

October 5, 2023
Revised: February 16, 2024
Via Fed-Ex

Township of Bloomfield Zoning Board of Adjustment
1 Municipal Plaza, Room 203
Bloomfield, NJ 07003

Attn: Zoning Board Secretary

**Re: Traffic and Parking Study
Proposed Multifamily Residential Development
Block 129 – Lot 70
78 Locust Avenue
Township of Bloomfield, Essex County, NJ
DT # 4997 23-03259**

Dear Board Members:

Dynamic Traffic has prepared the following assessment to determine the traffic impact and adequacy of access, circulation, and parking associated with the development of a site located along the south side of Locust Avenue and the north side of Willow Street in the Township of Bloomfield, Essex County, New Jersey (see Site Location Map). The site is designated as Block 129 – Lot 70 on the Township of Bloomfield Tax Maps. The site is currently vacant, however it should be noted that the site was previously approved by the Board of Adjustment on April 21, 2011 for the construction of a multifamily residential development containing 40 dwelling units. It is now proposed to construct a 44-unit multifamily residential development (The Project). Access to the site is currently provided via two (2) curb cuts along Locust Avenue and one (1) curb cut along Willow Street. It is proposed to close the existing access points and construct one (1) new full movement driveway along Locust Avenue and one (1) new full movement driveway along Willow Street. Parking will be provided via seventy-one (71) on-site parking spaces.

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 were conducted during the weekday late evening time period along Locust Avenue, JFK Drive South, and Willow Street.

- The proposed site driveways were 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

Locust Avenue is a local roadway under the jurisdiction of the Township of Bloomfield with a general east/west orientation. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction. However, it is noted that the roadway operates as a one-way roadway in the eastbound direction on Monday through Friday from 7:30 – 9:00 AM and from 3:00 – 4:00 PM. Curb is provided along both sides of the roadway while sidewalk is provided along the south side of the roadway. Locust Avenue provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along Locust Avenue in the vicinity of The Project are a mix of commercial and educational with Watsessing Elementary School located directly to the west.

JFK Drive South is an Urban Minor Arterial roadway under the jurisdiction of the Township of Bloomfield with a general north/south orientation. In the vicinity of the site the posted speed limit is 35 MPH and the roadway provides a single travel lane for one-way travel in the southbound direction in the vicinity of the site. Curb is provided along both sides of the roadway while sidewalk is provided along the western side of the roadway. JFK Drive South provides a straight horizontal alignment with a slight bend to the south of Myrtle Street, and a downgrade from north to south as it approaches locust Avenue. The land uses along JFK Drive South in the vicinity of The Project are a mix of commercial and residential.

Willow Street is a local roadway under the jurisdiction of the Township of Bloomfield with a general east/west orientation. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Willow Street provides a straight horizontal alignment with a 45° bend in front of the site, and a relatively flat vertical alignment. The land uses along Willow Street in the vicinity of The Project are a mix of commercial and residential.

Parking Counts

Public, on-street parking accumulation counts were originally conducted within a reasonable walking distance from the site on Tuesday, October 3, 2023 from 5:00 – 11:00 PM. In response to the February 5, 2024 review letter from Brightview Engineering, supplemental parking counts were conducted on Saturday, February 10, 2024 from 8:00 – 11:00 PM, Sunday, February 11, 2024 from 6:00 – 9:00 AM and Thursday, February 15, 2024 from 7:00 AM – 4:00 PM.

It should be noted that Willow Street was closed for construction during the Thursday, February 15th weekday counts for the majority of the count period, therefore it was omitted from the weekday morning and mid-day parking data. The following are descriptions of the locations of the parking counts as well as the available on-street parking:

- Locust Avenue from Prospect Street to JFK Drive South can park 37 cars.
- JFK Drive South from Locust Avenue to Willow Street can park 11 cars.
- Willow Street from Prospect Street to JFK Drive South can park 67 cars.

The following are descriptions of the existing parking regulations within the area of study.

- Locust Avenue from Prospect Street to JFK Drive South:
 - North Side: Parking Between Hours of 7:30 – 9:00 AM and 3:00 – 4:00 PM from Monday through Friday Must Conform to Directional Travel.
 - South Side: No Parking Any Time.
- JFK Drive South from Locust Avenue to Willow Street:
 - East Side: None Posted.
 - West Side: No Parking When Road is Snow Covered; No Parking 9:00 AM – 12:00 PM on Tuesdays Except Holidays.
- Willow Street from Prospect Street to JFK Drive South:
 - North Side: No Parking 9:00 AM – 12:00 PM on Mondays Except Holidays; Permit Parking Only 2:00 – 5:00 AM.
 - South Side: No Parking 9:00 AM – 12:00 PM on Tuesdays Except Holidays; Permit Parking Only 2:00 – 5:00 AM.

The parking accumulation counts identified the amount of available on-street parking on the roads surrounding The Project during the study period described above. The number of vacant parking spaces were recorded each day and the minimum number of available parking spaces was calculated for each study period as summarized below.

- Weekday Morning – Overall minimum 40 available spaces (8:30 – 8:45 AM)
 - 30 along Locust Avenue
 - 10 along JFK Drive South
- Weekday Mid-day – Overall minimum of 26 spaces (3:15 – 3:30 PM)
 - 16 along Locust Avenue
 - 10 along JFK Drive South
- Weekday Late Evening – Overall minimum of 57 spaces (10:15 – 11:00 PM)
 - 33 along Locust Avenue
 - 11 along JFK Drive South
 - 13 along Willow Street
- Saturday Late Evening – Overall minimum of 58 spaces (10:30 – 10:45 PM)
 - 34 along Locust Avenue
 - 11 along JFK Drive South
 - 13 along Willow Street
- Sunday Morning – Overall minimum of 55 spaces (6:00 – 6:30 AM)
 - 35 along Locust Avenue
 - 11 along JFK Drive South
 - 9 along Willow Street

As can be seen above, there was found to be an overall minimum of 26 on-street parking spaces available, which occurred from 3:15 – 3:30 PM during the weekday mid-day period (without consideration of parking along Willow Street). However, during the late evening time period when residential parking demand is at its peak, there was found to be a minimum of 57 parking spaces. The detailed summary of the parking availability is appended to this report.

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 (Mid-Rise) – Close to Rail Transit 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. Note that this LUC was selected to account for the site’s close proximity to the Watsessing Avenue Train Station (approximately 0.40 miles to the southeast). The following table shows the anticipated trip generation for The Project based on the ITE data.

**Table 1
 Trip Generation**

Land Use	AM PSH			PM PSH			SAT PSH		
	In	Out	Total	In	Out	Total	In	Out	Total
44 Residential Units	8	6	14	6	7	13	9	9	18

It should also be noted that within half a mile from the site there is access to New Jersey Transit bus lines 34, 92, and 94 which provide service to destinations such as Newark and Newark Penn Station. It should also be noted that within half a mile from the site there is access to the Watsessing Avenue Train Station (0.39 miles) and within ¾ of a mile from the site there is access to the Bloomfield Train Station (0.58 miles). Bloomfield Station and Watsessing Avenue Station provide connections to numerous destinations including Hoboken and New York City. Therefore, with various mass transportation options conveniently available in close proximity to the site, it is anticipated that many of the proposed building tenants will utilize public transportation rather than drive.

Additionally, as mentioned previously, the site was previously approved for a 40-unit residential development. Therefore, ITE data for LUC 221 – Multifamily Housing (Mid-Rise) – Close to Rail Transit was utilized to project the trip generation associated with the previously approved use. The following Table 2 compares the trips associated with the proposed use to that of the previously approved use based on ITE data.

**Table 2
 Previously Approved vs. Proposed Trip Generation Comparison**

Land Use	AM PSH			PM PSH			SAT PSH		
	In	Out	Total	In	Out	Total	In	Out	Total
40 Residential Units <i>(Previously Approved)</i>	7	6	13	5	7	12	8	8	16
44 Residential Units <i>(Proposed)</i>	8	6	14	6	7	13	9	9	18
Difference	+1	0	+1	+1	0	+1	+1	+1	+2

As seen above, the proposed residential development is not projected to result in a significant change in peak hour trips when compared to the previously approved residential development. Specifically, the proposed redevelopment is only projected to generate 1 additional trip during the weekday morning peak hour, 1 additional trip during the weekday evening peak hour and 2 additional trips during the Saturday peak hour.

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.

Site Access and Circulation

The site was reviewed with respect to the site access and on-site circulation design. As previously noted, access to the site will be provided via one (1) full movement driveway along Locust Avenue and one (1) full movement driveway along Willow Street. This is an improvement over existing conditions whereas the number of curb cuts along Locust Avenue is being reduced from two to one.

The newly constructed parking garage will be serviced by parking aisles with a width of 24’, which meets both the Ordinance requirement and the Residential Site Improvement Standards (RSIS). These access aisles will allow for two-way circulation and 90-degree parking. Review of the site plan design indicates that the site can sufficiently accommodate the automobile traffic anticipated.

Parking

The Township of Bloomfield Ordinance defers to the RSIS for residential parking requirements, which sets forth a maximum requirement of 1.8 parking spaces per one-bedroom unit and 2 parking spaces per two-bedroom unit. This equates to a maximum parking requirement of 82 spaces for the proposed 28 one-bedroom units and 16 two-bedroom units. The site as proposed provides 71 parking spaces inclusive of 16 tandem spaces, and as such the RSIS requirement is not met.

However, it should be noted that pursuant to New Jersey Senate Bill S3223, an electric vehicle (EV) parking space prepared as “make-ready” counts as two parking spaces for the purposes of complying with minimum parking space requirements, up to a 10% reduction in required spaces. This results in a reduced parking requirement of 74 spaces.

The RSIS also states the following:

“Alternative parking standards to those shown in ... shall be accepted if the applicant demonstrates these standards better reflect local conditions. Factors affecting minimum number of parking spaces include household characteristics, availability of mass transit, urban versus suburban location, and available off-site parking resources.”

Household Characteristics

It is apparent that the characteristics of the Township of Bloomfield and specifically the surrounding area of the site are very much different than rural and very suburban communities and alternative parking standards to the RSIS shall be deemed acceptable.

According to U.S. Census data for the area in which the site is located, the vehicle availability per rental household equates to 1.14 vehicles per unit which further equates to 50 parking spaces for the 44 units proposed. This lower demand is supported by the location of the site and its proximity to multiple mass transportation options. Furthermore, as primarily a residential use, the turnover of parking spaces is expected to be very low, with less than each space being vacated/occupied per day.

Availability of Mass Transit

As previously indicated, within half a mile from the site there is access to New Jersey Transit bus lines 34, 92, and 94 which provide service to destinations such as Newark and Newark Penn Station. Newark Penn Station in particular provides future residents with a connection to a plethora of additional mass transit options with service to various destinations throughout central and northern New Jersey as well as the World Trade Center and New York Penn Station. Additionally, within half a mile from the site there is access to the Watsessing Avenue Train Station and within $\frac{3}{4}$ of a mile from the site there is access to the Bloomfield Train Station.

Urban vs. Suburban Environment

The area surrounding the site is of a dense population nature with numerous single-family and commercial developments. The surrounding neighborhood is very walkable and conducive to pedestrians as it is interconnected with sidewalks. Opportunities for carpooling, utilization of Uber and Lyft services in addition to mass transit and other alternate means of travel are conveniently available; all which will reduce the trip and parking generation of the proposed development.

Off-Site Parking Resources

There is also opportunity for off-site, on-street parking within close proximity of the site which will supplement the on-site parking being provided. As detailed previously, on-street parking accumulation surveys were conducted during the weekday late evening time period to establish the current on-street parking availability within a reasonably convenient walking distance from the site. A map of the surveyed streets as well as tabulated data detailing parking availability are appended to this report. The results showed a overall minimum of 26 on-street parking spaces available, which occurred from 3:15 – 3:30 PM during the weekday mid-day period (without consideration of parking along Willow Street). However, during the late evening time period when residential parking demand is at its peak, there was found to be a minimum of 57 parking spaces.

Furthermore, national parking demand data has also been collected by ITE within their publication *Parking Generation, 5th Edition*. This publication establishes peak parking demands for multiple land uses based upon different independent variables, such as GFA and employees. For LUC 221 – Multifamily Housing (Mid-Rise) – Close to Rail Transit, ITE sets forth an average peak parking demand of 1.15 vehicles per dwelling unit. This equates to a demand of 51 parking spaces for the 44 units proposed and is also consistent to the parking demand based on local census data.

Therefore, the combination of the various factors listed above will have a diminishing effect on the parking demand of the proposed site. Thus, it is concluded that the parking deviation from the standard is justified as it meets the RSIS criteria for granting an exception.

It is proposed to provide compact parking stalls with dimensions of 8'6"x18' and standard parking stalls with dimensions of 9'x18', both of which meet the Ordinance requirements. Therefore, the dimensions will adequately accommodate the low-turnover site traffic anticipated.

Findings

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

- The proposed 44 Unit Multifamily Residential Development is projected to generate 8 entering trips and 6 exiting trips during the weekday morning peak hour, 6 entering trips and 7 exiting trips during the weekday evening peak hour and 9 entering trips and 9 exiting trips during the Saturday peak hour.
- Access to the site will be provided via one (1) full movement driveway along Locust Avenue and one (1) full movement driveway along Willow Street.
- As proposed, The Project's site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles.
- The combination of the on-site parking supply as well as local on-street parking availability is sufficient to support the projected demand.

Conclusion

Based upon our Circulation and Parking Assessment 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 Bloomfield will not experience any significant degradation in operating conditions with the redevelopment of the site. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project's needs.

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

Sincerely,

Dynamic Traffic, LLC

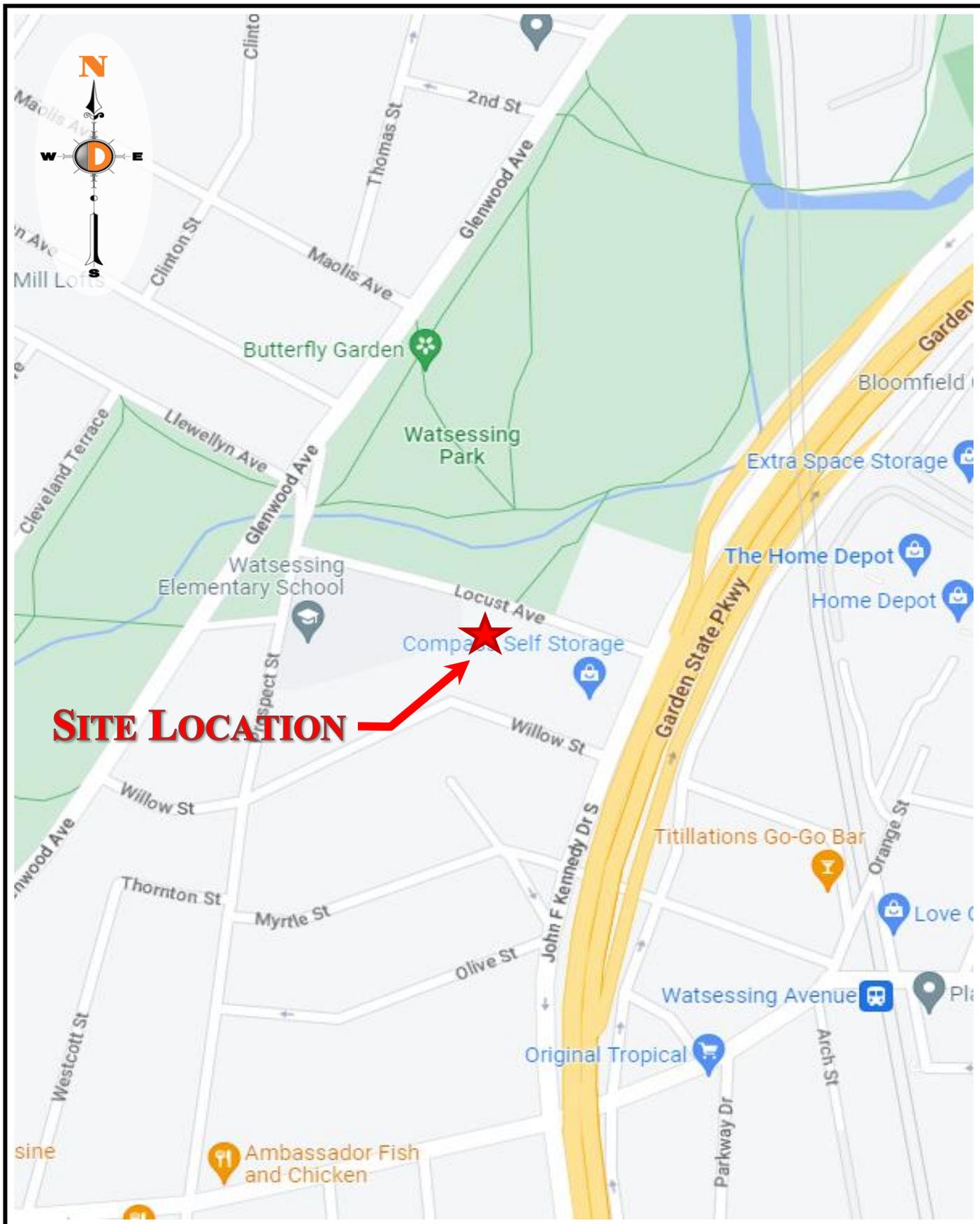


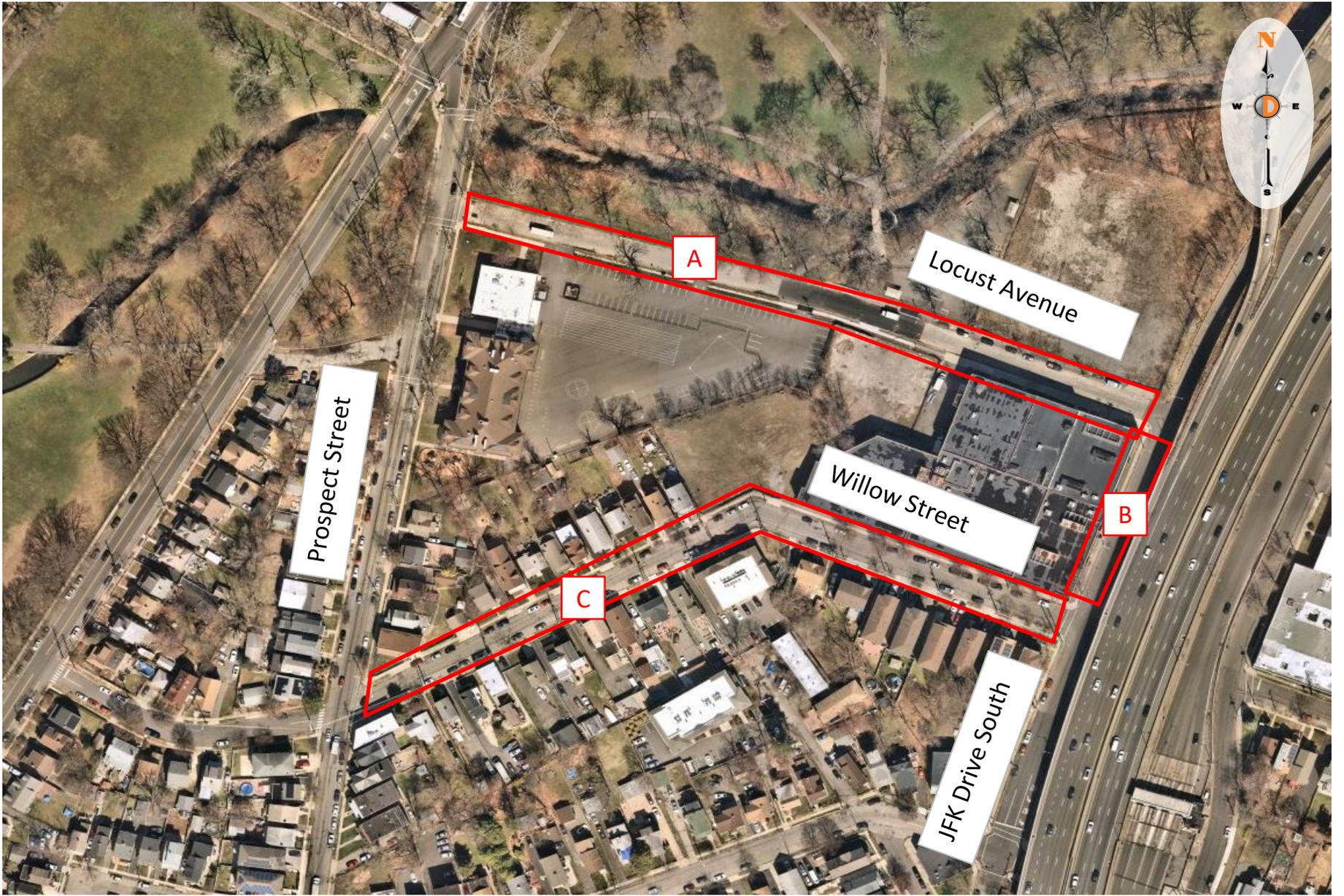
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Location: 78 Locust Avenue
Bloomfield, Essex County, NJ

Location: 78 Locust Avenue
Municipality: Bloomfield
County: Essex

Job #: 4997 23-03259
Date: 10/3/2023

Available Parking Spaces - Weekday Late Evening

Start Time	A	B	C	Total
5:00 PM	25	11	43	79
5:15 PM	26	11	39	76
5:30 PM	24	11	38	73
5:45 PM	27	11	38	76
6:00 PM	26	11	36	73
6:15 PM	25	11	34	70
6:30 PM	27	11	33	71
6:45 PM	26	11	32	69
7:00 PM	31	11	31	73
7:15 PM	33	11	30	74
7:30 PM	33	11	29	73
7:45 PM	33	11	28	72
8:00 PM	33	11	28	72
8:15 PM	33	11	26	70
8:30 PM	33	11	27	71
8:45 PM	33	11	25	69
9:00 PM	33	11	23	67
9:15 PM	33	11	18	62
9:30 PM	33	11	17	61
9:45 PM	32	11	17	60
10:00 PM	32	11	16	59
10:15 PM	33	11	13	57
10:30 PM	33	11	13	57
10:45 PM	33	11	13	57
11:00 PM	33	11	13	57

Location: 71 Prospect St
Municipality: Bloomfield
County: Essex

Job #: 4997 23-03259
Date: 2/15/2024

Available Parking Spaces - Weekday Morning and Mid-Day

Interval	A	B	Total
7:00 AM	35	8	43
7:15 AM	35	8	43
7:30 AM	33	9	42
7:45 AM	33	9	42
8:00 AM	34	10	44
8:15 AM	30	10	40
8:30 AM	30	10	40
8:45 AM	31	10	41
9:00 AM	34	10	44
9:15 AM	32	10	42
9:30 AM	32	10	42
9:45 AM	30	10	40
10:00 AM	32	10	42
10:15 AM	33	10	43
10:30 AM	31	10	41
10:45 AM	32	10	42
11:00 AM	31	10	41
11:15 AM	32	10	42
11:30 AM	34	10	44
11:45 AM	34	10	44
12:00 PM	34	10	44
12:15 PM	33	10	43
12:30 PM	32	10	42
12:45 PM	32	10	42
1:00 PM	31	10	41
1:15 PM	29	10	39
1:30 PM	30	10	40
1:45 PM	30	10	40
2:00 PM	33	10	43
2:15 PM	32	10	42
2:30 PM	30	10	40
2:45 PM	25	10	35
3:00 PM	26	10	36
3:15 PM	16	10	26
3:30 PM	30	10	40
3:45 PM	29	10	39
4:00 PM	30	10	40
4:15 PM	29	10	39
4:30 PM	30	10	40
4:45 PM	30	10	40

Location: 71 Prospect St
Municipality: Bloomfield
County: Essex

Job #: 4997 23-03259
Date: 2/10/2024

Available Parking Spaces - Saturday Late Evening

Interval	A	B	C	Total
8:00 PM	33	11	25	69
8:15 PM	33	11	25	69
8:30 PM	34	11	26	71
8:45 PM	34	11	24	69
9:00 PM	33	11	23	67
9:15 PM	34	11	22	67
9:30 PM	34	11	21	66
9:45 PM	35	11	21	67
10:00 PM	35	11	19	65
10:15 PM	34	11	18	63
10:30 PM	34	11	13	58
10:45 PM	34	10	15	59

Location: 71 Prospect St
Municipality: Bloomfield
County: Essex

Job #: 4997 23-03259
Date: 2/11/2024

Available Parking Spaces - Sunday Morning

Interval	A	B	C	Total
6:00 AM	35	11	9	55
6:15 AM	35	11	9	55
6:30 AM	35	11	10	56
6:45 AM	35	11	10	56
7:00 AM	35	11	12	58
7:15 AM	35	11	13	59
7:30 AM	34	11	14	59
7:45 AM	33	11	14	58
8:00 AM	32	11	14	57
8:15 AM	33	11	14	58
8:30 AM	35	11	16	62
8:45 AM	35	11	17	63