generated by The Project were prepared utilizing trip generation data as published by the Institute of Transportation Engineers.
- Parking accumulation counts of public parking were conducted during the Friday and Saturday late evening time periods along the public streets and municipal parking lots within reasonable walking distance from the site.
- The proposed site driveway was inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.

- The parking layout and supply was assessed based on accepted design standards and demand experienced at similar developments.

Existing Roadway Conditions

Bloomfield Avenue is an urban principal arterial under the jurisdiction of the County of Essex with a general east/west orientation. In the vicinity of the site the speed limit is posted as 25 mph and the roadway provides two (2) travel lanes and a metered parking lane in each direction. Curb and sidewalks are provided along both sides of the roadway. Bloomfield Avenue provides a straight horizontal alignment and a gentle descending vertical alignment from west to east in the vicinity of the site. The land uses along Bloomfield Avenue in the vicinity of The Project are a mix of commercial and residential.

Rockland Terrace is a local roadway under the jurisdiction of the Township of Verona with a general north/south orientation. In the vicinity of the site the regulatory speed limit is 25 MPH and the roadway provides a single travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Rockland Terrace provides a straight horizontal alignment and relatively flat vertical alignment along and near the site frontage.

Both sides of Bloomfield Avenue have metered parking Monday to Friday from 8 AM to 6 PM. Rockland Terrace has some metered parking along the east side effective during the same time period. No parking is permitted along the west side of Rockland Terrace.

Traffic and Parking Counts

Vehicular and pedestrian traffic counts were conducted at the intersection of Bloomfield Avenue and Rockland Terrace on Friday, January 26, 2024 and Saturday, January 27, 2024 between 5:00 PM to 7:00 PM with the peak hour occurring between 5:30 to 6:30 PM on both days. In addition, public, on-street parking and municipal lot accumulation counts were conducted within a reasonable walking distance from the site on the same dates, between 5:00 and 8:00 PM. The peak intensity of the proposed restaurant will be evening dinner times, thus the reason for the traffic and parking counts conducted during these time periods.

The peak hour traffic volumes of Bloomfield Avenue and Rockland Terrace are as tabulated below:

TABLE I
BLOOMFIELD AVENUE AND ROCKLAND TERRACE
2024 EXISTING PEAK HOUR TRAFFIC VOLUMES

<u>Peak Hour</u>	<u>Bloomfield Ave.</u>		<u>Bloomfield Ave.</u>		<u>Rockland Terr.</u>	
	<u>Eastbound</u>		<u>Westbound</u>		<u>Southbound</u>	
	Thru	Left	Thru	Right	Left	Right
Fri., 5:30-6:30 pm	820	5	780	8	10	5
Sat., 5:30-6:30 pm	665	4	571	10	12	3

The Enterprise car rental exit driveway is located opposite Rockland Terrace and no appreciable vehicle movements were observed during both peak hours. Pedestrian activity was moderately low with zero to less than 15 pedestrian street crossings at the studied intersection during the peak hour.

Parking counts were conducted during the peak time period to determine the number of vacant parking spaces within convenient walking distance. These streets and lots include:

- Bloomfield Avenue from Gould Street to Fairview Avenue.
- Rockland Terrace
- Orchard Street
- Grove Avenue
- Fairview Avenue
- Lincoln Street
- S. Prospect St.
- Municipal Lot #2 off of Grove Street
- Municipal Lot #1 off of Park Place

The surveyed locations are illustrated on the Parking Count aerial map provided in the Technical Appendix.

The above public parking resources are within very convenient walking distance of the site at less than 900 feet (0.17 mile), with the exception of Municipal Lot #1 which is 1,650 feet (0.30 mile) and possibly the municipal complex parking (loop driveway and parking lot at the Library) which is 1,250 feet (0.25 mile) walking distance. These distances of 0.25 and 0.30 mile are still deemed to be within feasible walking distance of the site, and would be deemed to be a “back-up”, secondary parking resource for the proposed restaurant patrons should the other parking areas be filled. In any event, Lot #1 and the municipal complex parking would have some influence on parking availability for the subject site. Its use by patrons and residents of land uses closer to these secondary parking areas would potentially free-up spaces closer to the subject restaurant site. In other words, while these two areas may not have a complete, direct effect on parking availability for some proposed restaurant patrons, it certainly would have for other patrons or be used by other motorists who may have otherwise parked closer to the subject site. Therefore, it would be unwarranted to discount these secondary parking areas completely.

It is noted that the municipal complex loop road and adjacent parking lot behind the library were observed to be minimally occupied during the surveyed times, and potentially could be used by the general public. There are 35 parking spaces in these areas, at which time during the parking counts, less than 10 vehicles were parked within these spaces, leaving a minimum of 25 vacant spaces. The only signed limitation was 2-hour parking between 8AM and 6PM. Presumably the public can park in this area with only that single time restriction. This parking is 1,250 feet (0.25 mile) walking distance from the subject site.

The breakdown of the public parking accumulation counts are provided in the Technical Appendix.

A synopsis of the public parking accumulation counts is provided in the following Table II:

TABLE II
NUMBER OF VACANT PARKING SPACES

<u>Time</u>	<u># Spaces without Muni Lot #1 and Muni Complex</u>	<u># Spaces with Muni Lot #1</u>	<u>#Spaces with Muni Lot #1 and Muni Complex</u>
Fri., 5:00 pm	42	84	109
Fri., 6:15 pm	35	85	110
Fri., 8:00 pm	30	93	118
Sat., 5:00 pm	44	141	166
Sat., 6:15 pm	37	129	154
Sat., 8:00 pm	35	118	143

As can be seen above, there was found to be an overall minimum of 30 on-street/municipal lot parking spaces available within very convenient walking distance from the site. Considering the additional parking availability of Municipal Lot #1 and the Municipal Complex parking, there is a total of a minimum of 109 parking spaces available within feasible walking distance from the site.

Site Generated Traffic

Trip generation projections for The Project were made utilizing trip generation research data as published under Land Use Code (LUC) 221 – Multifamily Housing and LUC 932 – High Turnover/Sit Down Restaurant in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition*. This publication sets forth trip generation rates based on empirical traffic count data conducted at numerous research sites. The following table shows the anticipated trip generation for The Project based on the ITE data.

TABLE III
TRIP GENERATION OF PROPOSED USES

Land Use	PM Pk Hr			SAT Pk Hr		
	In	Out	Total	In	Out	Total
2 Residential Units	1	0	1	1	1	2
46 Seat Restaurant	10	8	18	13	11	24
TOTAL	11	8	19	14	12	26

It should also be noted that at the site there is very convenient access to New Jersey Transit bus lines 29, 29x, and 105, with stops located essentially at the site. While this mass transit availability may not have a significant influence on the trip and parking generation of the site, it could potentially be used by the residents and employees of the restaurant. In any event, no credit was taken for reducing the trip and parking generation projections based on this availability.

As seen above, the proposed residential and restaurant development is not projected to result in a significant increase in trip generation to the surrounding roadway network. This is due to the low magnitude of trips generated and that parking for the proposed site will be primarily dissipated throughout the surrounding street network.

Furthermore, it should be noted that the number of new trips falls below the industry accepted standard of a significant increase in traffic of 100 trips. Based on *Transportation Impact Analysis for Site Development*, published by the ITE “it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways’ peak hour or the development’s peak hour.” Additionally, NJDOT has determined that the same 100 vehicle threshold is considered a “significant increase in traffic,” hence, it is not anticipated that the proposed residential development will have any perceptible impact on the traffic operation of the adjacent roadway network, as the proposed development results in less than 25% increase of this threshold, when considering the 2 residential units exist.

To further ensure that there is no traffic impact, capacity analyses were performed for the intersection of Bloomfield Avenue and Rockland Terrace for the studied Friday and Saturday peak hours for existing conditions. Bloomfield Avenue EB left turns operate at acceptable Level of Service “A” and Rockland Terrace left and right turns operate at acceptable Level of Service “C”. There is sufficient reserve capacity to accommodate that projected trip generation without any significant negative traffic impacts. The capacity analysis worksheets are provided in the Technical Appendix of this report.

Parking

Per the Township Ordinance requirements, the 2 residential units require 4 parking spaces and the 46-seat restaurant requires 23 parking spaces for a total of 27 parking spaces required. These Code requirements are consistent with other accepted standards such as ITE, RSIS, etc.

There are eight (8) parking spaces proposed on-site, leaving a deficiency of 19 spaces that are projected to be accommodated by determined-available public parking the area. As indicated previously indicated, within very convenient walking distance, during the projected peak hours, there is a minimum of 30 available parking spaces. Beyond this somewhat immediate area, there is potentially up to a minimum of 109 total parking spaces available. This available off-site parking exceeds the projected excess parking demand of 19 parking spaces.

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed residential and restaurant land use development is projected to generate 11 entering trips and 8 exiting trips during the weekday evening peak hour, and 14 entering trips and 12 exiting trips during the Saturday peak hour. This trip generation will not generate any appreciable negative impact onto the surrounding roadway network.

- Access to the site will be provided via one (1) existing driveway to remain along Rockland Terrace. There is essentially no change to the direct access to and from the site.
- The on-site parking lot will be expanded to provide a total of eight (8) parking spaces.
- The combination of the on-site parking supply as well as local on-street and municipal lot parking availability is more than sufficient to support the projected demand.


Conclusion

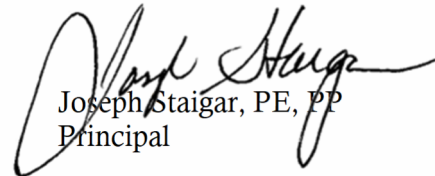
Based upon our Traffic and Parking Assessment Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic that the adjacent street system of the Township of Verona will not experience any significant degradation in operating conditions with the proposed development of the site. The proposed site plan is designed to safely operate and more than sufficient parking is available to the site to accommodate the demands.

If you have any questions on the above, please do not hesitate to contact our office.

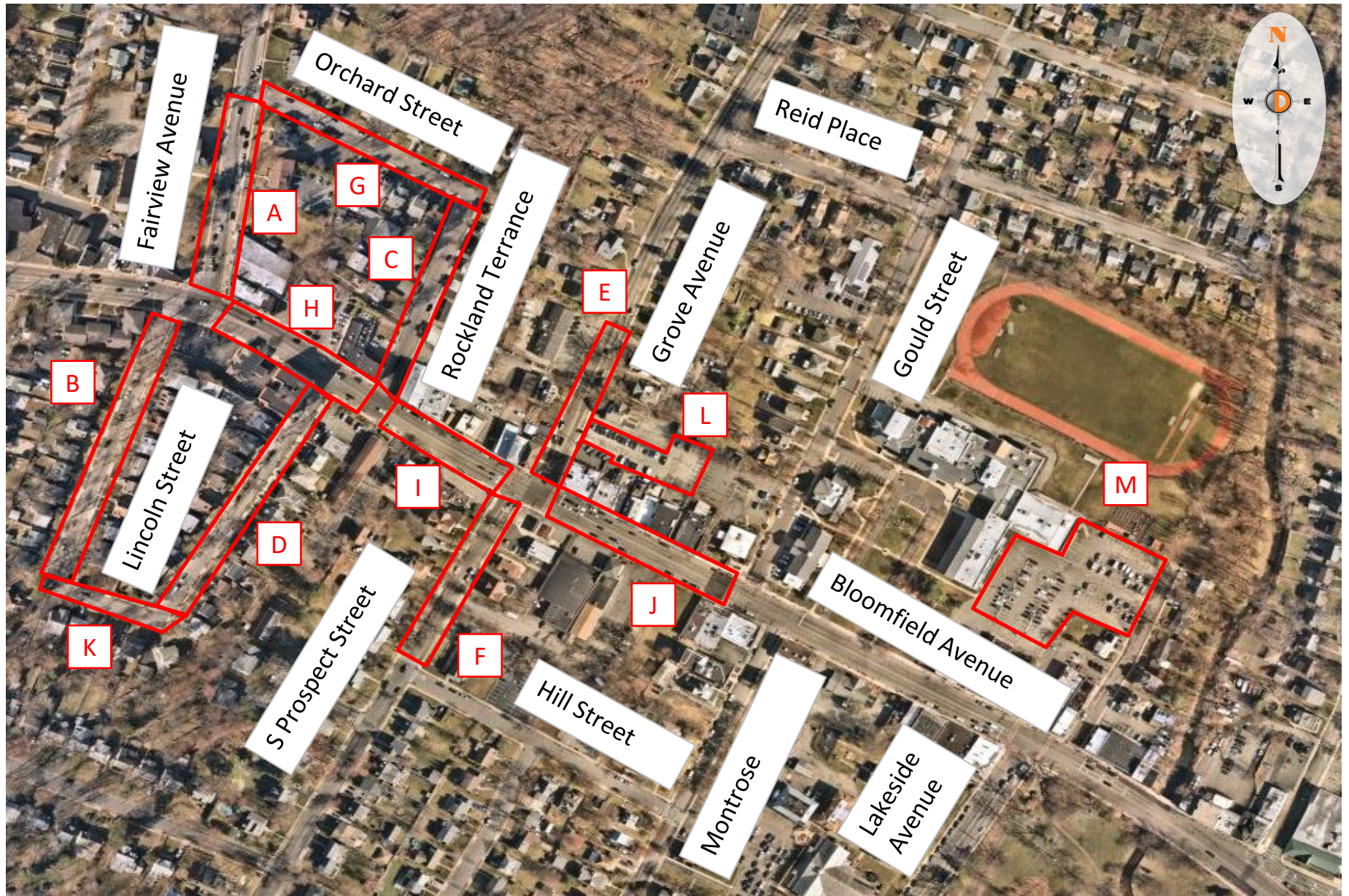
Sincerely,

Dynamic Traffic, LLC


Connor Hughes, PE
Project Manager


Joseph Staigar, PE, PP
Principal

TECHNICAL APPENDIX



Location: Bloomfield Ave & Rockland Terrace
Verona, Essex County, NJ

Location: Bloomfield Ave & Rockland Terrance
Municipality: Verona
State: NJ

Date: 1/26/2024
Enumerator: Dennis Haley, Jr
Job #: 5128 24-00125

Number of Vacant Spaces - Weekday														
Interval	A	B	C	D	E	F	G	H	I	J	K	L	M	Total Vacant
5:00 PM	0	7	5	1	0	4	5	4	4	3	0	9	42	84
6:15 PM	2	7	2	0	0	3	7	2	4	1	0	7	50	85
7:30 PM	2	6	1	0	0	0	8	1	6	0	0	6	63	93

Location: Bloomfield Ave & Rockland Terrance
Municipality: Verona
State: NJ

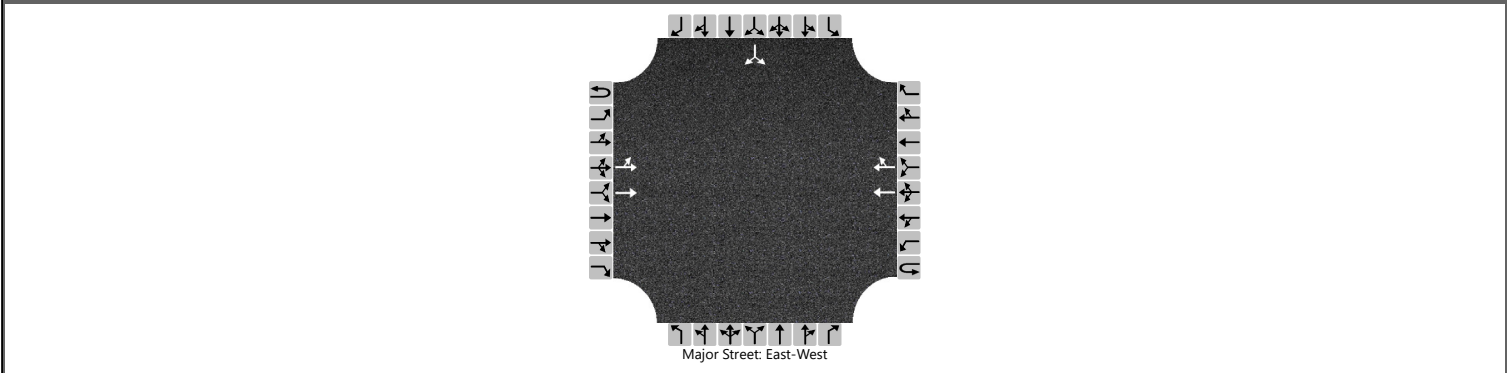
Date: 1/27/2024
Enumerator: Dennis Haley, Jr.
Job #: 5128 24-00125

Number of Vacant Spaces - Saturday														
Interval	A	B	C	D	E	F	G	H	I	J	K	L	M	Total Vacant
5:00 PM	1	4	0	2	3	1	9	0	4	4	0	16	97	141
6:15 PM	5	3	0	2	2	1	10	0	2	0	0	12	92	129
7:30 PM	6	3	1	3	2	1	10	0	2	0	0	7	83	118

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	3/6/2024	East/West Street	Bloomfield Avenue
Analysis Year	2024	North/South Street	Rockland Terr.
Time Analyzed	PM Pk Hr	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description			

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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	0		0	1	0
Configuration		LT	T				T	TR							LR	
Volume (veh/h)		5	820				780	8						10		5
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)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

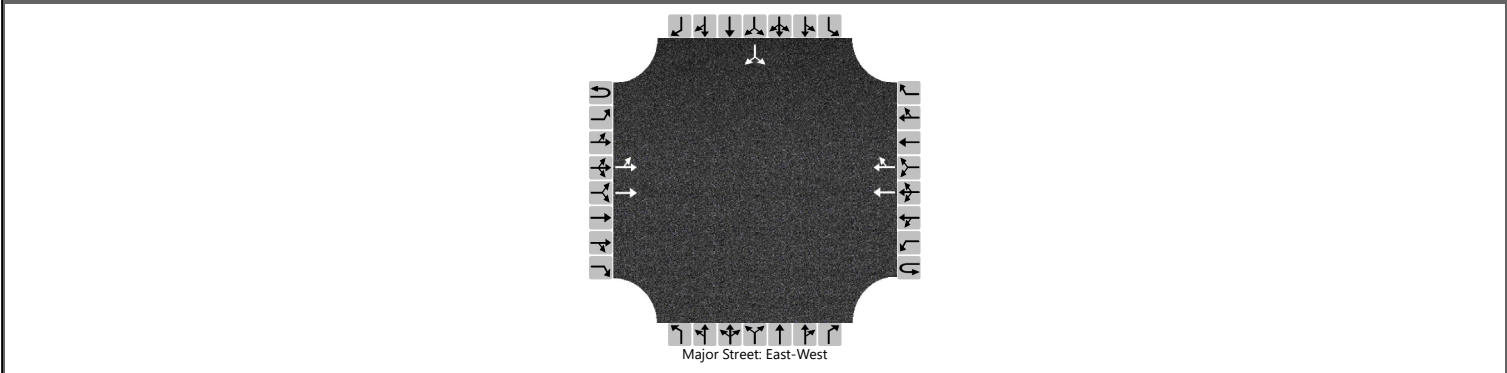
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		5													16	
Capacity, c (veh/h)		773													197	
v/c Ratio		0.01													0.08	
95% Queue Length, Q ₉₅ (veh)		0.0													0.3	
Control Delay (s/veh)		9.7	0.1												24.9	
Level of Service (LOS)		A	A												C	
Approach Delay (s/veh)	0.1												24.9			
Approach LOS	A												C			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	3/6/2024	East/West Street	Bloomfield Avenue
Analysis Year	2024	North/South Street	Rockland Terr.
Time Analyzed	Sat Pk Hr	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description			

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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	0		0	1	0
Configuration		LT	T				T	TR							LR	
Volume (veh/h)		4	665				571	10						12		3
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)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4													16	
Capacity, c (veh/h)		940													273	
v/c Ratio		0.00													0.06	
95% Queue Length, Q ₉₅ (veh)		0.0													0.2	
Control Delay (s/veh)		8.8	0.1												19.0	
Level of Service (LOS)		A	A												C	
Approach Delay (s/veh)	0.1												19.0			
Approach LOS	A												C			