Chapter 5: Transportation

A. INTRODUCTION

This chapter examines the potential effects on study area transportation systems of the proposed development at 307 Kent Avenue (the Proposed Project), which would require a zoning map amendment and a zoning text amendment, as described in Chapter 1, "Project Description" (the Proposed Actions). The Project Area is located in the Williamsburg neighborhood of Brooklyn. Development would include the Proposed Project on Block 2415, Lot 1 (Projected Development Site 1) and development that could result from the Proposed Actions on Lot 6 (Projected Development Site 2). In addition to Lots 1 and 6 (the Projected Development Sites), Lots 10, 7501, 7502, and portions of (p/o) Lots 16 and 38 would be rezoned under the Proposed Actions (the Rezoning Area, coterminous with the Project Area). However, no new development is anticipated to occur on these lots as a result of the Proposed Actions. The Project Area is generally bounded by Wythe Avenue to the east, South 2nd Street to the north, Kent Avenue to the west, and South 3rd Street to the south (see **Figure 5-1**). The analysis considers the 2023 analysis year to identify potential impacts. Potential mitigation measures to address those impacts are presented in Chapter 10, "Mitigation." The travel demand projections, trip assignments, and capacity analysis contained in this chapter have been conducted pursuant to the methodologies outlined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*.

PROJECT DESCRIPTION

In the Future without the Proposed Actions (the No Action condition), the 11,344 gross square feet (gsf) of existing warehouse space on Lot 6 would remain unchanged. Lot 1 is currently occupied by Villain (a warehouse/production event space); this use is assumed to continue under the No Action condition. Based on a review of Villain's current event schedule, the majority of trips generated by Villain relate to its events, all of which would take place during the evening hours and do not occur on a daily basis. In order to analyze the most conservative increments possible, it is assumed that no trips are generated during the daytime related to the warehouse use on Projected Development Site 1, thereby increasing the "increment" between the With Action and No Action conditions. Because peak hour trips in the No Action condition would not overlap with the typical weekday analysis peak hours (AM, midday, and PM), no trip credits associated with the discontinuation of the Villain use in the With Action condition are taken. In the Future with the Proposed Actions (the With Action condition), incremental development in the Project Area would be approximately 17,000 gsf of local retail, 39,500 gsf of medical office, and 125,000 gsf of office/light manufacturing.

Table 5-1 provides a comparison of the development programs between the No Action and With Action conditions.

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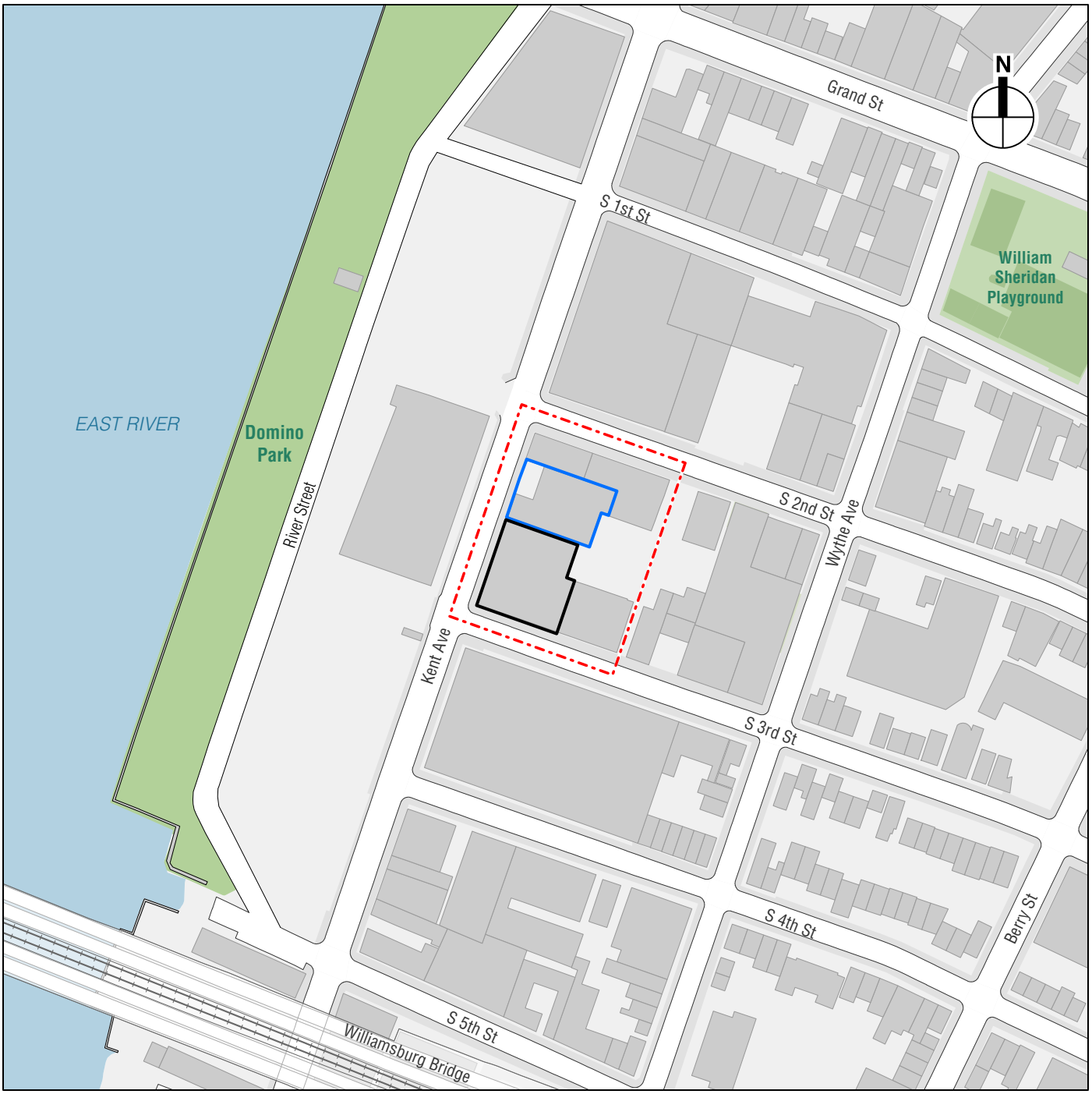


Project Location

307 KENT AVENUE

Figure 5-1

Table 5-1
Comparison of Projected Development Sites No Action and With Action Conditions

Components	Existing/No Action	With Action	Increments
Local Retail (gsf)	0	17,000	17,000
Medical Office (gsf)	0	39,500	39,500
Office/Light Manufacturing (gsf)	0	125,000	125,000
Warehouse (gsf)*	11,344	0	-11,344

Note: * No existing trip-generating use assumed for Lot 1; warehouse gsf only included for Lot 6 (Lot size of Lot 6 = 11,344 sf).
Source: S9 Architecture / G4 Capital Partners, 2018

PRINCIPAL CONCLUSIONS

TRAFFIC

Traffic conditions have been evaluated at 13 intersections for the weekday AM, midday and PM peak hours in consultation with the New York City Department of Transportation (DOT). In the 2023 With Action condition, there would be the potential for significant adverse traffic impacts under *CEQR Technical Manual* criteria at five intersections during the weekday AM peak hour, four intersections during the weekday midday peak hour, and eight intersections during the weekday PM peak hour. Under the No Action condition, it is projected that all of the affected lane groups in these intersections would operate with delays, such that an increase of only three or more seconds of delay at some of these more congested lane groups under the With Action condition would result in significant adverse traffic impacts under *CEQR Technical Manual* criteria. **Table 5-2** provides summaries of the impacted locations by lane group and analysis time period. Potential measures that are anticipated to fully mitigate the projected traffic impacts are described in Chapter 11, "Mitigation."

Table 5-2
Summary of Significant Adverse Traffic Impacts
2023 With Action Condition

Intersection		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
EB/WB Street	NB/SB Street			
Metropolitan Avenue	Kent Avenue	NB-TR	NB-TR	NB-TR
Metropolitan Avenue	Wythe Avenue	WB-LT SB-LTR	WB-LT SB-LTR	WB-LT SB-LTR
Metropolitan Avenue	Bedford Avenue			EB-LT
South 6th Street	Wythe Avenue			SB-TR
South 5th Street	Kent Avenue	NB-TR		NB-TR
Broadway	Kent Avenue	WB-R		
Broadway	Wythe Avenue			SB-LTR
South 5th Street	Wythe Avenue		EB-TR	EB-TR
South 6th Street	Kent Avenue	WB-TR	WB-TR	WB-TR
Total Impacted Intersections/Lane Groups		**5/6**	**4/5**	**8/9**

Note:
L = Left Turn, T = Through, R = Right Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

TRANSIT

The screening assessment summarized below concluded that a detailed subway assessment is not warranted, as no single subway station/line would be expected to incur incremental trips exceeding the *CEQR Technical Manual* analysis threshold of 200 or more peak hour subway riders. Therefore, a detailed analysis of subway facilities/lines is not warranted and the Proposed Actions are not expected to result in any significant adverse subway impacts.

Weekday AM and PM peak hour bus line-haul conditions have been evaluated for the B32 and B62 buses. The line-haul analyses showed that the Proposed Actions would result in an increase in bus ridership that would slightly exceed current bus capacity by up to three passengers on the northbound B32 during the weekday AM peak period, and an increase in bus ridership that would slightly exceed current bus capacity by up to one passenger on the northbound B62 during the weekday PM peak period in the 2023 With Action condition. These small exceedances would constitute significant adverse impacts under *CEQR Technical Manual* criteria. Potential measures to mitigate the projected bus line-haul impacts are described in Chapter 11, "Mitigation."

PEDESTRIANS

Weekday peak period pedestrian conditions have been evaluated at key area sidewalk, corner reservoir, and crosswalk locations. Based on the detailed assignment of pedestrian trips, seven sidewalks, eight corners, and three crosswalks have been selected for detailed analysis for the weekday AM, midday, and PM peak hours in consultation with DOT. As summarized in **Table 5-3**, significant adverse impacts have been identified for one sidewalk during the weekday midday and PM peak hours in the 2023 With Action condition. Potential measures that are anticipated to fully mitigate the projected pedestrian impacts are described in Chapter 11, "Mitigation."

Table 5-3
Summary of Significant Adverse Pedestrian Impacts
2023 With Action Condition

Intersection	Pedestrian Element	2023 With Action Condition		
		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
Kent Avenue and South 3rd Street	East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment		X	X
Total Impacted Pedestrian Elements		**0**	**1**	**1**

Note: X = Significant Adverse Pedestrian Impact

VEHICULAR AND PEDESTRIAN SAFETY

Crash data for the study area intersections have been obtained from the New York City Department of Transportation (DOT) for the time period between January 1, 2015 and December 31, 2017. During this period, a total of 50 reportable and non-reportable crashes, zero fatalities, 39 injuries, and 22 pedestrian/bicyclist-related crashes occurred at the study area intersections. A rolling total of accident data identifies one high crash location in the 2015 to 2017 period at the intersection of Bedford Avenue and Metropolitan Avenue. Additional safety measures, such as the installation of countdown timers on all four crosswalks, can be implemented to improve pedestrian and bicycle safety at this intersection. A summary of the identified high accident location, prevailing trends, project-specific effects, and recommended safety measures is provided in **Table 5-4**. As part of

its Vision Zero initiative, the City will explore additional measures for potential implementation at this high crash location and others in the study area to enhance traffic and pedestrian safety.

Table 5-4
Summary of High Crash Locations

High Crash Intersections	Prevailing Trends	Peak Hour Project-Specific Effects	Recommended Safety Measures
Bedford Avenue and Metropolitan Avenue	None	Incremental trips: 75 or fewer vehicles and 35 or fewer pedestrians at any crosswalk	Install countdown timers at all four crosswalks

Source: DOT crash data; January 1, 2015 to December 31, 2017

PARKING

Accounting for the parking demand generated by the Proposed Actions, the 2023 With Action public parking utilization in the approximate ¼-mile off-street parking study area is expected to increase to a maximum of 84 percent during the weekday midday peak period. Since the parking utilization level is within the area's off-street public parking capacity, the Proposed Actions are not expected to result in parking shortfalls or significant adverse parking impacts.

B. PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENT

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trips attributable to the proposed project. If the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would result in 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station or at any given line, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

LEVEL 1 SCREENING ASSESSMENT

Trip generation factors for the Proposed Actions are based on information from the *CEQR Technical Manual*, the 2016 *25 Kent Avenue EAS*, the 2016 *East New York Rezoning Proposal FEIS*, *ITE Trip Generation Manual*, U.S. Census Data, and the New York City Department of Transportation (DOT)'s medical office and local retail trip generation surveys. These trip generation factors are summarized in **Table 5-5**.

Table 5-5
Travel Demand Assumptions

Use	Local Retail			Medical Office			Office/ Light Manufacturing			Warehouse		
Total Daily Person Trip	(1) Weekday 205.00 Trips / KSF			(3) Weekday 103.40 Trips / KSF			(1)(2) Weekday 18.00 Trips / KSF			(7) Weekday 1.90 Trips / KSF		
Trip Linkage	25%			0%			0%			0%		
Net Daily Person Trip	Weekday 153.75 Trips / KSF			Weekday 103.40 Trips / KSF			Weekday 18.00 Trips / KSF			Weekday 1.90 Trips / KSF		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Temporal	(1)			(3)			(1)(2)			(8)		
	3.0%	19.0%	10.0%	10.0%	13.0%	9.0%	12.0%	15.0%	14.0%	6.0%	8.6%	6.6%
Direction	(2)			(2)			(1)(2)			(5)(7)		
In	50%	47%	44%	89%	51%	48%	94%	39%	5%	65%	50%	24%
Out	50%	53%	56%	11%	49%	52%	6%	61%	95%	35%	50%	76%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(6)			(4)			(2)(4)			(4)		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Auto	11.0%	11.0%	11.0%	35.0%	35.0%	35.0%	35.0%	2.0%	35.0%	35.0%	35.0%	35.0%
Taxi	0.0%	0.0%	0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Subway	3.0%	3.0%	3.0%	33.0%	33.0%	33.0%	33.0%	7.0%	33.0%	33.0%	33.0%	33.0%
Bus	2.0%	2.0%	2.0%	11.0%	11.0%	11.0%	11.0%	7.0%	11.0%	11.0%	11.0%	11.0%
Walk	84.0%	84.0%	84.0%	20.0%	20.0%	20.0%	20.0%	83.0%	20.0%	20.0%	20.0%	20.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(2) Weekday			(2)(4) Weekday			(2)(4) Weekday			(4)(5) Weekday		
Auto	2.20			1.20			1.20			1.20		
Taxi	2.20			1.20			1.20			1.30		
Daily Delivery Trip Generation Rate	(1) Weekday 0.35 Delivery Trips / KSF			(2) Weekday 0.29 Delivery Trips / KSF			(2) Weekday 0.35 Delivery Trips / KSF			(7) Weekday 0.35 Delivery Trips / KSF		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Delivery Temporal	(1)			(2)			(2)			(8)		
	8.0%	11.0%	2.0%	3.0%	11.0%	1.0%	10.0%	11.0%	2.0%	6.0%	8.6%	6.6%
Delivery Direction	(1)			(2)			(2)			(5)		
In	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sources:
(1) 2020 *CEQR Technical Manual*
(2) *25 Kent Avenue EAS* (2016)
(3) Based on DOT's Medical Office Trip Generation Survey
(4) U.S. Census American Community Survey (ACS) 2006–2010 Reverse Journey-to-Work Data for Census tracts 519, 523, 549, 551, 553, and 555
(5) *East New York Rezoning Proposal FEIS* (2016)
(6) Based on DOT's local retail trip generation surveys in Brooklyn
(7) *ITE Trip Generation Manual, 10th Edition*: Warehouse (150) land use. Assumes trucks account for 20 percent of weekday traffic (*ITE Trip Generation Manual, 9th Edition*). Convert to daily person trip rate by taking remaining 80 percent of vehicle trip generation per 1,000 sf and multiplying by vehicle occupancy of 1.3 and dividing by 0.95. Weekday daily person trip rate = (1.74 x 0.80 x 1.3)/0.95 = 1.90 daily person trips per 1,000 sf.
(8) *ITE Trip Generation Manual, 10th Edition*: Warehouse (150) land use. Peak hours are weekday AM (8–9 AM), midday (12–1 PM), and PM (5–6 PM).

LOCAL RETAIL

The daily person trip rate and temporal distribution for the local neighborhood retail component are from the *CEQR Technical Manual*. Consistent with City practice, a 25-percent linked trip credit has been applied to the local retail trip generation estimates. The directional distribution and vehicle occupancies are based on rates presented in the 2016 *25 Kent Avenue EAS*, modal split data are taken from DOT's local retail trip generation survey, and daily delivery trip rates and temporal and directional distributions are based on factors presented in the *CEQR Technical Manual*.

MEDICAL OFFICE

The daily person trip rate and temporal distribution for the medical office component are from DOT's medical office trip generation survey. The directional distribution is from the 2016 *25 Kent Avenue EAS*. The modal splits are from the 2006–2010 U.S. Census Bureau American Community Survey (ACS) Reverse Journey-to-Work (RJTW) estimates for Kings County Census tracts 519, 523, 549, 551, 553, and 555. The vehicle occupancies are from the 2016 *25 Kent Avenue EAS* and the 2006–2010 U.S. Census ACS RJTW estimates. The daily delivery trip rate and temporal and directional distributions are from the 2016 *25 Kent Avenue EAS*.

OFFICE/LIGHT MANUFACTURING

The daily person trip rate and temporal and directional distributions for the office/light manufacturing component are based on the office use from the *CEQR Technical Manual* and the 2016 *25 Kent Avenue EAS*. The modal splits and vehicle occupancies are from the 2016 *25 Kent Avenue EAS* and the 2006–2010 U.S. Census ACS RJTW estimates. The daily delivery trip rate and temporal and directional distributions are from the 2016 *25 Kent Avenue EAS*.

WAREHOUSE

The daily person trip rate and temporal distribution for the warehouse use are based on the *ITE Trip Generation Manual*. The modal splits are from the 2006–2010 U.S. Census ACS RJTW estimates. The vehicle occupancies are from the 2006–2010 U.S. Census ACS RJTW estimates for autos and from the 2016 *East New York Rezoning Proposal FEIS* for taxis. The daily delivery trip rate and temporal distribution are based on the *ITE Trip Generation Manual*. The delivery directional distribution is from the 2016 *East New York Rezoning Proposal FEIS*.

TRAVEL DEMAND PROJECTION SUMMARY

As summarized in **Table 5-6**, under the No Action condition, the Projected Development Sites would generate a total of 1, 2, and 1 person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 1, 2, and 1 vehicle trips would be generated during the same respective peak hours.

Table 5-6
Trip Generation: No Action Condition

Program	Peak Hour	In/Out	Person Trip						Vehicle Trip			
			Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Warehouse 11,344 GSF	AM	In	1	0	0	0	0	1	1	0	0	1
		Out	0	0	0	0	0	0	0	0	0	0
		Total	1	0	0	0	0	1	1	0	0	1
	Midday	In	1	0	0	0	0	1	1	0	0	1
		Out	1	0	0	0	0	1	1	0	0	1
		Total	2	0	0	0	0	2	2	0	0	2
	PM	In	0	0	0	0	0	0	0	0	0	0
		Out	1	0	0	0	0	1	1	0	0	1
		Total	1	0	0	0	0	1	1	0	0	1

As summarized in **Table 5-7**, under the With Action condition, the Projected Development Sites would generate a total of 758, 1,365, and 944 person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 218, 210, and 228 vehicle trips would be generated during the same time periods.

The net incremental trips generated by the No Action and With Action conditions are shown in **Table 5-8**.

Table 5-7
Trip Generation: With Action Condition

Program	Peak Hour	In/Out	Person Trip						Vehicle Trip			
			Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Local Retail 17,000 GSF	AM	In	4	0	1	1	33	39	2	0	0	2
		Out	4	0	1	1	33	39	2	0	0	2
		Total	8	0	2	2	66	78	4	0	0	4
	Midday	In	26	0	7	5	196	234	12	0	0	12
		Out	29	0	8	5	221	263	13	0	0	13
		Total	55	0	15	10	417	497	25	0	0	25
	PM	In	13	0	3	2	97	115	6	0	0	6
		Out	16	0	4	3	123	146	7	0	0	7
		Total	29	0	7	5	220	261	13	0	0	13
Medical Office 39,500 GSF	AM	In	127	4	120	40	73	364	106	3	0	109
		Out	16	0	15	5	9	45	13	3	0	16
		Total	143	4	135	45	82	409	119	6	0	125
	Midday	In	95	3	89	30	54	271	79	6	1	86
		Out	91	3	86	29	52	261	76	6	1	83
		Total	186	6	175	59	106	532	155	12	2	169
	PM	In	62	2	58	19	35	176	52	4	0	56
		Out	67	2	63	21	38	191	56	4	0	60
		Total	129	4	121	40	73	367	108	8	0	116
Office/ Light Manufacturing 125,000 GSF	AM	In	89	3	84	28	51	255	74	3	2	79
		Out	6	0	5	2	3	16	5	3	2	10
		Total	95	3	89	30	54	271	79	6	4	89
	Midday	In	3	1	9	9	109	131	3	3	2	8
		Out	4	2	14	14	171	205	3	3	2	8
		Total	7	3	23	23	280	336	6	6	4	16
	PM	In	6	0	5	2	3	16	5	3	0	8
		Out	105	3	99	33	60	300	88	3	0	91
		Total	111	3	104	35	63	316	93	6	0	99
With Action Total	AM	In	220	7	205	69	157	658	182	6	2	190
		Out	26	0	21	8	45	100	20	6	2	28
		Total	246	7	226	77	202	758	202	12	4	218
	Midday	In	124	4	105	44	359	636	94	9	3	106
		Out	124	5	108	48	444	729	92	9	3	104
		Total	248	9	213	92	803	1,365	186	18	6	210
	PM	In	81	2	66	23	135	307	63	7	0	70
		Out	188	5	166	57	221	637	151	7	0	158
		Total	269	7	232	80	356	944	214	14	0	228

Table 5-8
Trip Generation Summary: Net Incremental Trips

Peak Hour	In/Out	Person Trip						Vehicle Trip			
		Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	219	7	205	69	157	657	181	6	2	189
	Out	26	0	21	8	45	100	20	6	2	28
	Total	245	7	226	77	202	757	201	12	4	217
Midday	In	123	4	105	44	359	635	93	9	3	105
	Out	123	5	108	48	444	728	91	9	3	103
	Total	246	9	213	92	803	1,363	184	18	6	208
PM	In	81	2	66	23	135	307	63	7	0	70
	Out	187	5	166	57	221	636	150	7	0	157
	Total	268	7	232	80	356	943	213	14	0	227

TRAFFIC

As shown in **Table 5-8**, the incremental trips generated by the Proposed Actions would be 217, 208, and 227 vehicle trips during the weekday AM, midday, and PM peak hours, respectively. Since the incremental vehicle trips would be greater than 50 vehicles during the weekday AM, midday, and PM peak hours, a Level 2 screening assessment (presented in the section below) has been conducted to determine if a quantified traffic analysis is warranted.

TRANSIT

Public transit options to and from the study area are shown in **Figure 5-2**. The Project Area is served by the New York City Transit (NYCT) Bedford Avenue (L train) and Marcy Avenue (J, M, and Z trains) subway stations, as well as the B32 and B62 bus routes.

As detailed in **Table 5-8**, the incremental transit trips generated by the Proposed Actions would be 226, 213, and 232 person trips by subway, and 77, 92, and 80 person trips by bus during the weekday AM, midday, and PM peak hours, respectively. The subway trips would be dispersed onto the area's multiple subway stations/lines such that trip-making for any single subway station/line would not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak hour subway trips. Therefore, a detailed analysis of subway facilities is not warranted and the Proposed Actions are not expected to result in any significant adverse subway impacts. Bus trips would be dispersed among the local bus routes serving the study area; however, considering the distance from the study area subway stations to the Project Area, it is expected that a significant number of subway riders would subsequently transfer to buses to reach the project site, and therefore a Level 2 screening assessment is warranted to determine if there is a need for additional quantified bus analyses.

PEDESTRIANS

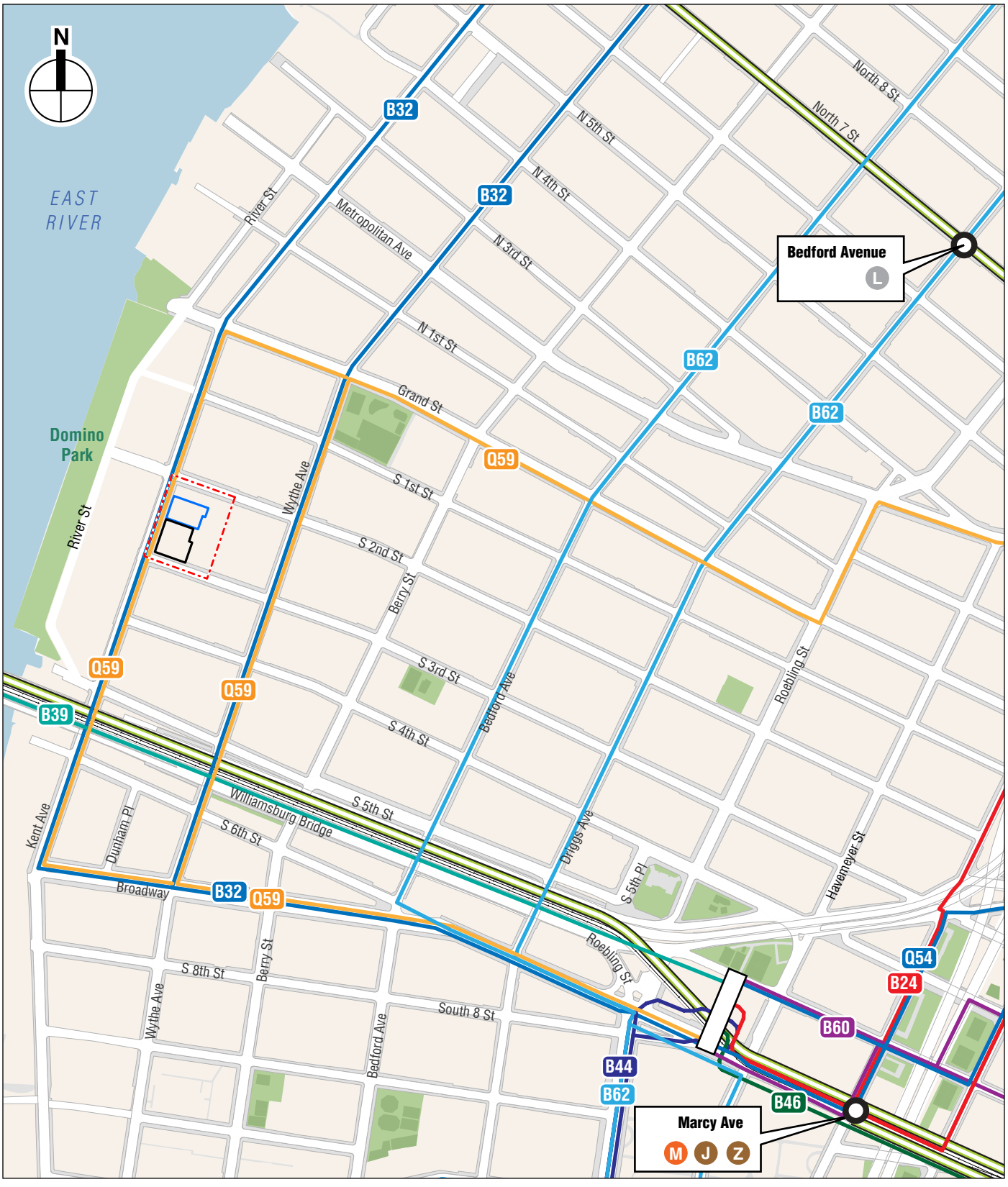
All incremental person trips generated by the Proposed Actions would traverse the pedestrian elements (i.e., sidewalks, corners, and crosswalks) surrounding Projected Development Site 1 and Projected Development Site 2. As shown in **Table 5-8**, the net incremental pedestrian trips would be greater than 200 during the weekday AM, midday, and PM peak hours. A Level 2 screening assessment (presented in the section below) has been conducted to determine if there is a need for additional quantified pedestrian analyses.

LEVEL 2 SCREENING ASSESSMENT

As part of the Level 2 screening assessment, Project-generated trips are assigned to specific intersections and pedestrian elements near the Project Area. As previously stated, further quantified analyses to assess the potential impacts of the Proposed Actions on the transportation system would be warranted if the trip assignments identify key intersections incurring 50 or more peak-hour vehicle trips or key pedestrian elements incurring 200 or more peak-hour pedestrian trips.

SITE ACCESS AND EGRESS

Entrances to all the uses are assumed to be along the east side of Kent Avenue between South 2nd and South 3rd Streets. No accessory parking would be made available for the No Action or With Action scenarios. A parking utilization survey has been conducted to determine the existing on- and off-street parking resources in an approximately ¼-mile radius of the Project Area. The results of the parking utilization survey showed on-street parking at near full utilization during the



307 KENT AVENUE

Transit Study Area

Figure 5-2

weekday midday peak period. Therefore, project generated vehicle trips are assigned to nearby off-street parking facilities, summarized in **Table 5-9** and shown in **Figure 5-3**, where available capacity is identified and motorists would walk to/from the Project Area.

Table 5-9
Existing Off-Street Parking—Approximately ¼-Mile
Weekday Utilization

Map #	Name/Address	License Number	Licensed Capacity	Utilization Rate				Utilized Spaces				Available Spaces			
				AM	MD	PM	ON	AM	MD	PM	ON	AM	MD	PM	ON
1	Sherman Parking Mgmt. / 26 South 6th Street	2001021	144	40%	70%	50%	30%	58	101	72	43	86	43	72	101
2	4 Square Mgmt. / 76 South 6th Street	2010314	60	60%	80%	60%	60%	36	48	36	36	24	12	24	24
3	G and M Park Inc. / 110 Broadway	1389587	32	75%	75%	75%	75%	24	24	24	24	8	8	8	8
4	Quik Park 184 Mgmt. / 184 Kent Avenue	1368505	200	50%	75%	75%	50%	100	150	150	100	100	50	50	100
5	LAZ Parking NY/NJ / 175 Kent Avenue	2006294	140	45%	60%	60%	20%	63	84	84	28	77	56	56	112
6	QP Berry Street LLC / 197 Berry Street	1409794	142	50%	50%	70%	30%	71	71	99	43	71	71	43	99
Approximate ¼-Mile Area Totals			**718**	**49%**	**67%**	**65%**	**38%**	**352**	**478**	**465**	**274**	**366**	**240**	**253**	**444**

Note: MD = Midday; ON = Overnight; N/A = Not Available
Source: Survey conducted by AKRF Inc. October, 2017

TRAFFIC

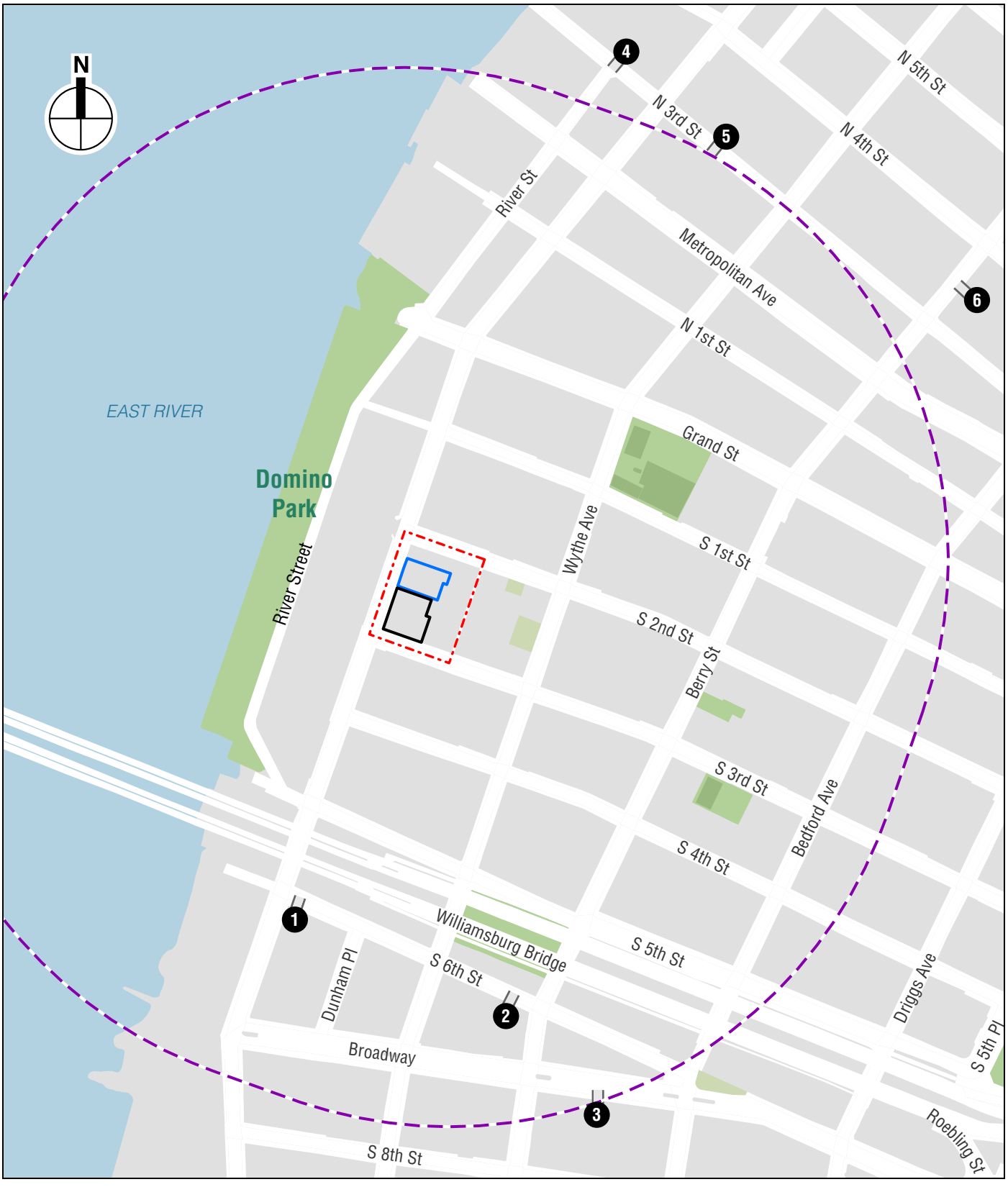
Vehicle trips are assigned to area intersections based on the most likely travel routes to and from the Project Area, prevailing travel patterns, commuter origin-destination (O-D) summaries from the census data, the configuration of the roadway network, the anticipated locations of site access and egress, locations of nearby off-street parking resources, and nearby land use and population characteristics. Auto trips are assigned to off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Taxi trips are distributed to the Project Area's various frontages. Delivery trips are assigned to the Project Area via DOT-designated truck routes. Traffic assignments for autos, taxis, and deliveries for the various development uses are discussed below.

Local Retail Use

The With Action local retail auto trips are generally assigned from local origins within the neighborhood and adjacent residential areas. Approximately 34 percent of vehicle trips would originate from the north of the Project Area, 33 percent from the south of the Project Area, and 33 percent from east of the Project Area. The auto trips are assigned to the available off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Taxi trips generated by the local retail use are assigned to the South 3rd Street, South 2nd Street, and Kent Avenue frontages.

Medical Office Use

Similar to the With Action local retail auto trips, the With Action medical office auto trips are assigned from local origins within the neighborhood and adjacent residential areas, then to the available off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. The medical office auto trip assignments are further refined by assuming that 50 percent of the inbound medical office auto trips would first travel to the Project Area, then to the available off-street parking facilities, while the remaining 50 percent of the inbound medical office auto trips are assigned directly to the available off-street parking facilities. All outbound medical office auto trips are assigned departing from the available off-street parking facilities. Taxi trips generated by the local retail and medical office uses are assigned to the South 3rd Street, South 2nd Street, and Kent Avenue frontages.



Off-Street Parking Facilities

307 KENT AVENUE

Figure 5-3

Office/Light Manufacturing and Warehouse Uses

Auto trips generated by the office/light manufacturing (With Action) and warehouse (No Action) uses are assigned to the surrounding roadway network based on the 2006–2010 U.S. Census ACS RJTW origin-destination (O-D) estimates. The office/light manufacturing and warehouse trips would originate for Brooklyn (55 percent), Queens (22 percent), Manhattan (1 percent), Staten Island (5 percent), Long Island (9 percent), Upstate New York (4 percent), New Jersey (3 percent), and Pennsylvania (1 percent). Auto vehicle trips for the office/light manufacturing and warehouse uses are assigned to off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Overall, vehicle trips generated by the office/light manufacturing and warehouse uses are distributed to the study area roadway network in the following manner: approximately 43 percent of inbound trips are assigned to Metropolitan Avenue westbound, 41 percent to Kent Avenue northbound, 11 percent to Broadway westbound, and 5 percent to various northbound and southbound avenues. Taxi trips generated by the office/light manufacturing and warehouse uses are assigned to the South 3rd Street, South 2nd Street, and Kent Avenue frontages.

Deliveries

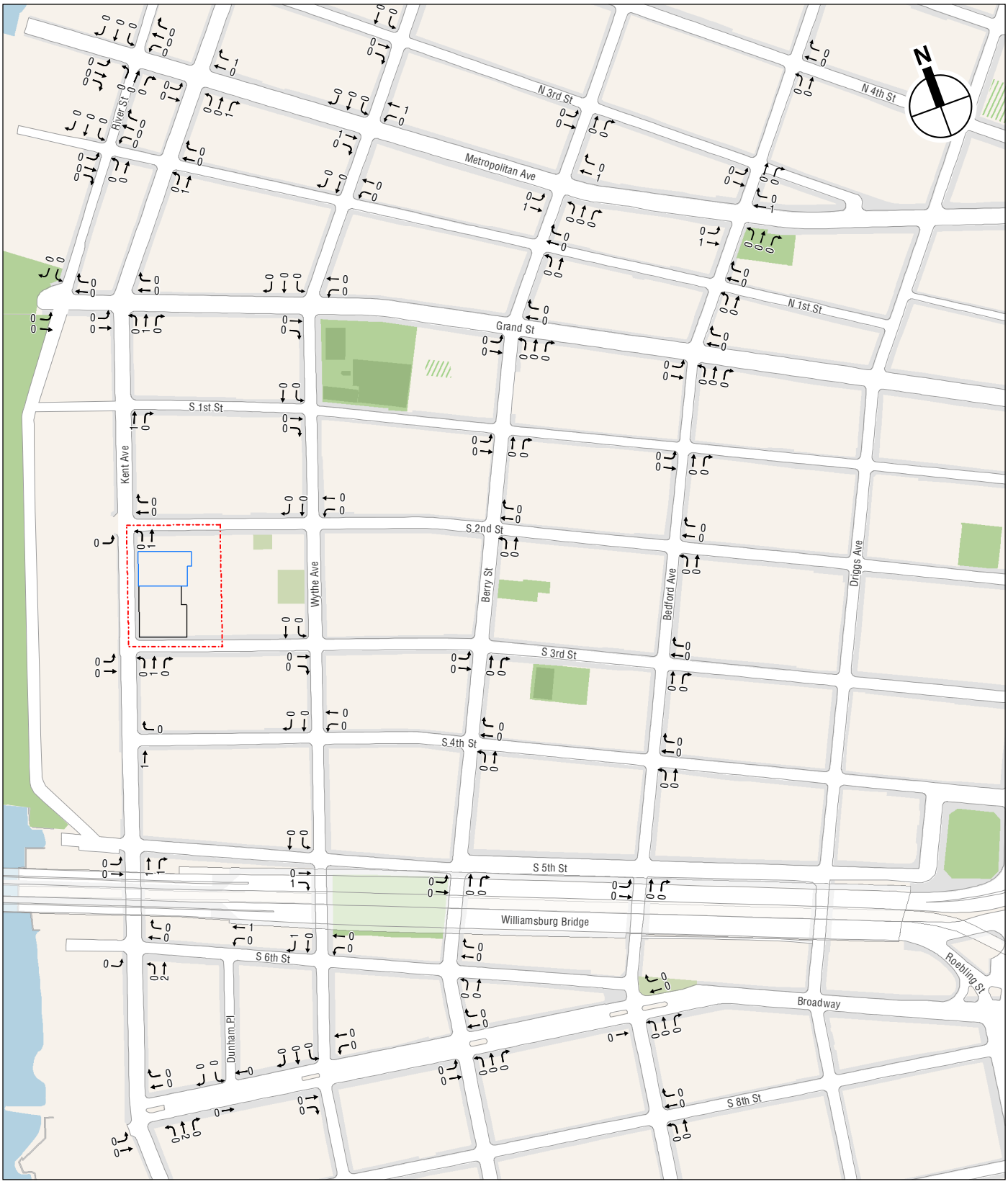
Truck delivery trips for all land uses are assigned to DOT-designated truck routes and are assumed to stay on them as long as possible until reaching the area surrounding the Project Area. These are then generally distributed to Broadway (45 percent), Kent Avenue (27 percent), and South 4th Street (28 percent) until they reached the various curbsides along the Project Area.

Summary

Figures 5-4 through 5-6 show the No Action project generated vehicle trips for the weekday AM, midday, and PM peak hours. **Figures 5-7 through 5-9** show the With Action project generated vehicle trips for the weekday AM, midday, and PM peak hours. **Figures 5-10 through 5-12** show the With Action incremental vehicle trips for the weekday AM, midday, and PM peak hours.

According to the *CEQR Technical Manual*, intersections expected to incur 50 or more incremental peak-hour vehicle trips as a result of a proposed project would have the potential for significant adverse traffic impacts and should be assessed in a quantified traffic impact analysis. As shown in **Figures 5-10 through 5-12** and presented in **Table 5-10**, 13 intersections would incur incremental vehicle trips exceeding the CEQR threshold. The selected traffic analysis locations are shown in **Figure 5-13**.

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

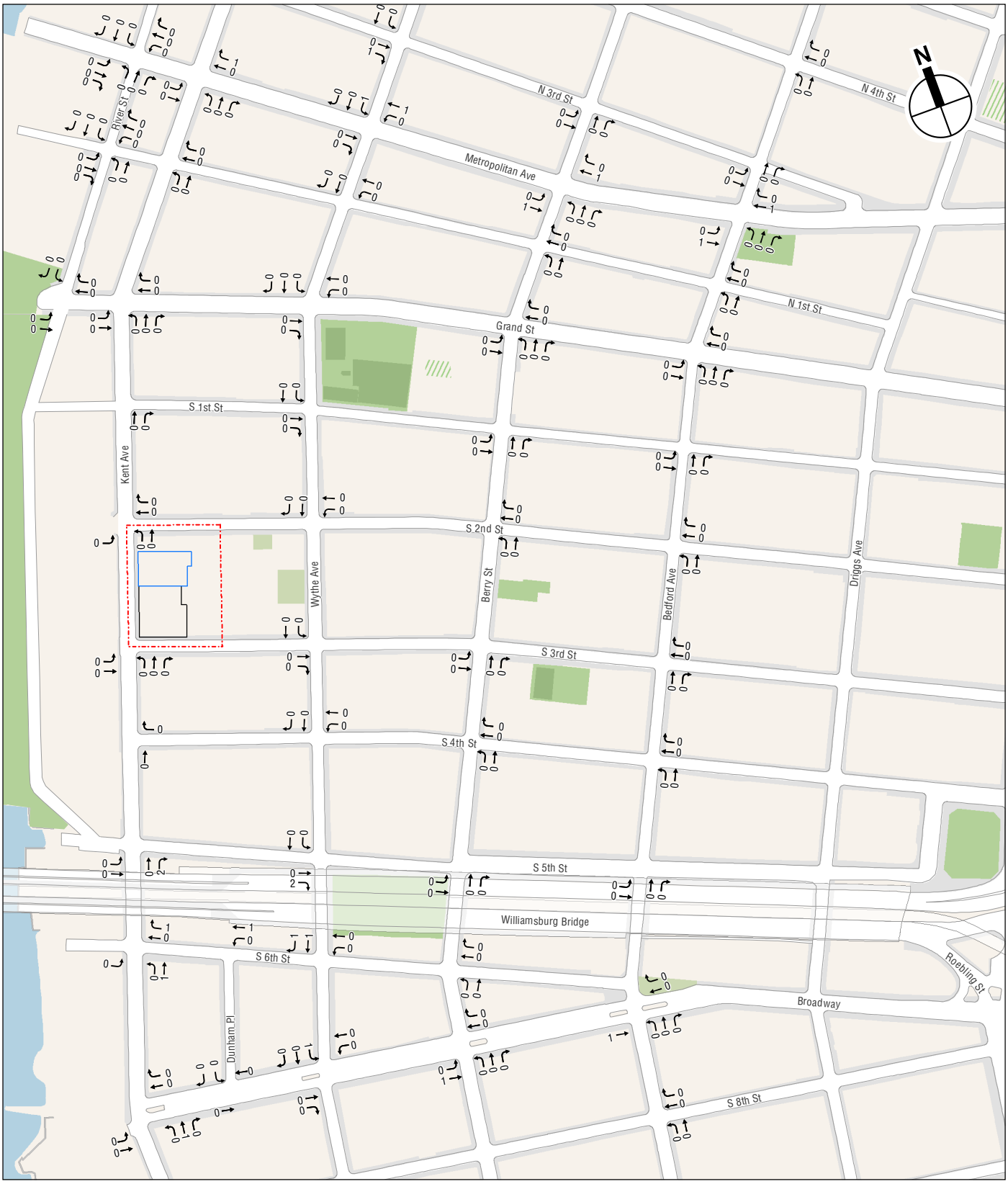
0 400 FEET

No Action Project Generated Vehicle Trips
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-4

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

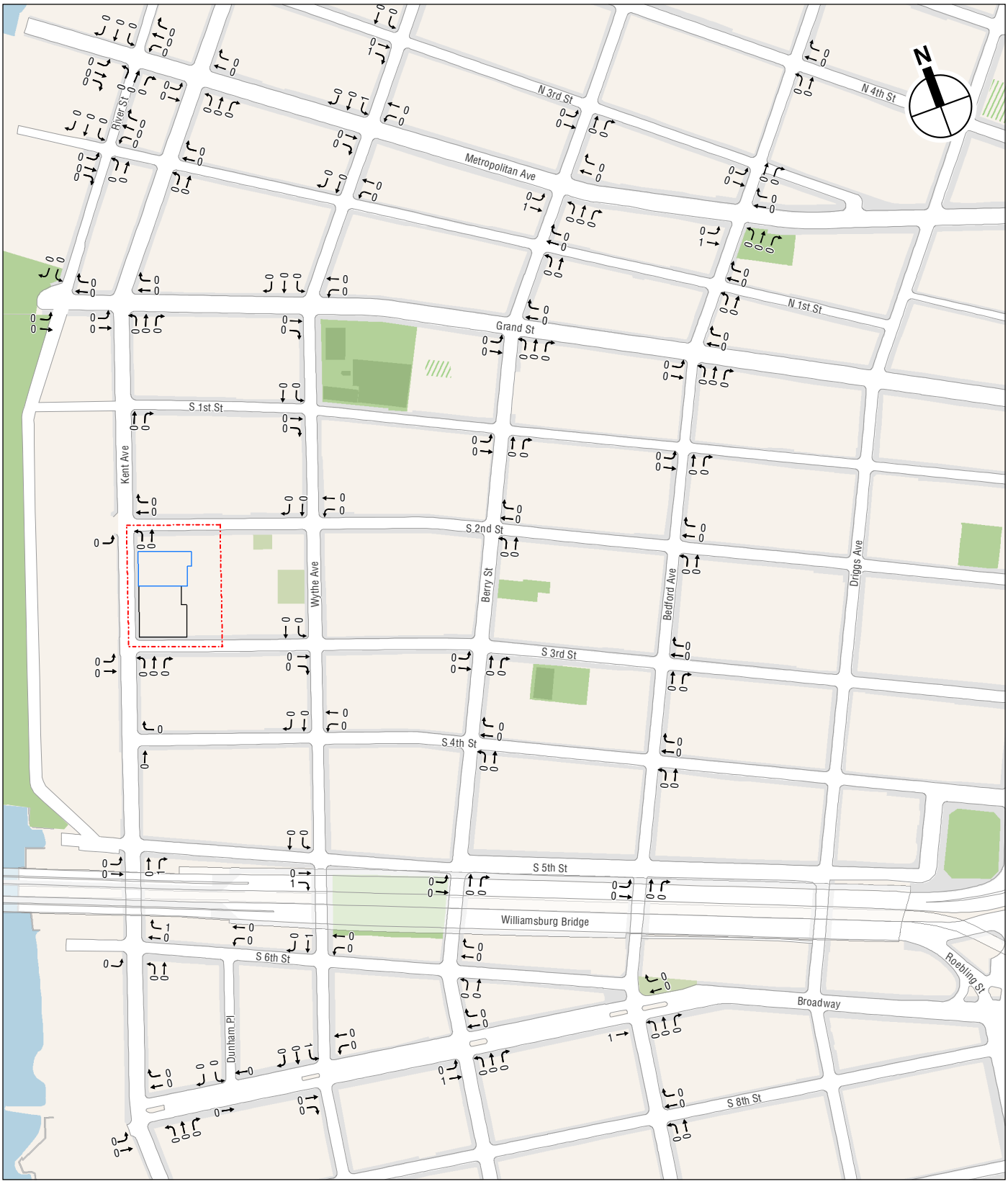
0 400 FEET

No Action Project Generated Vehicle Trips
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-5

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

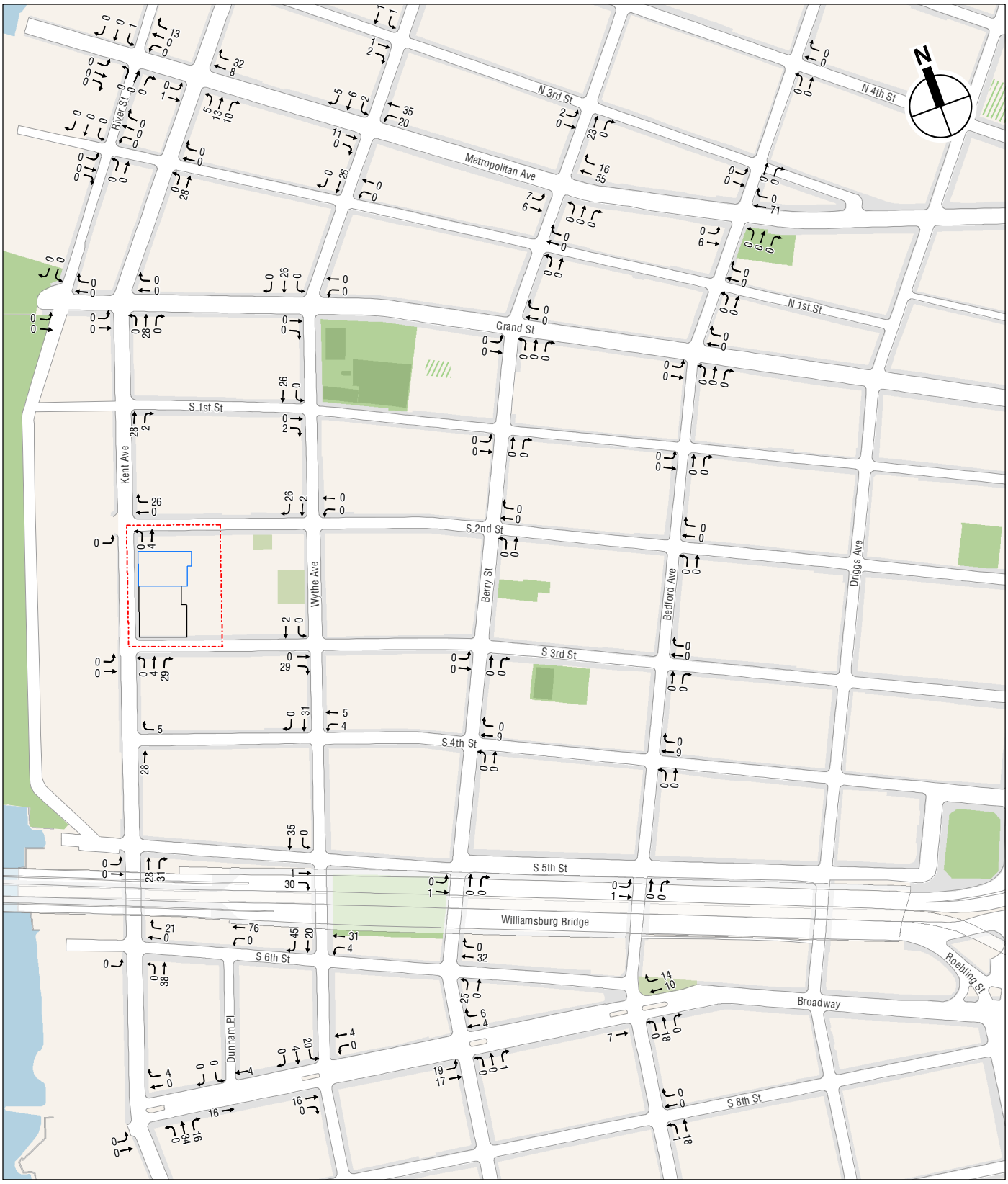
0 400 FEET

No Action Project Generated Vehicle Trips
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-6

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

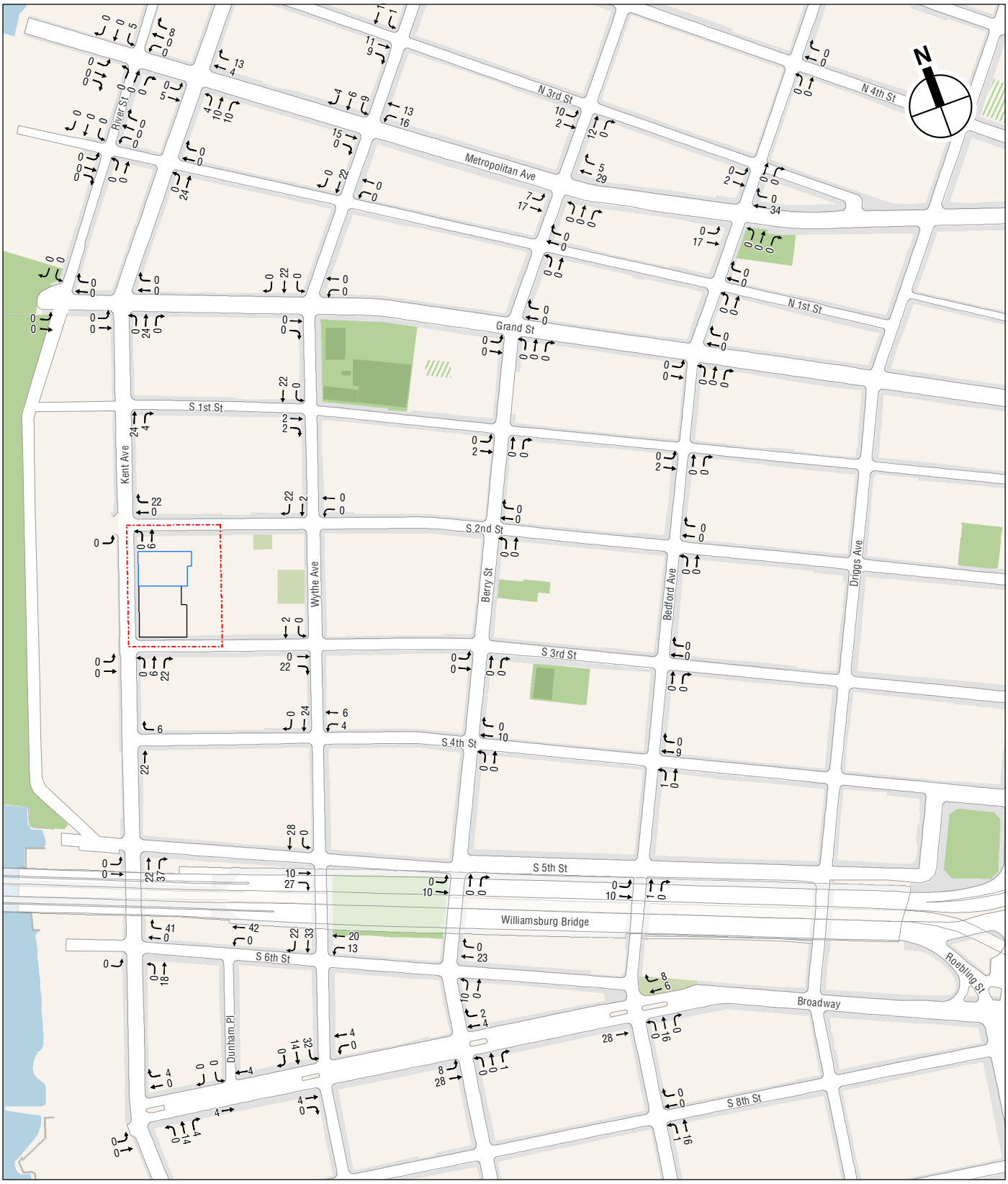
0 400 FEET

With Action Project Generated Vehicle Trips
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-7

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

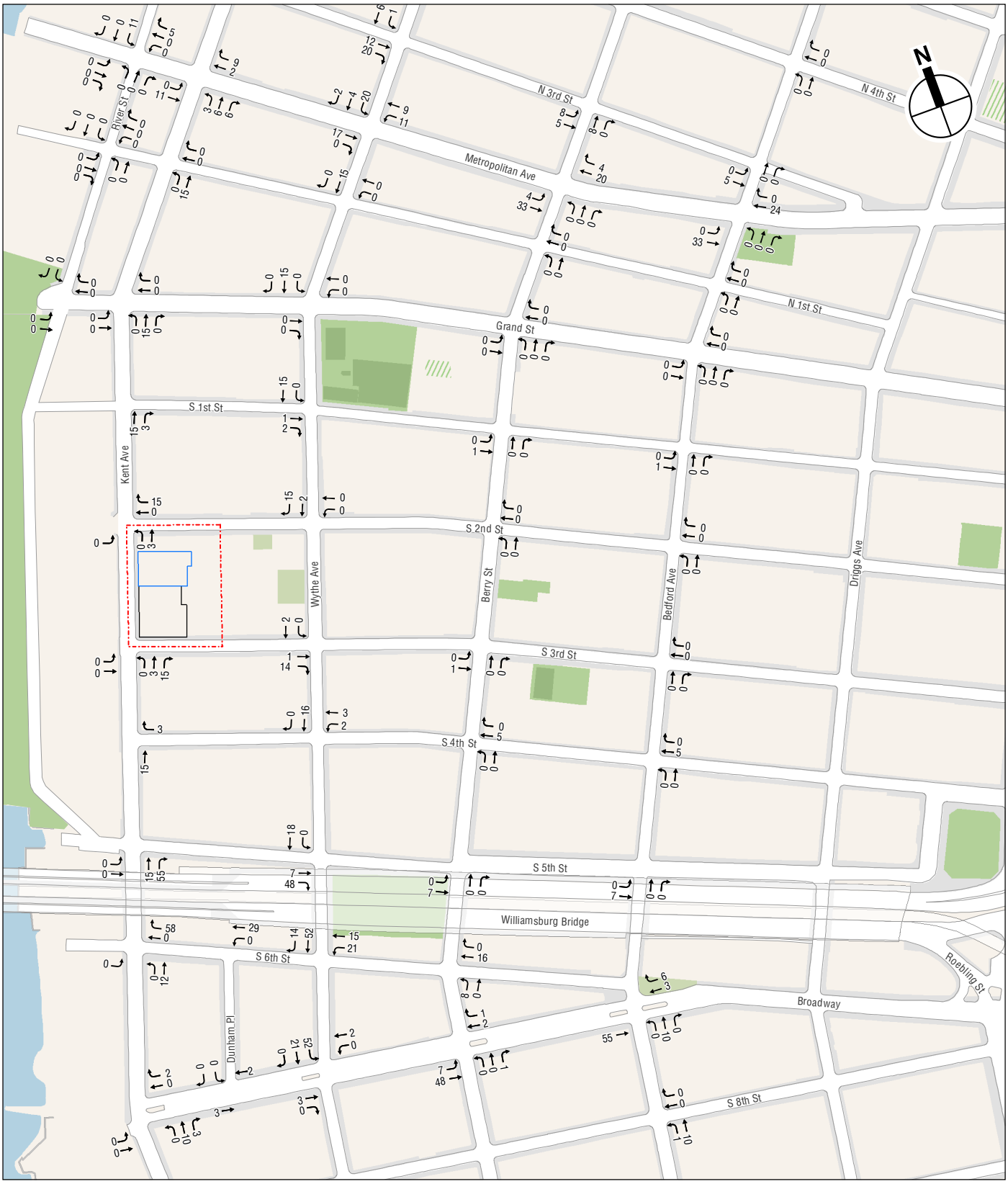
0 400 FEET

With Action Project Generated Vehicle Trips
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-8

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

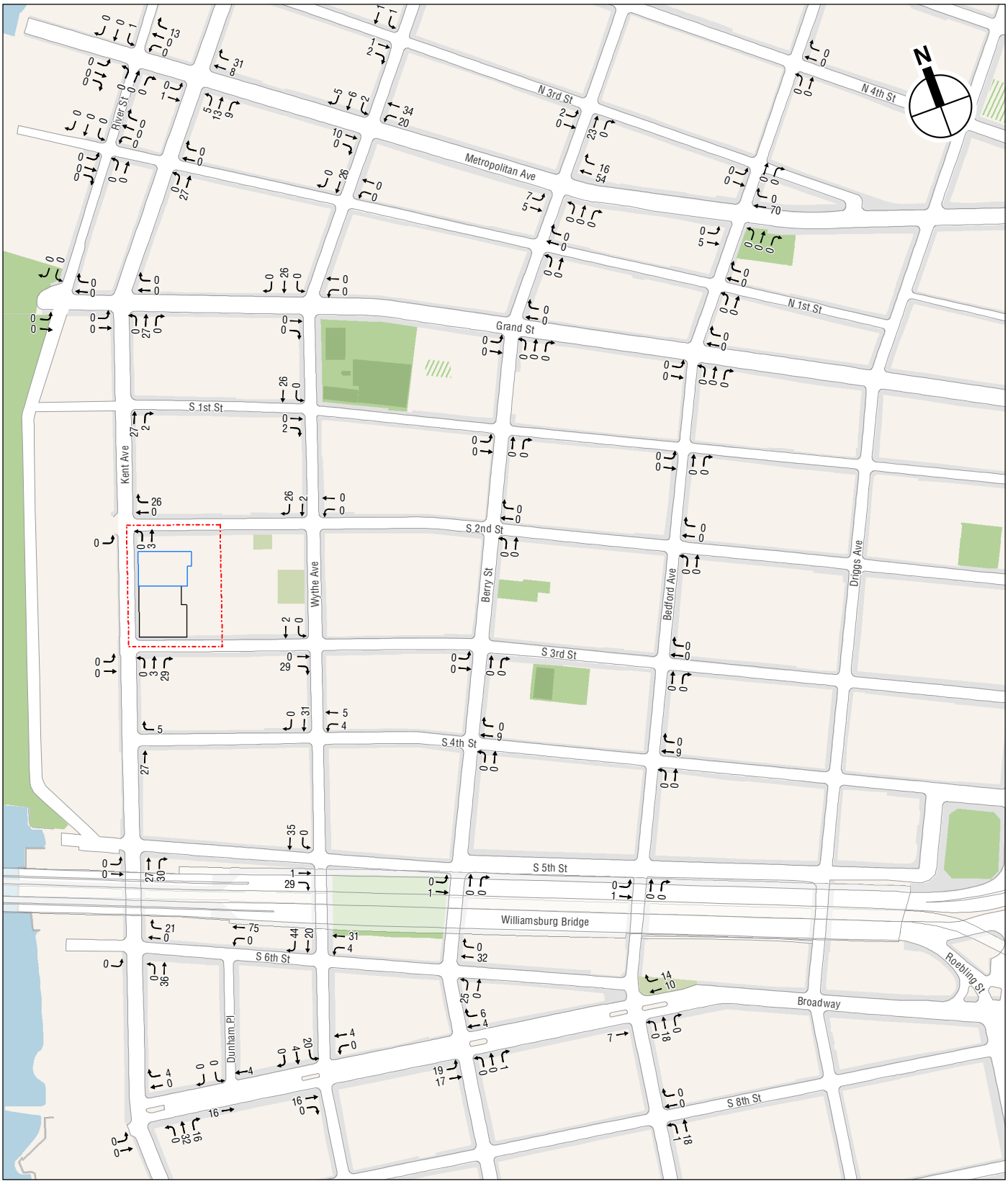
0 400 FEET

With Action Project Generated Vehicle Trips
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-9

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

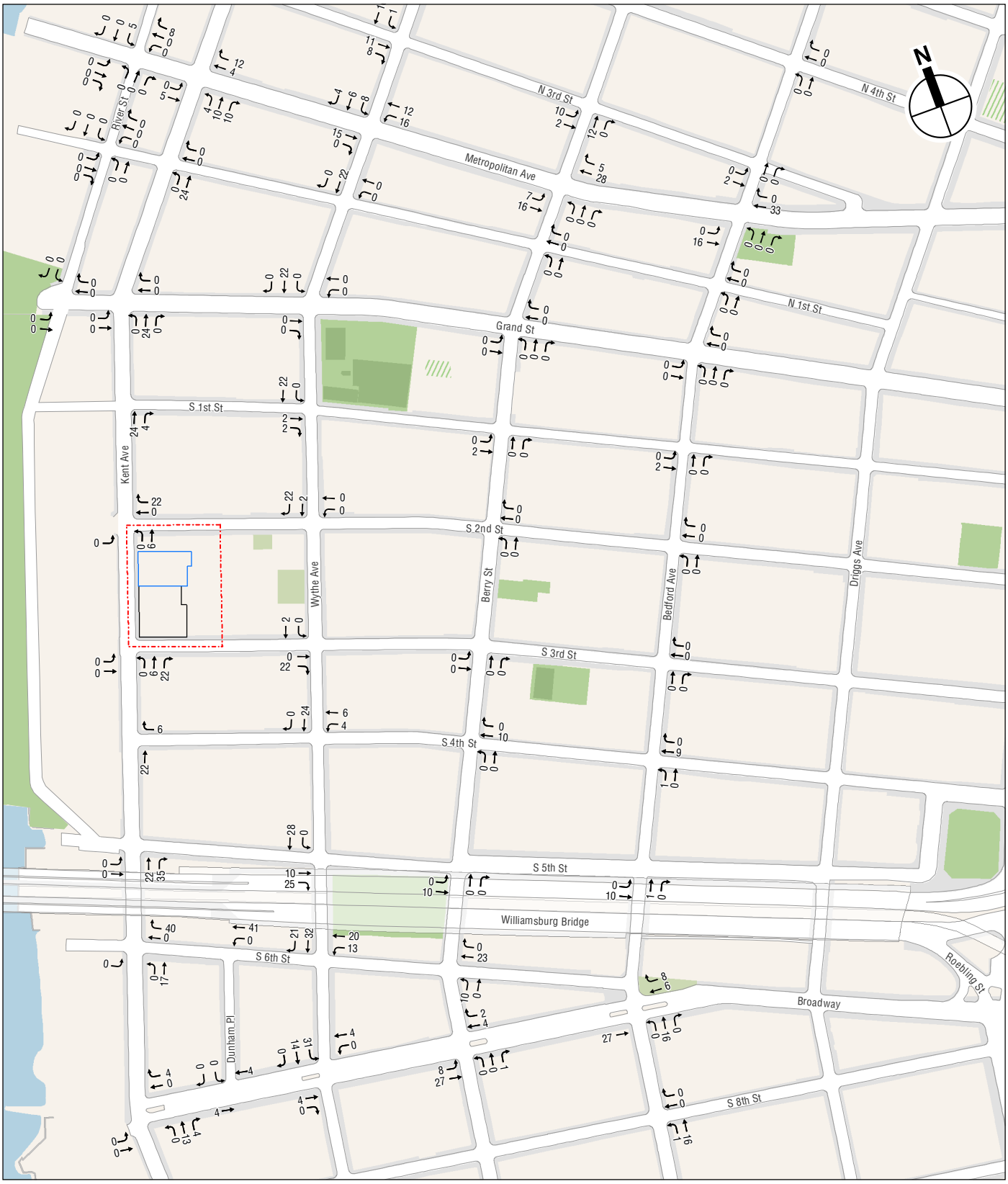
0 400 FEET

With Action Incremental Vehicle Trips
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-10

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

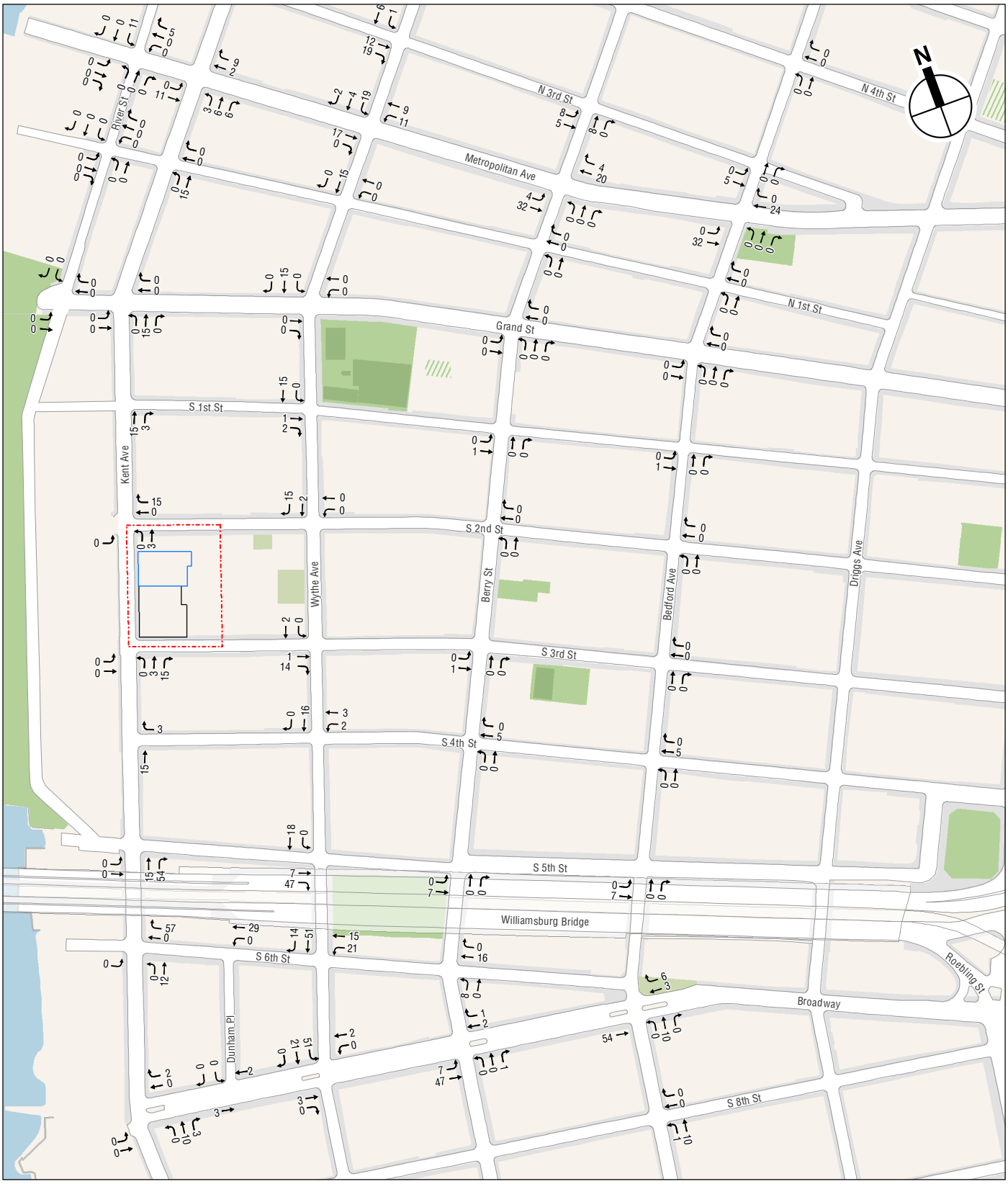
0 400 FEET

With Action Incremental Vehicle Trips
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-11

3.17.21



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

With Action Incremental Vehicle Trips
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-12

12.21.20



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

Traffic Analysis Location

0 400 FEET

Traffic Analysis Locations

307 KENT AVENUE

Figure 5-13

Table 5-10
Traffic Level 2 Screening Analysis Results

Intersection	Incremental Vehicle Trips (Weekday)			Selected Analysis Location
	AM	MD	PM	
Kent Avenue and North 5th Street	2	12	9	
Kent Avenue and North 4th Street	2	12	9	
Kent Avenue and North 3rd Street	46	34	33	
Kent Avenue and Metropolitan Avenue	**67**	45	37	✓
Kent Avenue and North 1st Street	27	24	15	
Kent Avenue and Grand Street	27	24	15	
Kent Avenue and South 1st Street	29	28	18	
Kent Avenue and South 2nd Street	29	28	18	
Kent Avenue and South 3rd Street	32	28	18	
Kent Avenue and South 4th Street	32	28	18	
Kent Avenue and South 5th Street	**57**	**57**	**69**	✓
Kent Avenue and South 6th Street	**57**	**57**	**69**	✓
Kent Avenue and Broadway	**52**	21	15	✓
Kent Avenue and South 8th Street	48	17	13	
Dunham Place and South 6th Street **	**75**	41	29	
Dunham Place and Broadway	20	8	5	
Wythe Avenue and North 5th Street	12	11	7	
Wythe Avenue and North 4th Street	13	17	10	
Wythe Avenue and North 3rd Street	15	30	38	
Wythe Avenue and Metropolitan Avenue	**77**	**61**	**62**	✓
Wythe Avenue and North 1st Street	26	22	15	
Wythe Avenue and Grand Street	26	22	15	
Wythe Avenue and South 1st Street	28	26	18	
Wythe Avenue and South 2nd Street	28	24	17	
Wythe Avenue and South 3rd Street	31	24	17	
Wythe Avenue and South 4th Street	40	34	21	
Wythe Avenue and South 5th Street	**65**	**63**	**72**	✓
Wythe Avenue and South 6th Street	**99**	**86**	**101**	✓
Wythe Avenue and Broadway	44	**53**	**77**	✓
Wythe Avenue and South 8th Street	4	14	21	
Berry Street and North 5th Street	3	16	25	
Berry Street and North 4th Street	4	22	28	
Berry Street and North 3rd Street	25	24	21	
Berry Street and Metropolitan Avenue	**82**	**56**	**60**	✓
Berry Street and North 1st Street	0	0	0	
Berry Street and Grand Street	0	0	0	
Berry Street and South 1st Street	0	2	1	
Berry Street and South 2nd Street	0	0	0	
Berry Street and South 3rd Street	0	0	1	
Berry Street and South 4th Street	9	10	5	
Berry Street and South 5th Street	1	10	7	
Berry Street and South 6th Street	**57**	33	24	✓
Berry Street and Broadway	47	42	**58**	✓
Berry Street and South 8th Street	1	1	1	
Bedford Avenue and North 5th Street	2	6	16	
Bedford Avenue and North 4th Street	0	0	0	
Bedford Avenue and North 3rd Street	0	2	5	
Bedford Avenue and Metropolitan Avenue	**75**	49	**56**	✓
Bedford Avenue and North 1st Street	0	0	0	
Bedford Avenue and Grand Street	0	0	0	
Bedford Avenue and South 1st Street	0	2	1	
Bedford Avenue and South 2nd Street	0	0	0	
Bedford Avenue and South 3rd Street	0	0	1	
Bedford Avenue and South 4th Street	9	10	5	

Table 5-10 (cont'd)
Traffic Level 2 Screening Analysis Results

Intersection	Incremental Vehicle Trips (Weekday)			Selected Analysis Location
	AM	MD	PM	
Bedford Avenue and South 5th Street	1	11	7	
Bedford Avenue and South 6th Street	32	24	16	
Bedford Avenue and Broadway	49	**57**	**73**	✓
Bedford Avenue and South 8th Street	19	17	11	
N. 5th Street and Northside Piers	0	0	0	
River Street and North 3rd Street	37	34	40	
River Street and Metropolitan Avenue	14	13	16	
River Street and North 1st Street	0	0	0	
River Street and Grand Street	0	0	0	

Note:
✓ Denotes intersections selected for detailed analysis.
** Intersection has no conflicting traffic movements and is absent of traffic controls (not signalized or stop-controlled). Not recommended for detailed analysis.

TRANSIT

As described above, a detailed analysis of subway facilities is not warranted. Incremental bus trips would be dispersed among the local bus routes serving the study area. Considering the distance from the study area subway stations to the Project Area, it is expected that a significant number of subway riders would subsequently transfer to buses to reach the Project Area. As a result, the two bus lines serving the Project Area, the B32 and B62 buses, would exceed the 50 trips per line per hour and direction threshold during the weekday AM and PM peak hours.

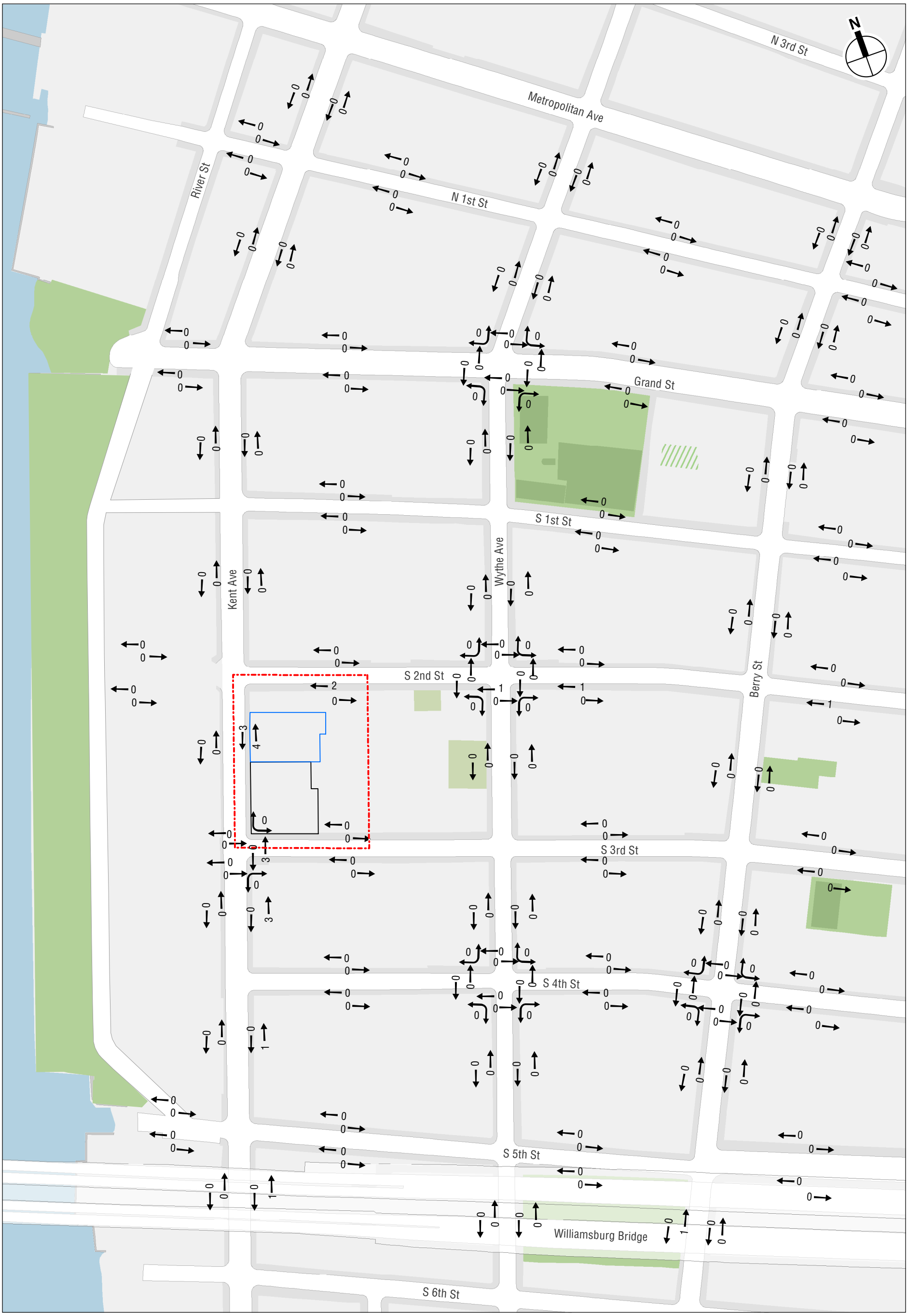
PEDESTRIANS

Level 2 pedestrian trip assignments have been individually developed for the No Action project generated, With Action project generated, and With Action incremental pedestrian trips. These trip assignments are shown in **Figures 5-14 through 5-22** and discussed below.

- Auto Trips: Motorists to all components of the No Action project and all motorists to the Proposed Actions are assigned to available neighborhood off-street parking spaces.
- Taxi Trips: Taxi patrons would get dropped off and picked up along the Project Area block faces (Kent Avenue, South 2nd Street, and South 3rd Street).
- City Bus Trips: City bus riders would use buses stopping on Kent Avenue, Wythe Avenue, Bedford Avenue, and Driggs Avenue, and would get off at bus stops nearest to the Project Area.
- Subway Trips: Subway riders are assigned to the Bedford Avenue (L train) and Marcy Avenue (J, M, and Z trains) subway stations.
- Walk-Only Trips: Pedestrian walk-only trips have been developed by distributing project generated person trips to surrounding pedestrian facilities (i.e., sidewalks, corner reservoirs, and crosswalks) based on population density data, U.S. Census RJTW O-D data, as well as the land use characteristics of the surrounding neighborhood.

Based on the detailed assignment of incremental pedestrian trips illustrated in **Figures 5-20 through 5-22**, seven sidewalks, eight corners, and three crosswalks have been selected for detailed pedestrian analysis, as summarized in **Table 5-11** and **Figure 5-23**.

12/17/2020



Project Area (Proposed Rezoning Area)

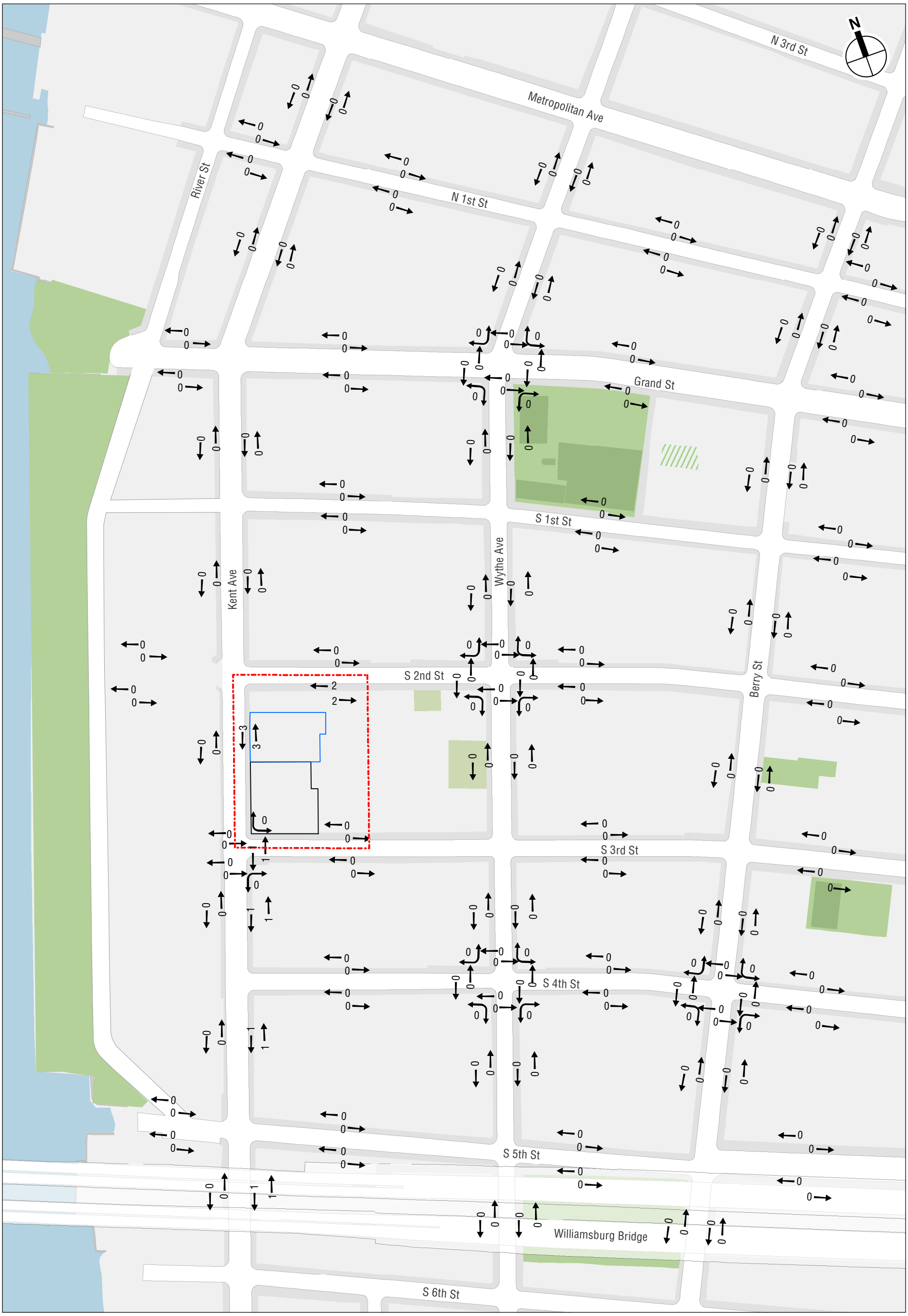
Development Site

Projected Development Site

0 400 FEET

No Action Project Generated Pedestrian Trips
Weekday AM Peak Hour
Figure 5-14

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

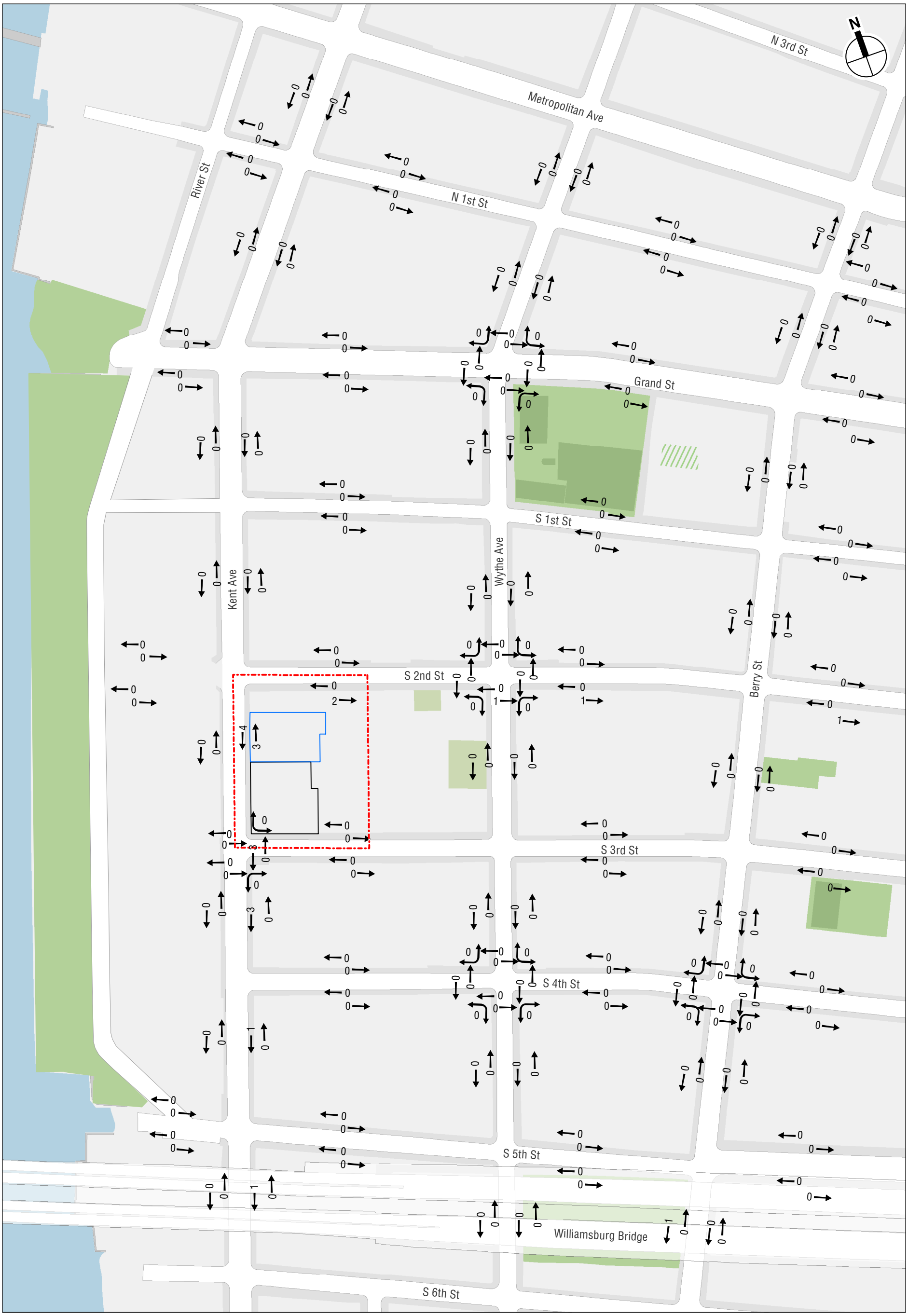
Projected Development Site

0 400 FEET

No Action Project Generated Pedestrian Trips
Weekday Midday Peak Hour

Figure 5-15

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

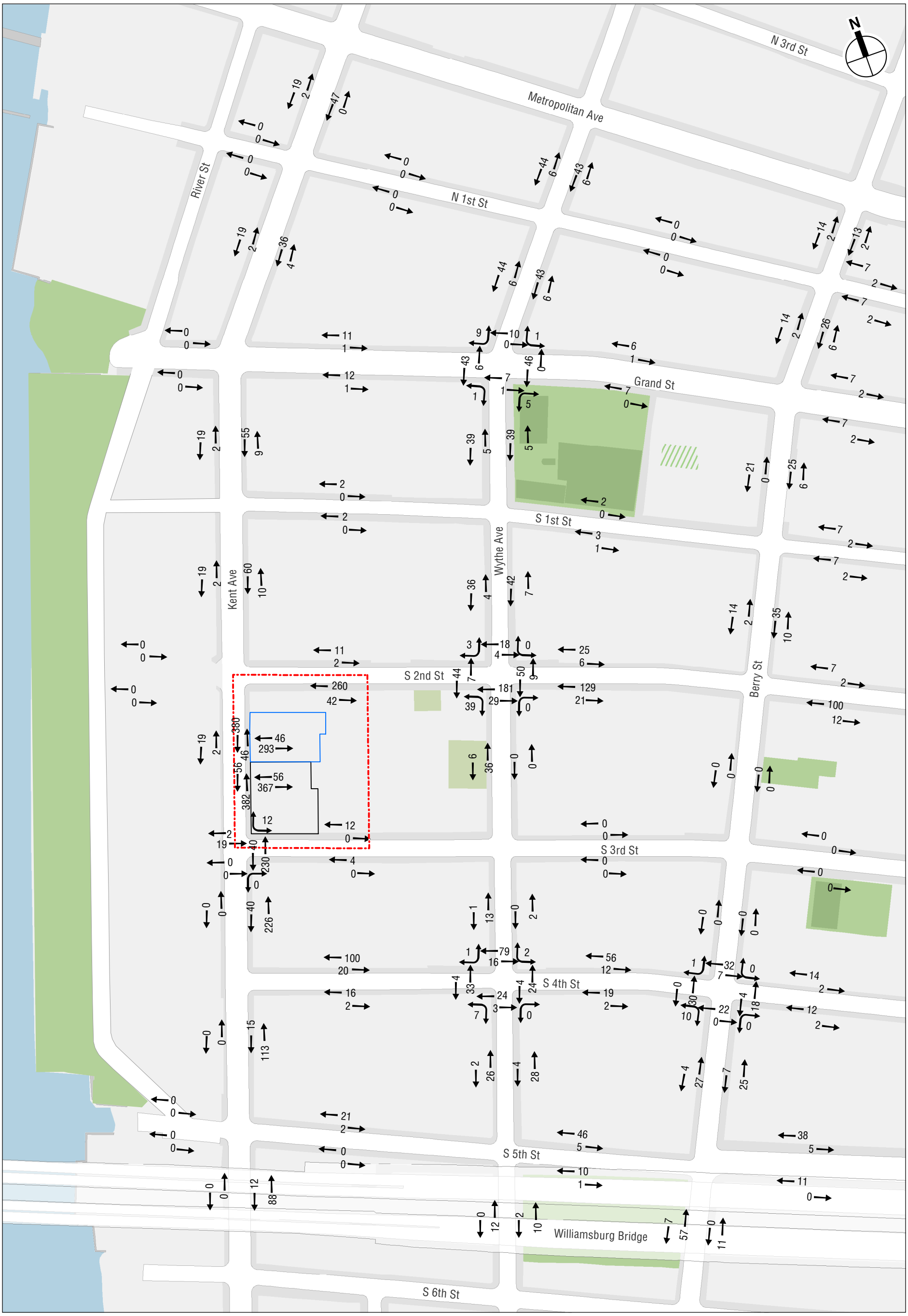
Projected Development Site

0 400 FEET

No Action Project Generated Pedestrian Trips
Weekday PM Peak Hour

Figure 5-16

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

With Action Project Generated Pedestrian Trips
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-17

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

With Action Project Generated Pedestrian Trips
Weekday Midday Peak Hour

Figure 5-18

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

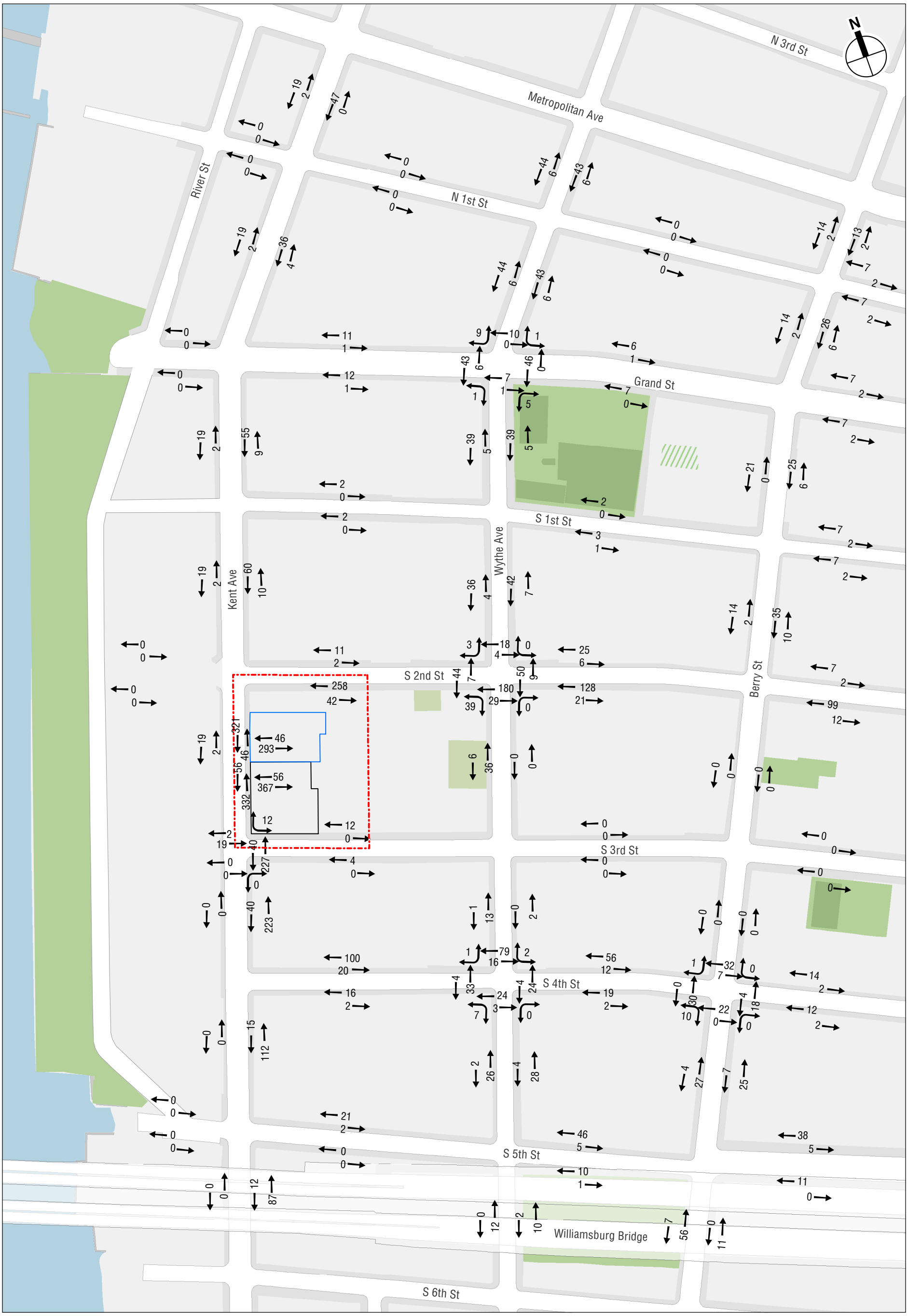
Projected Development Site

0 400 FEET

With Action Project Generated Pedestrian Trips
Weekday PM Peak Hour

Figure 5-19

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

With Action Incremental Pedestrian Trips
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-20

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

With Action Incremental Pedestrian Trips
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-21

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

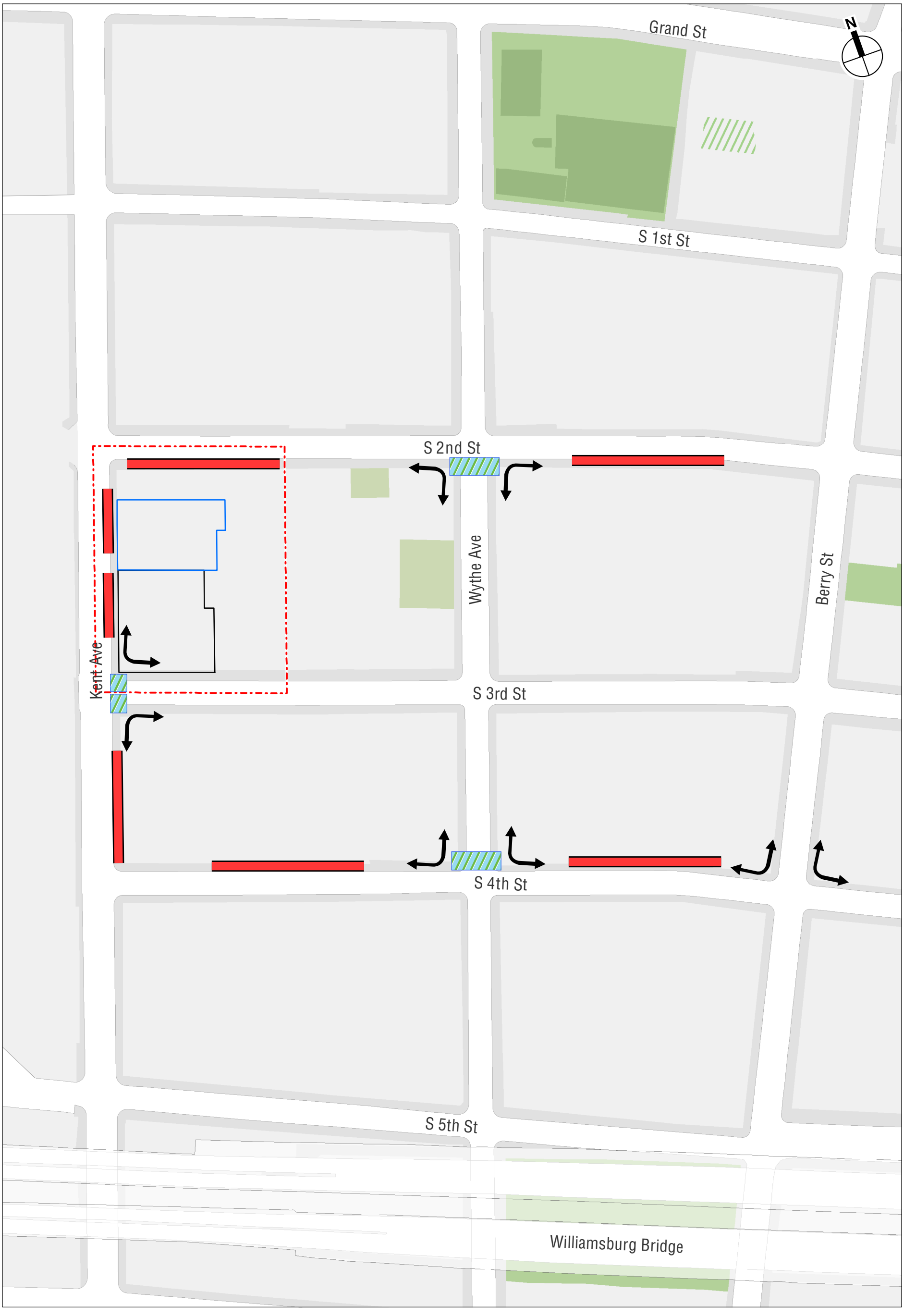
0 400 FEET

With Action Incremental Pedestrian Trips
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-22

12/17/2020



307 KENT AVENUE

Pedestrian Analysis Locations
Figure 5-23

Table 5-11
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips			Selected Analysis Location
	AM	Midday	PM	
Berry Street and North 1st Street				
East Sidewalk along Berry Street between North 1st Street and Metropolitan Avenue	15	24	18	
North Sidewalk along North 1st Street between Berry Street and Bedford Avenue	9	32	16	
East Sidewalk along Berry Street between North 1st Street and Grand Street	32	89	51	
South Sidewalk along North 1st Street between Berry Street and Bedford Avenue	9	32	16	
West Sidewalk along Berry Street between North 1st Street and Grand Street	16	31	21	
South Sidewalk along North 1st Street between Berry Street and Wythe Avenue	0	0	0	
West Sidewalk along Berry Street between North 1st Street and Metropolitan Avenue	16	31	21	
North Sidewalk along North 1st Street between Berry Street and Wythe Avenue	0	0	0	
Berry Street and Grand Street				
North Sidewalk along Grand Street between Berry Street and Bedford Avenue	9	32	16	
East Sidewalk along Berry Street between Grand Street and South 1st Street	31	80	49	
South Sidewalk along Grand Street between Berry Street and Bedford Avenue	9	32	16	
West Sidewalk along Berry Street between Grand Street and South 1st Street	21	44	28	
South Sidewalk along Grand Street between Berry Street and Wythe Avenue	7	29	14	
North Sidewalk along Grand Street between Berry Street and Wythe Avenue	7	29	14	
Berry Street and South 1st Street				
North Sidewalk along South 1st Street between Berry Street and Bedford Avenue	9	32	16	
East Sidewalk along Berry Street between South 1st Street and South 2nd Street	45	135	77	
South Sidewalk along South 1st Street between Berry Street and Bedford Avenue	9	32	16	
West Sidewalk along Berry Street between South 1st Street and South 2nd Street	16	27	19	
South Sidewalk along South 1st Street between Berry Street and Wythe Avenue	4	15	7	
North Sidewalk along South 1st Street between Berry Street and Wythe Avenue	2	9	3	
Berry Street and South 2nd Street				
North Sidewalk along South 2nd Street between Berry Street and Bedford Avenue	9	32	16	
East Sidewalk along Berry Street between South 2nd Street and South 3rd Street	0	0	0	
South Sidewalk along South 2nd Street between Berry Street and Bedford Avenue	111	140	122	
West Sidewalk along Berry Street between South 2nd Street and South 3rd Street	0	0	0	
South Sidewalk along South 2nd Street between Berry Street and Wythe Avenue	149	250	183	✓
North Sidewalk along South 2nd Street between Berry Street and Wythe Avenue	31	85	52	
Berry Street and South 3rd Street				
North Sidewalk along South 3rd Street between Berry Street and Bedford Avenue	0	0	0	
East Sidewalk along Berry Street between South 3rd Street and South 4th Street	0	0	0	
South Sidewalk along South 3rd Street between Berry Street and Bedford Avenue	0	0	0	
West Sidewalk along Berry Street between South 3rd Street and South 4th Street	0	0	0	
South Sidewalk along South 3rd Street between Berry Street and Wythe Avenue	0	0	0	
North Sidewalk along South 3rd Street between Berry Street and Wythe Avenue	0	0	0	
Berry Street and South 4th Street				
North Crosswalk	39	165	64	
East Crosswalk	22	94	39	
South Crosswalk	22	94	39	
West Crosswalk	30	85	44	
Northeast Corner	61	259	103	✓
Southeast Corner	44	188	78	
Southwest Corner	62	185	87	
Northwest Corner	70	256	117	✓
North Sidewalk along South 4th Street between Berry Street and Bedford Avenue	16	71	25	
East Sidewalk along Berry Street between South 4th Street and South 5th Street	32	129	56	
South Sidewalk along South 4th Street between Berry Street and Bedford Avenue	14	61	22	
West Sidewalk along Berry Street between South 4th Street and South 5th Street	31	50	39	
South Sidewalk along South 4th Street between Berry Street and Wythe Avenue	21	58	30	
North Sidewalk along South 4th Street between Berry Street and Wythe Avenue	68	249	108	✓

Table 5-11 (cont'd)
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips			Selected Analysis Location
	AM	Midday	PM	
Berry Street and South 5th Street				
North Sidewalk along South 5th Street between Berry Street and Bedford Avenue	43	73	52	
East Sidewalk along Berry Street between South 5th Street and South 6th Street	11	44	19	
South Sidewalk along South 5th Street between Berry Street and Bedford Avenue	11	44	19	
West Sidewalk along Berry Street between South 5th Street and South 6th Street	63	99	74	
South Sidewalk along South 5th Street between Berry Street and Wythe Avenue	11	12	13	
North Sidewalk along South 5th Street between Berry Street and Wythe Avenue	51	65	57	
Wythe Avenue and North 1st Street				
East Sidewalk along Wythe Avenue between North 1st Street and Metropolitan Avenue	49	56	54	
East Sidewalk along Wythe Avenue between North 1st Street and Grand Street	49	56	54	
West Sidewalk along Wythe Avenue between North 1st Street and Grand Street	50	63	57	
West Sidewalk along Wythe Avenue between North 1st Street and Grand Street	0	0	0	
South Sidewalk along North 1st Street between Wythe Avenue and Kent Avenue	50	63	57	
West Sidewalk along Wythe Avenue between North 1st Street and Metropolitan Avenue	0	0	0	
North Sidewalk along North 1st Street between Wythe Avenue and Kent Avenue	0	0	0	
Wythe Avenue and Grand Street				
North Crosswalk	10	29	15	
East Crosswalk	46	60	53	
South Crosswalk	8	27	14	
West Crosswalk	49	65	56	
Northeast Corner	57	103	76	
Southeast Corner	59	99	72	
Southwest Corner	58	100	78	
Northwest Corner	68	102	76	
East Sidewalk along Wythe Avenue between Grand Street and South 1st Street	44	62	53	
West Sidewalk along Wythe Avenue between Grand Street and South 1st Street	44	61	51	
South Sidewalk along Grand Street between Wythe Avenue and Kent Avenue	13	31	18	
North Sidewalk along Grand Street between Wythe Avenue and Kent Avenue	12	28	17	
Wythe Avenue and South 1st Street				
East Sidewalk along Wythe Avenue between South 1st Street and South 2nd Street	49	78	62	
West Sidewalk along Wythe Avenue between South 1st Street and South 2nd Street	40	47	43	
South Sidewalk along South 1st Street between Wythe Avenue and Kent Avenue	2	11	3	
North Sidewalk along South 1st Street between Wythe Avenue and Kent Avenue	2	11	3	
Wythe Avenue and South 2nd Street				
North Crosswalk	22	63	38	
East Crosswalk	59	100	77	
South Crosswalk	209	352	260	✓
West Crosswalk	51	74	61	
Northeast Corner	81	163	115	
Southeast Corner	268	452	337	✓
Southwest Corner	299	460	349	✓
Northwest Corner	76	152	123	
East Sidewalk along Wythe Avenue between South 2nd Street and South 3rd Street	0	0	0	
West Sidewalk along Wythe Avenue between South 2nd Street and South 3rd Street	42	49	52	
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	300	479	373	✓
North Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	13	36	20	
Wythe Avenue and South 3rd Street				
East Sidewalk along Wythe Avenue between South 3rd Street and South 4th Street	2	2	3	
West Sidewalk along Wythe Avenue between South 3rd Street and South 4th Street	14	14	13	
South Sidewalk along South 3rd Street between Wythe Avenue and Kent Avenue	4	4	4	
North Sidewalk along South 3rd Street between Wythe Avenue and Kent Avenue	12	12	11	
Wythe Avenue and South 4th Street				
North Crosswalk	95	321	144	✓
East Crosswalk	28	73	38	
South Crosswalk	27	69	36	
West Crosswalk	37	71	46	
Northeast Corner	125	395	183	✓
Southeast Corner	55	143	76	
Southwest Corner	71	152	87	
Northwest Corner	133	407	199	✓
East Sidewalk along Wythe Avenue between South 4th Street and South 5th Street	32	84	44	

Table 5-11 (cont'd)
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips			Selected Analysis Location
	AM	Midday	PM	
Wythe Avenue and South 4th Street (cont'd)				
West Sidewalk along Wythe Avenue between South 4th Street and South 5th Street	28	48	33	
South Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	18	44	25	
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	120	376	178	✓
Wythe Avenue and South 5th Street				
East Sidewalk along Wythe Avenue between South 5th Street and South 6th Street	12	47	19	
West Sidewalk along Wythe Avenue between South 5th Street and South 6th Street	12	47	19	
South Sidewalk along South 5th Street between Wythe Avenue and Kent Avenue	0	0	0	
North Sidewalk along South 5th Street between Wythe Avenue and Kent Avenue	23	39	28	
Kent Avenue and North 1st Street				
East Sidewalk along Kent Avenue between North 1st Street and Metropolitan Avenue	47	67	57	
East Sidewalk along Kent Avenue between North 1st Street and Grand Street	40	46	44	
West Sidewalk along Kent Avenue between North 1st Street and Grand Street	21	22	24	
West Sidewalk along Kent Avenue between North 1st Street and Grand Street	0	0	0	
South Sidewalk along North 1st Street between Kent Avenue and River Street	0	0	0	
West Sidewalk along Kent Avenue between North 1st Street and Metropolitan Avenue	21	22	24	
North Sidewalk along North 1st Street between Kent Avenue and River Street	0	0	0	
Kent Avenue and Grand Street				
East Sidewalk along Kent Avenue between Grand Street and South 1st Street	64	99	77	
West Sidewalk along Kent Avenue between Grand Street and South 1st Street	21	22	24	
South Sidewalk along Grand Street between Kent Avenue and River Street	0	0	0	
North Sidewalk along Grand Street between Kent Avenue and River Street	0	0	0	
Kent Avenue and South 1st Street				
East Sidewalk along Kent Avenue between South 1st Street and South 2nd Street	70	121	86	
West Sidewalk along Kent Avenue between South 1st Street and South 2nd Street	21	22	24	
Kent Avenue and South 2nd Street				
East Sidewalk along Kent Avenue between South 2nd Street and South 3rd Street – North Segment	367	610	393	✓
East Sidewalk along Kent Avenue between South 2nd Street and South 3rd Street – South Segment	388	751	547	✓
West Sidewalk along Kent Avenue between South 2nd Street and South 3rd Street	21	22	24	
South Sidewalk along South 2nd Street between Kent Avenue and the East River	0	0	0	
North Sidewalk along South 2nd Street between Kent Avenue and the East River	0	0	0	
Kent Avenue and South 3rd Street				
North Crosswalk	21	22	24	
East Crosswalk	267	625	360	✓
South Crosswalk	0	0	0	
Northeast Corner	300	653	387	✓
Southeast Corner	267	631	368	✓
East Sidewalk along Kent Avenue between South 3rd Street and South 4th Street	263	621	355	✓
West Sidewalk along Kent Avenue between South 3rd Street and South 4th Street	0	0	0	
Kent Avenue and South 4th Street				
East Sidewalk along Kent Avenue between South 4th Street and South 5th Street	127	197	153	
West Sidewalk along Kent Avenue between South 4th Street and South 5th Street	0	0	0	
Kent Avenue and South 5th Street				
East Sidewalk along Kent Avenue between South 5th Street and South 6th Street	99	157	125	
West Sidewalk along Kent Avenue between South 5th Street and South 6th Street	0	0	0	
South Sidewalk along South 5th Street between Kent Avenue and the East river	0	0	0	
North Sidewalk along South 5th Street between Kent Avenue and the East River	0	0	0	

Note: ✓ denotes pedestrian elements selected for detailed analysis.

C. TRANSPORTATION ANALYSIS METHODOLOGIES

TRAFFIC OPERATIONS

The operations of all of the signalized intersections in the study area have been assessed using methodologies presented in the 2000 *Highway Capacity Manual* (*HCM*) using the *Synchro*

Software (Version 10). The *HCM* procedure evaluates the levels of service (LOS) for signalized intersections using average stop control delay, in seconds per vehicle, as described below.

SIGNALIZED INTERSECTIONS

The average control delay per vehicle is the basis for LOS determination for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. The levels of service are defined in **Table 5-12**.

Table 5-12
Level of Service Criteria for Signalized Intersections

LOS	Average Control Delay
A	≤ 10.0 seconds
B	>10.0 and ≤ 20.0 seconds
C	>20.0 and ≤ 35.0 seconds
D	>35.0 and ≤ 55.0 seconds
E	>55.0 and ≤ 80.0 seconds
F	>80.0 seconds

Source: Transportation Research Board. *Highway Capacity Manual*, 2000.

Although the *HCM* methodology calculates a volume-to-capacity (v/c) ratio, there is no strict relationship between v/c ratios and LOS as defined in the *HCM*. A high v/c ratio indicates substantial traffic passing through an intersection, but a high v/c ratio combined with low average delay actually represents the most efficient condition in terms of traffic engineering standards, where an approach or the whole intersection processes traffic close to its theoretical maximum capacity with minimal delay. However, very high v/c ratios—especially those approaching or greater than 1.0—are often correlated with a deteriorated LOS. Other important variables affecting delay include cycle length, progression, and green time. LOS A and B indicate good operating conditions with minimal delay. At LOS C, the number of vehicles stopping is higher, but congestion is still fairly light. LOS D describes a condition where congestion levels are more noticeable and individual cycle failures (a condition where motorists may have to wait for more than one green phase to clear the intersection) can occur. Conditions at LOS E and F reflect poor service levels, and cycle breakdowns are frequent. The *HCM* methodology also provides for a summary of the total intersection operating conditions. The analysis chooses the two critical movements (the worst case from each roadway) and calculates a summary critical v/c ratio. The overall intersection delay, which determines the intersection's LOS, is based on a weighted average of control delays of the individual lane groups. Within New York City, the midpoint of LOS D (45 seconds of delay) is generally considered as the threshold between acceptable and unacceptable operations.

Significant Impact Criteria

According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase in the With Action condition of five or more seconds of delay in a lane group over No Action levels beyond mid-LOS D. For No Action LOS E, a four second increase in delay is considered significant. For No Action LOS F, a three second increase in delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B, or C in the No Action condition to marginally unacceptable LOS D (a delay in excess of 45 seconds, the midpoint of LOS D), or unacceptable LOS E or F in the With Action condition.

UNSIGNALIZED INTERSECTIONS

For unsignalized intersections, the average control delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The average control delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The LOS criteria for unsignalized intersections are summarized in **Table 5-13**.

Table 5-13
Level of Service Criteria for Unsignalized Intersections

LOS	Average Control Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 15.0 seconds
C	> 15.0 and ≤ 25.0 seconds
D	> 25.0 and ≤ 35.0 seconds
E	> 35.0 and ≤ 50.0 seconds
F	> 50.0 seconds

Source: Transportation Research Board. *Highway Capacity Manual*, 2000.

The LOS thresholds for unsignalized intersections are different from those for signalized intersections. The primary reason is that drivers expect different levels of performance from different types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection; hence, the corresponding control delays are higher at a signalized intersection than at an unsignalized intersection for the same LOS. In addition, certain driver behavioral considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections. For these reasons, the corresponding delay thresholds for unsignalized intersections are lower than those of signalized intersections. As with signalized intersections, within New York City, the midpoint of LOS D (30 seconds of delay) is generally perceived as the threshold between acceptable and unacceptable operations.

Significant Impact Criteria

The same sliding scale of significant delays described for signalized intersections applies for unsignalized intersections. For the minor street to trigger significant impacts, at least 90 passenger car equivalents (PCE) must be identified in the With Action condition in any peak hour.

TRANSIT OPERATIONS

BUS LINE-HAUL CAPACITIES

As per the *CEQR Technical Manual*, line-haul capacities are evaluated when a proposed project is anticipated to generate a perceptible number of passengers on particular subway and bus routes. Bus line-haul capacities are evaluated when a proposed project is anticipated to generate 50 or more bus passengers to a single bus line in one direction. The assessment of bus line-haul

conditions involves analyzing bus routes at their peak load points and, if necessary, also their bus stops closest to the project site to identify the potential for the analyzed routes to exceed their guideline (or practical) capacities. NYCT and the MTA Bus Company operate three types of buses: standard and articulated buses, and over-the-road coaches. During peak hours, standard buses operate with up to 54 passengers per bus, articulated buses operate with up to 85 passengers per bus, and over-the-road coaches operate with up to 55 passengers per bus.

Significant Impact Criteria

For buses, an increase in bus load levels greater than the maximum capacity at any load point is defined as a significant adverse impact. While subject to operational and fiscal constraints, bus impacts can typically be mitigated by increasing service frequency. Therefore, mitigation of bus line-haul capacity impacts, where appropriate, would be recommended for NYCT's approval.

PEDESTRIAN OPERATIONS

The adequacy of the study area's sidewalk, crosswalk, and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2010 *HCM*, pursuant to procedures detailed in the *CEQR Technical Manual*.

The primary performance measure for sidewalks and walkways is pedestrian space, expressed as square feet per pedestrian (SFP), which is an indicator of the quality of pedestrian movement and comfort. The calculation of the sidewalk SFP is based on the pedestrian volumes by direction, the effective sidewalk or walkway width, and average walking speed. The SFP forms the basis for a sidewalk LOS analysis. The determination of sidewalk LOS is also dependent on whether the pedestrian flow being analyzed is best described as "non-platoon" or "platoon." Non-platoon flow occurs when pedestrian volume within the peak 15-minute period is relatively uniform, whereas platoon flow occurs when pedestrian volumes vary significantly within the peak 15-minute period. Such variation typically occurs near bus stops, subway stations, and/or where adjacent crosswalks account for much of the walkway's pedestrian volume.

Street corners and crosswalks are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around the corner). The HCM methodologies apply a measure of time and space availability based on the area of the corner, the timing of the intersection signal, and the estimated space used by circulating pedestrians.

The total "time-space" available for these activities, expressed in square feet-second, is calculated by multiplying the net area of the corner (in square feet) by the signal's cycle length. The analysis then determines the total circulation time for all pedestrian movements at the corner per signal cycle (expressed as pedestrians per second). The ratio of net time-space divided by the total pedestrian circulation volume per signal cycle provides the LOS measurement of available SFP.

Crosswalk LOS is also a function of time and space. Similar to the street corner analysis, crosswalk conditions are first expressed as a measurement of the available area (the crosswalk width multiplied by the width of the street) and the permitted crossing time. This measure is expressed in square feet-second. The average time required for a pedestrian to cross the street is calculated based on the width of the street and an assumed walking speed. The ratio of time-space available in the crosswalk to the total crosswalk pedestrian occupancy time is the LOS measurement of available square feet per pedestrian. The LOS analysis also accounts for vehicular turning movements that traverse the crosswalk.

The LOS standards for sidewalks, corner reservoirs, and crosswalks are summarized in **Table 5-14**. The *CEQR Technical Manual* specifies acceptable LOS in non-Central Business District (CBD) areas is LOS C or better, while acceptable LOS in CBD areas is mid-LOS D or better.

Table 5-14
Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks
	Non-Platoon Flow	Platoon Flow	
A	> 60 SFP	> 530 SFP	> 60 SFP
B	> 40 and ≤ 60 SFP	> 90 and ≤ 530 SFP	> 40 and ≤ 60 SFP
C	> 24 and ≤ 40 SFP	> 40 and ≤ 90 SFP	> 24 and ≤ 40 SFP
D	> 15 and ≤ 24 SFP	> 23 and ≤ 40 SFP	> 15 and ≤ 24 SFP
E	> 8 and ≤ 15 SFP	> 11 and ≤ 23 SFP	> 8 and ≤ 15 SFP
F	≤ 8 SFP	≤ 11 SFP	≤ 8 SFP

Note:
SFP = square feet per pedestrian
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*

SIGNIFICANT IMPACT CRITERIA

The determination of significant pedestrian impacts considers the level of predicted decrease in pedestrian space between the No Action and With Action conditions. For different pedestrian elements, flow conditions, and area types, the CEQR procedure for impact determination corresponds with various sliding-scale formulas, as further detailed below.

Sidewalks

There are two sliding-scale formulas for determining significant sidewalk impacts. For non-platoon flow, the determination of significant sidewalk impacts is based on the sliding scale using the following formula: $Y \geq X/9.0–0.31$, where Y is the decrease in pedestrian space in SFP and X is the No Action pedestrian space in SFP. For platoon flow, the sliding-scale formula is $Y \geq X/(9.5–0.321)$. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, these formulas would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table 5-15** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant sidewalk impacts.

Corner Reservoirs and Crosswalks

The determination of significant corner and crosswalk impacts is also based on a sliding scale using the following formula: $Y \geq X/9.0–0.31$, where Y is the decrease in pedestrian space in SFP and X is the No Action pedestrian space in SFP. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, this formula would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table 5-16** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant corner reservoir and crosswalk impacts.

Table 5-15
Significant Impact Guidance for Sidewalks

Non-Platoon Flow				Platoon Flow			
Sliding Scale Formula: *Y ≥ X/(9.0–0.31)*				Sliding Scale Formula: *Y ≥ X/(9.5–0.321)*			
Non-CBD Areas		CBD Areas		Non-CBD Areas		CBD Areas	
No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)
–	–	–	–	43.5 to 44.3	≥ 4.3	–	–
–	–	–	–	42.5 to 43.4	≥ 4.2	–	–
–	–	–	–	41.6 to 42.4	≥ 4.1	–	–
–	–	–	–	40.6 to 41.5	≥ 4.0	–	–
–	–	–	–	39.7 to 40.5	≥ 3.9	–	–
–	–	–	–	38.7 to 39.6	≥ 3.8	38.7 to 39.2	≥ 3.8
–	–	–	–	37.8 to 38.6	≥ 3.7	37.8 to 38.6	≥ 3.7
–	–	–	–	36.8 to 37.7	≥ 3.6	36.8 to 37.7	≥ 3.6
–	–	–	–	35.9 to 36.7	≥ 3.5	35.9 to 36.7	≥ 3.5
–	–	–	–	34.9 to 35.8	≥ 3.4	34.9 to 35.8	≥ 3.4
–	–	–	–	34.0 to 34.8	≥ 3.3	34.0 to 34.8	≥ 3.3
–	–	–	–	33.0 to 33.9	≥ 3.2	33.0 to 33.9	≥ 3.2
–	–	–	–	32.1 to 32.9	≥ 3.1	32.1 to 32.9	≥ 3.1
–	–	–	–	31.1 to 32.0	≥ 3.0	31.1 to 32.0	≥ 3.0
–	–	–	–	30.2 to 31.0	≥ 2.9	30.2 to 31.0	≥ 2.9
–	–	–	–	29.2 to 30.1	≥ 2.8	29.2 to 30.1	≥ 2.8
25.8 to 26.6	≥ 2.6	–	–	28.3 to 29.1	≥ 2.7	28.3 to 29.1	≥ 2.7
24.9 to 25.7	≥ 2.5	–	–	27.3 to 28.2	≥ 2.6	27.3 to 28.2	≥ 2.6
24.0 to 24.8	≥ 2.4	–	–	26.4 to 27.2	≥ 2.5	26.4 to 27.2	≥ 2.5
23.1 to 23.9	≥ 2.3	–	–	25.4 to 26.3	≥ 2.4	25.4 to 26.3	≥ 2.4
22.2 to 23.0	≥ 2.2	–	–	24.5 to 25.3	≥ 2.3	24.5 to 25.3	≥ 2.3
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1	23.5 to 24.4	≥ 2.2	23.5 to 24.4	≥ 2.2
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0	22.6 to 23.4	≥ 2.1	22.6 to 23.4	≥ 2.1
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9	21.6 to 22.5	≥ 2.0	21.6 to 22.5	≥ 2.0
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8	20.7 to 21.5	≥ 1.9	20.7 to 21.5	≥ 1.9
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7	19.7 to 20.6	≥ 1.8	19.7 to 20.6	≥ 1.8
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6	18.8 to 19.6	≥ 1.7	18.8 to 19.6	≥ 1.7
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5	17.8 to 18.7	≥ 1.6	17.8 to 18.7	≥ 1.6
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4	16.9 to 17.7	≥ 1.5	16.9 to 17.7	≥ 1.5
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3	15.9 to 16.8	≥ 1.4	15.9 to 16.8	≥ 1.4
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2	15.0 to 15.8	≥ 1.3	15.0 to 15.8	≥ 1.3
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1	14.0 to 14.9	≥ 1.2	14.0 to 14.9	≥ 1.2
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0	13.1 to 13.9	≥ 1.1	13.1 to 13.9	≥ 1.1
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9	12.1 to 13.0	≥ 1.0	12.1 to 13.0	≥ 1.0
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8	11.2 to 12.0	≥ 0.9	11.2 to 12.0	≥ 0.9
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7	10.2 to 11.1	≥ 0.8	10.2 to 11.1	≥ 0.8
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6	9.3 to 10.1	≥ 0.7	9.3 to 10.1	≥ 0.7
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5	8.3 to 9.2	≥ 0.6	8.3 to 9.2	≥ 0.6
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4	7.4 to 8.2	≥ 0.5	7.4 to 8.2	≥ 0.5
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3	6.4 to 7.3	≥ 0.4	6.4 to 7.3	≥ 0.4
< 5.1	≥ 0.2	< 5.1	≥ 0.2	< 6.4	≥ 0.3	< 6.4	≥ 0.3

Notes:
SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*

Table 5-16
Significant Impact Guidance for Corners and Crosswalks

Sliding Scale Formula: $Y \geq X/9.0–0.31$			
Non-CBD Areas		CBD Areas	
No Action Pedestrian Space (X, SFP)	With Action Pedestrian Space Reduction (Y, SFP)	No Action Pedestrian Space (X, SFP)	With Action Pedestrian Space Reduction (Y, SFP)
25.8 to 26.6	≥ 2.6	–	–
24.9 to 25.7	≥ 2.5	–	–
24.0 to 24.8	≥ 2.4	–	–
23.1 to 23.9	≥ 2.3	–	–
22.2 to 23.0	≥ 2.2	–	–
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3
< 5.1	≥ 0.2	< 5.1	≥ 0.2

Notes:
SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*

VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

An evaluation of vehicular and pedestrian safety is necessary for locations within the traffic and pedestrian study areas that have been identified as high crash locations, where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, crash trends are identified to determine whether projected vehicular and pedestrian traffic would further impact safety at these locations. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety are identified and coordinated with DOT.

PARKING CONDITIONS ASSESSMENT

The parking analysis identifies the extent to which off-street parking is available and utilized under existing and future conditions. It takes into consideration anticipated changes in area parking supply and provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from parking displacement attributable to or additional demand generated by a proposed project. Typically, this analysis encompasses a study area within a ¼-

mile of the project site. If the analysis concludes a shortfall in parking within the ¼-mile study area, the study area could sometimes be extended to a ½-mile to identify additional parking supply.

Under the *CEQR Technical Manual*'s guidance, for proposed projects located in Parking Zones 1 and 2, the inability of a proposed project or the surrounding area to accommodate the projects' estimated parking demand is considered a parking shortfall, but is generally not considered significant due to the magnitude of available alternative modes of transportation.

D. DETAILED TRAFFIC ANALYSIS

As described above in Section B, "Preliminary Analysis Methodology and Screening Assessment," 13 intersections have been selected for analysis in the weekday AM, midday, and PM peak hours. Since the Proposed Project would be primarily office use and the aggregate trip generation of its uses would be highest during the weekday peak hours, an assessment of Saturday conditions is not warranted.

EXISTING CONDITIONS

ROADWAY NETWORK AND TRAFFIC STUDY AREA

The key roadways in the study area include Kent Avenue, Wythe Avenue, Berry Street, Bedford Avenue, Metropolitan Avenue, Broadway, South 5th Street, and South 6th Street. The physical and operational characteristics of the study area roadways are described below.

- Kent Avenue is a one-way northbound roadway that generally operates with one moving lane. Curbside parking is generally provided along both sides of the roadway. In addition, a two-way Class-II bike lane is also provided along the roadway in the study area.
- Wythe Avenue is a one-way southbound roadway that generally operates with one moving lane and with curbside parking generally provided along both sides of the roadway. In addition, a southbound Class-II bike lane is also provided along the roadway in the study area.
- Berry Street is a one-way northbound roadway that operates with one moving lane and with curbside parking generally provided along both sides of the roadway. In addition, a northbound Class-II bike lane is also provided along the roadway in the study area.
- Bedford Avenue is a one-way northbound roadway that operates with one moving lane and with curbside parking generally provided along both sides of the roadway.
- Metropolitan Avenue is a two-way eastbound-westbound roadway that generally operates with one moving lane in each direction. Curbside parking is generally permitted along both sides of the roadway in the study area.
- Broadway is a two-way eastbound-westbound roadway that generally operates with one moving lane in each direction. Curbside parking is generally permitted along both sides of the roadway in the study area. In addition, Class-II bike lanes are also provided along both sides of the roadway in the study area.
- South 5th Street is a one-way eastbound roadway that generally operates with one moving lane and with curbside parking provided along both sides of the roadway. In addition, an eastbound Class-II bike lane is also provided along the roadway in the study area.
- South 6th Street is a one-way westbound roadway that generally operates with one moving lane and with curbside parking provided along both sides of the roadway.

TRAFFIC CONDITIONS

Traffic data were collected in March 2019 for the weekday AM, midday, and PM peak periods via a combination of video and manual intersection counts and 24-hour Automatic Traffic Recorder (ATR) counts. The 2019 existing peak period traffic volumes has been developed based on these counts, which identified the weekday analysis peak hours to be 7:30 AM to 8:30 AM, 11:30 AM to 12:30 PM, and 5:00 PM to 6:00 PM.

Inventories of roadway geometry, traffic controls, bus stops, and parking regulations/activities are recorded to provide appropriate inputs for the operational analyses. Official signal timings have also been obtained from DOT for use in the analysis of the study area signalized intersection. **Figures 5-24 through 5-26** show the 2019 existing traffic volumes for the weekday AM, midday, and PM peak hours, respectively.

LEVEL OF SERVICE

A summary of the 2019 existing conditions traffic analysis results are presented in **Table 5-17**. Details on LOS, v/c ratios, and average delays are presented in **Tables 5-18 and 5-19**.

Table 5-17
Summary of 2019 Existing Traffic Analysis Results

Level of Service	Analysis Peak Hours		
	Weekday AM	Weekday Midday	Weekday PM
Signalized Intersections			
Lane Groups at LOS A/B/C	28	29	29
Lane Groups at LOS D	1	1	0
Lane Groups at LOS E	1	0	1
Lane Groups at LOS F	0	0	0
Total	30	30	1
Lane Groups with v/c ≥ 0.90	1	1	1
Unsignalized Intersections			
Lane Groups at LOS A/B/C	10	10	10
Lane Groups at LOS D	0	0	0
Lane Groups at LOS E	0	0	0
Lane Groups at LOS F	0	0	0
Total	10	10	10
Lane Groups with v/c ≥ 0.90	0	0	0

Notes: LOS = Level-of-Service; v/c = volume-to-capacity ratio

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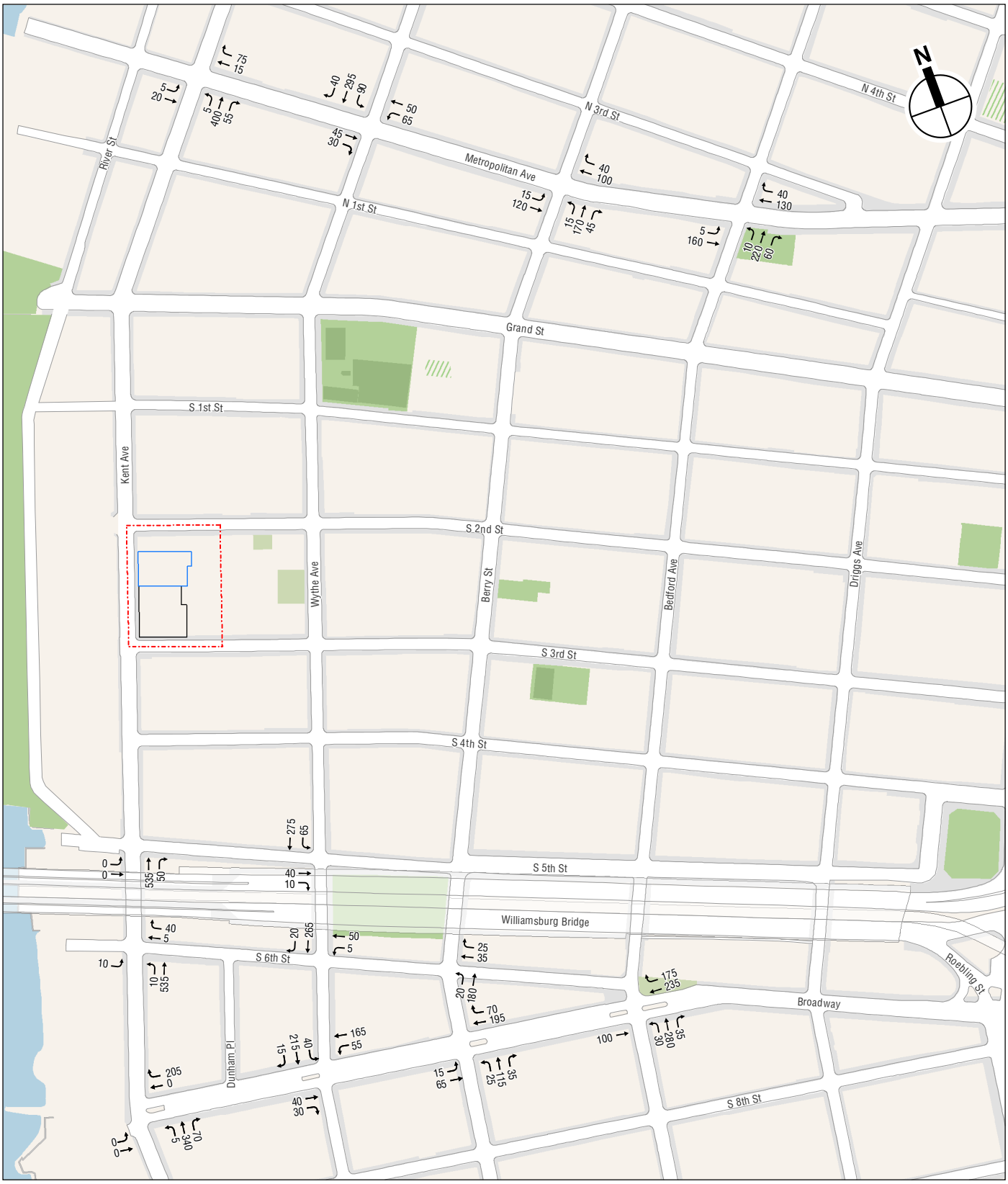

Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

2019 Existing Traffic Volumes
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-24

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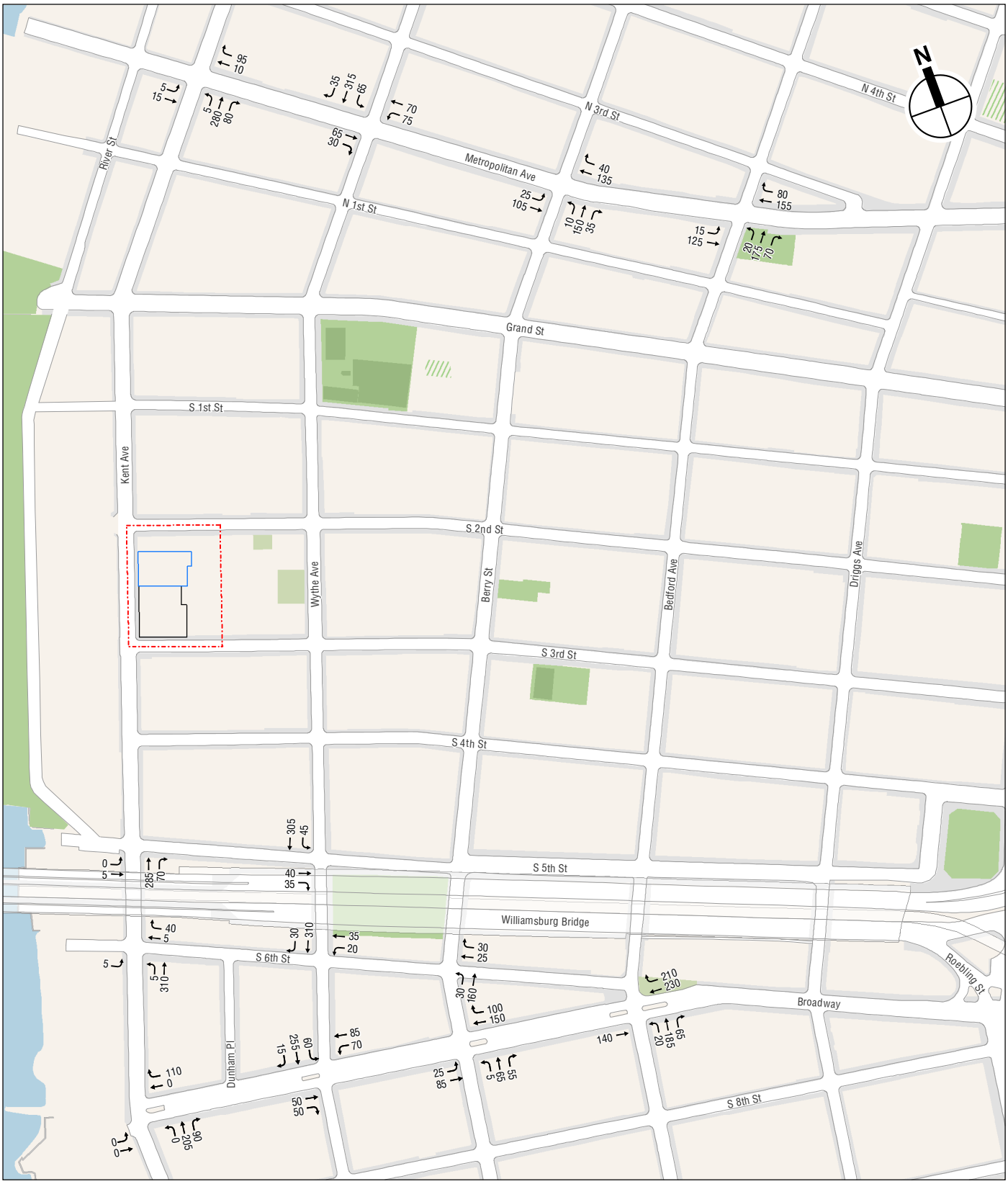

Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

2019 Existing Traffic Volumes
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-25

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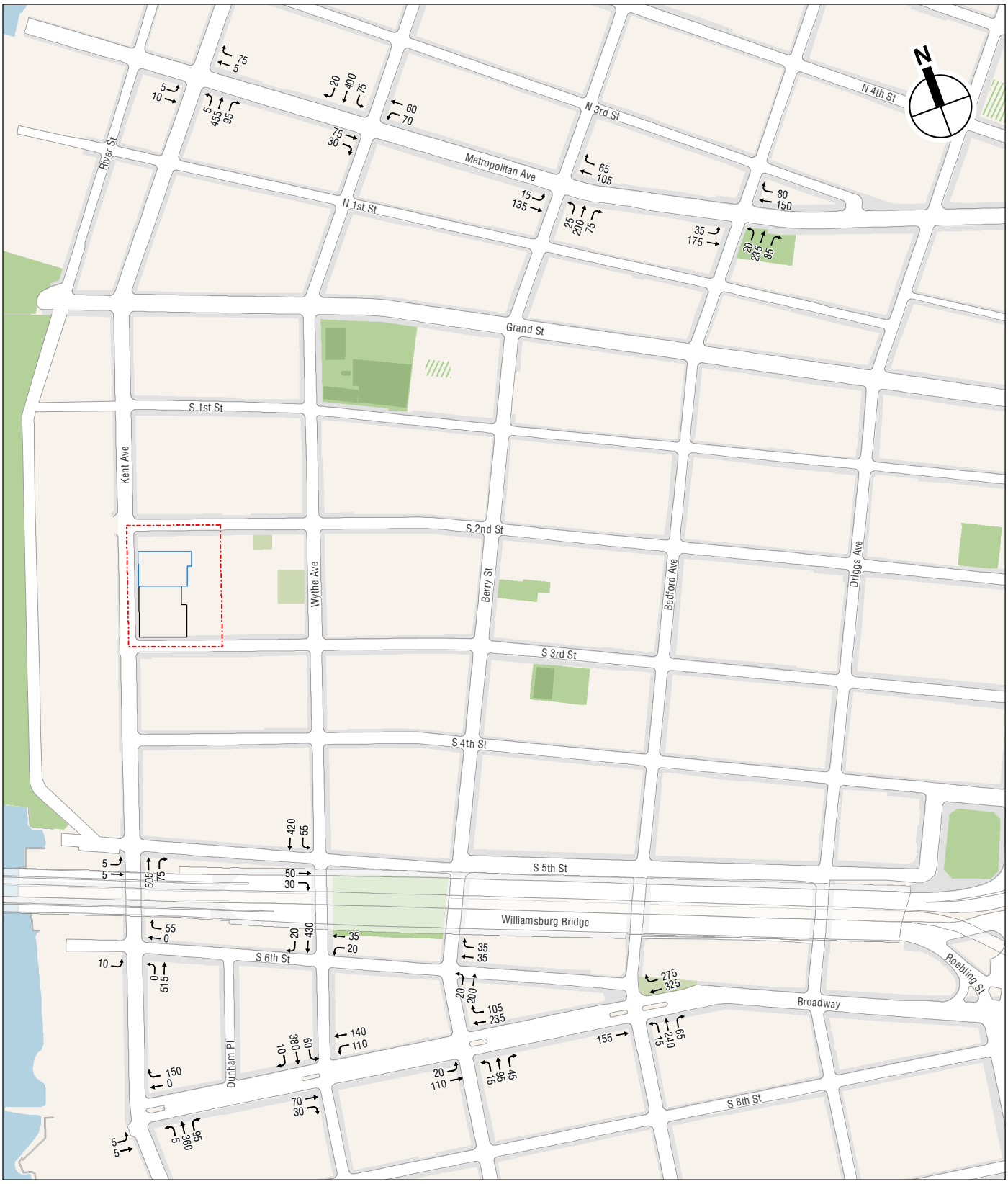

Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

2019 Existing Traffic Volumes
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-26

Table 5-18
2019 Existing Conditions Level of Service Analysis
Signalized Intersections

Intersection	Weekday AM				Weekday Midday				Weekday PM			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Metropolitan Avenue and Kent Avenue												
Eastbound	LT	0.07	15.4	B	LT	0.06	15.3	B	LT	0.05	15.1	B
Westbound	TR	0.34	13.8	B	TR	0.40	17.3	B	TR	0.25	13.8	B
Northbound	L	0.01	0.0	A	L	0.01	6.6	A	L	0.01	0.0	A
	TR	0.76	19.0	B	TR	0.69	16.2	B	TR	0.89	28.2	C
Metropolitan Avenue and Wythe Avenue												
Eastbound	TR	0.18	7.3	A	TR	0.24	8.3	A	TR	0.24	7.3	A
Westbound	LT	0.32	22.3	C	LT	0.40	20.8	C	LT	0.34	18.3	B
Southbound	LTR	1.02	63.7	E	LTR	0.94	45.2	D	LTR	1.05	71.6	E
Metropolitan Avenue and Berry Street												
Eastbound	LT	0.32	8.9	A	LT	0.32	7.8	A	LT	0.33	6.9	A
Westbound	TR	0.34	8.3	A	TR	0.39	10.7	B	TR	0.39	10.2	B
Northbound	LTR	0.54	17.3	B	LTR	0.45	15.7	B	LTR	0.74	24.7	C
Metropolitan Avenue and Bedford Avenue												
Eastbound	LT	0.34	9.7	A	LT	0.33	14.0	B	LT	0.48	15.5	B
Westbound	TR	0.38	14.2	B	TR	0.53	16.7	B	TR	0.48	15.8	B
Northbound	LTR	0.62	19.0	B	LTR	0.63	19.9	B	LTR	0.83	30.7	C
South 6th Street and Wythe Avenue												
Westbound	LT	0.13	20.8	C	LT	0.14	20.8	C	LT	0.13	20.8	C
Southbound	TR	0.54	13.3	B	TR	0.58	17.6	B	TR	0.76	24.2	C
Broadway and Kent Avenue												
Eastbound	LR	0.00	0.0	A	LR	0.00	0.0	A	LR	0.02	22.3	C
Westbound	R	0.78	46.5	D	R	0.44	30.2	C	R	0.53	32.8	C
Northbound	LTR	0.59	14.8	B	LTR	0.43	11.8	B	LTR	0.56	13.9	B
Broadway and Wythe Avenue												
Eastbound	TR	0.24	22.6	C	TR	0.31	23.6	C	TR	0.28	23.0	C
Westbound	L	0.21	10.7	B	L	0.26	10.1	B	L	0.35	11.8	B
	T	0.43	12.3	B	T	0.21	9.4	A	T	0.33	11.0	B
Southbound	LTR	0.52	4.1	A	LTR	0.62	8.3	A	LTR	0.78	9.0	A
Broadway and Berry Street												
Eastbound	L	0.06	11.8	B	L	0.10	12.2	B	L	0.08	9.8	A
	T	0.15	12.4	B	T	0.19	13.1	B	T	0.21	10.8	B
Westbound	TR	0.57	22.8	C	TR	0.55	22.6	C	TR	0.68	26.5	C
Northbound	LTR	0.38	18.7	B	LTR	0.24	16.4	B	LTR	0.33	17.9	B
Broadway and Bedford Avenue												
Eastbound	T	0.19	10.5	B	T	0.25	11.2	B	T	0.24	11.0	B
Westbound	T	0.33	12.0	B	T	0.32	11.8	B	T	0.42	13.1	B
	R	0.47	27.3	C	R	0.57	29.8	C	R	0.70	34.6	C
Northbound	LTR	0.47	25.6	C	LTR	0.37	24.1	C	LTR	0.45	25.3	C

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service

Table 5-19
2019 Existing Conditions Level of Service Analysis
Unsignalized Intersections

Intersection	Weekday AM				Weekday Midday				Weekday PM			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
South 5th Street and Kent Avenue												
Eastbound	LT	0.00	0.0	A	LT	0.01	12.2	B	LT	0.03	14.0	B
Northbound	TR	0.41	0.0	A	TR	0.26	0.0	A	TR	0.36	0.0	A
South 5th Street and Wythe Avenue												
Eastbound	TR	0.13	13.9	B	TR	0.17	13.1	B	TR	0.23	15.9	C
Southbound	LT	0.05	1.9	A	LT	0.03	1.3	A	LT	0.04	1.4	A
South 6th Street and Kent Avenue												
Eastbound	L	0.04	17.6	C	L	0.01	13.8	B	L	0.04	17.4	C
Westbound	TR	0.11	14.1	B	TR	0.09	11.8	B	TR	0.13	13.7	B
Northbound	L	0.01	7.4	A	L	0.00	7.4	A	L	0.00	0.0	A
	T	0.37	0.0	A	T	0.22	0.0	A	T	0.33	0.0	A
South 6th Street and Berry Street												
Westbound	TR	0.11	11.1	B	TR	0.09	10.8	B	TR	0.13	11.1	B
Northbound	LT	0.02	0.9	A	LT	0.02	1.3	A	LT	0.01	0.8	A

Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service

The capacity analysis indicates that most of the study area's intersection approaches/lane groups operate acceptably—at mid-LOS D or better (delays of 45 seconds or less per vehicle for signalized intersections and delays of 30 seconds or less per vehicle for unsignalized intersections)—during all analysis peak hours. Approaches/lane groups operating beyond mid-LOS D and those with v/c ratios of 0.90 or greater are listed below.

- Southbound approach at the Metropolitan Avenue and Wythe Avenue intersection (LOS E with a v/c ratio of 1.02 and a delay of 63.7 seconds per vehicle [spv] during the weekday AM peak hour, LOS D with a v/c ratio of 0.94 and a delay of 45.2 spv during the weekday midday peak hour, and LOS E with a v/c ratio of 1.05 and a delay of 71.6 spv); and
- Westbound approach at the Broadway and Kent Avenue intersection (LOS D with a v/c ratio of 0.78 and a delay of 46.5 spv) during the weekday AM peak hour.

FUTURE WITHOUT THE PROPOSED ACTIONS

The No Action condition is developed by increasing existing (2019) traffic levels by the expected growth in overall travel through and within the study area. As per *CEQR Technical Manual* guidelines, an annual background growth rate of 0.50 percent is applied to grow traffic to the Proposed Actions' anticipated build year of 2023. A total of 77 development projects expected to occur in the No Action condition (No Build projects) have been identified as being planned for the ½-mile study area (see **Figure 5-27**). However, some of these planned projects are modest in size and would be very modest traffic generators. After reviewing the development programs for each of the planned projects, it has been determined that background growth will address the increase in traffic and pedestrian levels for 61 of the small- to moderate-sized projects in the study area. For the other No Build projects, person and vehicle trips are estimated and incorporated into the No Action analyses. **Table 5-20** and **Figure 5-27** summarize the projects that are accounted for in this future 2023 No Action condition, including those that are considered as part of the study area background growth and those for which separate trip generation profiles and assignments have been created.



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

Study Area (1/2-mile perimeter)

Study Area (1/4-mile perimeter)

1 *No Build Project*

2023 No Build Projects

307 KENT AVENUE

Figure 5-27

Table 5-20
No Build Projects Expected to be Complete by 2023

Map Ref. No.[1]	Project Name / Address	Development Program	Transportation Assumptions	Status/ Build Year[2]
Development Projects within ½-Mile				
1	246 South 2nd Street	Mixed-Use: residential (8 DUs),commercial (2,356 sf), and community facility (107 sf)	Included in background growth	2023
2	658 Driggs Avenue	Mixed-Use: residential (20 DUs) and commercial (4,275 sf)	Included in background growth	2023
3	625 Driggs Avenue	Mixed-Use: residential (19 DUs) and commercial (3,109 sf)	Included in background growth	2023
4	361 Bedford Avenue	Commercial: retail (48,369 sf) and hotel (104 rooms)	Transportation assumptions from *CEQR Technical Manual*; *25 Kent Avenue EAS (2016)*; DOT's local retail trip generation survey results in Brooklyn; and *M1 Hotels Text Amendment DEIS (2018)*	2023
5	219 South 3rd Street	Mixed-Use: residential (9 DUs) and community facility (2,787 sf)	Included in background growth	2023
6	200 Kent Avenue	Commercial: retail (20,966 sf) and office (28,721 sf)	Transportation assumptions from *CEQR Technical Manual*; *25 Kent Avenue EAS (2016)*; DOT's local retail trip generation survey results in Brooklyn; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; and U.S. Census 2012–2016 ACS RJTW Data	2023
7	187 Kent Avenue	Mixed-Use: residential (96 DUs) and retail (24,319 sf)	Transportation assumptions from *CEQR Technical Manual*; *25 Kent Avenue EAS (2016)*; DOT's local retail trip generation survey results in Brooklyn; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; and U.S. Census 2013–2017 ACS JTW Data	2023
8	60 South 2nd Street	Mixed-Use: residential (28 DUs) and office (55,992 sf)	See Projects 6 and 7 above	2023
9	106 North 3rd Street	Mixed-Use: residential (10 DUs) and commercial (3,565 sf)	Included in background growth	2023
10	115 Broadway	Commercial/community facility: 4,202 sf commercial and 1,308 sf community facility	Included in background growth	2023
11	99 North 4th Street	Included in background growth	Included in background growth	2023
12	204 Bedford Avenue	Retail: 8,239 sf	Transportation assumptions from *CEQR Technical Manual*; *25 Kent Avenue EAS (2016)*; and DOT's local retail trip generation survey results in Brooklyn	2023
13	72 South 2nd Street	Mixed-Use: residential (7 DUs),commercial (2,872 sf), and community facility (1,253 sf)	Included in background growth	2023
14	91 North 6th Street	Commercial: 4,554 sf	Included in background growth	2023
15	89 North 6th Street	Commercial: 4,543 sf	Included in background growth	2023
16	661 Driggs Avenue	Mixed-Use: residential (6 DUs) and commercial (4,117 sf)	Included in background growth	2023
17	101 South 4th Street	Residential: 2 DUs	Included in background growth	2023
18	420 Kent Avenue	Mixed-Use: residential (605 DUs) and retail (13,699 sf)	See Project 7 above	2023
19	Domino Sugar: 350 Kent Avenue (Site D)	Mixed-Use: residential (422 DUs) and commercial (45,981 sf)	Transportation assumptions from *Domino Sugar FEIS (2010) and Technical Memorandum 003 (2013)*. Based on TM003, the Domino Sugar project would have an anticipated completion year of 2023.	2023
20	Domino Sugar: 314 Kent Avenue (Historic Domino Plant)	Office: 351,514 sf	See Project 19 above	2023

Table 5-20 (cont'd)
No Build Projects Expected to be Complete by 2023

Map Ref. No.[1]	Project Name / Address	Development Program	Transportation Assumptions	Status/ Build Year[2]
Development Projects within ½-Mile				
21	Domino Sugar: 280 Kent Avenue (Site B)	Mixed-Use: residential (680 DUs),commercial (12,120 sf), and community facility (82,660 sf)	See Project 19 above	2023
22	Domino Sugar: 260 Kent Avenue (Site A)	Mixed-Use: residential (332 DUs), retail (58,641 sf), and office (116,976 sf)	See Project 19 above	2020
23	288 Berry Street	Community facility: 41,804 sf	Included in background growth	2023
24	271 Berry Street	Residential: 2 DUs	Included in background growth	2023
25	141 North 6th Street	Mixed-Use: residential (10 DUs) and community facility (978 sf)	Included in background growth	2023
26	159 Wythe Avenue	Mixed-Use: residential (6 DUs) and commercial (2,809 sf)	Included in background growth	2023
27	76 North 6th Street	Mixed-Use: residential (3 DUs) and commercial (2,994 sf)	Included in background growth	2023
28	333 Kent Avenue	Mixed-Use: residential (2 DUs) and commercial (9,767 sf)	Included in background growth	2023
29	349 Kent Avenue	Mixed-Use: residential (10 DUs) and commercial (961 sf)	Included in background growth	2023
30	63 North 6th Street	Commercial: 3,630 sf	Included in background growth	2023
31	159 Broadway	Mixed-Use: residential (21 DUs) and hotel (251 rooms)	Transportation assumptions from *CEQR Technical Manual*; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; U.S. Census 2013–2017 ACS JTW Data; and *M1 Hotels Text Amendment DEIS (2018)*	2023
32	340 Metropolitan Avenue	Mixed-Use: residential (10 DUs) and commercial (466 sf)	Included in background growth	2023
33	228 Berry Street	Mixed-Use: residential (40 DUs) and retail (8,527 sf)	See Project 7 above	2023
34	110 North 1st Street	Mixed-Use: residential (38 DUs) and retail (9,708 sf)	See Project 7 above	2023
35	801 Driggs Avenue	Residential: 8 DUs	Included in background growth	2023
36	225 Wythe Avenue	Mixed-Use: residential (10 DUs) and commercial (4,777 sf)	Included in background growth	2023
37	102 Division Avenue	Mixed-Use: residential (4 DUs) and community facility (1,925 sf)	Included in background growth	2023
38	201 North 4th Street	Community Facility (New gym building for PS 017K): 5,083 sf	Included in background growth	2023
39	174 North 6th Street	Residential: 3 DUs	Included in background growth	2023
40	74 South 2nd Street	Residential: 1 DU	Included in background growth	2023
41	74A South 2nd Street	Residential: 1 DU	Included in background growth	2023
42	76 South 2nd Street	Residential: 1 DU	Included in background growth	2023
43	169 Clymer Street	Residential: 3 DUs	Included in background growth	2023
44	141 Metropolitan Avenue	Residential: 7 DUs	Included in background growth	2023
45	121 North 1st Street	Residential: 2 DUs	Included in background growth	2023
46	161 North 5th Street	Mixed-Use: residential (6 DUs) and community facility (1,830 sf)	Included in background growth	2023
47	285 Grand Street	Mixed-Use: residential (2 DUs) and commercial (4,877 sf)	Included in background growth	2023
48	126 South 2nd Street	Residential: 3 DUs	Included in background growth	2023
49	153 Berry Street	Mixed-Use: residential (8 DUs) and commercial (1,275 sf)	Included in background growth	2023
50	75 South 8th Street	Mixed-Use: residential (8 DUs) and community facility (8,232 sf)	Included in background growth	2023
51	61 North 6th Street	Commercial: 4,620 sf	Included in background growth	2023
52	153 Grand Street	Mixed-Use: residential (2 DUs) and commercial (1,969 sf)	Included in background growth	2023
53	296 Wythe Avenue	Mixed-Use: residential (55 DUs) and retail (13,494 sf)	See Project 7 above	2023
54	167 Clymer Street	Residential: 3 DUs	Included in background growth	2023
55	65 South 11th Street	Residential: 17 DUs (30 units increasing to 47)	Included in background growth	2023
56	89 North 4th Street	Mixed-Use: residential (2 DUs) and commercial (4,217 sf)	Included in background growth	2023

Table 5-20 (cont'd)
No Build Projects Expected to be Complete by 2023

Map Ref. No.[1]	Project Name / Address	Development Program	Transportation Assumptions	Status/ Build Year
Development Projects within ½-Mile				
57	89 Grand Street	Mixed-Use: residential (3 DUs) and commercial (3,675 sf)	Included in background growth	2023
58	344 Roebling Street	Mixed-Use: residential (13 DUs),commercial (4,037 sf), and community facility (370 sf)	Included in background growth	2023
59	189 South 2nd Street	Mixed-Use: residential (1 DU) and community facility (17,195 sf)	Included in background growth	2023
60	131 North 5th Street	Residential: 6 DUs	Included in background growth	2023
61	194 South 2nd Street	Residential: 9 DUs	Included in background growth	2023
62	174 North 6th Street	Residential: 3 DUs	Included in background growth	2023
63	428 Wythe Avenue	Mixed-Use: residential (19 DUs) and retail (7,123 sf)	See Project 7 above	2023
64	161 Division Avenue	Mixed-Use: residential (4 DUs) and commercial (826 sf)	Included in background growth	2023
65	145 North 4th Street	Mixed-Use: residential (1 DU) and commercial (1,625 sf)	Included in background growth	2023
66	134 Metropolitan Avenue	Mixed-Use: residential (3 DUs) and commercial (3,717 sf)	Included in background growth	2023
67	67 Division Avenue	Mixed-Use: residential (2 DUs) and community facility (947 sf)	Included in background growth	2023
68	80 South 3rd Street	Residential: 4 DUs	Included in background growth	2023
69	475 Kent Avenue	Mixed-Use: residential (98 DUs) and retail (14,836 sf)	See Project 7 above	2023
70	203 Bedford Avenue	Commercial: 3,038 sf	Included in background growth	2023
71	376 Bedford Avenue	Mixed-Use: residential (7 DUs) and commercial (2,202 sf)	Included in background growth	2023
72	103 Broadway	Mixed-Use: residential (4 DUs) and commercial (1,540 sf)	Included in background growth	2023
73	186 North 6th Street	Residential: 60 DUs	Included in background growth	2023
74	119 North 1st Street	Mixed-Use: residential (2 DUs) and commercial (1,646 sf)	Included in background growth	2023
75	143 Broadway	Mixed-Use: residential (3 DUs) and commercial (1,650 sf)	Included in background growth	2023
76	96 North 1st Street	Residential: 5 DUs	Included in background growth	2023
77	111 South 4th Street	Residential: 6 DUs	Included in background growth	2023

Note:
[1] See **Figure 5-27**
[2] All projects are conservatively assumed to be completed by the Proposed Project's 2023 build year.
Sources:
DOB; AKRF, Inc., field survey, February and December 2018; New York YIMBY

CHANGES TO THE STUDY AREA STREET NETWORK

A review of the Domino Sugar project's project improvements and recommended mitigation measures has been conducted to determine the anticipated modifications to the traffic study area's street network in the No Action condition. Based on this review, the following changes are accounted for in the analysis of the No Action condition.

- At the unsignalized intersection of Kent Avenue and South 5th Street, this intersection would be signalized with a two phase signal as part of the Domino Sugar project.
- At the signalized intersection of Kent Avenue and Broadway, Domino Sugar's recommended mitigation measures of shifting three seconds of green time from the eastbound/westbound phase to the northbound phase during the weekday AM peak hour and shifting two seconds of green time from the eastbound/westbound phase to the northbound phase during the weekday PM peak hour have been accounted for.
- At the unsignalized intersection of Berry Street and South 6th Street, the two-way stop-control would be replaced with all-way stop-control.

In addition, a review of DOT's Kent Avenue capital improvements project (Project ID: HWK1048F) has been conducted to determine the anticipated modifications to the traffic study area's street network in the No Action condition. Geometric changes at three of the study area intersections were identified based on this review and are accounted for in the analysis of the No Action condition as described below, except where otherwise noted.

- At the signalized intersection of Metropolitan Avenue and Kent Avenue, the northbound left-turn lane would be widened from 8-feet wide to 9-feet wide.
- At the signalized (under No Action conditions) intersection of South 5th Street and Kent Avenue, the northbound Kent Avenue approach would be modified from a shared through/right-turn lane to a 9-foot wide left-turn lane and an 11-foot wide shared through/right-turn lane. However, the DOT plan at this intersection has since been superseded by the new River Street one-way eastbound connection exiting the Domino Sugar site and the northbound left-turn shown on the DOT plan is assumed to not exist under the No Action condition. Therefore, the 9-foot wide left-turn lane shown on the DOT plan was not incorporated into the analysis.
- At the signalized intersection of Broadway and Kent Avenue, the northbound Kent Avenue approach would be modified from a shared left-turn/through/right-turn lane to a 9.5-foot left-turn lane and an 11-foot wide shared through/right-turn lane.

TRAFFIC OPERATIONS

The No Action condition traffic volumes are shown in **Figures 5-28 through 5-30** for the weekday AM, midday, and PM peak hours. The No Action condition traffic volumes are projected by layering the background growth and trips generated by discrete No Build projects in the area on top of the existing traffic volumes. A summary of the 2023 No Action condition traffic analysis results is presented in **Table 5-21**. Details on LOS, v/c ratios, and average delays are presented in **Tables 5-22 and 5-23**.

Table 5-21
Summary of 2023 No Action Traffic Analysis Results

Level of Service	Analysis Peak Hours		
	Weekday AM	Weekday Midday	Weekday PM
Signalized Intersections			
Lane Groups at LOS A/B/C	29	27	22
Lane Groups at LOS D	0	4	7
Lane Groups at LOS E	1	0	2
Lane Groups at LOS F	3	2	2
Total	33	33	33
Lane Groups with v/c ≥ 0.90	4	3	8
Unsignalized Intersections			
Lane Groups at LOS A/B/C	6	6	5
Lane Groups at LOS D	1	1	1
Lane Groups at LOS E	1	1	1
Lane Groups at LOS F	0	0	1
Total	8	8	8
Lane Groups with v/c ≥ 0.90	0	0	0

Notes: LOS = Level-of-Service; v/c = volume-to-capacity ratio

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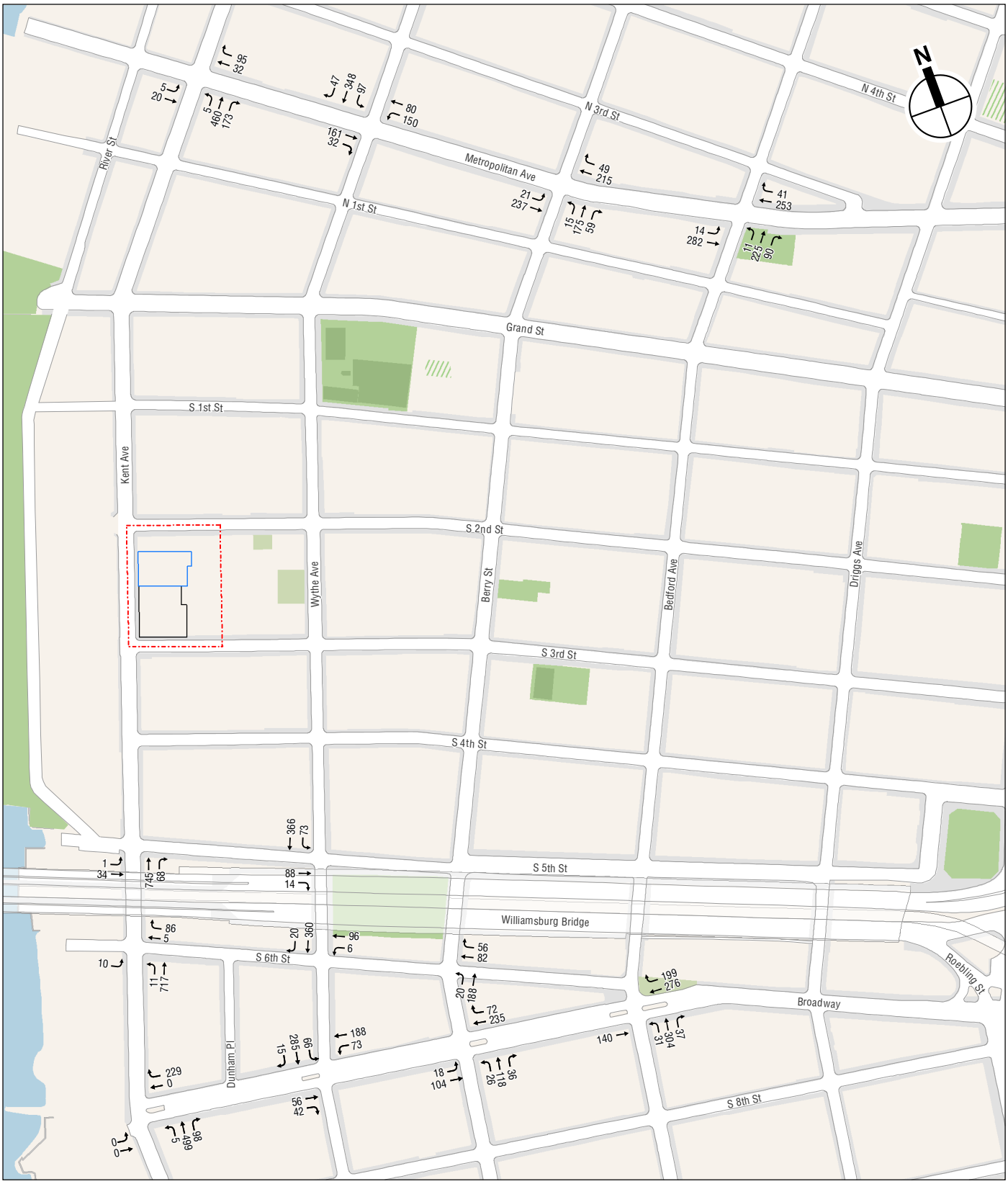


Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

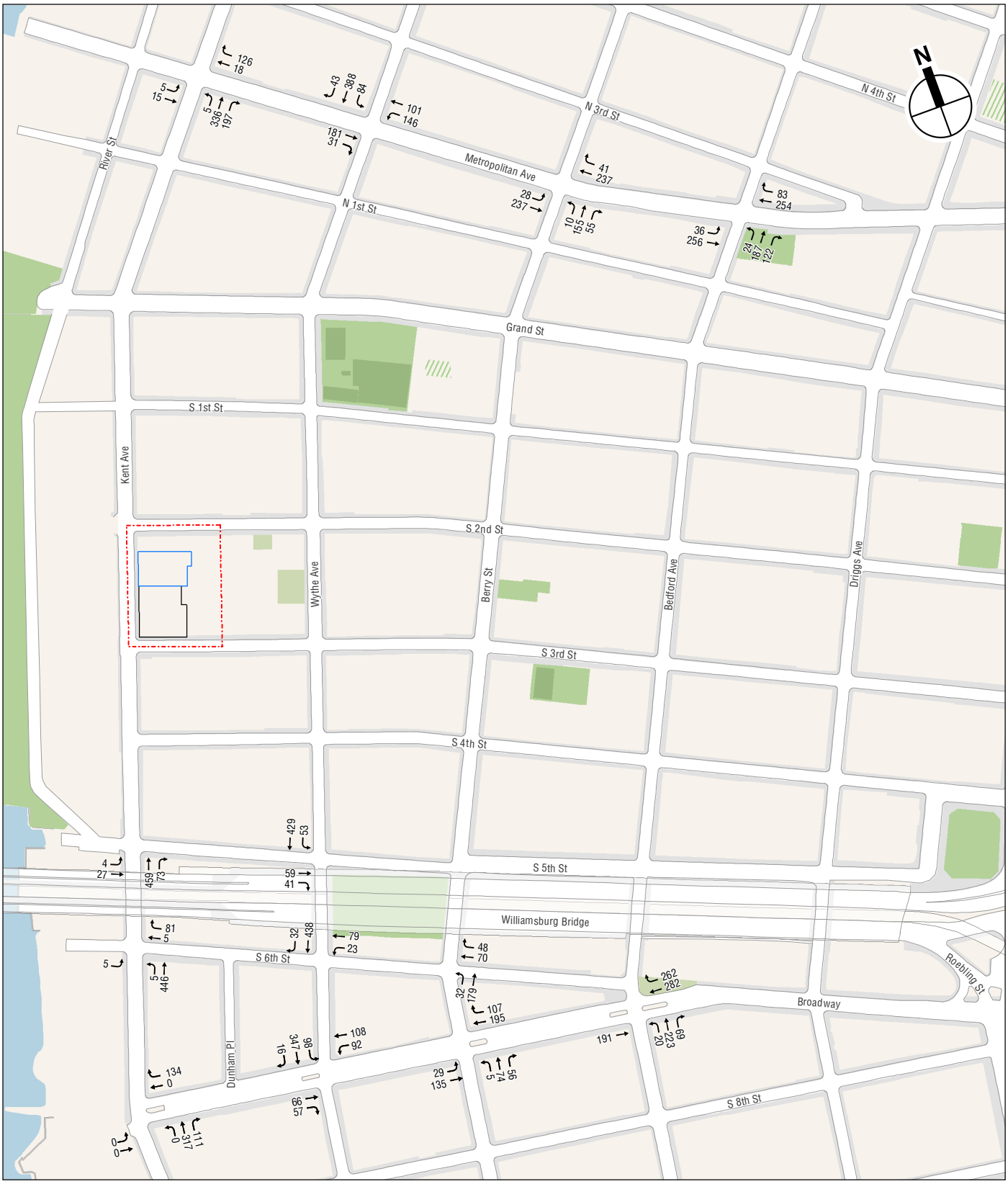
0 400 FEET

2023 No Action Traffic Volumes
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-28

12.21.20



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

2023 No Action Traffic Volumes
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-29

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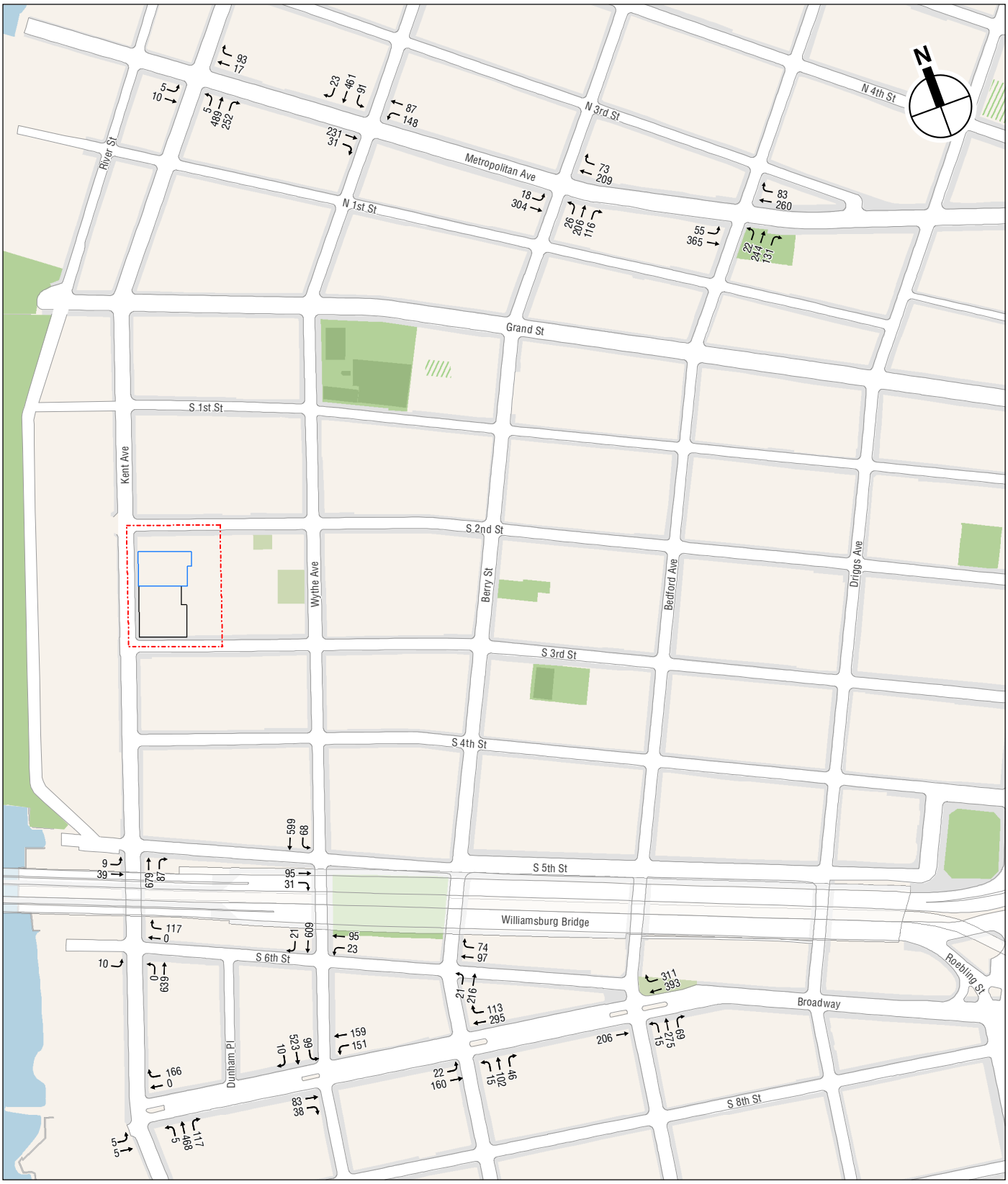


Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

2023 No Action Traffic Volumes
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-30

Table 5-22
2019 Existing and 2023 No Action Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	Existing				No Action				Existing				No Action				Existing				No Action			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Metropolitan Avenue and Kent Avenue																								
Eastbound	LT	0.07	15.4	B	LT	0.08	15.4	B	LT	0.06	15.3	B	LT	0.06	15.3	B	LT	0.05	15.1	B	LT	0.05	15.1	B
Westbound	TR	0.34	13.8	B	TR	0.48	17.4	B	TR	0.40	17.3	B	TR	0.63	21.4	C	TR	0.25	13.8	B	TR	0.38	17.3	B
Northbound	L	0.01	0.0	A	L	0.01	6.6	A	L	0.01	6.6	A	L	0.01	6.6	A	L	0.01	0.0	A	L	0.01	6.6	A
	TR	0.76	19.0	B	TR	1.12	87.1	F	TR	0.69	16.2	B	TR	1.13	92.5	F	TR	0.89	28.2	C	TR	1.34	177.6	F
Metropolitan Avenue and Wythe Avenue																								
Eastbound	TR	0.18	7.3	A	TR	0.44	8.6	A	TR	0.24	8.3	A	TR	0.50	8.8	A	TR	0.24	7.3	A	TR	0.57	9.6	A
Westbound	LT	0.32	22.3	C	LT	0.79	34.1	C	LT	0.40	20.8	C	LT	0.83	36.2	D	LT	0.34	18.3	B	LT	0.87	40.3	D
Southbound	LTR	1.02	63.7	E	LTR	1.27	154.2	F	LTR	0.94	45.2	D	LTR	1.22	135.9	F	LTR	1.05	71.6	E	LTR	1.25	147.1	F
Metropolitan Avenue and Berry Street																								
Eastbound	LT	0.32	8.9	A	LT	0.61	11.6	B	LT	0.32	7.8	A	LT	0.65	13.4	B	LT	0.33	6.9	A	LT	0.69	14.5	B
Westbound	TR	0.34	8.3	A	TR	0.62	15.1	B	TR	0.39	10.7	B	TR	0.63	15.8	B	TR	0.39	10.2	B	TR	0.63	15.8	B
Northbound	LTR	0.54	17.3	B	LTR	0.64	20.2	C	LTR	0.45	15.7	B	LTR	0.54	17.9	B	LTR	0.74	24.7	C	LTR	0.91	42.4	D
Metropolitan Avenue and Bedford Avenue																								
Eastbound	LT	0.34	9.7	A	LT	0.63	20.0	B	LT	0.33	14.0	B	LT	0.72	24.1	C	LT	0.48	15.5	B	LT	0.98	45.8	D
Westbound	TR	0.38	14.2	B	TR	0.65	19.9	B	TR	0.53	16.7	B	TR	0.77	25.2	C	TR	0.48	15.8	B	TR	0.70	21.5	C
Northbound	LTR	0.62	19.0	B	LTR	0.77	26.0	C	LTR	0.63	19.9	B	LTR	0.88	38.1	D	LTR	0.83	30.7	C	LTR	1.04	71.4	E
South 6th Street and Wythe Avenue																								
Westbound	LT	0.13	20.8	C	LT	0.25	22.4	C	LT	0.14	20.8	C	LT	0.25	22.4	C	LT	0.13	20.8	C	LT	0.29	22.9	C
Southbound	TR	0.54	13.3	B	TR	0.74	23.7	C	TR	0.58	17.6	B	TR	0.81	27.5	C	TR	0.76	24.2	C	TR	1.07	74.7	E
South 5th Street and Kent Avenue																								
Eastbound	Unsignalized Intersection				LT	0.09	24.5	C	Unsignalized Intersection				LT	0.07	24.3	C	Unsignalized Intersection				LT	0.12	24.7	C
Northbound	in Existing Conditions				TR	1.10	71.2	E	in Existing Conditions				TR	0.80	17.1	B	in Existing Conditions				TR	0.90	23.7	C
Broadway and Kent Avenue																								
Eastbound	LR	0.00	0.0	A	LR	0	0.0	A	LR	0.00	0.0	A	LR	0.00	0.0	A	LR	0.02	22.3	C	LR	0.03	23.7	C
Westbound	R	0.78	46.5	D	R	0.98	82.4	F	R	0.44	30.2	C	R	0.60	37.0	D	R	0.53	32.8	C	R	0.70	44.1	D
Northbound	LTR	0.59	14.8	B	L	0.01	6.5	A	LTR	0.43	11.8	B	L	0.00	0.0	A	LTR	0.56	13.9	B	L	0..1	6.9	A
					TR	0.85	24.0	C					TR	0.71	18.6	B					TR	0.75	18.5	B
Broadway and Wythe Avenue																								
Eastbound	TR	0.24	22.6	C	TR	0.34	24.4	C	TR	0.31	23.6	C	TR	0.38	24.9	C	TR	0.28	23.0	C	TR	0.34	24.1	C
Westbound	L	0.21	10.7	B	L	0.29	11.9	B	L	0.26	10.1	B	L	0.36	13.4	B	L	0.35	11.8	B	L	0.51	14.7	B
	T	0.43	12.3	B	T	0.49	13.5	B	T	0.21	9.4	A	T	0.27	11.8	B	T	0.33	11.0	B	T	0.37	12.6	B
Southbound	LTR	0.52	4.1	A	LTR	0.71	6.3	A	LTR	0.62	8.3	A	LTR	0.90	19.5	B	LTR	0.78	9.0	A	LTR	1.11	54.6	D
Broadway and Berry Street																								
Eastbound	L	0.06	11.8	B	L	0.08	11.0	B	L	0.10	12.2	B	L	0.14	11.7	B	L	0.08	9.8	A	L	0.12	10.4	B
	T	0.15	12.4	B	T	0.25	12.4	B	T	0.19	13.1	B	T	0.30	13.1	B	T	0.21	10.8	B	T	0.30	11.4	B
Westbound	TR	0.57	22.8	C	TR	0.66	25.9	C	TR	0.55	22.6	C	TR	0.71	29.0	C	TR	0.68	26.5	C	TR	0.84	36.8	D
Northbound	LTR	0.38	18.7	B	LTR	0.40	19.0	B	LTR	0.24	16.4	B	LTR	0.27	17.0	B	LTR	0.33	17.9	B	LTR	0.36	18.4	B
Broadway and Bedford Avenue																								
Eastbound	T	0.19	10.5	B	T	0.26	11.4	B	T	0.25	11.2	B	T	0.34	12.3	B	T	0.24	11.0	B	T	0.32	12.0	B
Westbound	T	0.33	12.0	B	T	0.39	12.8	B	T	0.32	11.8	B	T	0.39	12.7	B	T	0.42	13.1	B	T	0.51	14.5	B
	R	0.47	27.3	C	R	0.54	28.9	C	R	0.57	29.8	C	R	0.71	35.3	D	R	0.70	34.6	C	R	0.80	40.2	D
Northbound	LTR	0.47	25.6	C	LTR	0.51	26.4	C	LTR	0.37	24.1	C	LTR	0.46	25.6	C	LTR	0.45	25.3	C	LTR	0.52	26.6	C

Notes: L = Left Turn, T = Through, R = Right Turn

Table 5-23
2019 Existing and 2023 No Action Conditions Level of Service Analysis
Unsignalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	Existing				No Action				Existing				No Action				Existing				No Action			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
South 5th Street and Kent Avenue																								
Eastbound	LT	0.00	0.0	A	Signalized Intersection in				LT	0.01	12.2	B	Signalized Intersection in				LT	0.03	14.0	B	Signalized Intersection in			
Northbound	TR	0.41	0.0	A	No Action				TR	0.26	0.0	A	No Action				TR	0.36	0.0	A	No Action			
South 5th Street and Wythe Avenue																								
Eastbound	TR	0.13	13.9	B	TR	0.35	20.2	C	TR	0.17	13.1	B	TR	0.34	19.8	C	TR	0.23	15.9	C	TR	0.58	35.6	E
Southbound	LT	0.05	1.9	A	LT	0.06	1.9	A	LT	0.03	1.3	A	LT	0.04	1.3	A	LT	0.04	1.4	A	LT	0.06	1.5	A
South 6th Street and Kent Avenue																								
Eastbound	L	0.04	17.6	C	L	0.13	48.1	E	L	0.01	13.8	B	L	0.07	48.8	E	L	0.04	17.4	C	L	0.22	82.6	F
Westbound	TR	0.11	14.1	B	TR	0.35	25.1	D	TR	0.09	11.8	B	TR	0.38	25.9	D	TR	0.13	13.7	B	TR	0.51	32.5	D
Northbound	L	0.01	7.4	A	L	0.01	7.5	A	L	0.00	7.4	A	L	0.00	7.6	A	L	0.00	0.0	A	L	0.00	0.0	A
	T	0.37	0.0	A	T	0.50	0.0	A	T	0.22	0.0	A	T	0.32	0.0	A	T	0.33	0.0	A	T	0.41	0.0	A
South 6th Street and Berry Street																								
Westbound	TR	0.11	11.1	B	TR	0.21	8.5	A	TR	0.09	10.8	B	TR	0.17	8.3	A	TR	0.13	11.1	B	TR	0.25	8.8	A
Northbound	LT	0.02	0.9	A	LT	0.31	9.4	A	LT	0.02	1.3	A	LT	0.32	9.4	A	LT	0.01	0.8	A	LT	0.31	9.5	A

Notes: L = Left Turn, T = Through, R = Right Turn

Based on the analysis results presented in **Tables 5-22 and 5-23**, the majority of the approaches/lane-groups in the No Action condition would operate at the same LOS as in the existing conditions or within acceptable mid-LOS D or better (delays of 45 seconds or less per vehicle for signalized intersections and delays of 30 seconds or less per vehicle for unsignalized intersections) for all analysis peak hours. The following approaches/lane-groups in the No Action condition are expected to operate at deteriorated LOS when compared to the existing conditions:

- Northbound shared through/right turn lane at the Metropolitan Avenue and Kent Avenue intersection would deteriorate to LOS F with a v/c ratio of 1.12 and a delay of 87.1 spv during the weekday AM peak hour, to LOS F with a v/c ratio of 1.13 and a delay of 92.5 spv during the weekday midday peak hour, and to LOS F with a v/c ratio of 1.34 and a delay of 177.6 spv during the weekday PM peak hour;
- Southbound approach at the Metropolitan Avenue and Wythe Avenue intersection would deteriorate to LOS F with a v/c ratio of 1.27 and a delay of 154.2 spv during the weekday AM peak hour, to LOS F with a v/c ratio of 1.22 and a delay of 135.9 spv during the weekday midday peak hour, and to LOS F with a v/c ratio of 1.25 and a delay of 147.1 spv during the weekday PM peak hour;
- Eastbound approach at the Metropolitan Avenue and Bedford Avenue intersection would deteriorate to LOS D with a v/c ratio of 0.98 and a delay of 45.8 seconds during the weekday PM peak hour;
- Northbound approach at the Metropolitan Avenue and Bedford Avenue intersection would deteriorate to LOS E with a v/c ratio of 1.04 and a delay of 71.4 spv during the weekday PM peak hour;
- Southbound approach at the South 6th Street and Wythe Avenue intersection would deteriorate to LOS E with a v/c ratio of 1.07 and a delay of 74.7 spv during the weekday PM peak hour;
- Northbound approach at the South 5th Street and Kent Avenue intersection would deteriorate to LOS E with a v/c ratio of 1.10 and a delay of 71.2 spv during the weekday AM peak hour;
- Westbound approach at the Broadway and Kent Avenue intersection would deteriorate to LOS F with a v/c ratio of 0.98 and a delay of 82.4 spv during the weekday AM peak hour;
- Southbound approach at the Broadway and Wythe Avenue intersection would deteriorate to LOS D with a v/c ratio of 1.11 and a delay of 54.6 spv during the weekday PM peak hour;
- Eastbound approach at the South 5th Street and Wythe Avenue intersection would deteriorate to LOS E with a v/c ratio of 0.58 and a delay of 35.6 spv during the weekday PM peak hour;
- Eastbound approach at the South 6th Street and Kent Avenue intersection would deteriorate to LOS E with a v/c ratio of 0.13 and a delay of 48.1 spv during the weekday AM peak hour, to LOS E with a v/c ratio of 0.07 and a delay of 48.8 spv during the weekday midday peak hour, and to LOS F with a v/c ratio of 0.22 and a delay of 82.6 during the weekday PM peak hour; and ;
- Westbound approach at the South 6th Street and Kent Avenue intersection would deteriorate to LOS D with a v/c ratio of 0.51 and a delay of 32.5 spv during the weekday PM peak hour.

FUTURE WITH THE PROPOSED ACTIONS

As noted above, in the With Action scenario the Projected Development Sites would be developed with approximately 17,000 gsf of local retail, 39,500 gsf of medical office, and 125,000 gsf of

office/light manufacturing. The Proposed Actions would result in approximately 217, 208, and 227 incremental vehicle trips during the weekday AM, midday, and PM peak hours respectively. Auto trips are assigned to off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Taxi trips have been distributed to the Project Area's various frontages. Delivery trips are assigned to the Project Area via DOT-designated truck routes.

TRAFFIC OPERATIONS

The 2023 With Action condition traffic volumes are shown in **Figures 5-31 through 5-33** for the weekday AM, midday, and PM peak hours. The 2023 With Action traffic volumes are constructed by layering on top of the No Action condition traffic volumes the incremental vehicle trips shown in **Figures 5-9 through 5-11**. A summary of the 2023 With Action condition traffic analysis results is presented in **Table 5-24**.

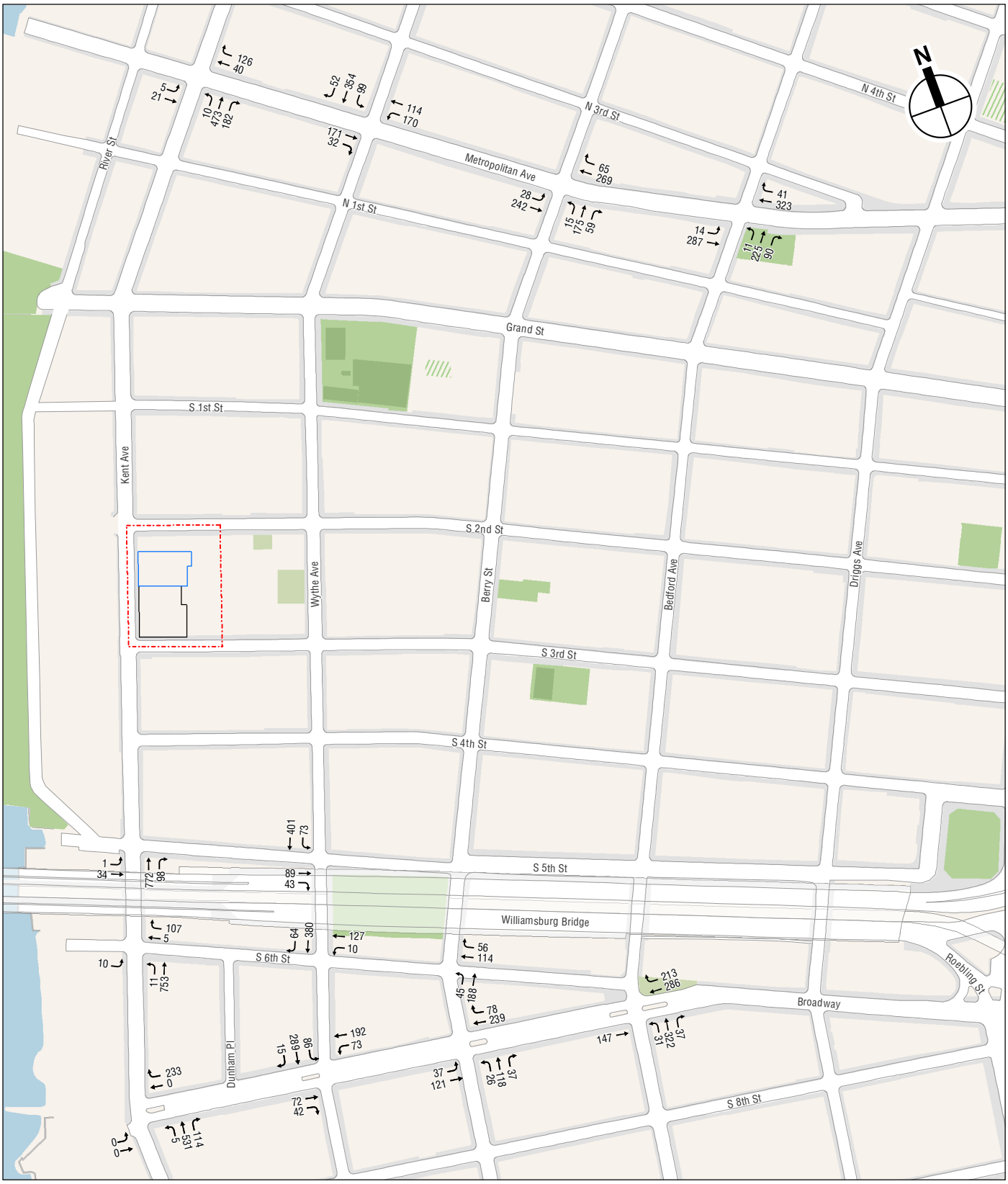
Table 5-24
Summary of 2023 With Action Traffic Analysis Results

Level of Service	Analysis Peak Hours		
	Weekday AM	Weekday Midday	Weekday PM
Signalized Intersections			
Lane Groups at LOS A/B/C	27	26	21
Lane Groups at LOS D	2	5	5
Lane Groups at LOS E	0	0	3
Lane Groups at LOS F	4	2	4
Total	33	33	33
Lane Groups with v/c ≥ 0.90	6	6	9
Unsignalized Intersections			
Lane Groups at LOS A/B/C	6	5	5
Lane Groups at LOS D	0	0	0
Lane Groups at LOS E	1	2	0
Lane Groups at LOS F	1	1	3
Total	8	8	8
Lane Groups with v/c ≥ 0.90	0	0	0

Notes: LOS = Level-of-Service; v/c = volume-to-capacity ratio.

Details on LOS, v/c ratios, and average delays are presented in **Table 5-25 and 5-26**. As detailed below, significant adverse traffic impacts have been identified at five intersections during the weekday AM peak hour, four intersections during the weekday midday peak hour, and eight intersections during the weekday PM peak hour.

12.21.20



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

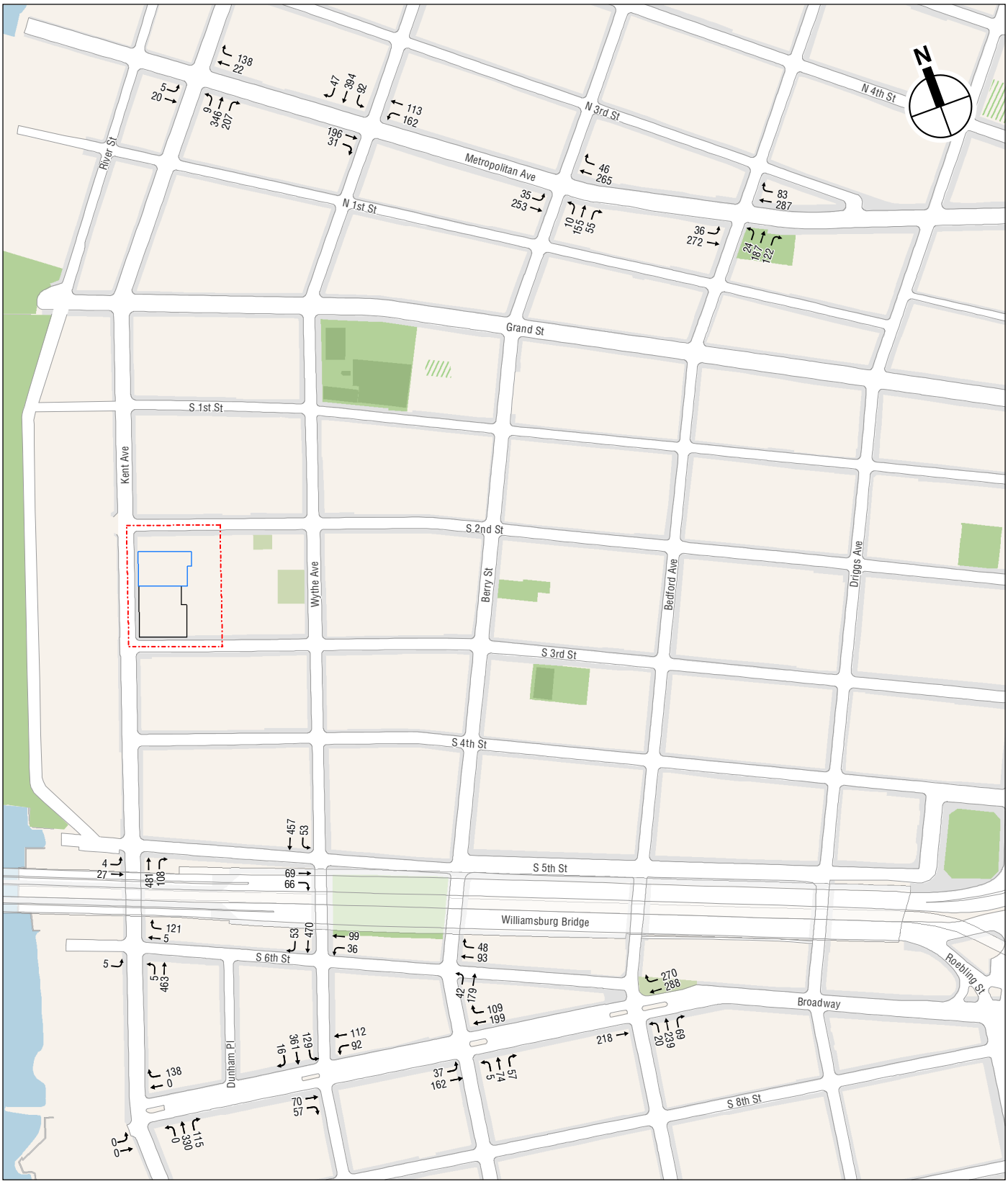
0 400 FEET

2023 With Action Traffic Volumes
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-31

12.21.20



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

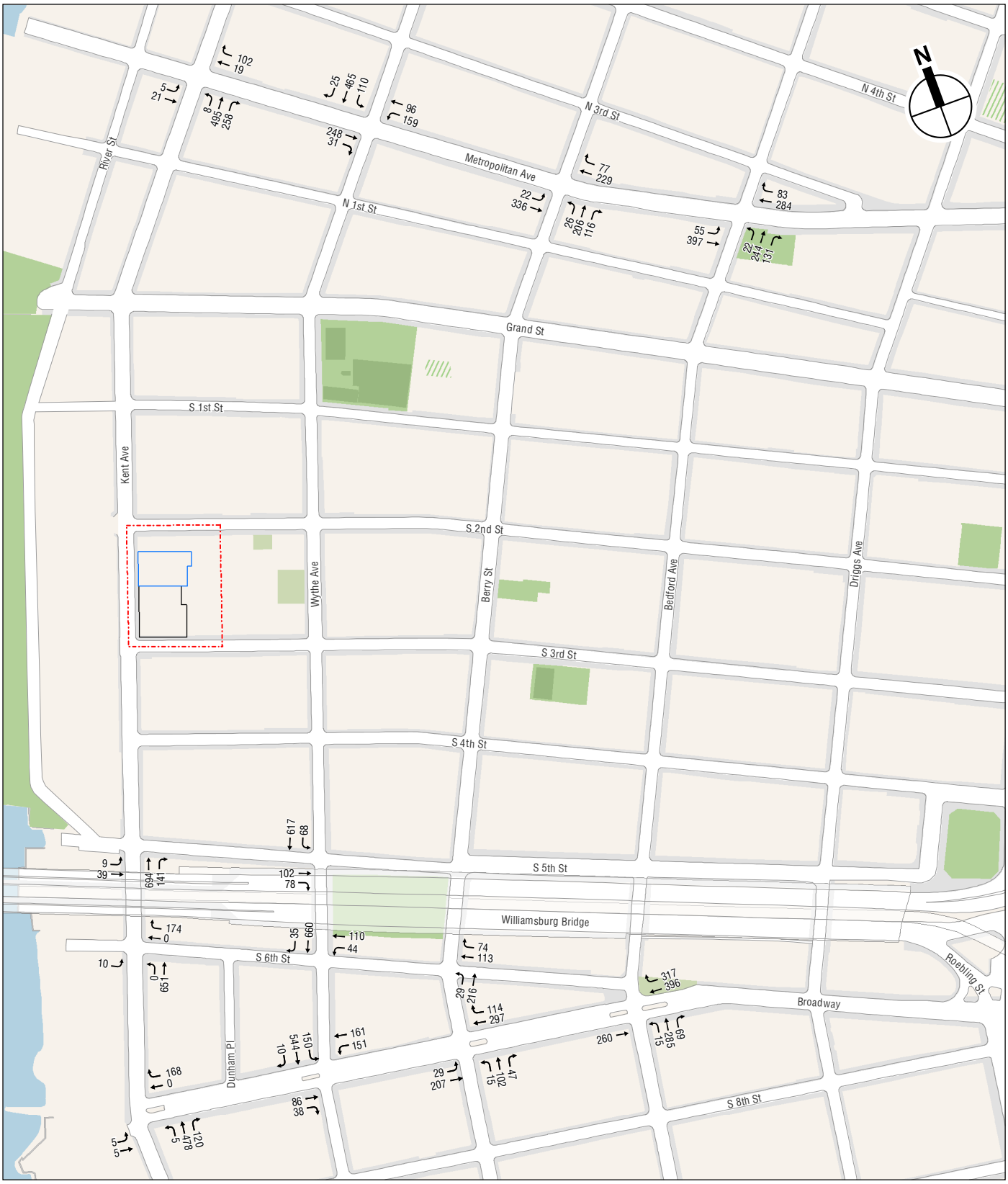
0 400 FEET

2023 With Action Traffic Volumes
Weekday Midday Peak Hour

307 KENT AVENUE

Figure 5-32

12.21.20



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 400 FEET

2023 With Action Traffic Volumes
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-33

Table 5-25
2023 No Action and With Action Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	No Action				With Action				No Action				With Action				No Action				With Action			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Metropolitan Avenue and Kent Avenue																								
Eastbound	LT	0.08	15.4	B	LT	0.08	15.4	B	LT	0.06	15.3	B	LT	0.08	15.4	B	LT	0.05	15.1	B	LT	0.08	15.4	B
Westbound	TR	0.48	17.4	B	TR	0.63	18.3	B	TR	0.63	21.4	C	TR	0.70	21.2	C	TR	0.38	17.3	B	TR	0.41	17.2	B
Northbound	L	0.01	6.6	A	L	0.02	6.7	A	L	0.01	6.6	A	L	0.02	6.7	A	L	0.01	6.6	A	L	0.02	6.6	A
	TR	1.12	87.1	F	TR	1.17	105.7	F +	TR	1.13	92.5	F	TR	1.18	112.5	F +	TR	1.34	177.6	F	TR	1.37	189.2	F +
Metropolitan Avenue and Wythe Avenue																								
Eastbound	TR	0.44	8.6	A	TR	0.47	8.3	A	TR	0.50	8.8	A	TR	0.54	9.0	A	TR	0.57	9.6	A	TR	0.61	9.7	A
Westbound	LT	0.79	34.1	C	LT	0.97	51.2	D+	LT	0.83	36.2	D	LT	0.96	52.9	D +	LT	0.87	40.3	D	LT	0.98	59.1	E +
Southbound	LTR	1.27	154.2	F	LTR	1.32	175.1	F+	LTR	1.22	135.9	F	LTR	1.29	162.5	F +	LTR	1.25	147.1	F	LTR	1.33	179.5	F +
Metropolitan Avenue and Berry Street																								
Eastbound	LT	0.61	11.6	B	LT	0.66	12.9	B	LT	0.65	13.4	B	LT	0.72	15.4	B	LT	0.69	14.5	B	LT	0.78	16.7	B
Westbound	TR	0.62	15.1	B	TR	0.79	20.4	C	TR	0.63	15.8	B	TR	0.70	17.5	B	TR	0.63	15.8	B	TR	0.68	17.1	B
Northbound	LTR	0.64	20.2	C	LTR	0.64	20.2	C	LTR	0.54	17.9	B	LTR	0.54	17.9	B	LTR	0.91	42.4	D	LTR	0.91	42.4	D
Metropolitan Avenue and Bedford Avenue																								
Eastbound	LT	0.63	20.0	B	LT	0.65	20.3	C	LT	0.72	24.1	C	LT	0.76	24.7	C	LT	0.98	45.8	D	LT	1.07	68.3	E +
Westbound	TR	0.65	19.9	B	TR	0.80	26.8	C	TR	0.77	25.2	C	TR	0.84	29.9	C	TR	0.70	21.5	C	TR	0.74	23.2	C
Northbound	LTR	0.77	26.0	C	LTR	0.77	26.0	C	LTR	0.88	38.1	D	LTR	0.88	38.1	D	LTR	1.04	71.4	E	LTR	1.04	71.4	E
South 6th Street and Wythe Avenue																								
Westbound	LT	0.25	22.4	C	LT	0.34	23.7	C	LT	0.25	22.4	C	LT	0.33	23.6	C	LT	0.29	22.9	C	LT	0.38	24.4	C
Southbound	TR	0.74	23.7	C	TR	0.88	35.1	D	TR	0.81	27.5	C	TR	0.91	39.0	D	TR	1.07	74.7	E	TR	1.19	119.2	F +
South 5th Street and Kent Avenue																								
Eastbound	LT	0.09	24.5	C	LT	0.09	24.5	C	LT	0.07	24.3	C	LT	0.07	24.3	C	LT	0.12	24.7	C	LT	0.12	24.7	C
Northbound	TR	1.10	71.2	E	TR	1.18	101.2	F+	TR	0.80	17.1	B	TR	0.91	27.0	C	TR	0.90	23.7	C	TR	1.03	48.8	D +
Broadway and Kent Avenue																								
Eastbound	LR	0.00	0.0	A	LR	0.00	0.0	A	LR	0.00	0.0	A	LR	0.00	0.0	A	LR	0.03	23.7	C	LR	0.03	23.7	C
Westbound	R	0.98	82.4	F	R	1.02	92.7	F+	R	0.60	37.0	D	R	0.63	38.5	D	R	0.70	44.1	D	R	0.69	43.2	D
Northbound	L	0.01	6.5	A	L	0.01	6.5	A	L	0.00	0.0	A	L	0.00	0.0	A	L	0.01	6.9	A	L	0.01	6.9	A
	TR	0.85	24.0	C	TR	0.93	34.1	C	TR	0.71	18.6	B	TR	0.74	20.2	C	TR	0.75	18.5	B	TR	0.77	19.5	B
Broadway and Wythe Avenue																								
Eastbound	TR	0.34	24.4	C	TR	0.39	25.4	C	TR	0.38	24.9	C	TR	0.39	25.2	C	TR	0.34	24.1	C	TR	0.35	24.3	C
Westbound	L	0.29	11.9	B	L	0.30	13.2	B	L	0.36	13.4	B	L	0.37	13.6	B	L	0.51	14.7	B	L	0.51	14.9	B
	T	0.49	13.5	B	T	0.49	14.4	B	T	0.27	11.8	B	T	0.28	11.9	B	T	0.37	12.6	B	T	0.38	12.7	B
Southbound	LTR	0.71	6.3	A	LTR	0.76	6.5	A	LTR	0.90	19.5	B	LTR	0.99	34.0	C	LTR	1.11	54.6	D	LTR	1.25	119.9	F +
Broadway and Berry Street																								
Eastbound	L	0.08	11.0	B	L	0.18	11.6	B	L	0.14	11.7	B	L	0.18	12.3	B	L	0.12	10.4	B	L	0.16	11.5	B
	T	0.25	12.4	B	T	0.29	12.3	B	T	0.30	13.1	B	T	0.36	14.0	B	T	0.30	11.4	B	T	0.39	13.1	B
Westbound	TR	0.66	25.9	C	TR	0.68	26.9	C	TR	0.71	29.0	C	TR	0.72	29.8	C	TR	0.84	36.8	D	TR	0.85	37.4	D
Northbound	LTR	0.40	19.0	B	LTR	0.41	19.2	B	LTR	0.27	17.0	B	LTR	0.28	17.0	B	LTR	0.36	18.4	B	LTR	0.37	18.5	B
Broadway and Bedford Avenue																								
Eastbound	T	0.26	11.4	B	T	0.28	11.5	B	T	0.34	12.3	B	T	0.39	12.9	B	T	0.32	12.0	B	T	0.40	13.1	B
Westbound	T	0.39	12.8	B	T	0.40	13.0	B	T	0.39	12.7	B	T	0.40	12.9	B	T	0.51	14.5	B	T	0.51	14.6	B
	R	0.54	28.9	C	R	0.58	30.0	C	R	0.71	35.3	D	R	0.73	36.4	D	R	0.80	40.2	D	R	0.81	41.5	D
Northbound	LTR	0.51	26.4	C	LTR	0.54	27.0	C	LTR	0.46	25.6	C	LTR	0.48	26.0	C	LTR	0.52	26.6	C	LTR	0.54	26.9	C

Notes: L = Left Turn, T = Through, R = Right Turn, + Denotes a significant adverse traffic impact

Table 5-26
2023 No Action and With Action Conditions Level of Service Analysis
Unsignalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	No Action				With Action				No Action				With Action				No Action				With Action			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
South 5th Street and Wythe Avenue																								
Eastbound	TR	0.35	20.2	C	TR	0.44	22.4	C	TR	0.34	19.8	C	TR	0.60	35.6	E +	TR	0.58	35.6	E	TR	0.81	55.5	F +
Southbound	LT	0.06	1.9	A	LT	0.06	1.8	A	LT	0.04	1.3	A	LT	0.06	1.6	A	LT	0.06	1.5	A	LT	0.06	1.4	A
South 6th Street and Kent Avenue																								
Eastbound	L	0.13	48.1	E	L	0.28	112.7	F	L	0.07	48.8	E	L	0.13	92.4	F	L	0.22	82.6	F	L	0.74	418.9	F
Westbound	TR	0.35	25.1	D	TR	0.56	40.7	E+	TR	0.38	25.9	D	TR	0.61	39.4	E +	TR	0.51	32.5	D	TR	0.82	63.6	F +
Northbound	L	0.01	7.5	A	L	0.01	7.5	A	L	0.00	7.6	A	L	0.00	7.6	A	L	0.00	0.0	A	L	0.00	0.0	A
	T	0.50	0.0	A	T	0.53	0.0	A	T	0.32	0.0	A	T	0.33	0.0	A	T	0.41	0.0	A	T	0.42	0.0	A
South 6th Street and Berry Street																								
Westbound	TR	0.21	8.5	A	TR	0.26	9.1	A	TR	0.17	8.3	A	TR	0.23	8.7	A	TR	0.25	8.8	A	TR	0.30	9.1	A
Northbound	LT	0.31	9.4	A	LT	0.36	10.0	B	LT	0.32	9.4	A	LT	0.35	9.7	A	LT	0.31	9.5	A	LT	0.34	9.7	A

Notes: L = Left Turn, T = Through, R = Right Turn, + Denotes a significant adverse traffic impact

Based on the *CEQR Technical Manual* significant impacts criteria, there would result be significant adverse traffic impacts at the lane groups listed below during one or more analysis peak hours. Potential measures to mitigate these significant adverse traffic impacts are discussed in Chapter 11, "Mitigation."

- Northbound shared through/right turn lane at the Metropolitan Avenue and Kent Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.12 and a delay of 87.1 spv to a v/c ratio of 1.17 and 105.7 spv of delay) during the weekday AM peak hour, within LOS F (from a v/c ratio of 1.13 and a delay of 92.5 spv to a v/c ratio of 1.18 and 112.5 spv of delay) during the weekday midday peak hour, and within LOS F (from a v/c ratio of 1.34 and a delay of 177.6 spv to a v/c ratio of 1.37 and 189.2 spv of delay) during the weekday PM peak hour, increases in delay of more than 3 seconds, respectively. These projected increases in delay constitute significant adverse impacts.
- Westbound approach at the Metropolitan Avenue and Wythe Avenue intersection would deteriorate from LOS C (from a v/c ratio of 0.79 and a delay of 34.1 spv) to LOS D (to a v/c ratio of 0.97 and a delay of 51.2 spv) during the weekday AM peak hour, within LOS D (from a v/c ratio of 0.83 and a delay of 36.2 spv to a v/c ratio of 0.96 and 52.9 spv of delay) during the weekday midday peak hour, and from LOS D (from a v/c ratio of 0.87 and a delay of 40.3 spv) to LOS E (to a v/c ratio of 0.98 and 59.1 spv of delay) during the weekday PM peak hour, increases in delay of more than 5 seconds, respectively. These projected increases in delay constitute significant adverse impacts.
- Southbound approach at the Metropolitan Avenue and Wythe Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.27 and a delay of 154.2 spv to a v/c ratio of 1.32 and 175.1 spv of delay) during the weekday AM peak hour, within LOS F (from a v/c ratio of 1.22 and a delay of 135.9 spv to a v/c ratio of 1.29 and 162.5 spv of delay) during the weekday midday peak hour, and within LOS F (from a v/c ratio of 1.25 and a delay of 147.1 spv to a v/c ratio of 1.33 and 179.5 spv of delay) during the weekday PM peak hour, increases in delay of more than 3 seconds, respectively. These projected increases in delay constitute significant adverse impacts.
- Eastbound approach of the Metropolitan Avenue and Bedford Avenue intersection would deteriorate from LOS D (from a v/c ratio of 0.98 and a delay of 45.8 spv) to LOS E (to a v/c ratio of 1.07 and 68.3 spv of delay) during the weekday PM peak hour, an increase in delay of more than 5 seconds. This projected increase in delay constitutes a significant adverse impact.
- Southbound approach at the South 6th Street and Wythe Avenue intersection would deteriorate from LOS E (from a v/c ratio of 1.07 and a delay of 74.7 spv) to LOS F (to a v/c ratio of 1.19 and 119.2 spv of delay) during the weekday PM peak hour, an increase in delay of more than 4 seconds. This projected increase in delay constitutes a significant adverse impact.
- Northbound approach of South 5th Street and Kent Avenue intersection would deteriorate from LOS E (from a v/c ratio of 1.10 and a delay of 71.2 spv) to LOS F (to a v/c ratio of 1.18 and a delay of 101.2 spv) during the weekday AM peak hour and from LOS C (from a v/c ratio of 0.90 and a delay of 23.7 spv) to LOS D (to a v/c ratio of 1.03 and 48.8 spv) during the weekday PM peak hour, increases in delay of more than 4 seconds and 5 seconds, respectively. These projected increases in delay constitute significant adverse impacts.
- Westbound approach of Broadway and Kent Avenue intersection would deteriorate within LOS F (from a v/c ratio of 0.98 and a delay 82.4 spv to a v/c ratio of 1.02 and a delay of 92.7

spv) during the weekday AM peak hour, an increase in delay of more than 3 seconds. This projected increase in delay constitutes a significant adverse impact.

- Southbound approach at the Broadway and Wythe Avenue intersection would deteriorate from LOS D (from a v/c ratio of 1.11 and a delay of 54.6 spv) to LOS F (to a v/c ratio of 1.25 and 119.9 spv of delay) during the weekday PM peak hour, an increase in delay of more than 5 seconds. This projected increase in delay constitutes a significant adverse impact.
- Eastbound approach at the South 5th Street and Wythe Avenue intersection would deteriorate from LOS C (from a v/c ratio of 0.34 and a delay of 19.8 spv) to LOS E (to a v/c ratio of 0.60 and a delay of 35.6 spv) during the weekday midday peak hour, and from LOS E (from a v/c ratio of 0.58 and a delay of 35.6 spv) to LOS F (to a v/c ratio of 0.81 and a delay of 55.5 spv) during the weekday PM peak hour, increases in delay of more than 5 seconds and 4 seconds, respectively. These projected increases in delay constitute significant adverse impacts.
- Westbound approach at South 6th Street and Kent Avenue intersection would deteriorate from LOS D (from a v/c ratio of 0.35 and a delay of 25.1 spv) to LOS E (to a v/c ratio of 0.56 and a delay of 40.7 spv) during the weekday AM peak hour, from LOS D (from a v/c ratio of 0.38 and a delay of 25.9 spv) to LOS E (to a v/c ratio of 0.61 and a delay of 39.4 spv) during the weekday midday peak hour, and from LOS D (from a v/c ratio of 0.51 and a delay of 32.5 spv) to LOS F (to a v/c ratio of 0.82 and a delay of 63.6 spv) during the weekday PM peak hour, increases in delay of more than 5 seconds, respectively. These projected increases in delay constitute significant adverse impacts.

In addition to the impacted approaches/lane groups identified above, the eastbound approach at the unsignalized intersection of South 6th Street and Kent Avenue would experience increased delays in the 2023 With Action condition. However, based on *CEQR Technical Manual* impact criteria discussed above, these increases in delays would not be considered significant impacts because fewer than 90 PCEs have been identified at the eastbound approach of this unsignalized intersection during the analysis peak hours under the 2023 With Action condition.

E. DETAILED TRANSIT ANALYSIS

As described above in Section B, "Preliminary Analysis Methodology and Screening Assessment," a detailed analysis of weekday AM and PM peak hour bus line-haul conditions have been selected for the B32 and B62 buses.

EXISTING CONDITIONS

BUS SERVICE

The 2018 existing bus ridership information is obtained from NYCT. As summarized in **Table 5-27**, both of the analyzed bus lines are operating within their bus line capacity during the weekday AM and PM Peak hours.

Table 5-27
2018 Existing Conditions Bus Line-haul Analysis
B32, B62

Route Direction	Max. Load Point	2018 Hourly Volume	Buses/Hr	2018 Passengers/ Bus	Capacity/Bus	Capacity Shortfall (Yes/No)
AM Peak Hour						
B32 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	69	3	24	54	No
B32 Southbound	Brooklyn: Wythe Avenue and North 9th Street	30	3	10	54	No
B62 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	194	8	25	54	No
B62 Southbound	Brooklyn: Manhattan Avenue and Driggs Avenue	230	8	29	54	No
PM Peak Hour						
B32 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	40	3	14	54	No
B32 Southbound	Queens: 11th Street and Jackson Avenue	34	3	12	54	No
B62 Northbound	Brooklyn: Bedford Avenue and North 8th Street	137	5	28	54	No
B62 Southbound	Brooklyn: Manhattan Avenue and India Street	99	5	20	54	No

Source: MTA NYCT 2018

FUTURE WITHOUT THE PROPOSED ACTIONS

BUS SERVICE

Estimates of peak hour bus volumes in the No Action condition are developed by applying *CEQR Technical Manual* recommended annual background growth rates as mentioned above for the years 2018 to 2023. In addition, bus trips generated by No Build projects in the study area are added to the projected volumes to generate the 2023 No Action bus volumes used in the analysis. Bus trips are split between the B32 and B62 bus routes. As shown in **Table 5-28**, under the No Action condition, both the B32 and B62 bus routes will continue to operate within their bus line capacity during the weekday AM and PM peak hours.

Table 5-28
2023 No Action Condition Bus Line-haul Analysis
B32, B62

Route Direction	Max. Load Point	2023 Hourly Volume	Buses/Hr	2023 Passengers/ Bus	Capacity/Bus	Capacity Shortfall (Yes/No)
AM Peak Hour						
B32 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	112	3	37	54	No
B32 Southbound	Brooklyn: Wythe Avenue and North 9th Street	60	3	20	54	No
B62 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	254	8	32	54	No
B62 Southbound	Brooklyn: Manhattan Avenue and Driggs Avenue	285	8	36	54	No
PM Peak Hour						
B32 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	90	3	30	54	No
B32 Southbound	Queens: 11th Street and Jackson Avenue	100	3	33	54	No
B62 Northbound	Brooklyn: Bedford Avenue and North 8th Street	223	5	45	54	No
B62 Southbound	Brooklyn: Manhattan Avenue and India Street	192	5	38	54	No

FUTURE WITH THE PROPOSED ACTIONS

BUS SERVICE

The bus line-haul analysis showed that increased ridership attributed to the Proposed Actions would result in significant adverse impacts on the northbound B32 during the weekday AM peak period, and on the northbound B62 during the weekday PM peak period, as summarized in **Table 5-29**. Potential measures to mitigate the projected significant adverse bus line-haul impacts are described in Chapter 11, "Mitigation."

Table 5-29
2023 With Action Condition Bus Line-haul Analysis
B32, B62

Route Direction	Max. Load Point	2023 Hourly Volume	Buses/Hr	2023 Passengers/ Bus	Capacity/Bus	Capacity Shortfall (Yes/No)
AM Peak Hour						
B32 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	170	3	57	54	Yes
B32 Southbound	Brooklyn: Wythe Avenue and North 9th Street	86	3	29	54	No
B62 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	340	8	43	54	No
B62 Southbound	Brooklyn: Manhattan Avenue and Driggs Avenue	371	8	47	54	No
PM Peak Hour						
B32 Northbound	Brooklyn: McGuinness Boulevard and Freeman Street	126	3	42	54	No
B32 Southbound	Queens: 11th Street and Jackson Avenue	151	3	51	54	No
B62 Northbound	Brooklyn: Bedford Avenue and North 8th Street	276	5	56	54	Yes
B62 Southbound	Brooklyn: Manhattan Avenue and India Street	245	5	49	54	No

F. DETAILED PEDESTRIAN ANALYSIS

As described above in Section B, "Preliminary Analysis Methodology and Screening Assessment," Level 1 and Level 2 screening analyses are prepared to identify the pedestrian elements that warranted a detailed analysis. Based on the assignment of pedestrian trips, seven sidewalks, eight corners, and three crosswalks have been selected for analysis for the weekday AM, midday, and PM peak hours.

EXISTING CONDITIONS

Pedestrian data was collected in March 2019 in accordance with procedures outlined in the *CEQR Technical Manual* during the weekday hours of 7:00 AM to 10:00 AM, 11:00 AM to 2:00 PM, and 4:00 PM to 7:00 PM. During data collection, construction activities were observed along the south sidewalk of South 2nd Street between Wythe Avenue and Berry Street, along the north sidewalk of South 4th Street between Wythe Avenue and Berry Street, and at the northeast corner of Wythe Avenue and South 4th Street. The construction-related physical conditions of these locations were noted and have been incorporated into the existing condition pedestrian analyses. As detailed below, the physical conditions for these locations are modified in the No Action and With Action condition analyses to reflect the assumption that the existing condition construction activities would be concluded before the No Action/With Action build year.

STREET-LEVEL PEDESTRIAN OPERATIONS

Peak hours have been determined by comparing rolling hourly averages and the highest 15-minute volumes within the selected peak hours that have been selected for analysis. The existing peak hour pedestrian volumes are shown in **Figures 5-34 through 5-36**. A summary of the 2019 existing conditions pedestrian analysis results is presented in **Table 5-30**.

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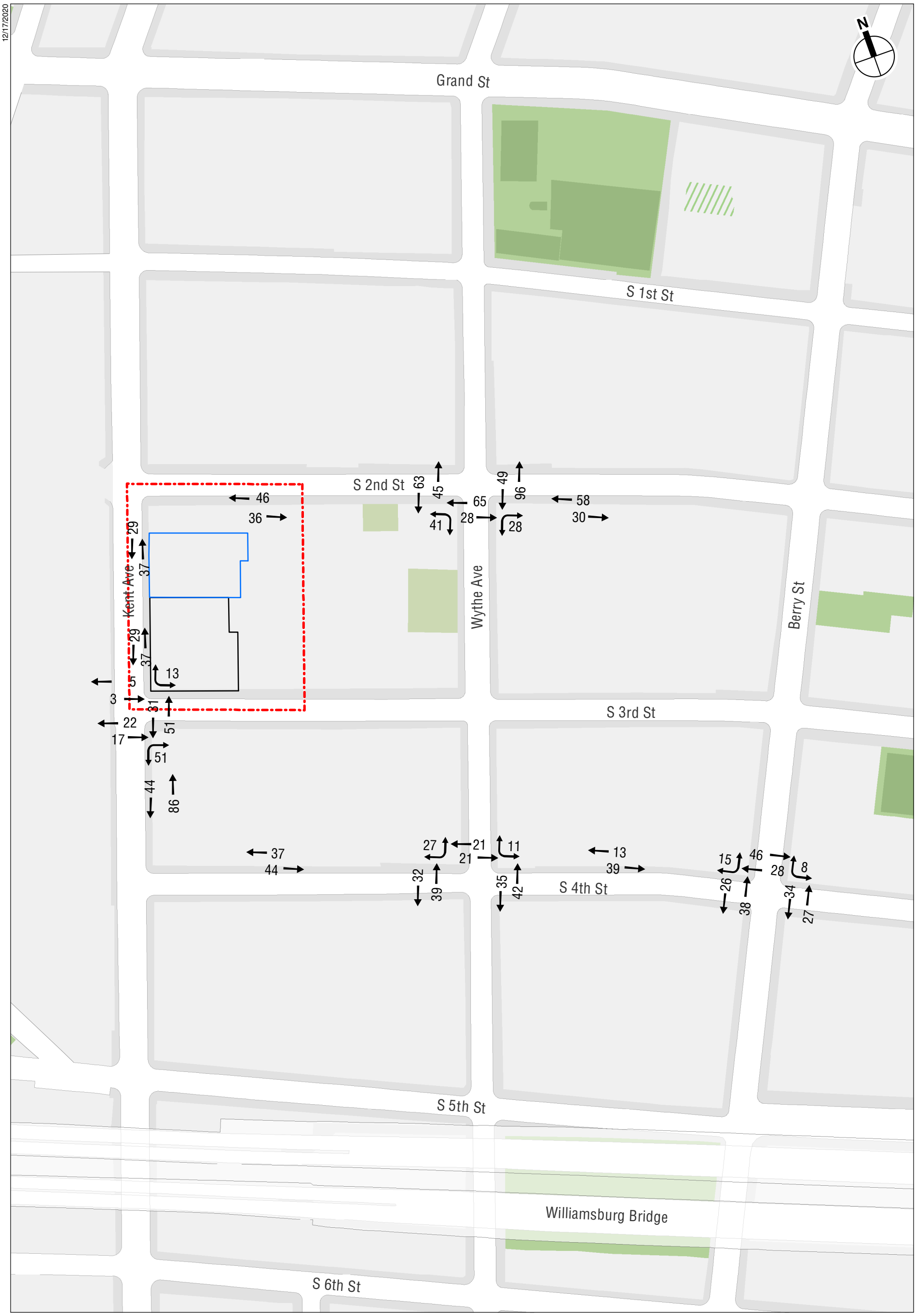


Project Area (Proposed Rezoning Area)

Development Site

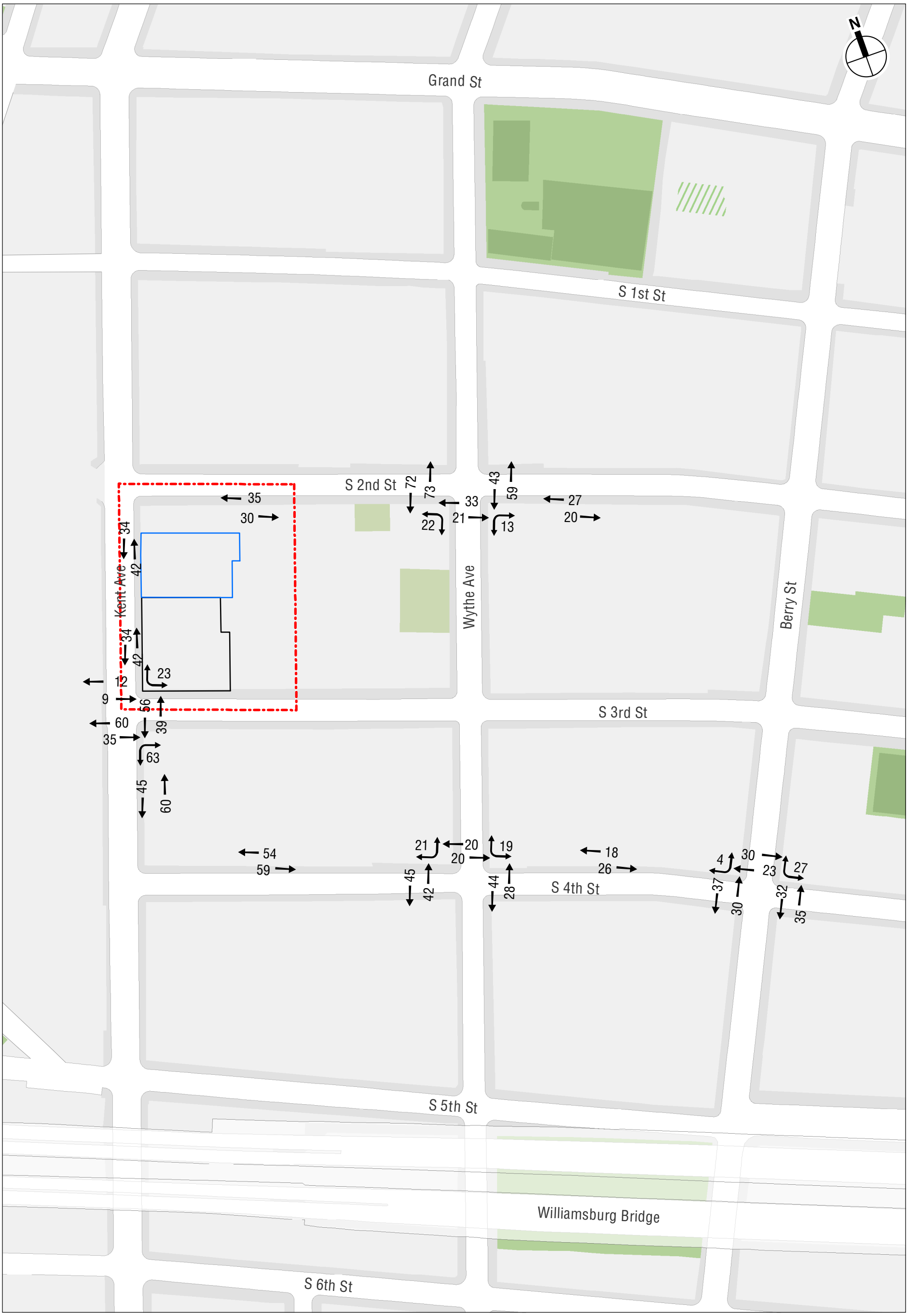
Projected Development Site

0 300 FEET

2019 Existing Pedestrian Volumes
Weekday AM Peak Hour
Figure 5-34

307 KENT AVENUE

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

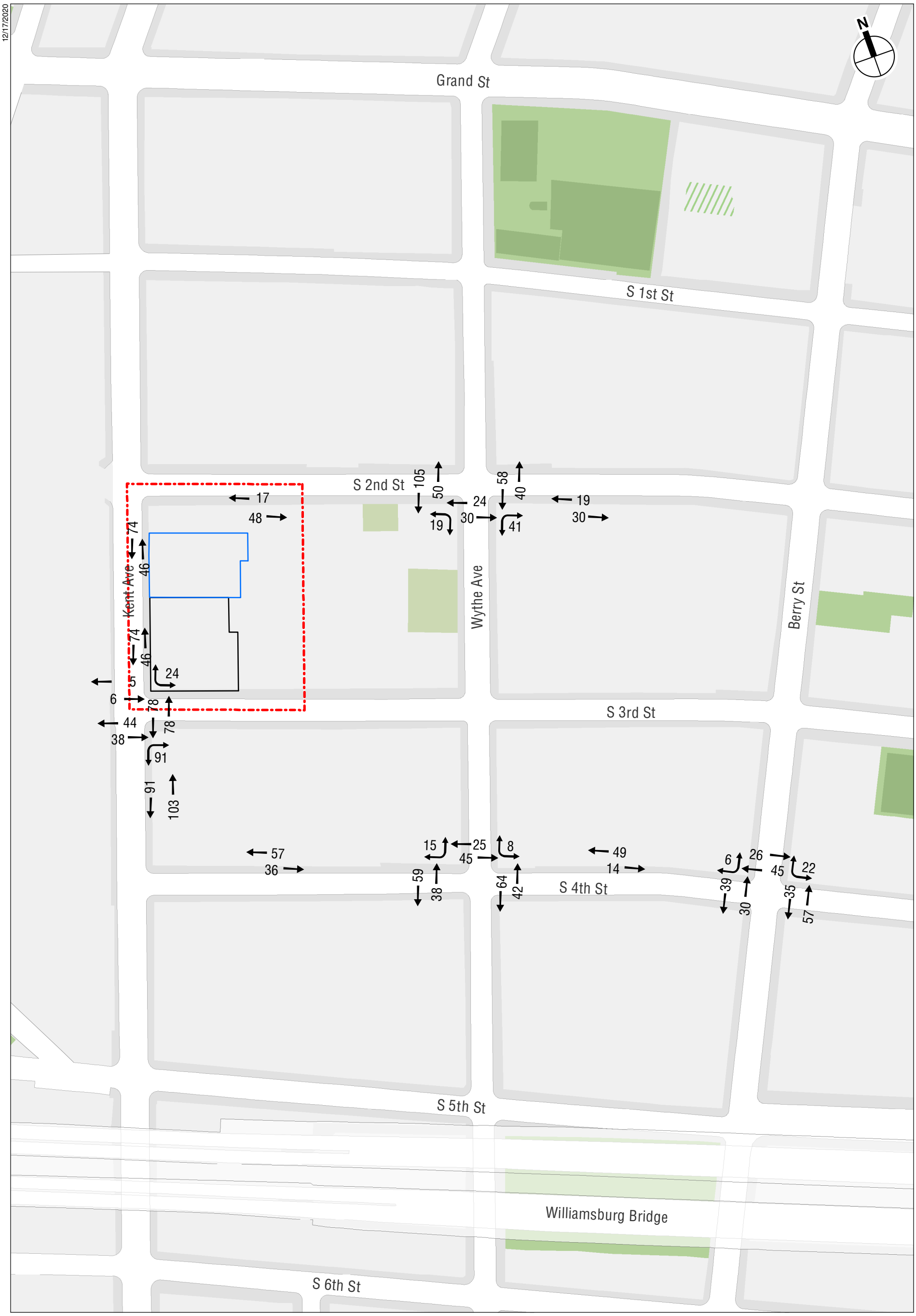
Projected Development Site

0 300 FEET

2019 Existing Pedestrian Volumes
Weekday Midday Peak Hour
Figure 5-35

307 KENT AVENUE

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 300 FEET

2019 Existing Pedestrian Volumes
Weekday PM Peak Hour
Figure 5-36

307 KENT AVENUE

Table 5-30
Summary of 2019 Existing Pedestrian Analysis Results

Level of Service	Analysis Peak Hours		
	Weekday AM	Weekday Midday	Weekday PM
Sidewalks			
Sidewalks at LOS A/B/C	7	7	7
Sidewalks at LOS D	0	0	0
Sidewalks at LOS E	0	0	0
Sidewalks at LOS F	0	0	0
Total	7	7	7
Corner Reservoirs			
Corners at LOS A/B/C	8	8	8
Corners at LOS D	0	0	0
Corners at LOS E	0	0	0
Corners at LOS F	0	0	0
Total	8	8	8
Crosswalks			
Crosswalks at LOS A/B/C	3	3	3
Crosswalks at LOS D	0	0	0
Crosswalks at LOS E	0	0	0
Crosswalks at LOS F	0	0	0
Total	3	3	3

Note: LOS = Level-of-Service

As shown in **Tables 5-31 through 5-33**, all sidewalk, corner reservoir, and crosswalk analysis locations currently operate at favorable LOS C, or acceptable LOS D or better.

Table 5-31
2019 Existing Conditions: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	66	0.79	565.6	A
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	4.0	66	0.79	754.2	A
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	130	0.83	304.4	B
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	3.0	88	0.65	349.3	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	2.0	82	0.66	255.3	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	81	0.88	1205.2	A
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	1.0	52	0.76	232.7	B
Weekday Midday Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	76	0.70	439.9	B
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	4.0	76	0.70	586.6	A
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	105	0.73	329.8	B
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	3.0	47	0.69	698.7	A
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	2.0	65	0.68	329.8	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	113	0.78	769.9	A
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	1.0	44	0.92	329.8	B
Weekday PM Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	120	0.75	296.8	B
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	4.0	120	0.75	395.9	B
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	194	0.75	182.5	B
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	3.0	49	0.94	913.8	A
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	2.0	65	0.86	416.7	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	93	0.89	1061.1	A
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	1.0	63	0.61	152.0	B

Note:
SFP = square feet per pedestrian

Table 5-32
2019 Existing Conditions: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Kent Avenue and South 3rd Street	Northeast	782.0	A	598.6	A	430.1	A
	Southeast	344.1	A	238.9	A	191.9	A
Wythe Avenue and South 2nd Street	Southwest	184.1	A	253.6	A	236.4	A
	Southeast	353.5	A	741.9	A	536.9	A
Wythe Avenue and South 4th Street	Northwest	1008.4	A	921.8	A	758.6	A
	Northeast	37.8	C	40.7	B	21.7	D
Berry Street and South 4th Street	Northwest	352.4	A	439.0	A	353.5	A
	Northeast	241.9	A	208.6	A	174.8	A

Note: SFP = square feet per pedestrian

Table 5-33
2019 Existing Conditions: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	82	829.5	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	93	116.8	A
Wythe Avenue and South 4th Street	North	30.0	12.0	42	541.0	A
Weekday Midday Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	95	743.0	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	54	380.9	A
Wythe Avenue and South 4th Street	North	30.0	12.0	40	631.9	A
Weekday PM Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	156	411.7	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	54	271.3	A
Wythe Avenue and South 4th Street	North	30.0	12.0	70	342.3	A

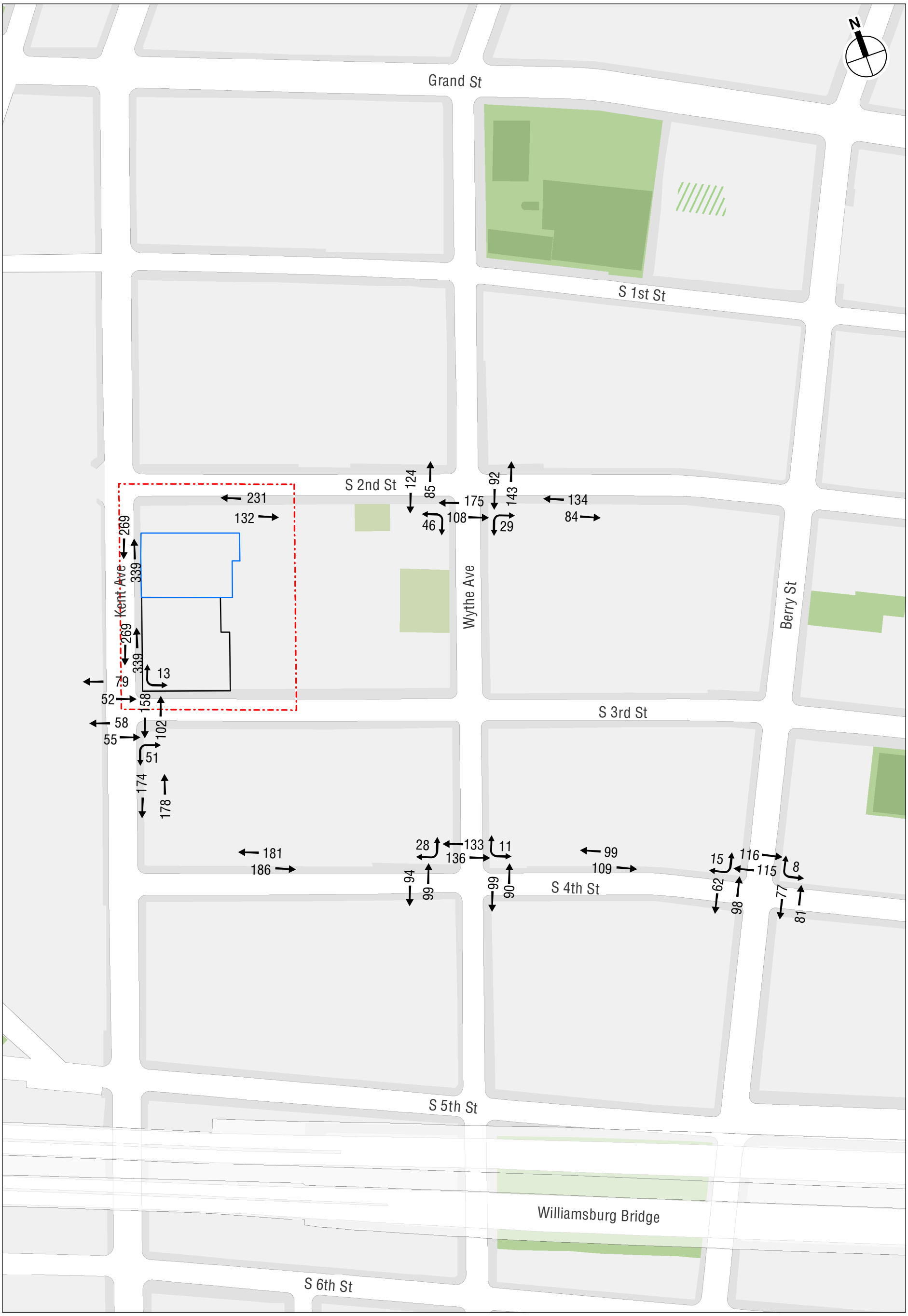
Note: SFP = square feet per pedestrian

FUTURE WITHOUT THE PROPOSED ACTIONS

Future 2023 No Action condition pedestrian volumes are estimated by increasing existing pedestrian levels to reflect expected growth in overall travel through and within the study area. As per *CEQR Technical Manual* guidelines, an annual background growth rate of 0.50 percent is assumed for the years 2019 to 2023.

Pedestrian volumes from No Build projects that are anticipated to be completed in the study area have also been added to determine the No Action condition pedestrian volumes. The total No Action peak hour pedestrian volumes for the weekday AM, midday, and PM peak periods are presented in **Figures 5-37 through 5-39**. As noted above, in the existing condition, construction activities were observed along the south sidewalk of South 2nd Street between Wythe Avenue and Berry Street, along the north sidewalk of South 4th Street between Wythe Avenue and Berry Street, and at the northeast corner of Wythe Avenue and South 4th Street. The construction-related physical conditions of these locations were noted and incorporated into the existing condition pedestrian analyses, and are modified in the No Action and With Action condition analyses to reflect the assumption that the construction activities would be concluded before the No Action/With Action build year. In addition, per DOT, planters and a wood bench surrounding a tree bed at the east end of the South Sidewalk along South 2nd Street between Wythe Avenue and

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

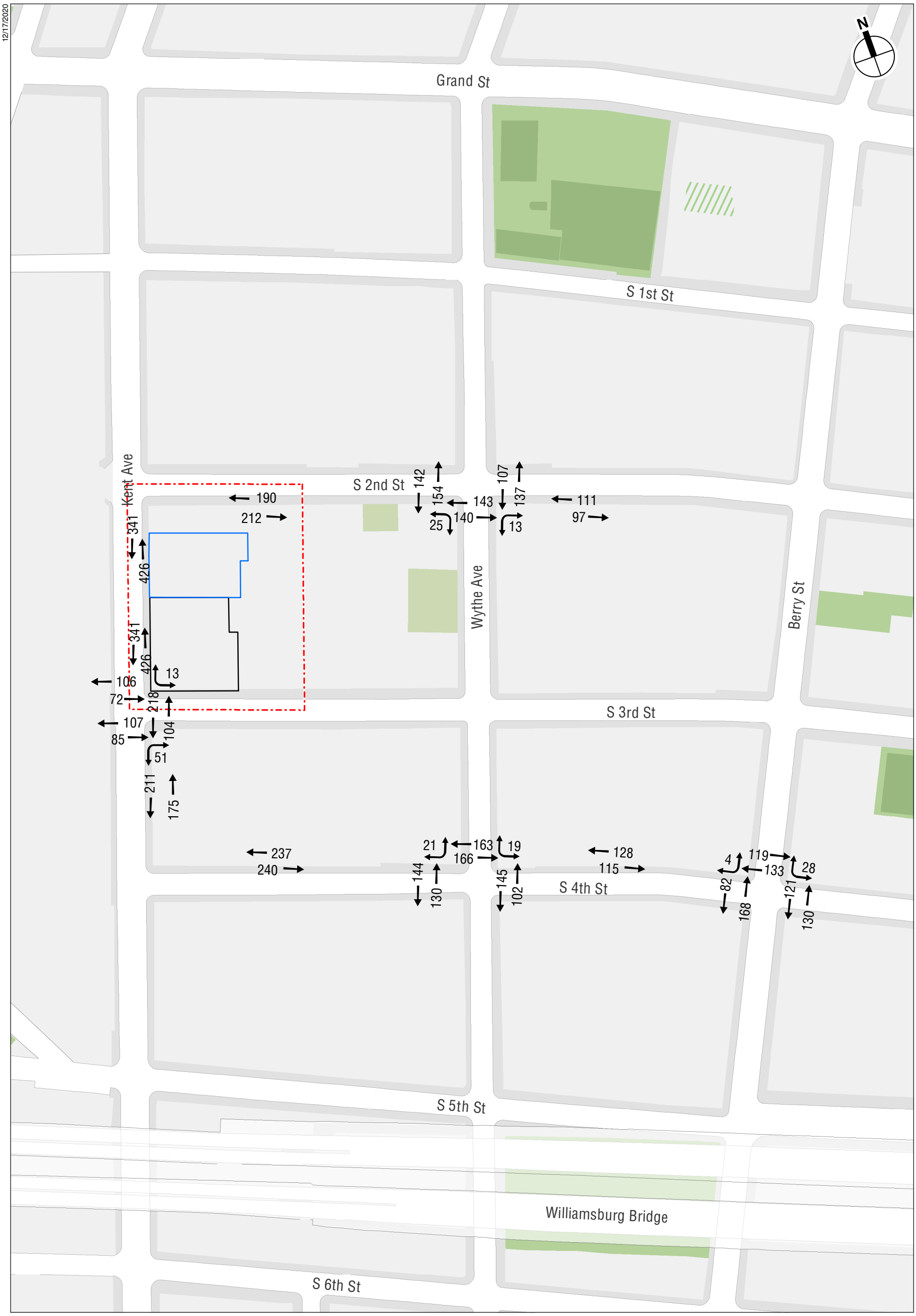
0 300 FEET

2023 No Action Pedestrian Volumes
Weekday AM Peak Hour

Figure 5-37

307 KENT AVENUE

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

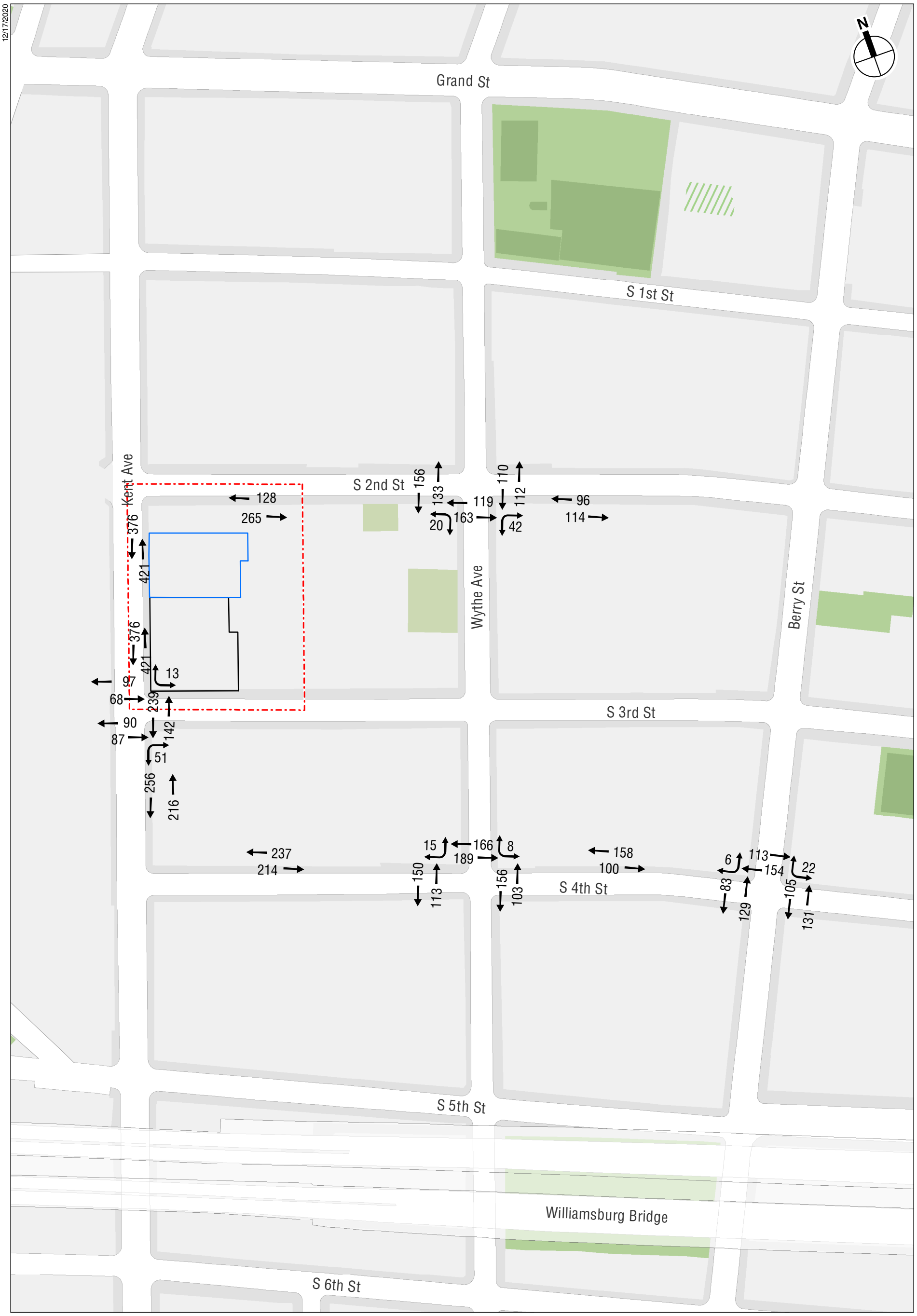
0 300 FEET

2023 No Action Pedestrian Volumes
Weekday Midday Peak Hour

Figure 5-38

307 KENT AVENUE

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 300 FEET

2023 No Action Pedestrian Volumes
Weekday PM Peak Hour

307 KENT AVENUE

Figure 5-39

Kent Avenue, which created the narrowest path for that sidewalk in the existing condition analysis, are within DOT right-of-way and are planned to be removed prior to the No Action condition. The No Action condition analysis reflect the assumption of the removal of these existing sidewalk obstructions. Finally, a review of DOT's Kent Avenue capital improvements project (Project ID: HWK1048F) did not identify any changes that would affect the pedestrian study area analysis elements.

STREET-LEVEL PEDESTRIAN OPERATIONS

A summary of the 2023 No Action condition pedestrian analysis results is presented in **Table 5-34**.

As shown in **Tables 5-35 to 5-37**, all sidewalk, corner reservoir, and crosswalk analysis locations will operate at LOS C or acceptable LOS D service levels (31.5 SFP platoon flows for sidewalks; minimum of 19.5 SFP for corners and crosswalks) or will operate at the same LOS as in the existing conditions, with the exception of the South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue, which will operate at LOS D with SFPs of 30.0 and 30.8 during the weekday midday and PM peak hours, respectively.

Table 5-34
Summary of 2023 No Action Pedestrian Analysis Results

Level of Service	Analysis Peak Hours		
	Weekday AM	Weekday Midday	Weekday PM
Sidewalks			
Sidewalks at LOS A/B/C	7	7	7
Sidewalks at LOS D	0	0	0
Sidewalks at LOS E	0	0	0
Sidewalks at LOS F	0	0	0
Total	7	7	7
Corner Reservoirs			
Corners at LOS A/B/C	8	8	8
Corners at LOS D	0	0	0
Corners at LOS E	0	0	0
Corners at LOS F	0	0	0
Total	8	8	8
Crosswalks			
Crosswalks at LOS A/B/C	3	3	3
Crosswalks at LOS D	0	0	0
Crosswalks at LOS E	0	0	0
Crosswalks at LOS F	0	0	0
Total	3	3	3

Note: LOS = Level-of-Service

Table 5-35
2023 No Action Condition: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	608	0.80	61.4	C
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	4.0	608	0.80	82.4	C
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	352	0.80	108.2	B
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	8.5	218	0.75	463.1	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	5.0	363	0.76	166.3	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	367	0.82	247.9	B
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	4.0	208	0.79	239.6	B
Weekday Midday Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	767	0.79	47.9	C
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	4.0	767	0.79	64.5	C
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	386	0.77	94.6	B
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	8.5	208	0.79	511.6	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	5.0	402	0.79	154.4	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	477	0.80	184.6	B
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	4.0	243	0.82	213.5	B
Weekday PM Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	797	0.79	46.2	C
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	4.0	797	0.79	62.3	C
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	472	0.77	77.3	C
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	8.5	210	0.82	524.5	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	5.0	393	0.81	162.2	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	451	0.81	199.3	B
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	4.0	258	0.77	188.9	B

Note: SFP = square feet per pedestrian

Table 5-36
2023 No Action Condition: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Kent Avenue and South 3rd Street	Northeast	196.6	A	154.0	A	141.3	A
	Southeast	137.1	A	100.6	A	95.6	A
Wythe Avenue and South 2nd Street	Southwest	92.9	A	88.4	A	88.4	A
	Southeast	184.0	A	206.0	A	196.1	A
Wythe Avenue and South 4th Street	Northwest	275.5	A	213.4	A	211.3	A
	Northeast	56.4	B	43.1	B	39.4	C
Berry Street and South 4th Street	Northwest	123.4	A	97.4	A	101.8	A
	Northeast	79.4	A	54.8	B	56.4	B

Note: SFP = square feet per pedestrian

Table 5-37
2023 No Action Condition: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	260	244.7	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	283	49.9	B
Wythe Avenue and South 4th Street	North	30.0	12.0	269	84.9	A
Weekday Midday Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	322	201.3	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	283	59.7	B
Wythe Avenue and South 4th Street	North	30.0	12.0	329	70.2	A
Weekday PM Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	381	164.9	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	282	55.3	B
Wythe Avenue and South 4th Street	North	30.0	12.0	355	64.5	A

Note: SFP = square feet per pedestrian.

FUTURE WITH THE PROPOSED ACTIONS

Project-generated pedestrian volumes are assigned to the pedestrian network considering current land uses in the area, population distribution, nearby parking locations, available transit services, and surrounding pedestrian facilities. The hourly incremental pedestrian volumes presented above in **Figures 5-20 through 5-22**, are added to the projected 2023 No Action volumes to generate the 2023 With Action pedestrian volumes for analysis (see **Figures 5-40 through 5-42**). In addition, in the With Action condition, Projected Development Site 1 is planned to include a five-foot-wide setback along the south segment of the east sidewalk along Kent Avenue between South 3rd Street and South 2nd Street. The additional sidewalk width afforded by this setback is incorporated into the With Action analysis for this sidewalk segment.

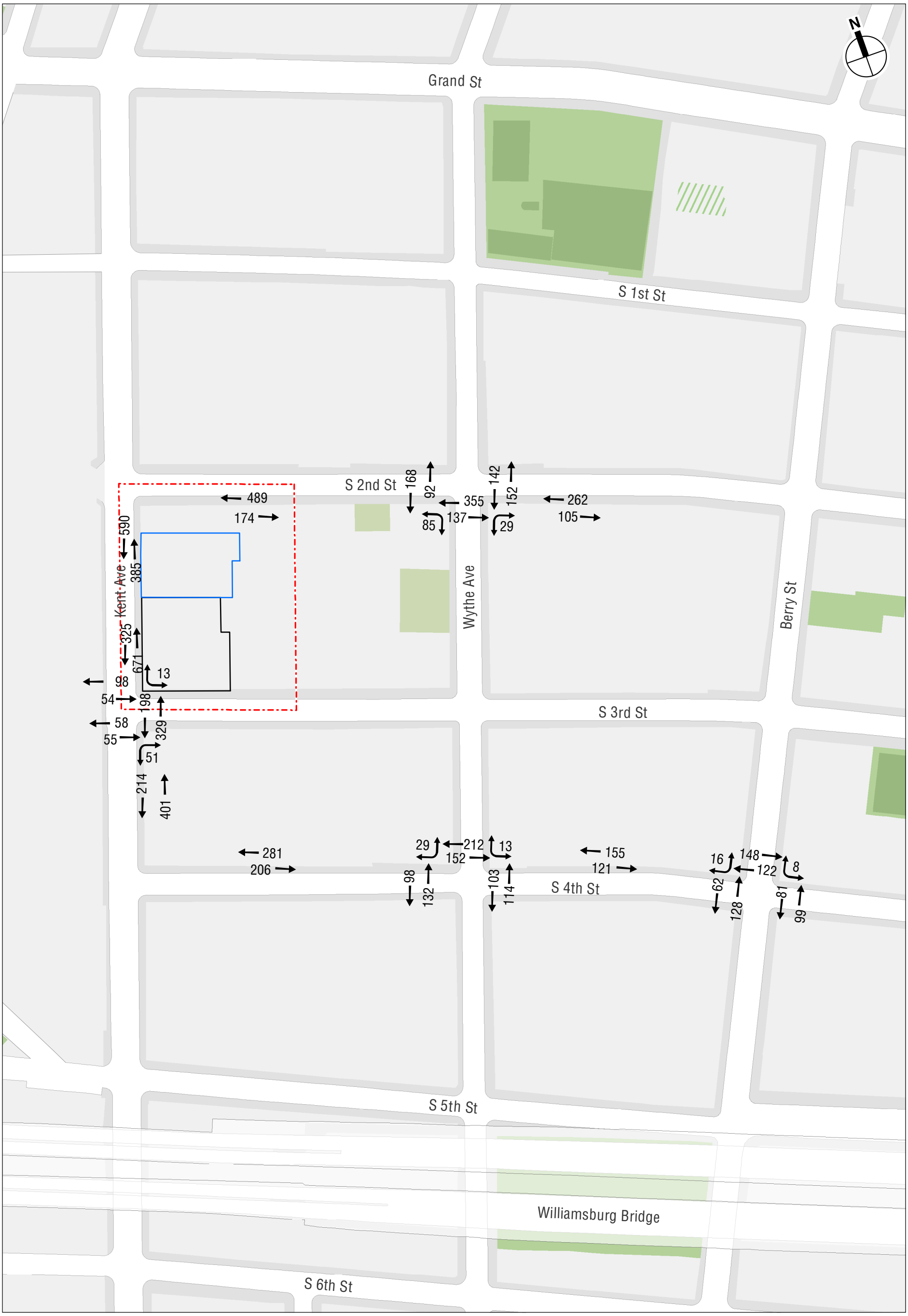
STREET-LEVEL PEDESTRIAN OPERATIONS AND SIGNIFICANT ADVERSE IMPACTS

A summary of the 2023 With Action condition pedestrian analysis results is presented in **Table 5-38**. Details on SFP and level-of-service are presented in **Tables 5-39 to 5-41**. Based on the *CEQR Technical Manual* sliding scale impact thresholds, significant adverse pedestrian impacts, as detailed below, are identified for one sidewalk during the weekday midday and PM peak hours. Potential measures that can be implemented to mitigate these significant adverse pedestrian impacts are discussed in Chapter 11, "Mitigation."

Sidewalks

- The East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street (north segment) would deteriorate from LOS C with 47.9 SFP and LOS C with 46.2 SFP to LOS D with 25.7 SFP and LOS D with 30.2 SFP during the weekday midday and PM peak hours, respectively, resulting in a significant adverse impact under *CEQR Technical Manual* criteria.

12/17/2020

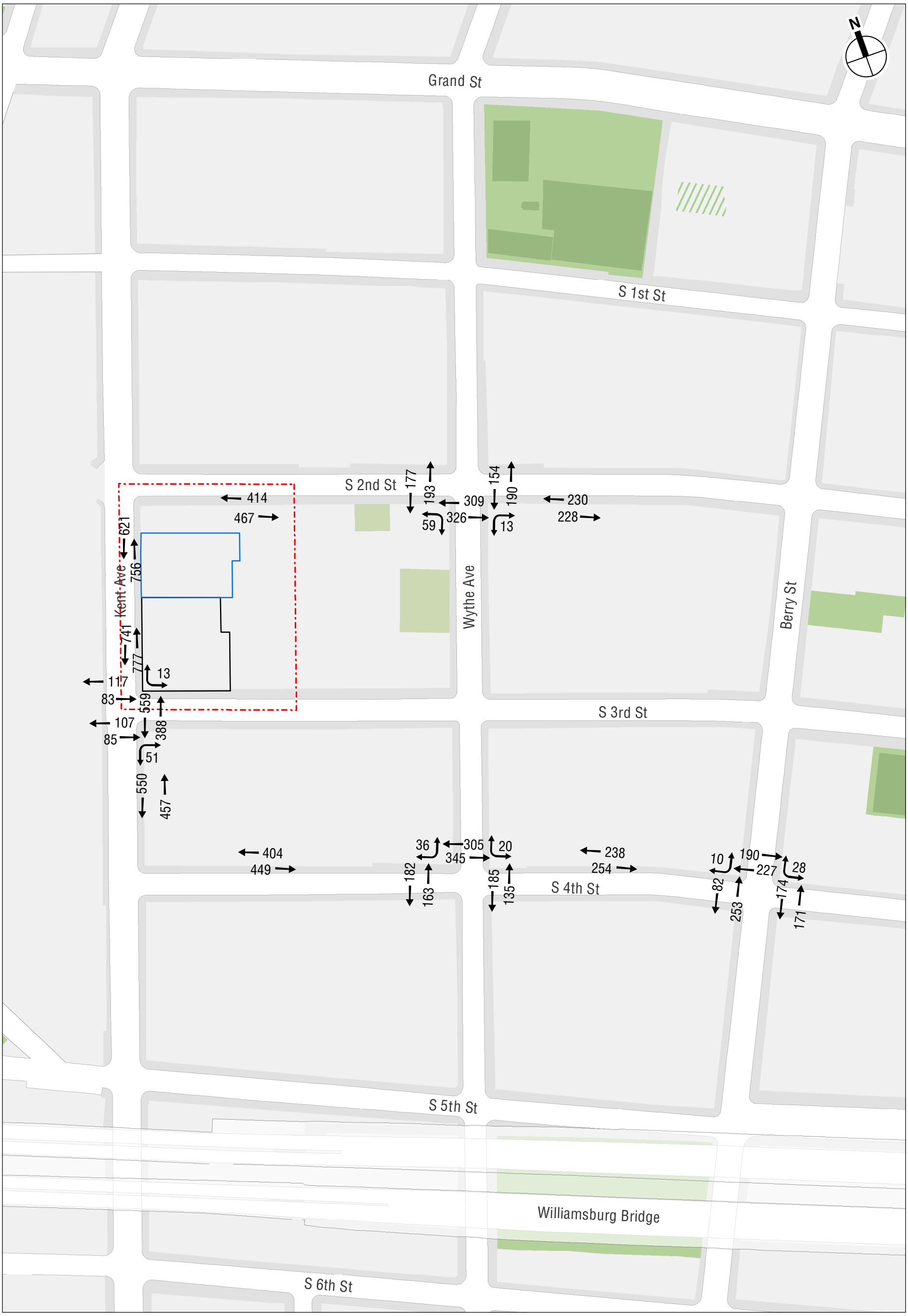


2023 With Action Pedestrian Volumes
Weekday AM Peak Hour

307 KENT AVENUE

Figure 5-40

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

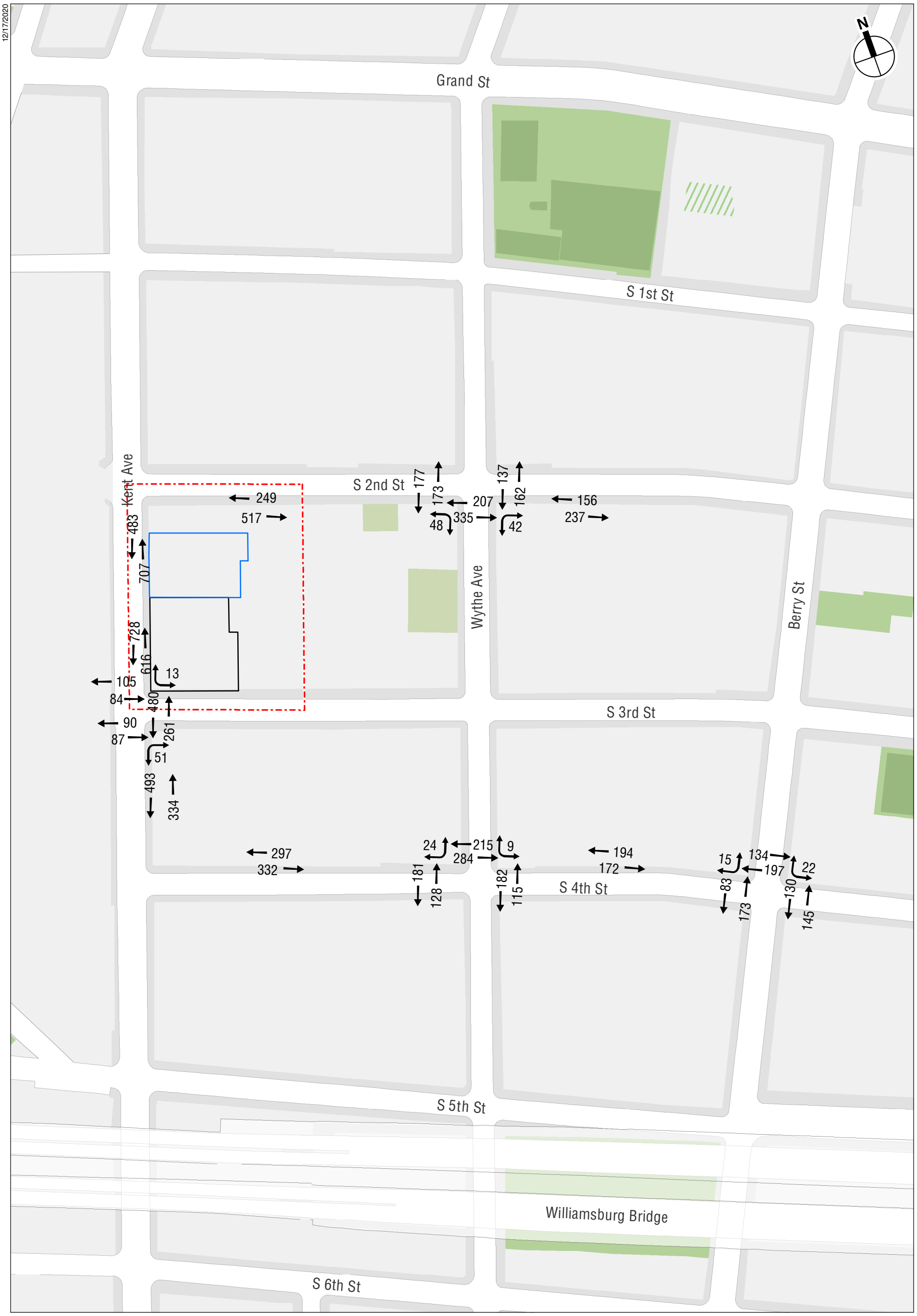
0 300 FEET

2023 With Action Pedestrian Volumes
Weekday Midday Peak Hour

Figure 5-41

307 KENT AVENUE

12/17/2020



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

0 300 FEET

2023 With Action Pedestrian Volumes
Weekday PM Peak Hour

Figure 5-42

307 KENT AVENUE

Table 5-38
Summary of 2023 With Action Pedestrian Analysis Results

Level of Service	Analysis Peak Hours		
	Weekday AM	Weekday Midday	Weekday PM
Sidewalks			
Sidewalks at LOS A/B/C	6	5	6
Sidewalks at LOS D	1	2	1
Sidewalks at LOS E	0	0	0
Sidewalks at LOS F	0	0	0
Total	7	7	7
Corner Reservoirs			
Corners at LOS A/B/C	8	7	8
Corners at LOS D	0	1	0
Corners at LOS E	0	0	0
Corners at LOS F	0	0	0
Total	8	8	8
Crosswalks			
Crosswalks at LOS A/B/C	3	3	3
Crosswalks at LOS D	0	0	0
Crosswalks at LOS E	0	0	0
Crosswalks at LOS F	0	0	0
Total	3	3	3

Note: LOS = Level-of-Service

Table 5-39
2023 With Action Condition: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	975	0.80	37.7	D
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	9.0	996	0.80	114.3	B
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	615	0.80	60.6	C
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	8.5	367	0.80	291.7	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	5.0	663	0.81	95.7	B
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	487	0.80	182.9	B
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	4.0	276	0.80	182.5	B
Weekday Midday Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	1,377	0.80	25.7	D
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	9.0	1,518	0.80	74.5	C
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	1,007	0.80	36.3	D
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	8.5	458	0.80	235.8	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	5.0	881	0.80	71.1	C
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	853	0.80	103.7	B
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	4.0	492	0.80	103.0	B
Weekday PM Peak Hour						
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – North Segment	East	3.0	1,190	0.80	30.2	D
East Sidewalk along Kent Avenue between South 3rd Street and South 2nd Street – South Segment	East	9.0	1,344	0.80	84.2	C
East sidewalk along Kent Avenue between South 3rd Street and South 4th Street	East	3.0	827	0.80	44.5	C
South Sidewalk along South 2nd Street between Wythe Avenue and Berry Street	South	8.5	393	0.80	274.1	B
South Sidewalk along South 2nd Street between Wythe Avenue and Kent Avenue	South	5.0	766	0.80	81.8	C
North Sidewalk along South 4th Street between Wythe Avenue and Kent Avenue	North	7.0	629	0.80	140.3	B
North Sidewalk along South 4th Street between Wythe Avenue and Berry Street	North	4.0	366	0.80	137.5	B

Note: SFP = square feet per pedestrian

Table 5-40
2023 With Action Condition: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Kent Avenue and South 3rd Street	Northeast	113.4	A	67.2	A	83.4	A
	Southeast	84.1	A	47.0	B	58.8	B
Wythe Avenue and South 2nd Street	Southwest	64.5	A	46.0	B	51.8	B
	Southeast	126.4	A	104.6	A	120.7	A
Wythe Avenue and South 4th Street	Northwest	212.7	A	125.0	A	157.6	A
	Northeast	43.6	B	20.1	D	26.8	C
Berry Street and South 4th Street	Northwest	103.3	A	62.2	A	81.0	A
	Northeast	68.0	A	33.9	C	45.4	B

Note: SFP = square feet per pedestrian

Table 5-41
2023 With Action Condition: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	527	117.6	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	492	31.4	C
Wythe Avenue and South 4th Street	North	30.0	12.0	364	62.1	A
Weekday Midday Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	947	67.1	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	635	24.8	C
Wythe Avenue and South 4th Street	North	30.0	12.0	650	33.6	C
Weekday PM Peak Hour						
Kent Avenue and South 3rd Street	East	30.0	9.5	741	84.7	A
Wythe Avenue and South 2nd Street	South	33.5	11.0	542	28.2	C
Wythe Avenue and South 4th Street	North	30.0	12.0	499	44.8	B

Note: SFP = square feet per pedestrian

G. VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Crash data for the study area intersections has been obtained from DOT for the time period between January 1, 2015 and December 31, 2017. The data obtained quantify the total number of reportable crashes (involving fatality, injury, or more than $1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of vehicular crashes with pedestrians and bicycles at each location.

During the January 1, 2015 and December 31, 2017 three-year period, a total of 50 reportable and non-reportable crashes, zero fatalities, 39 injuries, and 22 pedestrian/bicyclist-related crashes occurred at the study area intersections. A rolling total of crash data identifies one high crash location in the 2015 to 2017 period: Bedford Avenue and Metropolitan Avenue. **Table 5-42** depicts total crash characteristics by intersection during the study period, as well as a breakdown of pedestrian and bicycle crashes by year and location.

Table 5-42
Crash Data Summary

Intersection		Study Period					Crashes by Year					
North-South Roadway	East-West Roadway	All Crashes by Year			Total Fatalities	Total Injuries	Pedestrian			Bicycle		
		2014	2016	2017			2014	2016	2017	2014	2016	2017
Bedford Avenue	Broadway/S. 6th St	1	4	1	0	8	0	1	0	0	2	0
Bedford Avenue	**Metropolitan Avenue**	1	1	6	0	8	1	0	4	0	0	1
Berry Street	Broadway	3	2	0	0	3	1	0	0	0	0	0
Berry Street	S. 6th Street	0	0	4	0	4	0	0	2	0	0	0
Berry Street	Metropolitan Avenue	1	2	1	0	3	0	1	1	0	1	0
Kent Avenue	Broadway	1	1	0	0	1	0	1	0	0	0	0
Kent Avenue	S. 6th Street	0	2	0	0	1	0	0	0	0	1	0
Kent Avenue	S. 5th Street	2	0	1	0	2	0	0	0	0	0	1
Kent Avenue	Metropolitan Avenue	1	1	1	0	3	0	0	0	0	0	1
Wythe Avenue	Broadway	1	0	1	0	0	0	0	0	0	0	0
Wythe Avenue	S. 6th Street	1	2	0	0	1	0	1	0	0	0	0
Wythe Avenue	S. 5th Street	1	2	3	0	4	0	0	1	0	0	0
Wythe Avenue	Metropolitan Avenue	1	0	1	0	1	1	0	0	0	0	0

Source: DOT January 1, 2015 and December 31, 2017 crash data
Note: Bold intersections are high accident locations

Table 5-43 shows a detailed description of each pedestrian/bicyclist-related crash at the high crash location listed above during the three-year period.

Table 5-43
Vehicle and Pedestrian Crash Details

Intersection	Year	Date	Time	Crash Class		Action of Vehicle	Action of Pedestrian	Cause of Crash			
				Injured	Killed			Left/Right Turns	Pedestrian Error/ Confusion	Driver Inattention	Other
Bedford Avenue and Metropolitan Avenue	2015	8/26	7:55am	X		Making right turn – east	Crossing with signal	X			Glare
	2017	2/19	8:05pm	X		Going straight – east	Crossing against signal				Traffic control devices disregarded
		4/27	4:30pm	X		Going straight – south	Crossing against signal			X	Failure to yield right of way
		4/29	3:00pm	X		Going straight – north	Crossing against signal				Failure to yield right of way, Traffic control devices disregarded
		5/18	7:20pm	X		Going straight – east	Unknown				Traffic control devices disregarded, Cell phone (hand held)
		8/11	5:30pm	X		Going straight – south	Going straight – east		X		

Source: DOT January 1, 2015 and December 31, 2017 crash data

BEDFORD AVENUE AND METROPOLITAN AVENUE

Based on the review of the crash history at the intersection of Bedford Avenue and Metropolitan Avenue, the only high crash intersection in the study area, no prevailing trends with regard to geometric deficiencies are identified as the primary causes of recorded crashes. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Bedford Avenue and Metropolitan Avenue is signalized and provides four high visibility crosswalks. In

addition, regular pedestrian timers are present on all four crosswalks. In terms of project-generated activity, this intersection would experience incremental peak hour volume increases of approximately 75 or fewer vehicle trips and approximately 35 or fewer pedestrian trips at any crosswalk during each of the three analysis peak hours. Additional safety measures, such as the installation of countdown timers on all four crosswalks, can be implemented to improve pedestrian and bicycle safety at this intersection. As part of its Vision Zero initiative, the City will explore additional measures for potential implementation at this high crash location and others in the study area to enhance traffic and pedestrian safety.

H. PARKING ASSESSMENT

EXISTING CONDITIONS

Inventories of on-street and off-street parking in the approximately ¼-mile radius of the Project Area were conducted in October 2017. The on-street survey involved recording curbside regulations and performing general observations of daytime utilization. The off-street survey provided an inventory of the area's public parking facilities and their legal capacities and daytime utilization.

ON-STREET PARKING

Curbside parking regulations in the approximately ¼-mile radius of the Project Area are illustrated in **Figure 5-43** and summarized in **Table 5-44**. The curbside regulations in the area generally include limited one-hour metered parking, no standing or no parking anytime except authorized vehicles, and alternate-side parking to accommodate street cleaning. Based on field observations, on-street parking in the area is generally at or near full utilization during weekday daytime hours.

Table 5-44
On-Street Parking Regulations

No.	Regulation	No.	Regulation
1	NS Anytime	15	NP 7:30–8 AM Tue
2	NP Anytime	16	No Stopping Anytime
3	NP 9–10:30 AM Mon and Thu	17	Truck Loading Only 7 AM–7 PM Mon–Fri
4	NP 9–10:30 AM Tue and Fri	18	NP 2–5 AM Tue and Fri
5	NP 11:30 AM–1 PM Tue and Fri	19	Authorized Vehicles Only Department of Education School Days 7 AM–4 PM
6	NP 11:30 AM–1 PM Mon and Thu	20	NP 7 AM–7 PM Ex Sun
7	NP 8 AM–6 PM Mon–Fri	21	Truck Loading Only 6 AM–10 AM Ex Sun
8	NP 2–5 AM Mon and Thu	22	NS Fire Zone
9	NP 8–9:30 AM Mon and Thu	23	Truck Loading Only 8 AM–4 PM Mon–Fri
10	NP 8–9:30 AM Tue and Fri	24	NP 7 AM–6 PM Ex Sun
11	NP 7 AM–6 PM Mon–Fri	25	NP Midnight–3 AM Mon and Thu
12	NP 8:30–10 AM Mon and Thu	26	NP Midnight–3 AM Tue and Fri
13	NP 8:30–10 AM Tue and Fri	B	Bus Stop
14	NS Anytime – Temporary Construction Regulation		

Notes: NP = No Parking; NS = No Standing; Sun = Sunday; Mon = Monday; Tue = Tuesday; Wed = Wednesday; Thu = Thursday; Fri = Friday; Sat = Saturday; MP=Metered Parking
Sources: Surveys conducted by AKRF, Inc.; October 2017

OFF-STREET PARKING

Off-street publicly accessible parking lots and garages in the approximately ¼-mile radius of the Project Area were surveyed in October 2017. Each facility's operating license and legal capacity were noted. Based on responses given by parking attendants and visual inspections, where



Project Area (Proposed Rezoning Area)

Development Site

Projected Development Site

Study Area (1/4-mile perimeter)

1. *On Street Parking Regulation*

Bus Stop

On Street Parking Regulations

possible, estimates have been made on the parking occupancy or utilization at each facility for the weekday morning, midday, evening, and overnight time periods. As shown in **Table 5-9** above and shown on **Figure 5-3**, there are a total of 6 public parking facilities in the approximate ¼-mile parking study area. The combined capacity of these facilities totals 718 parking spaces. Overall, they are 49, 67, 65, and 38 percent utilized, with 366, 240, 253, and 444 parking spaces available during the weekday morning, midday, evening, and overnight time periods, respectively.

FUTURE WITHOUT THE PROPOSED ACTIONS

Overall public parking utilization is expected to experience the same annual background growth rate as for traffic. Per *CEQR Technical Manual* guidelines, an annual background growth rate of 0.5 percent is applied to grow parking demand from 2017 to 2022 and then another 0.25 percent from 2022 to the Proposed Actions' anticipated build year of 2023. Many of the No Build projects are expected to provide parking facilities to accommodate some or all of the projected demand from their respective projects. In particular, it is assumed that the parking spaces provided with No Build projects 6 and 7 (200 Kent Avenue and 187 Kent Avenue) would be public parking spaces. As presented in **Table 5-45**, accounting for the parking demand generated from background growth and parking demand from discrete No Build projects that would advance independent of the Proposed Actions, the No Action public parking utilization would be 48, 61, 56, and 37 percent during the weekday morning, midday, evening, and overnight time periods, respectively, in the approximate ¼-mile off-street parking study area.

Table 5-45
2017 Existing and 2023 No Action Parking Supply and Utilization

	Weekday AM	Weekday Midday	Weekday PM	Weekday Overnight
2017 Existing Public Parking Supply	718	718	718	718
2017 Existing Public Parking Demand	352	478	465	274
2017 Existing Public Parking Utilization	49%	67%	65%	38%
2017 Existing Public Parking Supply	718	718	718	718
No Build Project #6 Public Parking Supply	180	180	180	180
No Build Project #7 Public Parking Supply	136	136	136	136
2023 No Action Background Incremental Parking Demand	10	13	13	8
Discrete No Build Projects Accessory Parking Supply	1,149	1,149	1,149	1,149
Discrete No Build Projects Parking Demand	1,043	1,054	924	999
Discrete No Build Projects Public Parking Demand	134	136	98	103
2023 No Action Public Parking Supply Total	1,034	1,034	1,034	1,034
2023 No Action Public Parking Demand Total	496	627	576	385
2023 No Action Public Parking Utilization	48%	61%	56%	37%
2023 No Action Available Spaces	538	407	458	649

Notes:
Sample Calculation
2023 No Action Parking Demand Total = 2017 Existing Public Parking Demand + 2023 No Action Background Incremental Parking Demand + Discrete No Build Projects Public Parking Demand
2023 No Action Weekday AM Public Parking Demand Total = 352 + 10 + 134 = 496.

FUTURE WITH THE PROPOSED ACTIONS

The weekday parking demand generated by the Proposed Actions are presented in **Table 5-46**. As presented in **Table 5-47**, accounting for the No Action parking supply and demand utilization, and the parking demand generated by the Proposed Actions, the With Action public parking utilization is expected to increase to 64, 84, 65, and 37 percent during the weekday morning, midday, evening, and overnight peak periods, respectively, in the approximate ¼-mile off-street parking

study area. Because the parking utilization levels for the Proposed Actions are within the study area's parking capacity, the Proposed Actions are not expected to result in parking shortfalls or significant adverse parking impacts.

Table 5-46
Projected Development Sites—Weekday Parking Demand

Hour	Local Retail	Office	Community Facility – Medical Office	Total
12 AM–1 AM	0	0	0	0
1 AM–2 AM	0	0	0	0
2 AM–3 AM	0	0	0	0
3 AM–4 AM	0	0	0	0
4 AM–5 AM	0	0	0	0
5 AM–6 AM	0	0	0	0
6 AM–7 AM	0	0	0	0
7 AM–8 AM	1	5	0	6
8 AM–9 AM	1	74	93	168
9 AM–10 AM	1	129	122	252
10 AM–11 AM	1	125	131	257
11 AM–12 PM	1	124	114	239
12 PM–1 PM	0	124	117	241
1 PM–2 PM	1	124	110	235
2 PM–3 PM	1	123	101	225
3 PM–4 PM	1	120	101	222
4 PM–5 PM	1	107	78	186
5 PM–6 PM	0	24	74	98
6 PM–7 PM	0	8	0	8
7 PM–8 PM	0	3	0	3
8 PM–9 PM	0	0	0	0
9 PM–10 PM	0	0	0	0
10 PM–11 PM	0	0	0	0
11 PM–12 AM	0	0	0	0

Table 5-47
2023 No Action and With Action Parking Supply and Utilization

	Weekday AM	Weekday Midday	Weekday PM	Weekday Overnight
2023 No Action Public Parking Supply	1,034	1,034	1,034	1,034
2023 No Action Public Parking Demand	496	627	576	385
2023 No Action Public Parking Utilization	48%	61%	56%	37%
Projected Development Sites Parking Demand	168	241	98	0
Projected Development Sites On-Site Parking Spaces	0	0	0	0
Projected Development Sites Public Parking Demand	168	241	98	0
2023 With Action Public Parking Supply Total	1,034	1,034	1,034	1,034
2023 With Action Public Parking Demand Total	664	868	674	385
2023 With Action Public Parking Utilization	64%	84%	65%	37%
2023 With Action Available Spaces	370	166	360	649

Notes:
Sample Calculation
2023 With Action Parking Demand Total = 2023 No Action Public Parking Demand + Projected Development Sites Public Parking Demand
2023 With Action Weekday AM Public Parking Demand Total = 496 + 168 = 664.

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