Chapter 14: Transportation

A. INTRODUCTION

As described in detail in Chapter 1, "Project Description," the proposed East Site project includes a mixed-use, primarily residential development on the East Site and the improvement and expansion of the open space on the Triangle Site. Contemporaneously, North Shore-Long Island Health System (NSLIJ) would develop the Center for Comprehensive Care in the former O'Toole Building. In addition, the existing public parking facility at the O'Toole Building would be eliminated and a new accessory parking facility would be provided at the East Site. Because the proposed projects would bring new uses to the site and result in changes in population and on-site parking facilities, this chapter evaluates those changes in terms of transportation to determine whether or not the proposed projects would result in significant adverse impacts.

To determine analysis needs, a preliminary trip generation analysis memo was prepared and submitted for review by the New York City Department of City Planning (DCP). The travel demand assumptions used in the trip generation analysis and the allocation of projected trips are discussed in Section D, "Level 1 Screening Assessment," and in Section E, "Level 2 Screening Assessment," respectively.

PRINCIPAL CONCLUSIONS

The proposed projects would not result in significant adverse impacts related to traffic, transit, pedestrians, and parking.

In accordance with the *City Environmental Quality Review (CEQR) Technical Manual* criteria, the projected vehicle trip increments would not be sufficiently large enough to warrant a detailed traffic analysis and the proposed projects would not result in significant adverse traffic impacts.

Regarding transit, compared to the future without the proposed projects (No Build condition), the proposed East Site project and Center for Comprehensive Care would result in net increments of 149, 44, and 194 person trips by subway and 0, 0, and 9 person trips by bus during the weekday AM, midday, and PM peak hours, respectively. Since both the incremental subway and bus trips are below the CEQR threshold of 200 peak hour transit trips, quantitative subway and bus analyses are not warranted and the proposed projects would not result in significant adverse impacts on the area's transit services.

Incremental pedestrian trips are expected to exceed the *CEQR Technical Manual* analysis threshold of 200 peak hour pedestrian trips during the three weekday analysis peak hours. Therefore, Level 2 screening assessment was conducted to determine the need for additional quantified pedestrian analyses. Based on the Level 2 screening assessment, there would be three pedestrian locations exceeding 200 pedestrian trips during one or more analysis peak hours. Based on the results of the detailed pedestrian analysis, the above three pedestrian locations would continue to operate at acceptable levels in the future with the proposed projects (Build condition) and would not result in any significant adverse pedestrian impacts.

Accident data for the intersections near the project area were obtained from the New York State Department of Transportation (NYSDOT) for the time period between December 31, 2007 and December 31, 2010. During this period, a total of 209 reportable and non-reportable accidents, 1 fatality, 188 injuries, and 83 pedestrian/bicyclist-related accidents occurred at these intersections. A rolling 12-month total summary of the accident data identified five of these intersections as high pedestrian accident locations in the 2007 to 2010 period—Eighth Avenue and West 14th Street, Seventh Avenue and West 14th Street, Greenwich Avenue/West 11th Street and Seventh Avenue, Sixth Avenue and West 12th Street, and Sixth Avenue and West 14th Street.

With the proposed projects, these five intersections would experience modest increases in incremental vehicular and pedestrian traffic. The net incremental vehicular and pedestrian levels at these five intersections would be below the CEQR analysis thresholds of 50 peak hour vehicular trips and 200 peak hour pedestrian trips, and therefore would not result in any significant adverse traffic and pedestrian impacts. With these small increases in vehicular and pedestrian activities, the proposed projects are also not anticipated to exacerbate any of the current causes of pedestrian-related accidents and are not expected to result in any significant adverse pedestrian safety impacts.

Nevertheless, pedestrian safety at the intersection of Eighth Avenue and West 14th Street could be improved by restriping the north and south crosswalks as high visibility or school crosswalks, and installing countdown timers on all crosswalks. At the intersection of Seventh Avenue and West 14th Street, pedestrian safety could be improved by restriping all crosswalks as high visibility crosswalks and installing countdown timers on all crosswalks. At the intersection of Greenwich Avenue/West 11th Street and Seventh Avenue, pedestrian safety could be improved by the installation of countdown timers on all crosswalks. And at the intersections of Sixth Avenue and West 12th and West 14th Streets, pedestrian safety could be improved by installing countdown timers on all crosswalks and by restriping the south crosswalk at the West 12th Street intersection as a school crosswalk.

With the proposed projects, the existing public parking facility at the O'Toole Building would be eliminated and a new accessory parking facility would be provided on the East Site. Accounting for the changes in on-site parking facilities in the future with the proposed projects, the parking supply and utilization analysis shows that there would be adequate parking supply in and near the project area to accommodate the projected incremental parking demand, and no significant adverse parking impacts would occur.

B. PRELIMINARY ANALYSIS METHODOLOGY

This analysis of transportation conditions follows the methodologies contained in the *CEQR Technical Manual*. The *CEQR Technical Manual* describes a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. The preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volumes of person and vehicle trips attributable to the proposed actions. According to the *CEQR Technical Manual*, if a 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 unwarranted. When these thresholds are exceeded, detailed trip assignments (Level 2) would be performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would generate 50 or

more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 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 operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

Although not required per the *CEQR Technical Manual*, an access and circulation assessment is provided in response to comments made during scoping.

C. EVALUATION PARAMETERS

THE FUTURE WITHOUT THE PROPOSED PROJECTS (NO BUILD CONDITION)

With respect to the East Site, while reuse of some portion of the property is likely absent the proposed projects, the make-up of any future institutional use of the property is speculative and the Environmental Impact Statement (EIS) accordingly assumes, as a highly conservative measure, for the future without the proposed projects that the East Site buildings will be vacant.

As described in Chapter 1, "Project Description," in the future without the Center for Comprehensive Care, it is anticipated that the O'Toole Building would be reused for health-related functions not requiring a New York State Department of Health (DOH) certificate of need, such as doctor's offices and clinic space and would retain the existing on-site public parking facility. This use would be consistent with the existing large-scale community facility development (LSCFD) designation and with the underlying zoning. Therefore, in estimating future trip-making at the project area under the No Build condition, the O'Toole Building is anticipated to be fully re-tenanted for medical office use.

THE FUTURE WITH THE PROPOSED PROJECTS (BUILD CONDITION)

As shown in **Table 1-2** of Chapter 1, "Project Description," the proposed East Site project would allow for the redevelopment of the East Site for primarily residential use in new and renovated existing buildings, with retail and community facility uses on the lower levels along Seventh Avenue. The developer of the East Site has committed to building no more than 450 units, and this maximum amount is conservatively assumed for analysis purposes. In addition, this analysis also assumes that there would be approximately 11,200 gsf of retail space, approximately 25,094 gsf of medical office space, and a 152 space below-grade accessory parking garage with access and egress on West 12th Street. The 152-space accessory parking garage would be proposed as part of a special permit to allow an increase above the 98 parking spaces that would be permitted as-of-right. As part of the proposed East Site project, most of the Materials Handling Facility, including the truck loading docks, would be demolished to make way for a new publicly accessible open space that would be created on the majority of the Triangle Site (NSLIJ would reuse the existing storage area for medical gas and an adjacent driveway in conjunction with the Center and Comprehensive Care).

The Center for Comprehensive Care would be located in the renovated O'Toole Building. According to NSLIJ, the new free-standing emergency department would operate 24 hours a day and be staffed by three different shifts. The peak staffing for the emergency department is anticipated to occur during the 3:00 PM to 11:00 PM shift, which generally reflects the busiest period for patients as well. There would also be other non-emergency health-care uses (such as doctors' offices and ambulatory services) in the upper floors of the Center for Comprehensive

Care that would typically operate during normal business hours. This analysis accounts for all employees, patients and visitors that are expected to come to the Center for Comprehensive Care for both the emergency department and other uses. As a conservative measure for this transportation analysis, the peak staffing period for the emergency department was overlaid on the peak staffing periods for the other health care uses—covering the weekday AM, midday, and PM peak hours. In addition, although visits from emergency department patients and visitors could also be distributed throughout the day, they were conservatively assumed to occur during typical daytime business hours as well. **Table 14-1** presents the daily population breakdown of the proposed Center for Comprehensive Care. As described below, an incremental trip generation estimate was performed to determine if the proposed projects would warrant a quantified impact analysis.

Table 14-1
NSLIJ Center for Comprehensive Care Population Breakdown

Components	Population
Health Care-Related	
Staff (Daily)	391
Staff (Peak Period)	268
Patients (Daily)	453
Visitors (Daily)	358

Source: NSLIJ (2011)

A new enclosed ambulance bay and a new enclosed loading dock would be provided within the Center for Comprehensive Care, on the north side of West 12th Street (between Greenwich and Seventh Avenues). The enclosed ambulance bay would provide for head-in/head-out maneuvers for ambulances. The enclosed loading dock would be located just west of the ambulance bay. The enclosed loading dock is expected to be able to fully accommodate delivery trucks (anticipated to be single unit trucks and not tractor trailers) without blocking the adjacent sidewalk and the entering and exiting movements are expected to be of short durations and directed by on-site staff.

D. LEVEL 1 SCREENING ASSESSEMENT

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trips by mode expected to be generated by the proposed East Site project and the Center for Comprehensive Care during the weekday morning, midday, and evening peak hours. These estimates were then compared to the CEQR analysis thresholds to determine if a Level 2 screening and/or quantified operational analyses may be warranted.

TRAVEL DEMAND ASSUMPTIONS

THE FUTURE WITHOUT THE PROPOSED PROJECTS

As discussed above, under the No Build condition the O'Toole Building is anticipated to be fully re-tenanted with medical office use. Trip generation factors for the medical office use were developed based on the *506 East 76th Street Rezoning FEIS* and U.S. Census data, as presented in **Table 14-2**. For purposes of analysis, the East Site is assumed to remain vacant and therefore would not generate any trips.

Table 14-2
No Build Travel Demand Assumptions

Use	Medical Office (Staff)			Medical Office (Visitors)		
Daily Person Trip Rate	Weekday 10.0 (/1,000 square feet)			Weekday 33.6 (/1,000 square feet)		
Temporal Distribution[1]	AM 24.0%	MD 17.0%	PM 24.0%	AM 6.0%	MD 9.0%	PM 5.0%
In / Out[1]	100%/0%	50%/50%	0%/100%	90%/10%	50%/50%	30%/70%
Modal Split[2]	AM	MD	PM	AM	MD	PM
Auto	17.0%	17.0%	17.0%	25.0%	25.0%	25.0%
Taxi	2.0%	2.0%	2.0%	25.0%	25.0%	25.0%
Subway	59.0%	59.0%	59.0%	29.0%	29.0%	29.0%
Bus	8.0%	8.0%	8.0%	11.0%	11.0%	11.0%
Walk	14.0%	14.0%	14.0%	10.0%	10.0%	10.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Occupancy	AM	MD	PM	AM	MD	PM
Auto[2]	1.18	1.18	1.18	1.65	1.65	1.65
Taxi[1]	1.40	1.40	1.40	1.20	1.20	1.20
Daily Delivery Trip Rate[1]	Weekday 0.40 (/1,000 square feet)			Weekday N/A		
Delivery Temporal[1]	AM 9.7%	MD 7.8%	PM 5.1%	AM N/A	MD N/A	PM N/A
Delivery[1] In / Out	50%/50%	50%/50%	50%/50%	N/A	N/A	N/A

Notes:
N/A = Not Applicable
Sources:
1. *506 East 76th Street Rezoning FEIS* (1999)
2. 2000 U.S. Census, Reverse Journey to Work

THE FUTURE WITH THE PROPOSED PROJECTS

Trip generation factors for the proposed Center for Comprehensive Care were developed based on U.S. Census Data, other approved Environmental Assessment Statements (EASs) and EISs, and statistics developed from the 2009 St. Vincent's travel demand surveys, which were conducted at the former hospital when it was still in operation. For the daily Center for Comprehensive Care staff person trip rate, it was assumed that each staff member would generate one morning commuting in trip and one evening commuting out trip during the typical day. Also, approximately 50 percent of the staff is expected to generate one lunch/discretionary roundtrip (one out and one in trip) during the midday. This resulted in a daily staff person trip rate of three trips per staff. For the staff temporal distribution, it was assumed that the daily staff person trips would be distributed throughout the typical day as follows: 33 percent during the morning period, 34 percent during the midday period, and 33 percent during the evening period. Furthermore, it was assumed that approximately 80 percent of the morning and evening period staff person trips would occur during the AM and PM peak hours resulting in an overall temporal distribution of approximately 26.4 percent for the AM and PM peak hours, respectively. For the midday peak hour, it was assumed that 50 percent of the midday period staff person trips would occur during the midday peak hour resulting in an overall temporal distribution of approximately 17 percent for the midday peak hour.

Trip generation factors for the residential, medical office, retail, and publicly accessible open space components of the proposed projects were developed based on standard sources—including the *CEQR Technical Manual*, U.S. Census Data, and other approved EASs and EISs—as summarized in **Table 14-3**.

Table 14-3
Build Travel Demand Assumptions

Use	CCC (Staff)			CCC (Patients)			CCC (Visitors)			Public Open Space		
Daily Person Trip Rate	Weekday 3.0 (/employee)			Weekday 2.0 (/patient)			Weekday 2.0 (/visitor)			Weekday[3] 139.0 (/acre)		
Temporal Distribution	AM[4] 26.4%	MD[4] 17.0%	PM[4] 26.4%	AM[2] 8.5%	MD[2] 12.0%	PM[2] 11.1%	AM[2] 11.0%	MD[2] 14.5%	PM[2] 12.2%	AM[3] 3.0%	MD[3] 5.0%	PM[3] 6.0%
In / Out	95%/5%[1]	35%/65%[1]	15%/85%[1]	50%/50%[2]	54%/46%[2]	50%/50%[2]	56%/44%[2]	56%/44%[2]	44%/56%[2]	50%/50%[9]	50%/50%[9]	50%/50%[9]
Modal Split	AM[10]	MD[10]	PM[10]	AM[2]	MD[2]	PM[2]	AM[7]	MD[7]	PM[7]	AM[9]	MD[9]	PM[9]
Auto	17.0%	17.0%	17.0%	14.0%	14.0%	14.0%	25.0%	25.0%	25.0%	0.0%	0.0%	0.0%
Taxi	2.0%	2.0%	2.0%	19.0%	19.0%	19.0%	25.0%	25.0%	25.0%	0.0%	0.0%	0.0%
Subway	59.0%	59.0%	59.0%	18.0%	18.0%	18.0%	29.0%	29.0%	29.0%	0.0%	0.0%	0.0%
Bus	8.0%	8.0%	8.0%	4.0%	4.0%	4.0%	11.0%	11.0%	11.0%	0.0%	0.0%	0.0%
Walk	14.0%	14.0%	14.0%	11.0%	11.0%	11.0%	10.0%	10.0%	10.0%	100.0%	100.0%	100.0%
Ambulance	N/A	N/A	N/A	22.0%	22.0%	22.0%	N/A	N/A	N/A	N/A	N/A	N/A
Ambulette	N/A	N/A	N/A	12.0%	12.0%	12.0%	N/A	N/A	N/A	N/A	N/A	N/A
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Occupancy	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM[3]	MD[3]	PM[3]
Auto	1.18[10]	1.18[10]	1.18[10]	2.27[2]	2.27[2]	2.27[2]	1.65[7]	1.65[7]	1.65[7]	2.00	2.00	2.00
Taxi	1.40[7]	1.40[7]	1.40[7]	2.08[2]	2.08[2]	2.08[2]	1.20[7]	1.20[7]	1.20[7]	2.00	2.00	2.00
Ambulance	N/A	N/A	N/A	1.00	1.00	1.00	N/A	N/A	N/A	N/A	N/A	N/A
Ambulette	N/A	N/A	N/A	1.00	1.00	1.00	N/A	N/A	N/A	N/A	N/A	N/A
Daily Delivery Trip Rate	Weekday[1] 0.40 (/1,000 square feet)			Weekday N/A			Weekday N/A			Weekday N/A		
Delivery Temporal	AM[1] 10.0%	MD[1] 9.0%	PM[1] 5.0%	AM N/A	MD N/A	PM N/A	AM N/A	MD N/A	PM N/A	AM N/A	MD N/A	PM N/A
Delivery In / Out	50%/50%[1]	50%/50%[1]	50%/50%[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Use	Residential			Local Retail			Medical Office (Staff)			Medical Office (Visitors)		
Daily Person Trip Rate	Weekday[3] 8.075 (/dwelling unit)			Weekday[3,8] 153.75 (/1,000 square feet)			Weekday[7] 10.0 (/1,000 square feet)			Weekday[7] 33.6 (/1,000 square feet)		
Temporal Distribution	AM[3] 10.0%	MD[3] 5.0%	PM[3] 11.0%	AM[3] 3.0%	MD[3] 19.0%	PM[3] 10.0%	AM[7] 24.0%	MD[7] 17.0%	PM[7] 24.0%	AM[7] 6.0%	MD[7] 9.0%	PM[7] 5.0%
In / Out	15%/85%[7]	50%/50%[7]	70%/30%[7]	50%/50%[6]	50%/50%[6]	50%/50%[6]	100%/0%[7]	50%/50%[7]	0%/100%[7]	90%/10%[7]	50%/50%[7]	50%/50%[7]
Modal Split	AM[5]	MD[5]	PM[5]	AM[6]	MD[6]	PM[6]	AM[10]	MD[10]	PM[10]	AM[7]	MD[7]	PM[7]
Auto	6.0%	6.0%	6.0%	2.0%	2.0%	2.0%	17.0%	17.0%	17.0%	25.0%	25.0%	25.0%
Taxi	6.0%	6.0%	6.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	25.0%	25.0%	25.0%
Subway	57.0%	57.0%	57.0%	6.0%	6.0%	6.0%	59.0%	59.0%	59.0%	29.0%	29.0%	29.0%
Bus	3.0%	3.0%	3.0%	6.0%	6.0%	6.0%	8.0%	8.0%	8.0%	11.0%	11.0%	11.0%
Walk	28.0%	28.0%	28.0%	83.0%	83.0%	83.0%	14.0%	14.0%	14.0%	10.0%	10.0%	10.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Occupancy	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
Auto	1.18[5]	1.18[5]	1.18[5]	1.60[6]	1.60[6]	1.60[6]	1.18[10]	1.18[10]	1.18[10]	1.65[7]	1.65[7]	1.65[7]
Taxi	1.40[6]	1.40[6]	1.40[6]	1.20[6]	1.20[6]	1.20[6]	1.40[7]	1.40[7]	1.40[7]	1.20[7]	1.20[7]	1.20[7]
Daily Delivery Trip Rate	Weekday[3] 0.06 (/dwelling unit)			Weekday[3] 0.35 (/1,000 square feet)			Weekday[7] 0.40 (/1,000 square feet)			Weekday N/A		
Delivery Temporal	AM[3] 12.0%	MD[3] 9.0%	PM[3] 2.0%	AM[3] 8.0%	MD[3] 11.0%	PM[3] 2.0%	AM[7] 9.7%	MD[7] 7.8%	PM[7] 5.1%	AM N/A	MD N/A	PM N/A
Delivery In / Out	50%/50%[3]	50%/50%[3]	50%/50%[3]	50%/50%[3]	50%/50%[3]	50%/50%[3]	50%/50%[7]	50%/50%[7]	50%/50%[7]	N/A	N/A	N/A

Notes:
N/A = Not Applicable

Sources:
1. *Memorial Sloan Kettering Cancer Center FEIS: CEQR # 01DCP050M (2001)*
2. SVCMC Travel Demand Surveys (April 2009)
3. *CEQR Technical Manual* (2010)
4. AKRF Assumptions (based on conservative distribution of worker arrival/departure and discretionary trip-making patterns)
5. 2000 U.S. Census, Journey to Work
6. *West Chelsea Rezoning FEIS* (2005)
7. *506 East 76th Street Rezoning FEIS* (1999)
8. 25% trip linkage assumed per *CEQR Technical Manual*
9. AKRF Assumptions (anticipated to be all walk trips due to the size of the public open space)
10. 2000 U.S. Census, Reverse Journey to Work

These trip generation estimates focused on the peak hours when the maximum levels of activity would occur, thereby examining the reasonable worst-case scenario with respect to transportation conditions. These included the weekday morning, midday, and evening peak hours—the periods when future project-generated and background traffic would be at its highest along the major roadways and local streets in the study area. As discussed earlier, the proposed projects would redevelop the East Site with residential uses along with a small amount of retail and community facility (medical office) space and upgraded public open space on the Triangle Site, while contemporaneously NSLIJ would completely renovate the O'Toole Building's interior to create the new Center for Comprehensive Care. The transportation analyses will assess the difference in travel demand between the No Build and Build conditions.

TRIP GENERATION ESTIMATES

THE FUTURE WITHOUT THE PROPOSED PROJECTS

In the No Build condition, it is assumed that the East Site would remain vacant while the O'Toole Building would be fully re-tenanted with medical office use. As shown in **Table 14-4**, the project area in the future No Build condition would generate a total of 605, 652, and 559 person trips and 209, 236, and 175 vehicle trips, during the weekday AM, midday, and PM peak hours, respectively.

Table 14-4
Trip Generation Summary: No Build Condition

Peak Hour	AM			Midday			PM		
Person Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	118	7	125	73	73	146	17	96	113
Taxi	69	7	76	54	54	108	17	47	64
Subway	266	8	274	130	130	260	20	241	261
Bus	53	3	56	32	32	64	8	44	52
Walk	71	3	74	37	37	74	7	62	69
Total	**577**	**28**	**605**	**326**	**326**	**652**	**69**	**490**	**559**
Peak Hour	**AM**			**Midday**			**PM**		
Vehicle Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	85	4	89	49	49	98	10	71	81
Taxi	57	57	114	67	67	134	46	46	92
Delivery	3	3	6	2	2	4	1	1	2
Total	**145**	**64**	**209**	**118**	**118**	**236**	**57**	**118**	**175**

THE FUTURE WITH THE PROPOSED PROJECTS

In the Build condition, the East Site would be redeveloped for residential use with retail and community facility uses on the lower levels along Seventh Avenue and upgraded publicly accessible open space on the Triangle Site. Contemporaneously, NSLIJ would completely renovate the interior of the O'Toole Building to create the Center for Comprehensive Care. This prototype would contain a variety of health-related services, including a new free-standing emergency department, a new diagnostic and imaging department, and physician's offices. As shown in **Table 14-5**, the proposed East Site project and the Center for Comprehensive Care would generate a total of 896, 979, and 1,076 person trips and 215, 221, and 225 vehicle trips, during the weekday AM, midday, and PM peak hours, respectively.

COMPARISON OF THE FUTURE WITH AND WITHOUT THE PROPOSED PROJECTS

As shown in **Table 14-6**, the proposed projects would result in net increments of 291, 327, and 517 person trips and 6, -15, and 50 vehicle trips during the weekday AM, midday, and PM peak hours, respectively.

Table 14-5
Trip Generation Summary: Build Condition

Peak Hour	AM			Midday			PM		
Person Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	75	37	112	52	54	106	44	76	120
Taxi	38	38	76	46	42	88	44	44	88
Subway	221	202	423	143	161	304	208	247	455
Bus	37	19	56	31	33	64	23	38	61
Walk	86	117	203	188	192	380	165	153	318
Ambulance	8	8	16	13	11	24	11	11	22
Ambulette	5	5	10	7	6	13	6	6	12
Total	**470**	**426**	**896**	**480**	**499**	**979**	**501**	**575**	**1,076**
Peak Hour	**AM**			**Midday**			**PM**		
Vehicle Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	58	27	85	36	39	75	31	56	87
Taxi	45	45	90	48	48	96	47	47	94
Delivery	5	5	10	4	4	8	2	2	4
Ambulance	8	8	16	13	11	24	11	11	22
Ambulette	7	7	14	9	9	18	9	9	18
Total	**123**	**92**	**215**	**110**	**111**	**221**	**100**	**125**	**225**

Table 14-6
Trip Generation Summary: Net East Site Project and Center for Comprehensive Care Increments

Peak Hour	AM			Midday			PM		
Person Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	-43	30	-13	-21	-19	-40	27	-20	7
Taxi	-31	31	0	-8	-12	-20	27	-3	24
Subway	-45	194	149	13	31	44	188	6	194
Bus	-16	16	0	-1	1	0	15	-6	9
Walk	15	114	129	151	155	306	158	91	249
Ambulance	8	8	16	13	11	24	11	11	22
Ambulette	5	5	10	7	6	13	6	6	12
Total	**-107**	**398**	**291**	**154**	**173**	**327**	**432**	**85**	**517**
Peak Hour	**AM**			**Midday**			**PM**		
Vehicle Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	-27	23	-4	-13	-10	-23	21	-15	6
Taxi	-12	-12	-24	-19	-19	-38	1	1	2
Delivery	2	2	4	2	2	4	1	1	2
Ambulance	8	8	16	13	11	24	11	11	22
Ambulette	7	7	14	9	9	18	9	9	18
Total	**-22**	**28**	**6**	**-8**	**-7**	**-15**	**43**	**7**	**50**

LEVEL 1 SCREENING

TRAFFIC

The net incremental peak hour vehicle trips between the No Build and Build conditions would not result in 50 or more vehicle-trips during the AM and midday peak hours. Since the net

incremental vehicle trips would be 50 during the PM peak hour, a Level 2 screening assessment was conducted to determine if there is a need for additional quantified traffic analyses.

TRANSIT

As shown in **Table 14-6**, compared to the No Build condition, the proposed East Site project and Center for Comprehensive Care would result in net increments of 149, 44, and 194 person trips by subway and 0, 0, and 9 person trips by bus during the weekday AM, midday, and PM peak hours, respectively.

Since the incremental subway and bus trips are below the CEQR threshold of 200 peak hour transit trips, quantitative subway and bus analyses are not warranted and the proposed projects are not expected to result in any significant adverse transit impacts.

In addition, to accommodate vehicle pick-ups/drop-offs and pedestrian access to the emergency department entrance of the Center for Comprehensive Care on Seventh Avenue between West 12th and West 13th Streets, it is proposed that the bus stop currently located at the corner of Seventh Avenue and West 12th Street be relocated one block south adjacent to the Triangle Site. In a letter dated August 15, 2011 (see **Appendix B**), the Metropolitan Transportation Authority (MTA)-New York City Transit (NYCT) indicated that it found the proposed relocation feasible and indicated that further coordination will be required with the New York City Department of Transportation (NYCDOT), which has jurisdiction over sidewalks and roads.

PEDESTRIANS

Other than the person trips by autos that are made directly to/from on-site parking and drop-offs and pick-ups made by ambulances, all person trips generated by the proposed projects would traverse the pedestrian elements surrounding the project area. As summarized in **Table 14-6**, since the peak hour project-generated incremental trips would exceed the *CEQR* analysis threshold of 200 peak hour pedestrian trips, a Level 2 screening assessment was conducted to determine if there is a need for additional quantified pedestrian analyses.

E. LEVEL 2 SCREENING ASSESSMENT

TRAFFIC

On the O'Toole Building Site, a new ambulance bay and a new loading dock would be provided on the north side of West 12th Street (between Greenwich and Seventh Avenues). On the East Site, access and egress to the proposed accessory parking garage would be provided on the south side of West 12th Street (between Seventh and Sixth Avenues). Sixth Avenue is one-way northbound, Seventh Avenue is one-way southbound, Greenwich Avenue is two-way northwest-southeast bound, West 13th Street is one-way westbound, West 12th Street is one-way eastbound, and West 11th Street is one-way westbound. Near the project area, Eighth Avenue, which is one-way northbound, and West 14th Street, which is two-way eastbound-westbound, are also key corridors providing access to the area. Vehicle trips to and from the project area were assigned to the area's street network. Auto trips were assigned to the proposed East Site accessory parking garage located on West 12th Street and to other public parking facilities in the area. Taxi and ambulette trips were assigned to various project block fronts and ambulance trips were assigned to the ambulance bay located on West 12th Street. Delivery trips were assigned to NYCDOT designated truck routes.

As shown in **Figures 14-1** through **14-3**, all intersections adjacent to and near the project area are expected to incur below 50 (maximum of 38) net incremental vehicle trips during the weekday AM, midday, and PM peak hours. Based on criteria described in the *CEQR Technical Manual*, a detailed traffic analysis with intersection capacity and delay results is not warranted and the proposed projects are not expected to result in any significant adverse traffic impacts.

PEDESTRIANS

The incremental pedestrian trips resulting from the proposed projects were assigned to surrounding pedestrian facilities, including area sidewalks, crosswalks, and corner reservoirs. With primary pedestrian access to the East Site and the O'Toole Building provided along Seventh Avenue, West 11th, West 12th, and West 13th Streets between Sixth and Greenwich Avenues, incremental pedestrian trips would be the most concentrated at these locations.

In addition to access locations, the pedestrian trip assignments considered different travel patterns by use and by mode of transportation. Since a large majority of the East Site project generated auto trips would use the on-site accessory parking garage, the associated person trips were assumed to not add pedestrian traffic to the area's pedestrian network. Trips made by taxis and ambulettes were assumed to utilize the sidewalks adjacent to the respective entrances. The assignment of the subway trips considered nearby station locations, the subway lines available, and transfer opportunities within the New York City subway system. Bus trips were similarly allocated to the nearby bus routes. The proposed relocation of the bus stop currently located at the corner of Seventh Avenue and West 12th Street to one block south adjacent to the Triangle Site has been accounted for in the bus trip assignments. Walk-only trips were distributed to the surrounding neighborhood. Finally, since project-generated ambulance trips would utilize a dedicated ambulance bay on West 12th Street between Greenwich and Seventh Avenues, the associated person trips would not add pedestrian traffic to the area's pedestrian network.

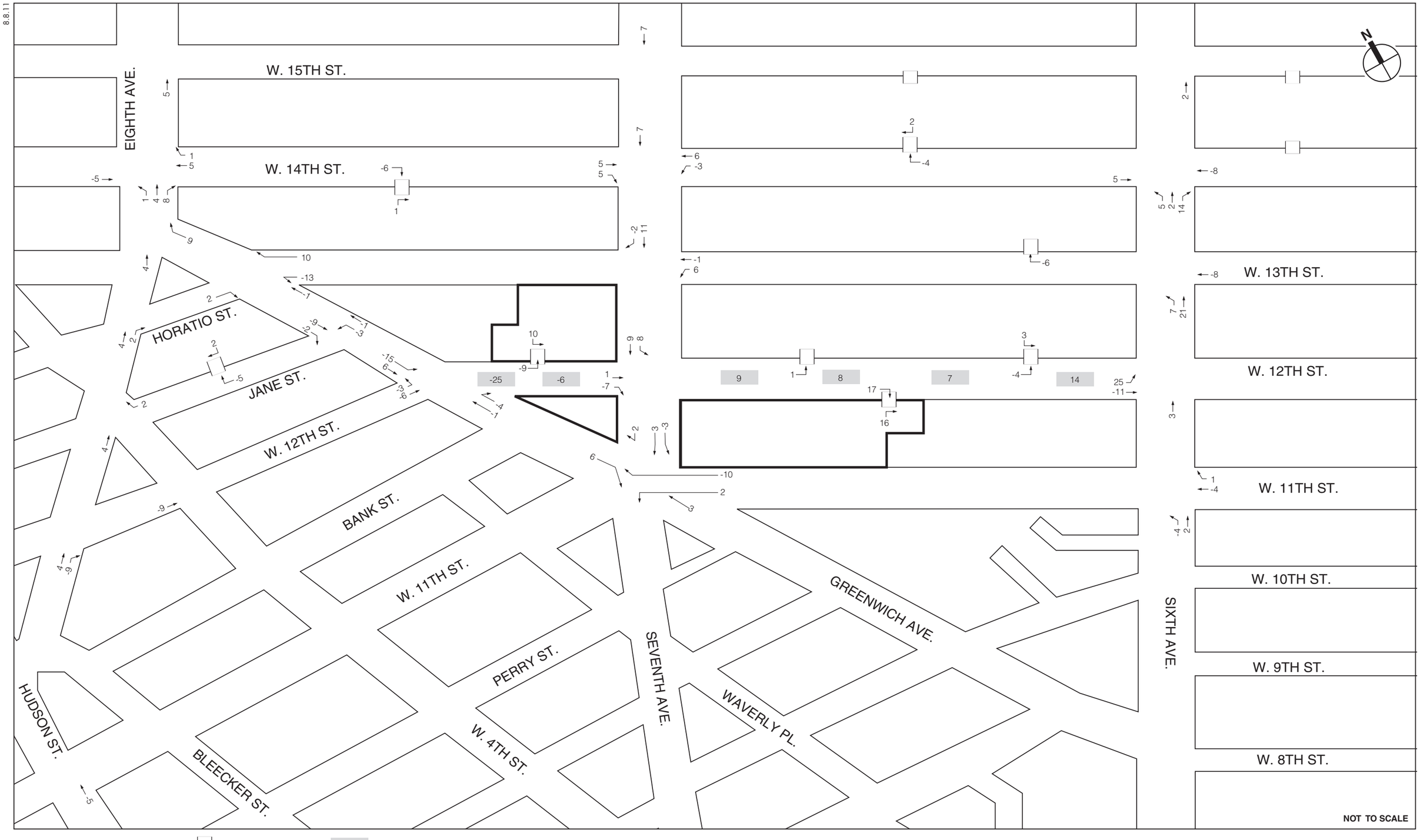
As shown in **Figures 14-4** through **14-6** and summarized in **Table 14-7**, the combined peak hour pedestrian volumes resulting from the proposed projects are expected to be highest on the east sidewalk of Seventh Avenue between West 11th and West 12th Streets, the south sidewalk of West 12th Street between Sixth and Seventh Avenues, and the southeast corner at the intersection of Seventh Avenue and West 12th Street.

Table 14-7
Analysis Locations Exceeding 200 Pedestrian Trips

Analysis Locations	AM	Midday	PM
East Sidewalk of Seventh Avenue between West 11th and West 12th Streets		✓ (+264)	✓ (+202)
South Sidewalk of West 12th Street between Sixth and Seventh Avenues			✓ (+215)
Intersection of Seventh Avenue and West 12th Street SE Corner	✓ (+229)	✓ (+272)	✓ (+296)

The two sidewalks and one corner reservoir—all locations immediately adjacent to the East Site at the Seventh Avenue and West 12th Street intersection where there are currently wide sidewalks and a corner extension, which the proposed development is anticipated to maintain—are expected to incur 200 or more peak hour pedestrian trips as a result of the proposed projects. A detailed pedestrian analysis of these locations is presented below.

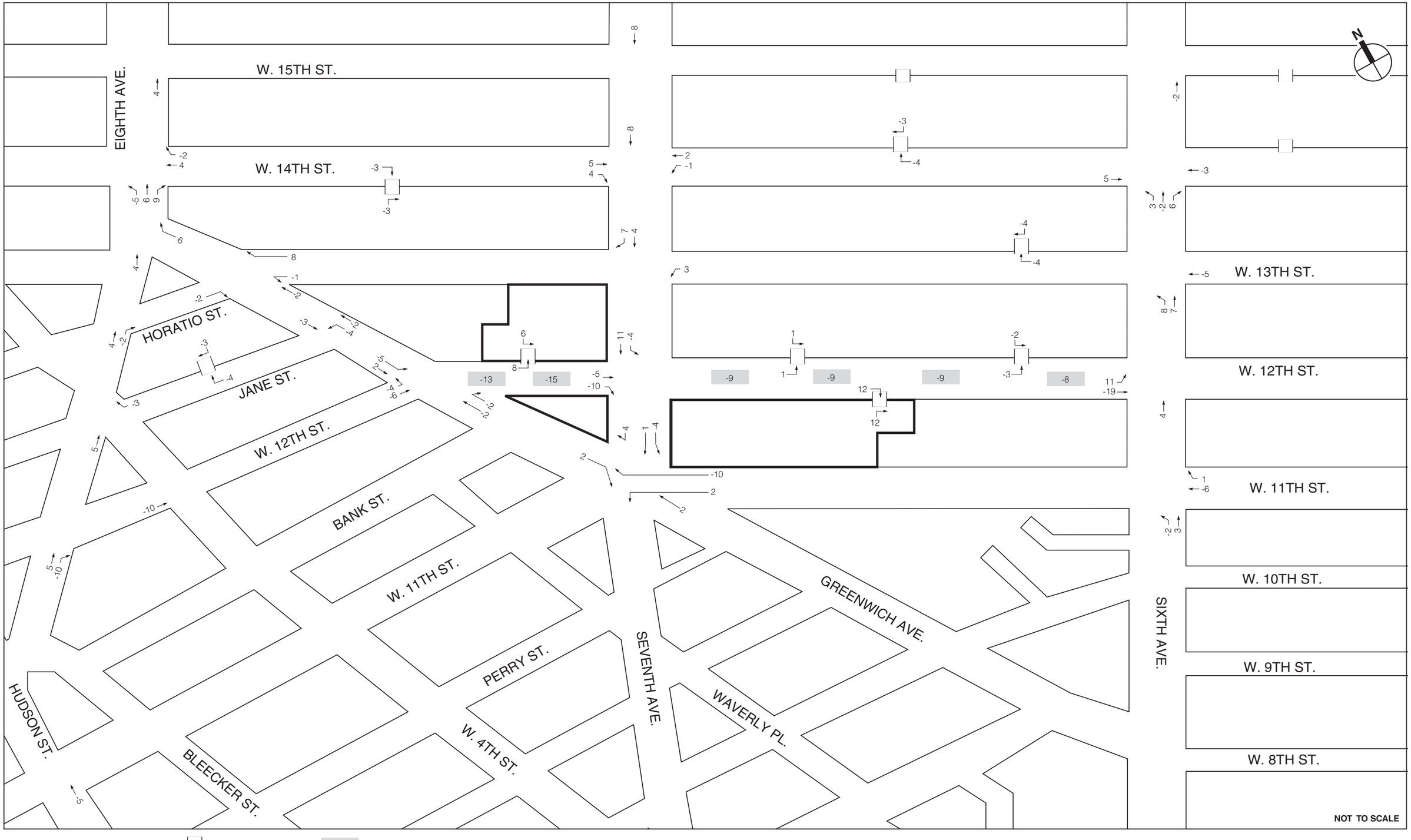
8.8.11



Project Area *Driveway* *Link Volume*

Figure 14-1
Incremental Vehicle Trips
Weekday AM Peak Hour

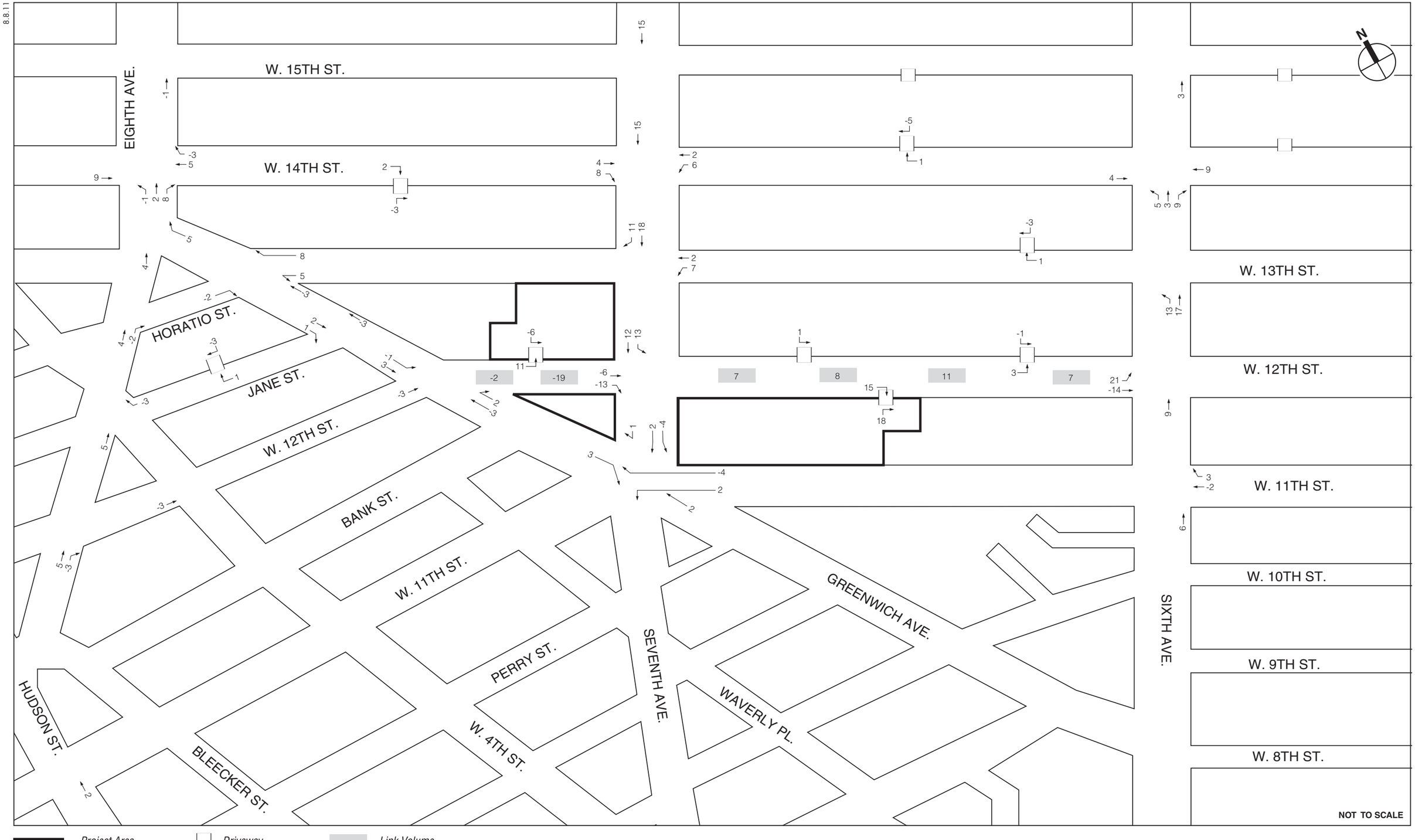
8.8.11



Project Area *Driveway* *Link Volume*

Figure 14-2
Incremental Vehicle Trips
Weekday Midday Peak Hour

8.8.11



Project Area *Driveway* *Link Volume*

Figure 14-3
Incremental Vehicle Trips
Weekday PM Peak Hour

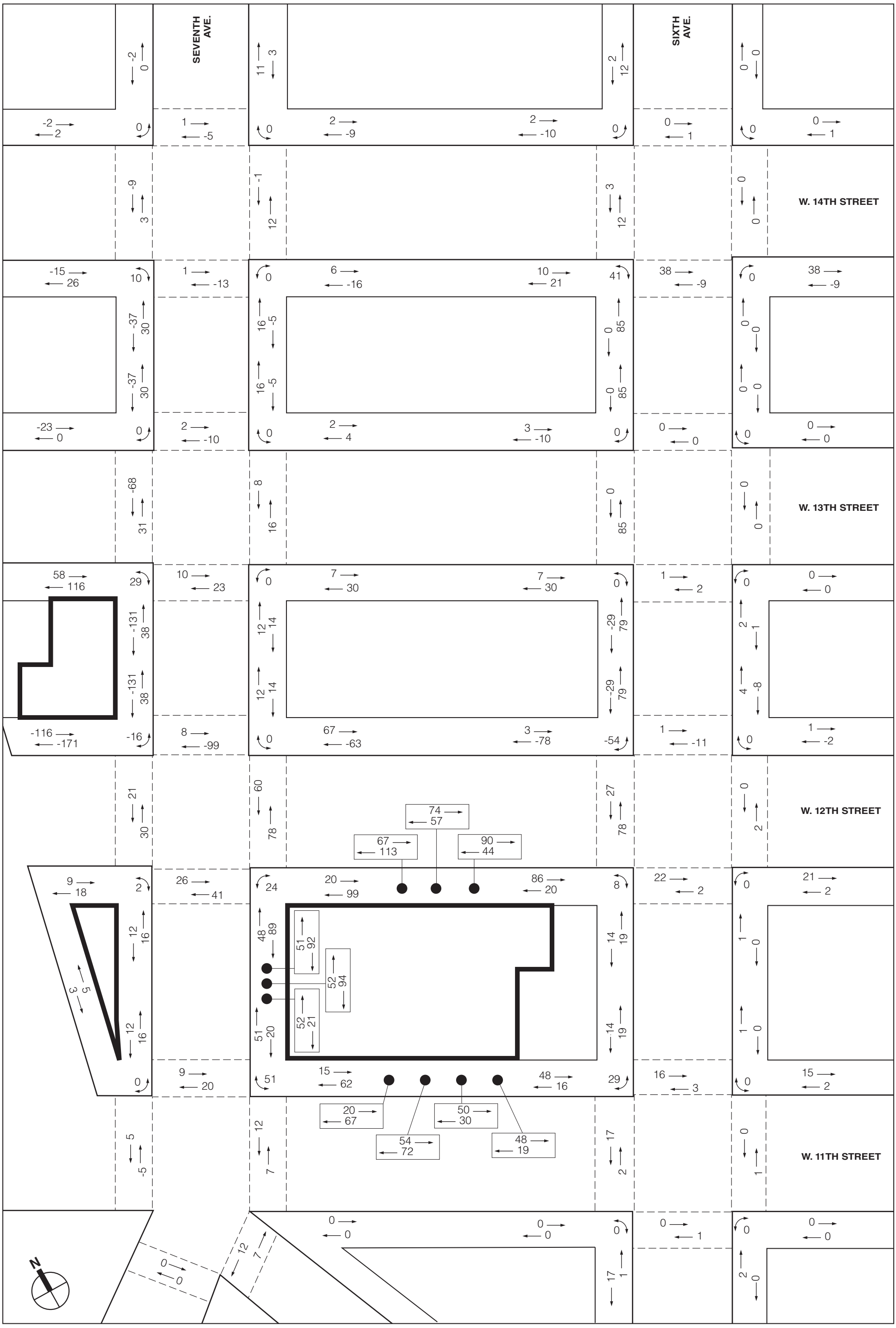


Figure 14-4
Incremental Pedestrian Trips
Weekday AM Peak Hour

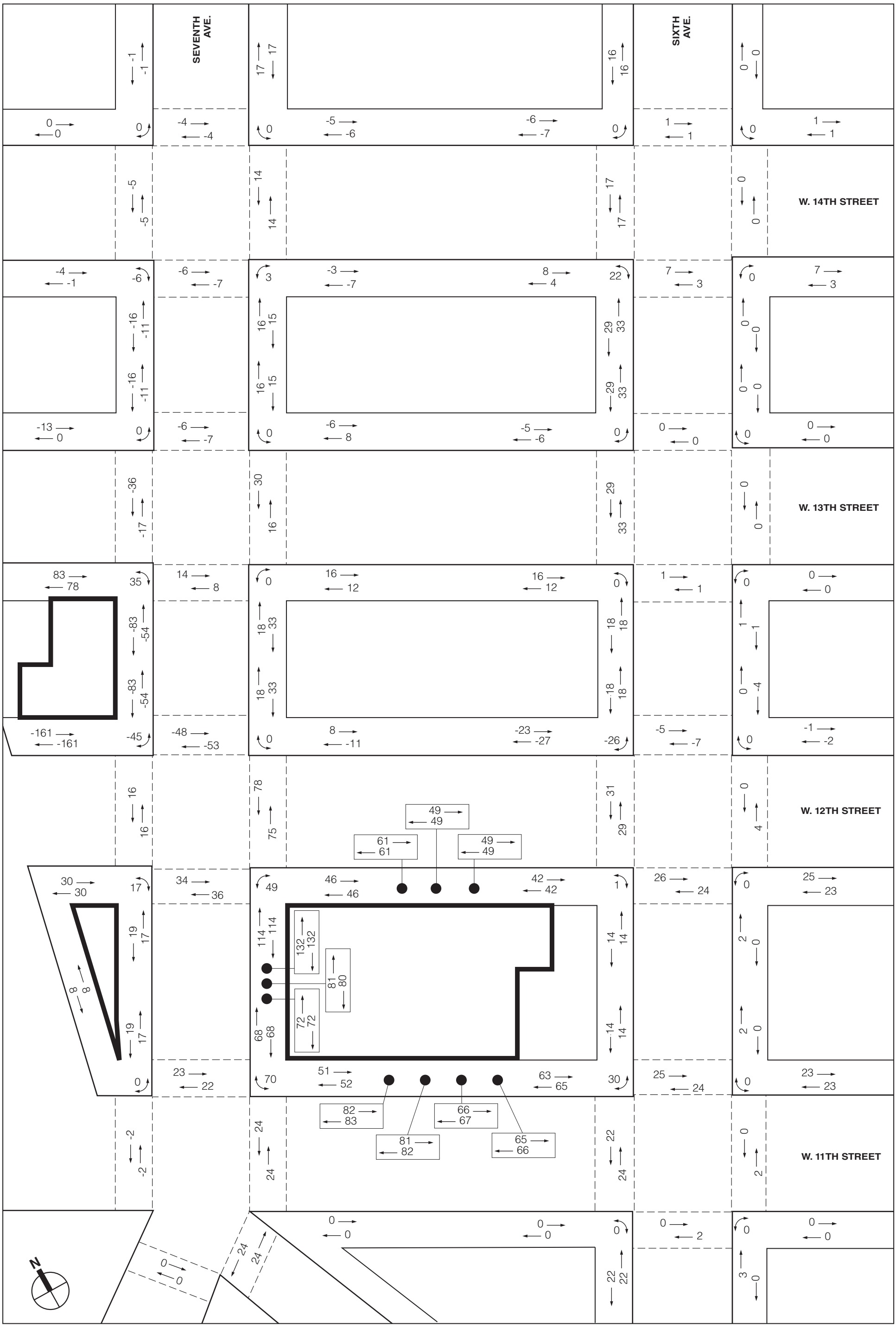


Figure 14-5
Incremental Pedestrian Trips
Weekday Midday Peak Hour

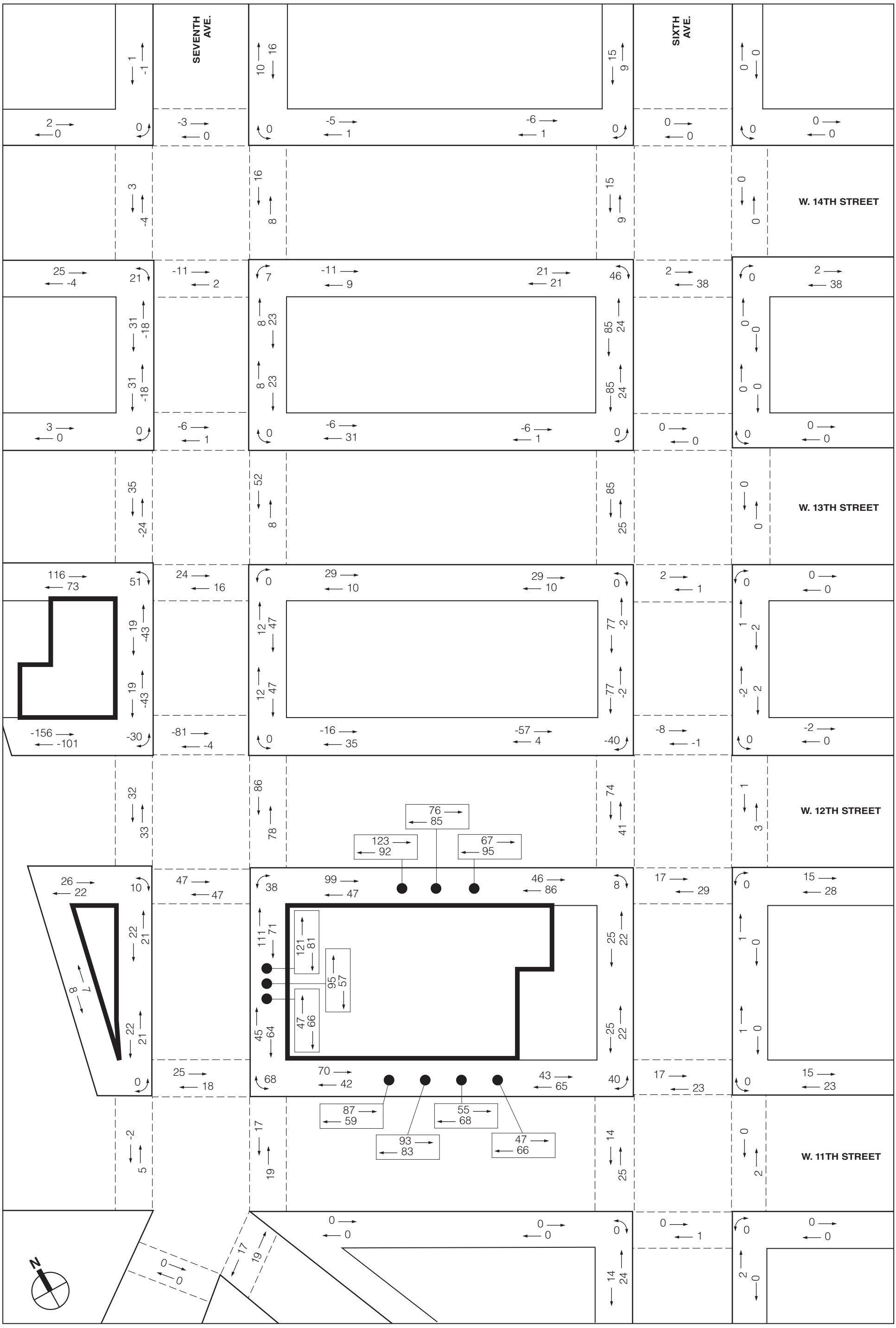


Figure 14-6
Incremental Pedestrian Trips
Weekday PM Peak Hour

ACCESS AND CIRCULATION

The Level 2 traffic screening assessment presented above confirmed that a detailed traffic analysis would not be warranted for the proposed projects However, in response to public comments made during scoping for the proposed projects, an assessment of the access and circulation associated with the proposed projects is presented below.

MIXED-USE DEVELOPMENT ON THE EAST SITE

The new development on the East Site would provide an individual pedestrian entry to each of the residential buildings, medical office and retail uses, and an accessory parking garage with approximately 152 spaces would be constructed below-grade with access and egress on West 12th Street. The accessory parking garage would primarily accommodate vehicles owned by future residents of the East Site buildings. As with most residents in New York City and particularly in Manhattan, travel by auto is a relatively small share (approximately 6 percent auto mode share based on 2000 U.S. Census, Journey to Work information) of the overall trip-making (see **Table 14-3**).

As shown in the Level 2 traffic screening figures (**Figures 14-1** through **14-3**), users of the proposed accessory parking garage could generate up to 33 vehicles in a peak hour, split between cars entering and leaving the parking garage. This maximum activity would occur during the 8-9 AM (with approximately 17 vehicles entering and 16 vehicles exiting) and 5-6 PM (with approximately 15 vehicles entering and 18 vehicles exiting) peak hours. This level of activity would represent approximately one vehicle entering/exiting the garage every two minutes and a modest increase in traffic levels on West 12th Street—less than 7 percent of existing traffic volumes—which are between 270 to 310 vph during the morning, midday, and evening peak hours. Absent the proposed accessory parking garage, it can be anticipated that some of these incremental trips would still be along West 12th Street, as users would seek parking at other nearby public parking facilities, some of which are located on this street.

As part of the proposed East Site project, standard pedestrian safety measures would also be implemented at the garage driveway to minimize vehicle-pedestrian conflicts. Such measures would include audio-visual warning systems that would be installed at the entrance/exit to the garage to alert passing vehicles and pedestrians of exiting vehicles.

With these safety measures in place, the accessory parking garage operations are not expected to adversely affect the pedestrian flow on the south sidewalk of West 12th Street and no significant adverse impacts are anticipated.

CENTER FOR COMPREHENSIVE CARE

Upon completion and occupancy of the new Center for Comprehensive Care at the O'Toole Building, the pedestrian entrances would be located on Seventh Avenue and on West 13th Street. The Seventh Avenue entrance would provide for pedestrian access to the emergency department, while patients coming to the imaging center, for ambulatory surgery, or for other physician services would use a new entrance on West 13th Street. New bays for ambulances would be located along West 12th Street.

In terms of traffic circulation, the new Center for Comprehensive Care in the O'Toole Building is not expected to result in significant changes to the travel patterns in the study area. Based on trip generation estimates for the Center for Comprehensive Care (described above), there would be approximately 16, 24, and 22 ambulance trips during the AM, midday, and PM peak hours, respectively. These ambulance trips would be accommodated by the new enclosed ambulance

bay located on the north side of West 12th Street (between Greenwich and Seventh Avenues) via head-in/head-out maneuvers, thereby minimizing potential vehicular-pedestrian conflicts.

Automobile pick-up and drop-offs would occur either on the west side of Seventh Avenue between West 12th and West 13th Streets in front of the emergency department pedestrian entrance or on the south side of West 13th Street just west of Seventh Avenue in front of the new imagining center/ambulatory care entrance. These access locations are segregated from the ambulance operations along West 12th Street. Therefore, no significant adverse impacts are expected.

LOADING DOCK OPERATIONS

On the Triangle Site, the loading docks at the Materials Handling Facility would be demolished to allow for the redesign and reconfiguration of the upgraded publicly accessible open space.

For the Center for Comprehensive Care, a new single enclosed loading dock would be provided on the north side of West 12th Street, just west of the new ambulance bay. Access to and from the loading docks would continue to be from West 12th Street. Based on trip generation estimates for the Center for Comprehensive Care (described above), there would be approximately 6, 6, and 4 delivery truck trips during the AM, midday, and PM peak hours, respectively, representing approximately one delivery every 10 minutes during the AM and midday peak hours and one delivery every 15 minutes during the PM peak hour. Delivery trucks are expected to be single unit trucks and not tractor trailers, and some of the deliveries would likely take place curbside and not have to enter/exit the proposed loading dock. For those trucks that need to access the proposed loading dock, the entering and exiting movements are expected to be of short durations and directed by on-site staff. Also, the proposed loading dock is expected to be able to fully accommodate these trucks without blocking the adjacent sidewalk. Hence, activities associated with the proposed loading dock would yield minimal interruptions to the use of the adjacent sidewalk and is not expected to adversely affect pedestrian flow on that sidewalk, operations at the adjacent ambulance bay, or on the general traffic circulation in the vicinity of the project area. It should be noted that the assumptions regarding the number of truck deliveries is highly conservative. Rather than NSLIJ vendors delivering directly to the Center for Comprehensive Care, a single delivery truck would deliver required materials from multiple vendors from a NSLIJ-owned warehouse. Accordingly, the number of expected deliveries would likely be substantially less than assumed in this analysis—or the order of one or two deliveries per day.

F. PEDESTRIAN ANALYSIS METHODOLOGY

The adequacy of the study area's sidewalks, crosswalks, and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2000 *Highway Capacity Manual* (HCM), pursuant to procedures detailed in the *CEQR Technical Manual*.

Sidewalks are analyzed in terms of pedestrian flow. The calculation of the average pedestrians per minute per foot (PMF) of effective walkway width is the basis for a sidewalk level-of-service (LOS) analysis. The determination of walkway 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 with 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.

Crosswalks and street corners 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 square feet per pedestrian (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 14-8**. The *CEQR Technical Manual* specifies acceptable LOS in Central Business District (CBD) areas is mid-LOS D or better.

Table 14-8
Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks
	Non-Platoon Flow	Platoon Flow	
A	≤ 5 PMF	≤ 0.5 PMF	> 60 SFP
B	> 5 and ≤ 7 PMF	> 0.5 and ≤ 3 PMF	> 40 and ≤ 60 SFP
C	> 7 and ≤ 10 PMF	> 3 and ≤ 6 PMF	> 24 and ≤ 40 SFP
D	> 10 and ≤ 15 PMF	> 6 and ≤ 11 PMF	> 15 and ≤ 24 SFP
E	> 15 and ≤ 23 PMF	> 11 and ≤ 18 PMF	> 8 and ≤ 15 SFP
F	> 23 PMF	> 18 PMF	≤ 8 SFP

Notes: PMF = pedestrians per minute per foot; SFP = square feet per pedestrian.
Source: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual* (May 2010).

SIGNIFICANT IMPACT CRITERIA

The determination of significant pedestrian impacts considers the level of predicted deterioration in pedestrian flow or decrease in pedestrian space between the No Build and 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 increase in average pedestrian flow rate (Y) in PMF needs to be greater or equal to 3.5 minus X divided by 8.0 (where X is the No Action pedestrian flow rate in PMF [$Y \geq 3.5 - X/8.0$]) for it to be a significant impact. For platoon flow, the sliding-scale formula is $Y \geq 3.0 - X/8.0$. Since deterioration in pedestrian flow within acceptable levels would not constitute a significant impact, these formulas would apply only if the Action pedestrian flow exceeds LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table 14-9** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant sidewalk impacts.

Table 14-9
Significant Impact Guidance for Sidewalks

Non-Platoon Flow				**Platoon Flow**			
Sliding Scale Formula: ***Y ≥ 3.5 – X/8.0***				**Sliding Scale Formula:** ***Y ≥ 3.0 – X/8.0***			
Non-CBD Areas		**CBD Areas**		**Non-CBD Areas**		**CBD Areas**	
No Action Ped. Flow (X, PMF)	**Action Ped. Flow Incr. (Y, PMF)**	**No Action Ped. Flow (X, PMF)**	**Action Ped. Flow Incr. (Y, PMF)**	**No Action Ped. Flow (X, PMF)**	**Action Ped. Flow Incr. (Y, PMF)**	**No Action Ped. Flow (X, PMF)**	**Action Ped. Flow Incr. (Y, PMF)**
7.4 to 7.8	≥ 2.6	–	–	3.4 to 3.8	≥ 2.6	–	–
7.9 to 8.6	≥ 2.5	–	–	3.9 to 4.6	≥ 2.5	–	–
8.7 to 9.4	≥ 2.4	–	–	4.7 to 5.4	≥ 2.4	–	–
9.5 to 10.2	≥ 2.3	–	–	5.5 to 6.2	≥ 2.3	–	–
10.3 to 11.0	≥ 2.2	10.3 to 11.0	≥ 2.2	6.3 to 7.0	≥ 2.2	6.3 to 7.0	≥ 2.2
11.1 to 11.8	≥ 2.1	11.1 to 11.8	≥ 2.1	7.1 to 7.8	≥ 2.1	7.1 to 7.8	≥ 2.1
11.9 to 12.6	≥ 2.0	11.9 to 12.6	≥ 2.0	7.9 to 8.6	≥ 2.0	7.9 to 8.6	≥ 2.0
12.7 to 13.4	≥ 1.9	12.7 to 13.4	≥ 1.9	8.7 to 9.4	≥ 1.9	8.7 to 9.4	≥ 1.9
13.5 to 14.2	≥ 1.8	13.5 to 14.2	≥ 1.8	9.5 to 10.2	≥ 1.8	9.5 to 10.2	≥ 1.8
14.3 to 15.0	≥ 1.7	14.3 to 15.0	≥ 1.7	10. to 11.0	≥ 1.7	10. to 11.0	≥ 1.7
15.1 to 15.8	≥ 1.6	15.1 to 15.8	≥ 1.6	11.1 to 11.8	≥ 1.6	11.1 to 11.8	≥ 1.6
15.9 to 16.6	≥ 1.5	15.9 to 16.6	≥ 1.5	11.9 to 12.6	≥ 1.5	11.9 to 12.6	≥ 1.5
16.7 to 17.4	≥ 1.4	16.7 to 17.4	≥ 1.4	12.7 to 13.4	≥ 1.4	12.7 to 13.4	≥ 1.4
17.5 to 18.2	≥ 1.3	17.5 to 18.2	≥ 1.3	13.5 to 14.2	≥ 1.3	13.5 to 14.2	≥ 1.3
18.3 to 19.0	≥ 1.2	18.3 to 19.0	≥ 1.2	14.3 to 15.0	≥ 1.2	14.3 to 15.0	≥ 1.2
19.1 to 19.8	≥ 1.1	19.1 to 19.8	≥ 1.1	15.1 to 15.8	≥ 1.1	15.1 to 15.8	≥ 1.1
19.9 to 20.6	≥ 1.0	19.9 to 20.6	≥ 1.0	15.9 to 16.6	≥ 1.0	15.9 to 16.6	≥ 1.0
20.7 to 21.4	≥ 0.9	20.7 to 21.4	≥ 0.9	16.7 to 17.4	≥ 0.9	16.7 to 17.4	≥ 0.9
21.5 to 22.2	≥ 0.8	21.5 to 22.2	≥ 0.8	17.5 to 18.2	≥ 0.8	17.5 to 18.2	≥ 0.8
22.3 to 23.0	≥ 0.7	22.3 to 23.0	≥ 0.7	18.3 to 19.0	≥ 0.7	18.3 to 19.0	≥ 0.7
> 23.0	≥ 0.6	> 23.0	≥ 0.6	> 19.0	≥ 0.6	> 19.0	≥ 0.6

Notes: PMF = pedestrians per minute per foot; Y = increase in average pedestrian flow rate in PMF; X = No Action pedestrian flow rate in PMF.

Sources: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual* (May 2010).

CORNER RESERVOIRS AND CROSSWALKS

The determination of significant corner and crosswalk impacts is also based on a sliding scale using the following formula: $Y \geq X/9.0 - 0.3$, 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 Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas.

Table 14-10 summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant corner reservoir and crosswalk impacts.

Table 14-10
Significant Impact Guidance for Corners and Crosswalks

Sliding Scale Formula: ***Y ≥ X/9.0 – 0.3***			
Non-CBD Areas		**CBD Areas**	
No Action Pedestrian Space (X, SFP)	**Action Pedestrian Space Reduction (Y, SFP)**	**No Action Pedestrian Space (X, SFP)**	**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 21.6	≥ 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* (May 2010).

G. PEDESTRIAN ANALYSIS

PEDESTRIAN STUDY AREA

Based on the Level 2 pedestrian trip assignments presented in Section E, "Level 2 Screening Assessment" (see **Figures 14-4** through **14-6**), two sidewalks and one corner reservoir—all locations immediately adjacent to the East Site—were identified to incur net incremental trips exceeding the CEQR analysis threshold of 200 peak hour pedestrian trips and therefore were included for analysis of potential pedestrian impacts. The pedestrian analysis locations are outlined below and depicted in **Figure 14-7**.

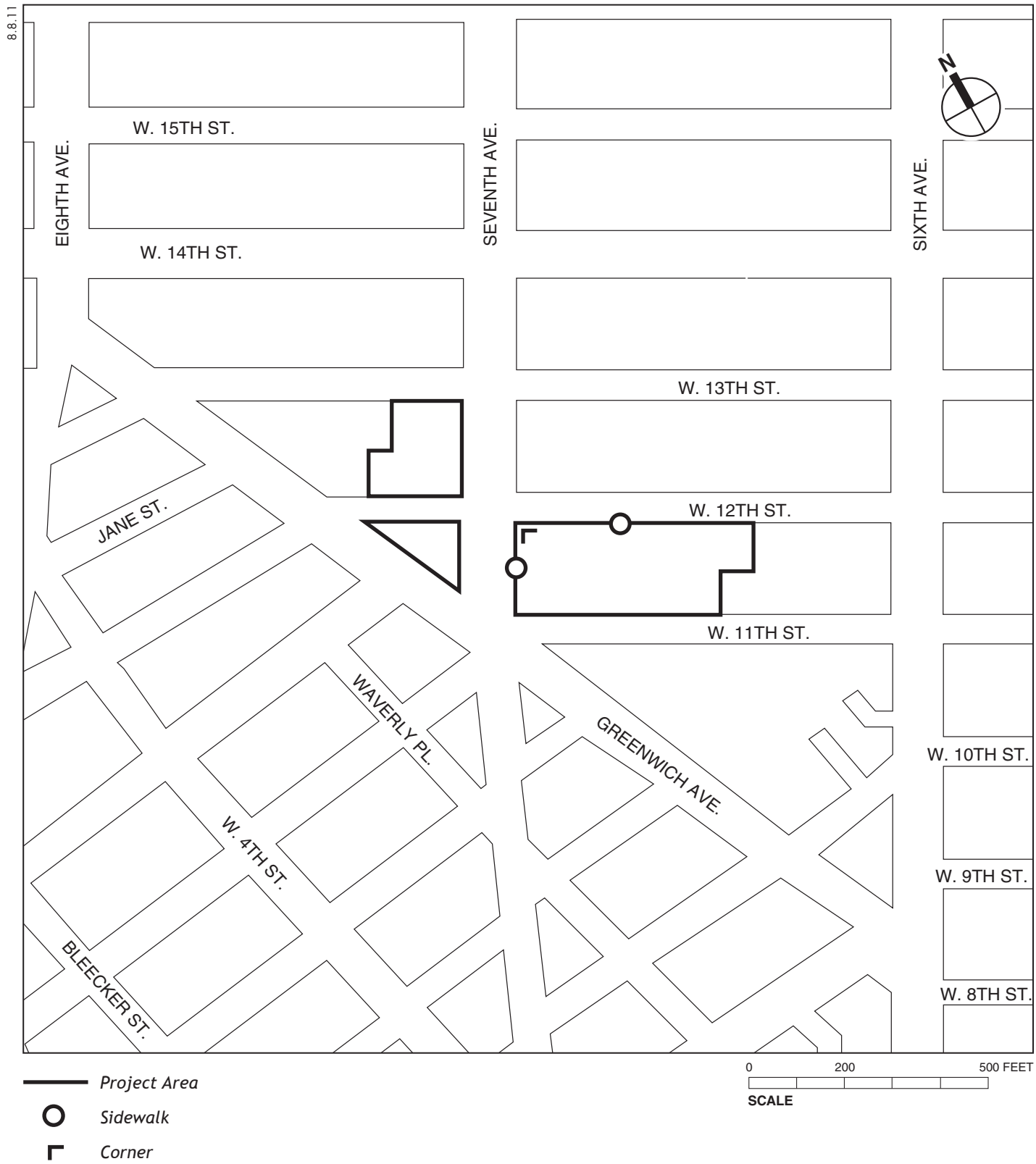


Figure 14-7
Pedestrian Analysis Locations

SIDEWALK LOCATIONS

- The east sidewalk of Seventh Avenue between West 11th and 12th Streets; and
- The south sidewalk of West 12th Street between Sixth and Seventh Avenues.

CORNER LOCATIONS

- The southeast corner of Seventh Avenue and West 12th Street.

BASELINE CONDITIONS

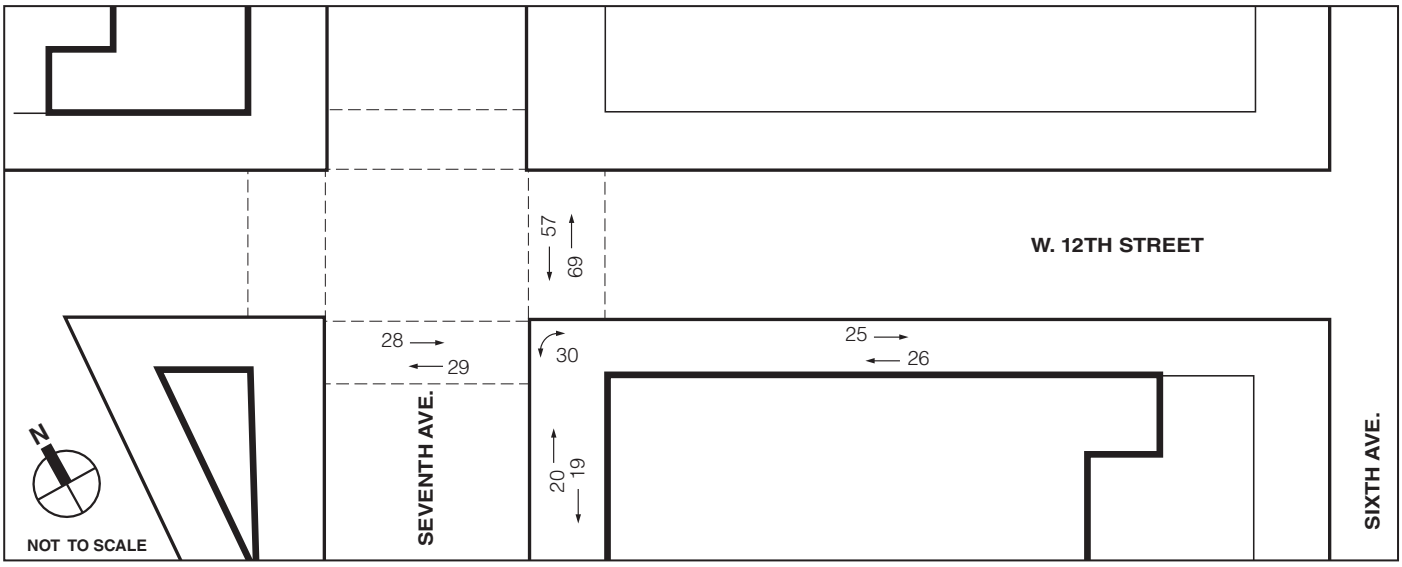
Baseline pedestrian volumes are based on field surveys conducted in November 2007 at key locations near the project area during the hours of 8:00 AM to 10:00 AM, 12:00 PM to 2:00 PM, and 4:00 PM to 6:00 PM. The pedestrian volumes were collected when the former hospital was still in operation. Since the closing of Saint Vincent's Hospital Manhattan, these volumes are likely to have decreased substantially. Therefore, these pedestrian volumes are expected to provide for a conservative baseline upon which potential pedestrian impacts are assessed. Validation counts will be conducted at these pedestrian analysis locations between the Draft EIS (DEIS) and the Final EIS (FEIS) to verify the appropriateness of these baseline pedestrian volumes for analysis. **Figure 14-8** shows the baseline peak 15-minute volumes at the analysis locations. As summarized in **Tables 14-11** and **14-12**, all sidewalk and corner reservoir analysis locations operate at LOS B or better.

Table 14-11
Baseline (2007) Conditions Sidewalk Analysis

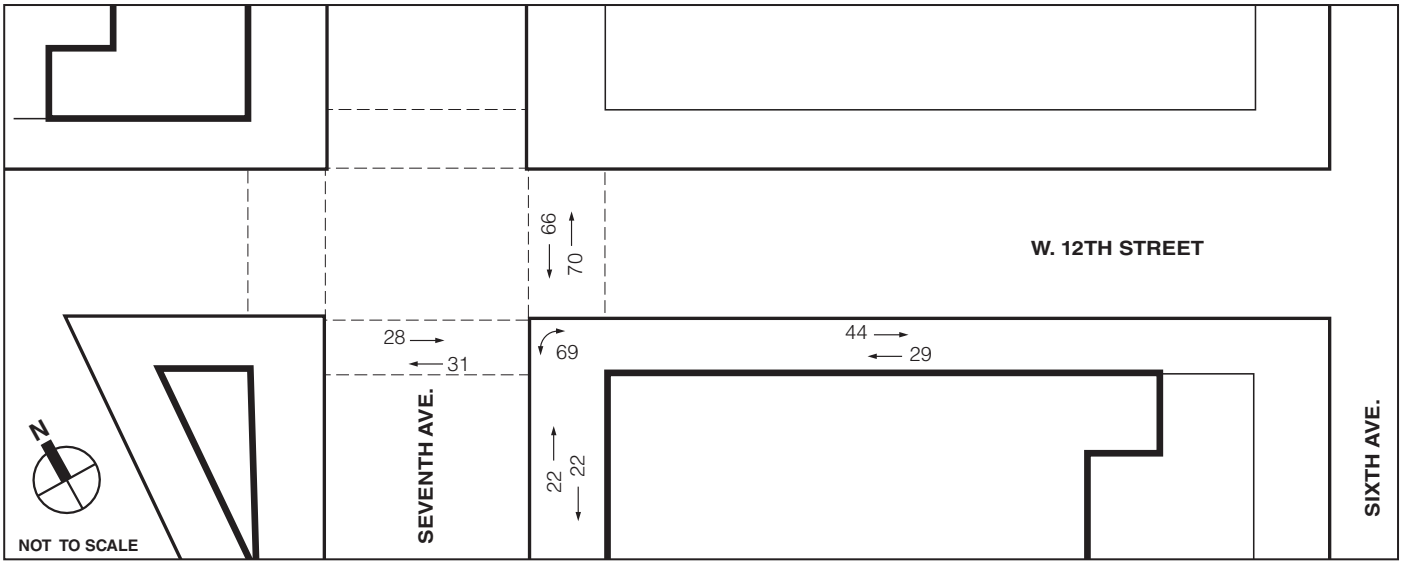
Location	Sidewalk	Effective Width (ft)	15 Minute Two-Way Volume	Platoon Flow	
				PMF	LOS
AM Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	51	0.43	A
Seventh Avenue between West 11th Street and West 12th Street	East	20	39	0.13	A
Midday Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	73	0.62	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	44	0.15	A
PM Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	69	0.59	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	53	0.18	A

Note: PMF = pedestrians per minute per foot

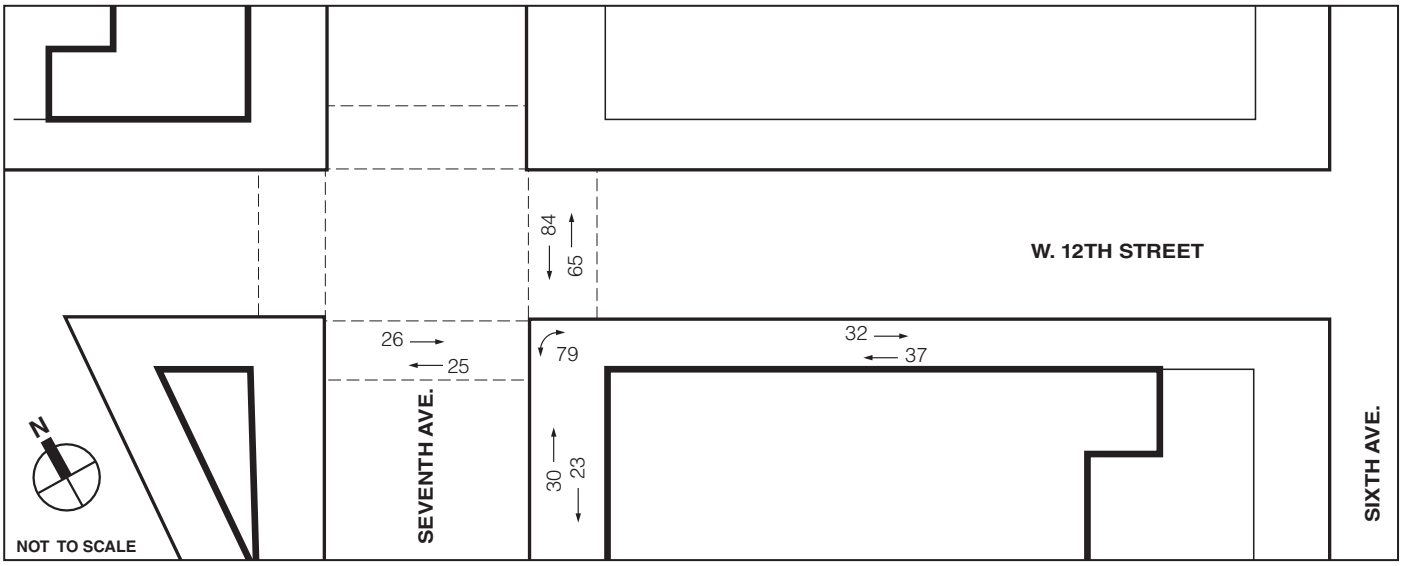
8.8.11



AM Peak Hour



Midday Peak Hour



PM Peak Hour

Project Area

Figure 14-8

Baseline (2007) Pedestrian Volumes
Weekday Peak 15 Minutes

Table 14-12
Baseline (2007) Conditions Corner Analysis

Location	Corner	AM Peak Period		Midday Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS	SFP	LOS
Seventh Avenue and West 12th Street	Southeast	257.9	A	207.9	A	197.3	A

Note: SFP = square feet per pedestrian

THE FUTURE WITHOUT THE PROPOSED PROJECTS (NO BUILD CONDITION)

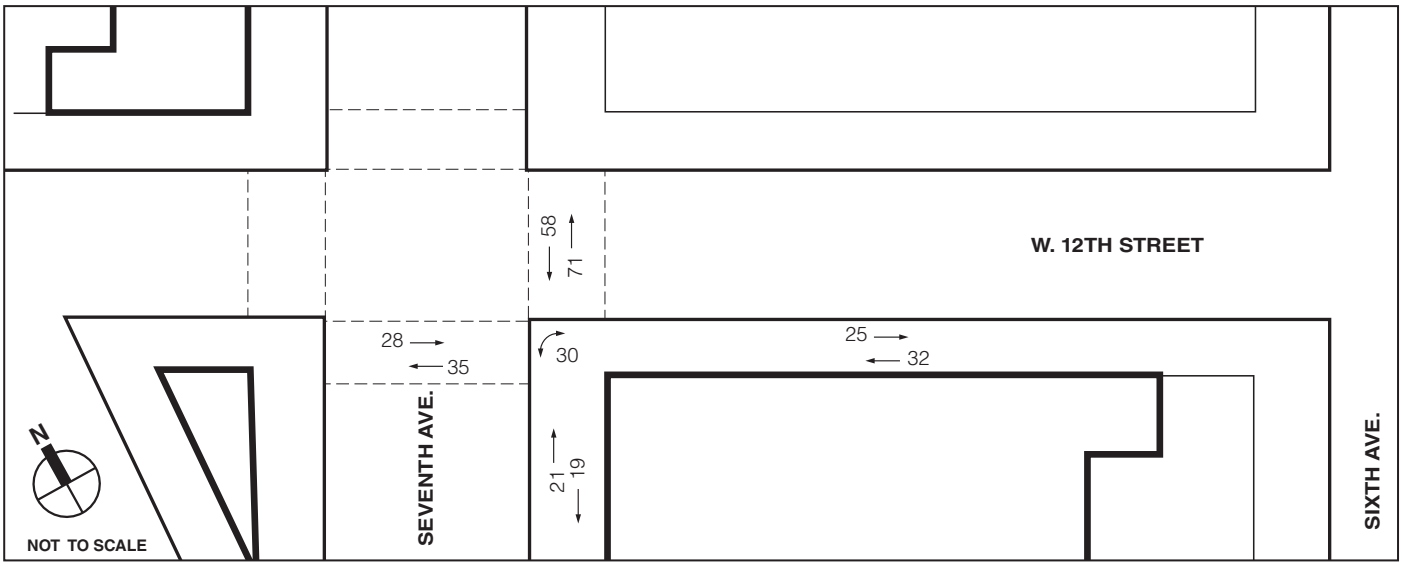
No Build pedestrian volumes were estimated by increasing baseline (2007) pedestrian levels to reflect expected growth in overall travel through and within the study area. As per CEQR guidelines, an annual background growth rate of 0.25 percent was assumed for the first five years (year 2007 to year 2012) and then 0.125 percent for the remaining years (year 2012 to year 2015). Pedestrian volumes from the medical office use in the O'Toole Building under the No Build condition were also added to arrive at the 2015 No Build pedestrian volumes. The total No Build peak 15-minute pedestrian volumes for the weekday AM, midday, and PM peak periods are presented in **Figure 14-9**. As summarized in **Tables 14-13** and **14-14**, all sidewalk and corner reservoir analysis locations would continue to operate at LOS B or better.

Table 14-13
2015 No Build Condition Sidewalk Analysis

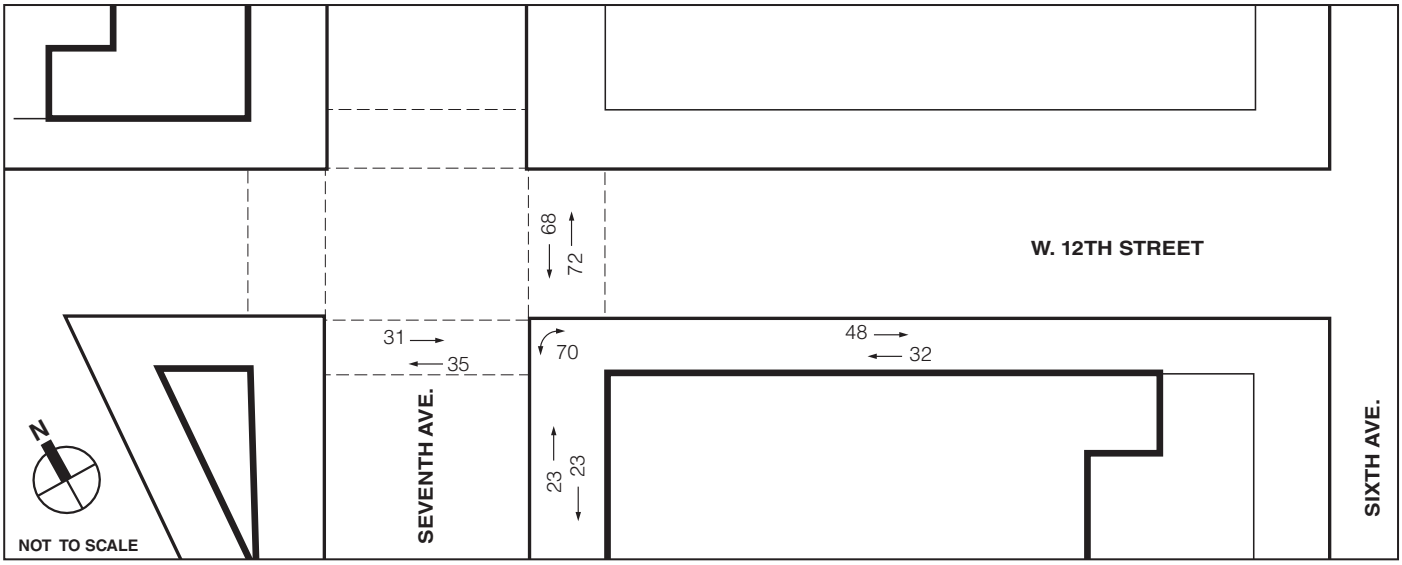
Location	Sidewalk	Effective Width (ft)	15 Minute Two-Way Volume	Platoon Flow	
				PMF	LOS
AM Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	57	0.49	A
Seventh Avenue between West 11th Street and West 12th Street	East	20	40	0.13	A
Midday Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	80	0.68	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	46	0.15	A
PM Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	77	0.66	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	54	0.18	A

Note: PMF = pedestrians per minute per foot

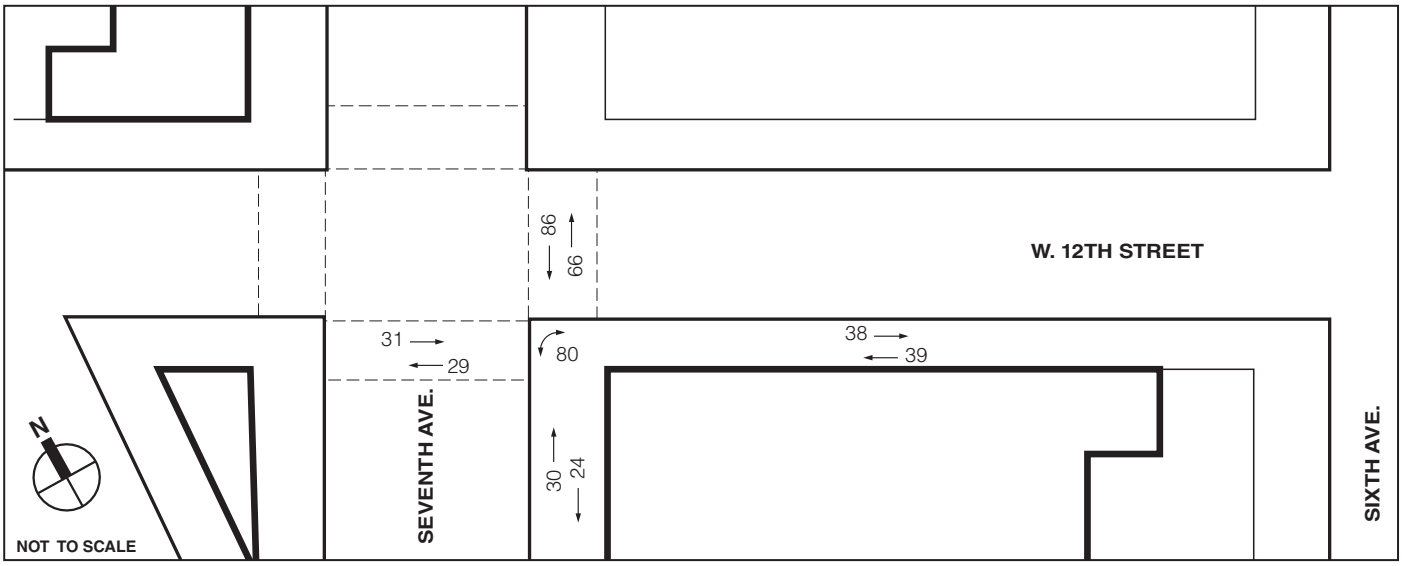
8.8.11



AM Peak Hour



Midday Peak Hour



PM Peak Hour

Project Area

Figure 14-9

No Build (2015) Pedestrian Volumes
Weekday Peak 15 Minutes

Table 14-14
2015 No Build Condition Corner Analysis

Location	Corner	AM Peak Period		Midday Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS	SFP	LOS
Seventh Avenue and West 12th Street	Southeast	246.9	A	198.5	A	188.3	A

Note: SFP = square feet per pedestrian

THE FUTURE WITH THE PROPOSED PROJECTS (BUILD CONDITION)

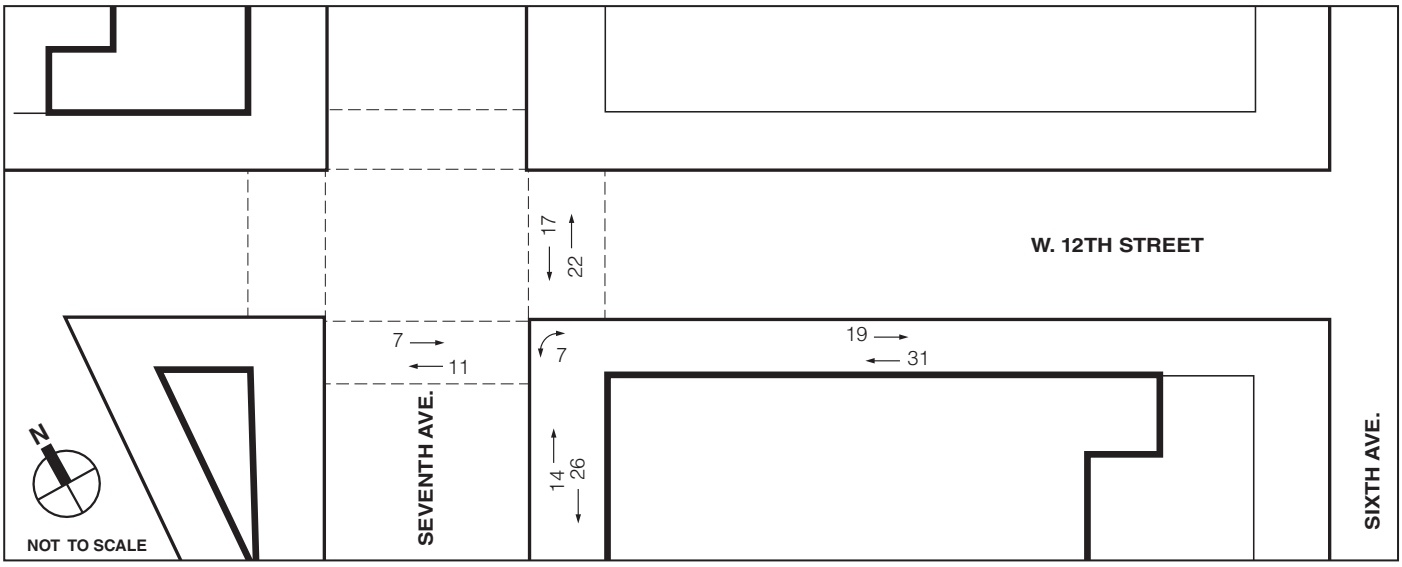
The pedestrian volumes generated by the proposed projects were distributed throughout the pedestrian networks based on the current land uses in the area, nearby parking locations, available transit routes and services, and pedestrian pathways available to/from the East Site, the O'Toole Building, and the Triangle Site. Based on the peak hour incremental pedestrian trips presented in Section E, "Level 2 Screening Assessment," and shown in **Figures 14-4** to **14-6**, peak 15-minute incremental pedestrian volumes for the three analysis locations were developed, as shown in **Figure 14-10**. These volumes were added to the projected 2015 No Build volumes to generate the 2015 Build volumes for analysis. The total 2015 Build peak 15-minute pedestrian volumes are presented in **Figure 14-11**. As presented in **Tables 14-15** to **14-16**, all sidewalks and corner reservoir analysis locations would continue to operate at LOS B or better. Therefore, the proposed projects would not result in any significant adverse pedestrian impacts.

Table 14-15
2015 Build Condition Sidewalk Analysis

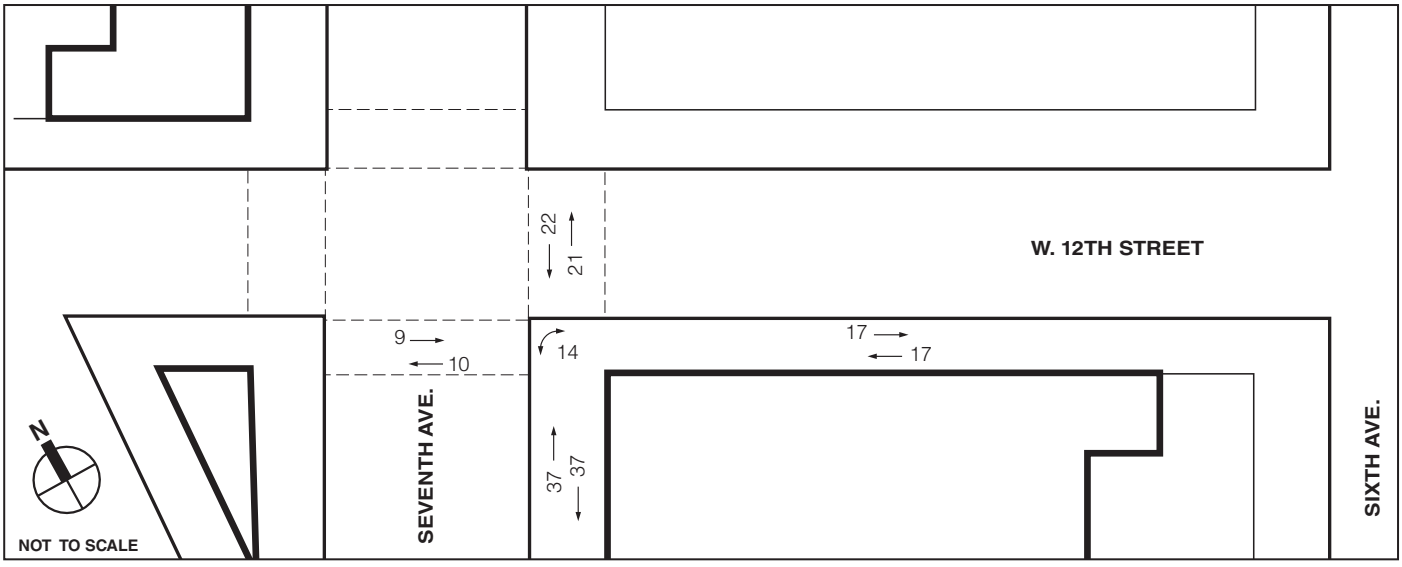
Location	Sidewalk	Effective Width (ft)	15 Minute Two-Way Volume	Platoon Flow	
				PMF	LOS
AM Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	107	0.91	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	80	0.27	A
Midday Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	114	0.97	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	120	0.40	A
PM Peak Period					
West 12th Street between Sixth Avenue and Seventh Avenue	South	7.8	137	1.17	B
Seventh Avenue between West 11th Street and West 12th Street	East	20	111	0.37	A

Note: PMF = pedestrians per minute per foot

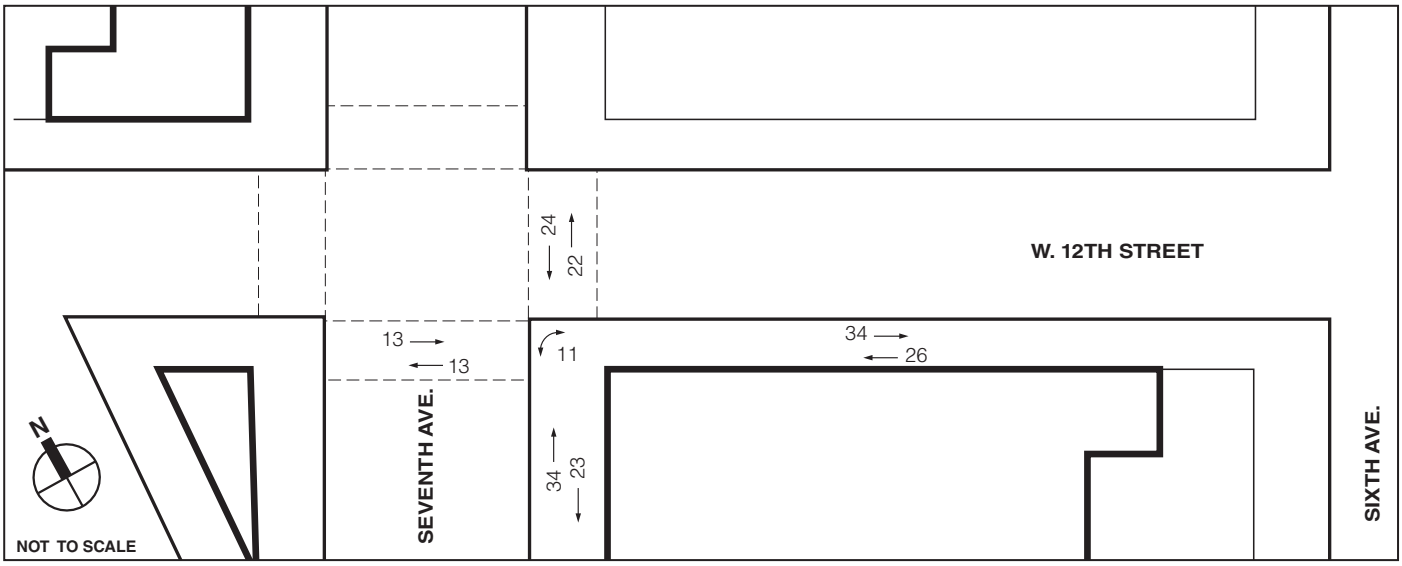
8.8.11



AM Peak Hour



Midday Peak Hour



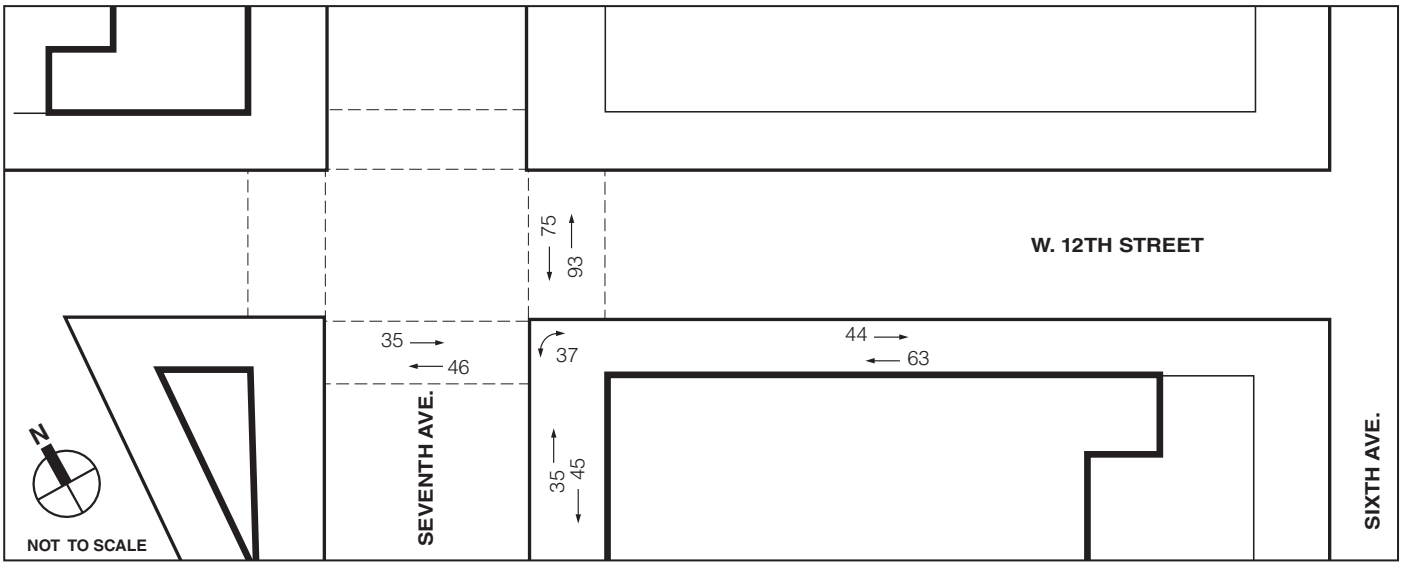
PM Peak Hour

Project Area

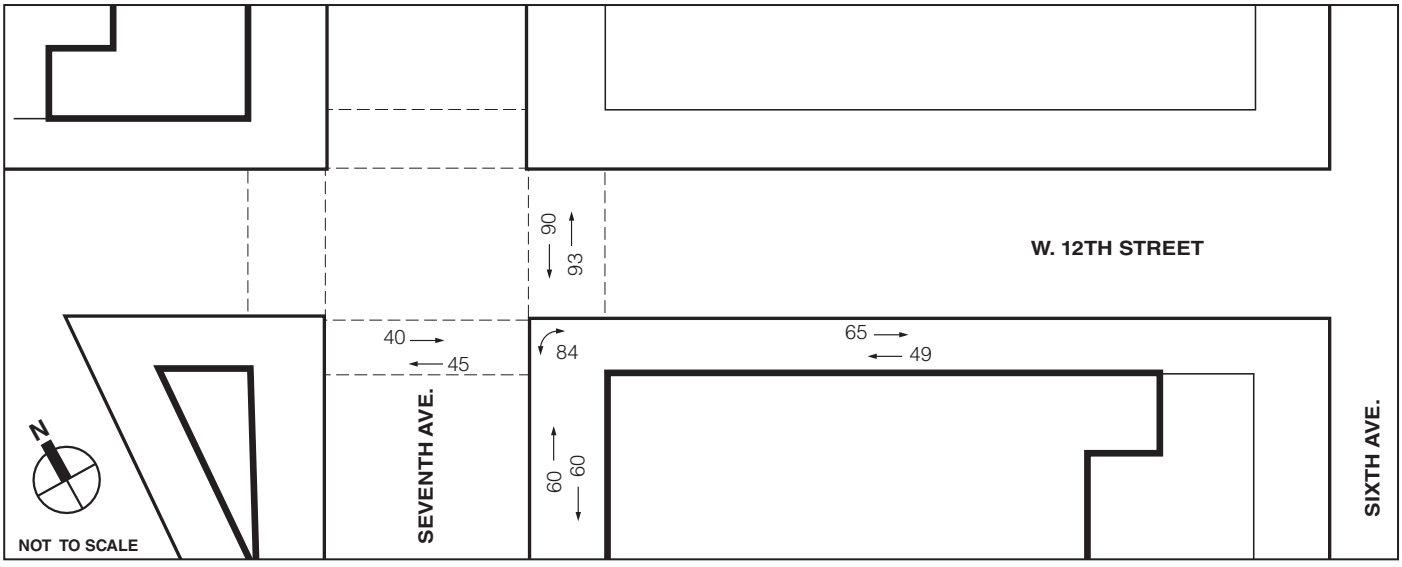
Figure 14-10

Incremental Pedestrian Volumes
Weekday Peak 15 Minutes

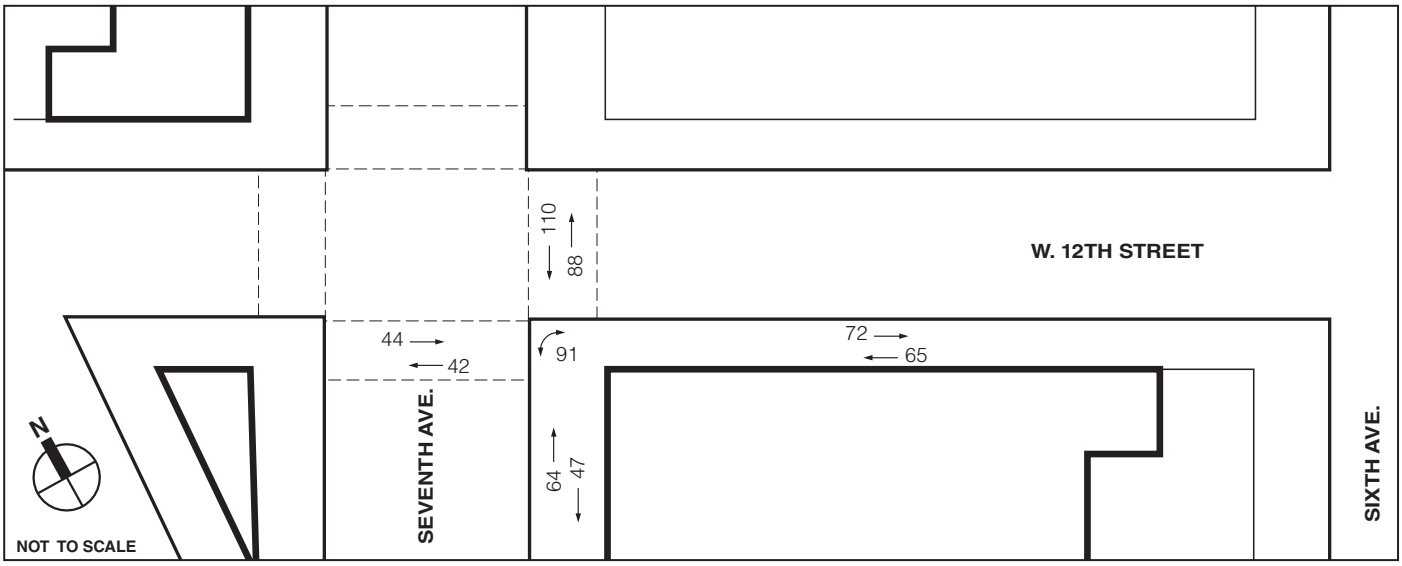
8.8.11



AM Peak Hour



Midday Peak Hour



PM Peak Hour

Project Area

Figure 14-11

Build (2015) Pedestrian Volumes
Weekday Peak 15 Minutes

Table 14-16
2015 Build Condition Corner Analysis

Location	Corner	AM Peak Period		Midday Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS	SFP	LOS
Seventh Avenue and West 12th Street	Southeast	189.8	A	154.3	A	145.1	A

Note: SFP = square feet per pedestrian

H. VEHICULAR AND PEDESTRIAN SAFETY

Accident data for the intersections near the project area were obtained from NYSDOT for the time period between December 31, 2007 and December 31, 2010. The data obtained quantify the total number of reportable accidents (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 pedestrian- and bicycle-related accidents at each location. According to the 2010 *CEQR Technical Manual*, a high pedestrian accident location is one where there were five or more pedestrian/bicyclist-related accidents or 48 or more reportable and non-reportable accidents in any consecutive 12 months of the most recent three-year period for which data are available.

During this period, a total of 209 reportable and non-reportable accidents, 1 fatality, 188 injuries, and 83 pedestrian/bicyclist-related accidents occurred at the study area intersections. A rolling 12-month total summary of the accident data identified five of these intersections as high pedestrian accident locations in the 2007 to 2010 period—Eighth Avenue and West 14th Street, Seventh Avenue and West 14th Street, Greenwich Avenue/West 11th Street and Seventh Avenue, Sixth Avenue and West 12th Street, and Sixth Avenue and West 14th Street. **Table 14-17** depicts the total accident characteristics by intersection during the study period, as well as a breakdown of pedestrian and bicycle accidents by year and location.

Table 14-17
Accident Summary

Intersection		Study Period						Accidents by Year							
North-South Roadway	East-West Roadway	All Accidents by Year				Total Fatalities	Total Injuries	Pedestrian				Bicycle			
		2007	2008	2009	2010			2007	2008	2009	2010	2007	2008	2009	2010
Sixth Avenue	West 11th Street	0	1	4	2	0	8	0	0	1	0	0	0	0	1
Sixth Avenue	**West 12th Street**	0	4	7	5	0	16	0	1	3	1	0	0	1	2
Sixth Avenue	West 13th Street	0	4	3	9	0	16	0	1	1	3	0	0	0	1
Sixth Avenue	**West 14th Street**	0	7	16	14	0	34	0	2	5	2	0	0	1	3
Seventh Avenue	West 12th Street	0	1	5	1	0	2	0	0	0	0	0	0	1	0
Seventh Avenue	Perry Street	0	0	2	2	0	3	0	0	1	0	0	0	0	0
Seventh Avenue	West 13th Street	0	5	6	3	0	11	0	1	2	0	0	0	1	1
Seventh Avenue	**West 14th Street**	0	10	12	11	0	35	0	3	6	4	0	0	1	3
Eighth Avenue	**West 14th Street**	0	9	12	7	1	26	0	3	4	1	0	1	2	3
Waverly Place	Bank Street	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Waverly Place	Perry Street	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waverly Place	West 11th Street	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greenwich Ave/West 11th St	**Seventh Avenue**	0	9	5	11	0	25	0	1	2	4	0	1	0	1
Greenwich Avenue	Bank Street	0	1	0	0	0	1	0	1	0	0	0	0	0	0
Greenwich Avenue	Jane Street	0	0	2	0	0	1	0	0	1	0	0	0	0	0
Greenwich Avenue	Perry Street	0	3	1	2	0	4	0	1	1	1	0	0	0	0
Greenwich Avenue	West 12th Street	0	1	1	1	0	2	0	0	0	0	0	0	0	0
Greenwich Avenue	West 13th Street	0	4	4	1	0	4	0	1	0	0	0	0	0	1

Source: NYSDOT December 31, 2007 through December 31, 2010 accident data.
Intersections identified as high accident locations are **bolded**.

A detailed description of each accident during the three year period at each of the five intersections identified as high pedestrian accident locations is presented in **Table 14-18**.

With the proposed projects, the intersection of Eighth Avenue and West 14th Street would experience modest increases in vehicular and pedestrian traffic. The intersection would experience net incremental peak-hour volume increases of approximately 20 or fewer vehicle trips during each of the three peak hours. As for pedestrian trips, the proposed projects would generate fewer than 60 net incremental pedestrian trips through this intersection during each of the three peak hours. The net incremental vehicular and pedestrian levels at this intersection would be below the CEQR analysis thresholds of 50 peak hour vehicular trips and 200 peak hour pedestrian trips, and therefore would not result in any significant adverse traffic and pedestrian impacts. With these small increases in vehicular and pedestrian activities, the proposed projects are also not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

Based on a review of the accident history at this intersection, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded accidents. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Eighth Avenue and West 14th Street is signalized and provides two school crosswalks and two standard crosswalks. In addition, School Advance Warning assemblies are posted on the east and west approaches. For northbound traffic, “Turning Vehicles Yield to Pedestrians” signage is in place. The detailed accident descriptions in **Table 14-18** show that two of the fourteen pedestrian-related accidents involved vehicles making left-turns.

Pedestrians crossing against the signal and pedestrian error or confusion were specifically listed as the contributing factors in six of the accidents. Of the remaining accidents, one involved driver inattention and five were listed with causes unknown. Measures to increase pedestrian safety at this intersection could include restriping the north and south crosswalks as high visibility or school crosswalks, and installing countdown timers on all crosswalks.

With the proposed projects, the intersection of Seventh Avenue and West 14th Street would experience modest increases in vehicular and pedestrian traffic. The intersection would experience net incremental peak-hour volume increases of approximately 40 or fewer vehicle trips during each of the three peak hours. As for pedestrian trips, the proposed projects would generate fewer than 20 net incremental pedestrian trips through this intersection during each of the three peak hours. The net incremental vehicular and pedestrian levels at this intersection would be below the CEQR analysis thresholds of 50 peak hour vehicular trips and 200 peak hour pedestrian trips, and therefore would not result in any significant adverse traffic and pedestrian impacts. With these small increases in vehicular and pedestrian activities, the proposed projects are also not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

Based on a review of the accident history at this intersection, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded accidents. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Seventh Avenue and West 14th Street is signalized with four regular crosswalks. "Turning Vehicles Yield to Pedestrians" signs are posted on the westbound and northbound approaches. Measures to improve pedestrian safety at this intersection could include restriping all crosswalks as high visibility crosswalks as well as the installation of countdown timers on all crosswalks.

With the proposed projects, the intersection of Greenwich Avenue/West 11th Street and Seventh Avenue would experience modest increases in vehicular and pedestrian traffic. The intersection would experience net incremental peak-hour volume increases of fewer than 10 vehicle trips during each of the three peak hours. As for the pedestrian trips, the proposed projects would generate fewer than 90 net incremental pedestrian trips through this intersection during each of the three peak hours. The net incremental vehicular and pedestrian levels at this intersection would be below the CEQR analysis thresholds of 50 peak hour vehicular trips and 200 peak hour pedestrian trips, and therefore would not result in any significant adverse traffic and pedestrian impacts. With these small increases in vehicular and pedestrian activities, the proposed projects are also not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

Based on a review of the accident history at this intersection, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded accidents. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Greenwich Avenue/West 11th Street and Seventh Avenue is signalized and provides six school crosswalks. In addition, a School Advance Assembly warning is posted at each approach. Measures to improve pedestrian safety at this intersection could include the installation of countdown timers on all crosswalks.

Table 14-18
Vehicle and Pedestrian Accident Details

Intersection	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident			
				Injured	Killed			Left / Right Turns	Pedestrian Error/ Confusion	Driver In-attention	Other
Eighth Avenue @ West 14th Street	2008	8/23	12:00 AM	X		Going straight – West	Crossing with signal		X		
		10/30	2:30 PM	X		Going straight – East	Other actions in roadway		X		
		11/22	3:30 AM	X		Going straight – East	Other actions in roadway		X		
		11/30	10:21 PM	X		Going straight – North	Crossing against signal			X	
	2009	1/17	11:20 AM	X		Making left turn – Southeast	Crossing with signal	X			Turning Improper
		4/13	10:50 PM	X		Making left turn – North	Crossing with signal	X		X	
		5/15	5:35 PM		X	Going straight – East	Crossing		X	X	
		7/17	10:23 PM	X		Entering parked position	Other actions in roadway			X	
		9/14	11:22 PM	X		Going straight – East	Unknown				
		10/20	5:20 PM	X		Stopped in traffic – West	Other actions in roadway				
	2010	2/22	3:32 AM	X		Unknown	Crossing against signal		X		
		7/23	11:35 AM	X		Unknown	Unknown				
		9/18	4:00 PM	X		Unknown	Unknown				
		11/24	12:09 PM	X		Unknown	Along highway with traffic				
Seventh Avenue @ West 14th Street	2008	2/13	1:30 AM	X		Going straight – South	Other actions in roadway		X		Pavement slippery
		7/22	4:24 PM	X		Going straight – South	Crossing		X		
		11/7	1:35 AM	X		Making left turn – South	Crossing with signal	X			Wet surface
	2009	5/30	10:30 PM	X		Making right turn – Southwest	Crossing with signal	X			Failure to yield R.O.W.
		6/21	11:30 PM	X		Making right turn – Unknown	Unknown	X		X	
		7/31	6:30 PM	X		Going straight – East	Crossing against signal		X		
		8/16	12:49 AM	X		Going straight – South	Crossing against signal				Alcohol Involvement
		9/11	4:45 AM	X		Going straight – East	Crossing against signal				Failure to yield R.O.W., Unsafe speed

Table 14-18 (cont'd)
Vehicle and Pedestrian Accident Details

Intersection	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident			
				Injured	Killed			Left / Right Turns	Pedestrian Error/ Confusion	Driver Inattention	Other
Seventh Avenue @ West 14th Street	2009	9/20	1:00 PM	X		Going straight – South	Crossing against signal				
		12/1	12:40 PM	X		Going straight – East	Crossing against signal				
	2010	1/23	12:55 AM	X		Unknown	Along highway with traffic				
		2/11	3:30 PM	X		Unknown	Unknown				Wet surface
		2/23	10:30 PM	X		Unknown	Crossing with signal				View obstructed/ Limited
		4/2	2:20 PM	X		Unknown	Crossing with signal				
		5/20	1:45 AM	X		Unknown	Unknown				
		6/14	7:06 PM	X		Unknown	Crossing against signal				
		9/13	9:00 AM	X		Unknown	Emerge from behind parked vehicle				
Greenwich Avenue/West 11th Street @ Seventh Avenue	2008	1/26	11:30 PM	X		Going straight – Northwest	Crossing against signal		X		
		5/15	12:00 PM	X		Making left turn – Southeast	Crossing	X	X		Passing or lane usage improperly
	2009	8/24	9:40 AM	X		Unknown	Unknown				
		9/21	1:55 PM	X		Making left turn – South	Other actions in roadway	X		X	
	2010	3/10	9:30 PM	X		Unknown	Crossing with signal				
		4/14	5:55 PM	X		Unknown	Crossing with signal				
		5/4	6:40 PM	X		Unknown	Crossing with signal				
		10/23	4:55 PM	X		Unknown	Crossing against signal		X		
		10/29	6:00 PM	X		Unknown	Crossing with signal				
Sixth Avenue @ West 12th Street	2008	4/18	2:50 PM	X		Backing – South	Other actions in roadway				Backing Unsafely
	2009	8/8	6:00 PM	X		Unknown	Crossing with signal				
		9/4	4:10 PM	X		Starting in traffic – North	Crossing against signal		X		
		11/25	9:20 AM	X		Going straight – East	Unknown				
		12/17	1:00 PM	X		Going straight – East	Emerge from behind parked vehicle			X	
	2010	1/14	9:35 PM	X		Making left turn – East	Crossing with signal	X			Failure to yield R.O.W.

Table 14-18 (cont'd)
Vehicle and Pedestrian Accident Details

Intersection	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident			
				Injured	Killed			Left / Right Turns	Pedestrian Error/ Confusion	Driver Inattention	Other
Sixth Avenue @ West 12th Street	2010	4/20	12:40 PM	X		Unknown	Along highway with traffic				
		6/21	6:30 PM	X		Unknown	Other actions in roadway				
Sixth Avenue @ West 14th Street	2008	2/12	2:30 PM	X		Making right turn – Southwest	Crossing with signal	X			Failure to yield R.O.W.
		6/19	4:05 PM	X		Going straight - East	Crossing				Aggressive driving/Road rage, Unsafe speed
	2009	3/26	11:45 PM	X		Making left turn – East	Crossing with signal	X			
		6/30	2:40 AM	X		Going straight – North	Other actions in roadway				
		7/15	5:40 AM	X		Going straight – North	Crossing with signal				
		9/21	5:30 PM	X		Going straight – North	Crossing with signal			X	Failure to yield R.O.W.
		10/9	10:00 AM	X		Making right turn – East	Crossing with signal	X		X	
		12/15	9:50 PM	X		Making left turn – Northwest	Crossing with signal	X			
	2010	3/22	10:15 PM	X		Unknown	Crossing				
		5/29	2:00 PM	X		Unknown	Crossing with signal				
		7/27	10:20 PM	X		Unknown	Along highway with traffic				
		8/21	6:40 PM	X		Unknown	Crossing against signal				
		10/8	2:10 AM	X		Unknown	Other actions in roadway				

Source: NYSDOT December 31, 2007 through December 31, 2010 accident data.

With the proposed projects, the intersection of Sixth Avenue and West 12th Street would experience modest increases in vehicular and pedestrian traffic. The intersection would experience net incremental peak-hour volume increases of approximately 20 or fewer vehicle trips during each of the three peak hours. As for pedestrian trips, the proposed projects would generate fewer than 160 net incremental pedestrian trips through this intersection during each of the three peak hours. The net incremental vehicular and pedestrian levels at this intersection would be below the CEQR analysis thresholds of 50 peak hour vehicular trips and 200 peak hour pedestrian trips, and therefore would not result in any significant adverse traffic and pedestrian impacts. With these small increases in vehicular and pedestrian activities, the proposed projects are also not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

Based on a review of the accident history at this intersection, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded accidents. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Sixth

Avenue and W. 12th Street is signalized with three school crosswalks and one regular crosswalk. In addition, a School Advance Assembly warning is posted at each approach. Measures to improve pedestrian safety at this intersection could include the installation of countdown timers on all crosswalks and the restriping of the south crosswalk as a school crosswalk.

With the proposed projects, the intersection of Sixth Avenue and West 14th Street would experience modest increases in vehicular and pedestrian traffic. The intersection would experience net incremental peak-hour volume increases of approximately 30 or fewer vehicle trips during each of the three peak hours. As for pedestrian trips, the proposed projects would generate fewer than 70 net incremental pedestrian trips through this intersection during each of the three peak hours. The net incremental vehicular and pedestrian levels at this intersection would be below the CEQR analysis thresholds of 50 peak hour vehicular trips and 200 peak hour pedestrian trips, and therefore would not result in any significant adverse traffic and pedestrian impacts. With these small increases in vehicular and pedestrian activities, the proposed projects are also not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

Based on a review of the accident history at this intersection, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded accidents. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Sixth Avenue and West 14th Street is signalized and provides four high visibility crosswalks. "Turning Vehicles Yield to Pedestrians" signs are posted on the westbound and northbound approaches. Measures to improve pedestrian safety at this intersection could include the installation of countdown timers on all crosswalks.

Since the projected net incremental vehicular and pedestrian trips at the five high pedestrian accident locations are below the CEQR analysis thresholds and these trips are not anticipated to exacerbate any of the current causes of pedestrian-related accidents, the proposed projects are not expected to result in any significant adverse pedestrian safety impacts. Nevertheless, pedestrian safety could be improved at the five high pedestrian accident locations by implementing the measures discussed above.

I. PARKING SUPPLY AND DEMAND

EXISTING CONDITIONS

To assess the parking supply and demand for the No Build and Build conditions, a ¼-mile off-street parking survey was conducted to document existing off-street parking facilities and their utilization rates on a typical weekday. The results of the survey are summarized in **Table 14-19** and the locations of the off-street parking facilities are presented in **Figure 14-12**. Within this ¼-mile study area, there is an adequate supply of available off-street parking spaces during the morning, midday, evening, and overnight time periods.

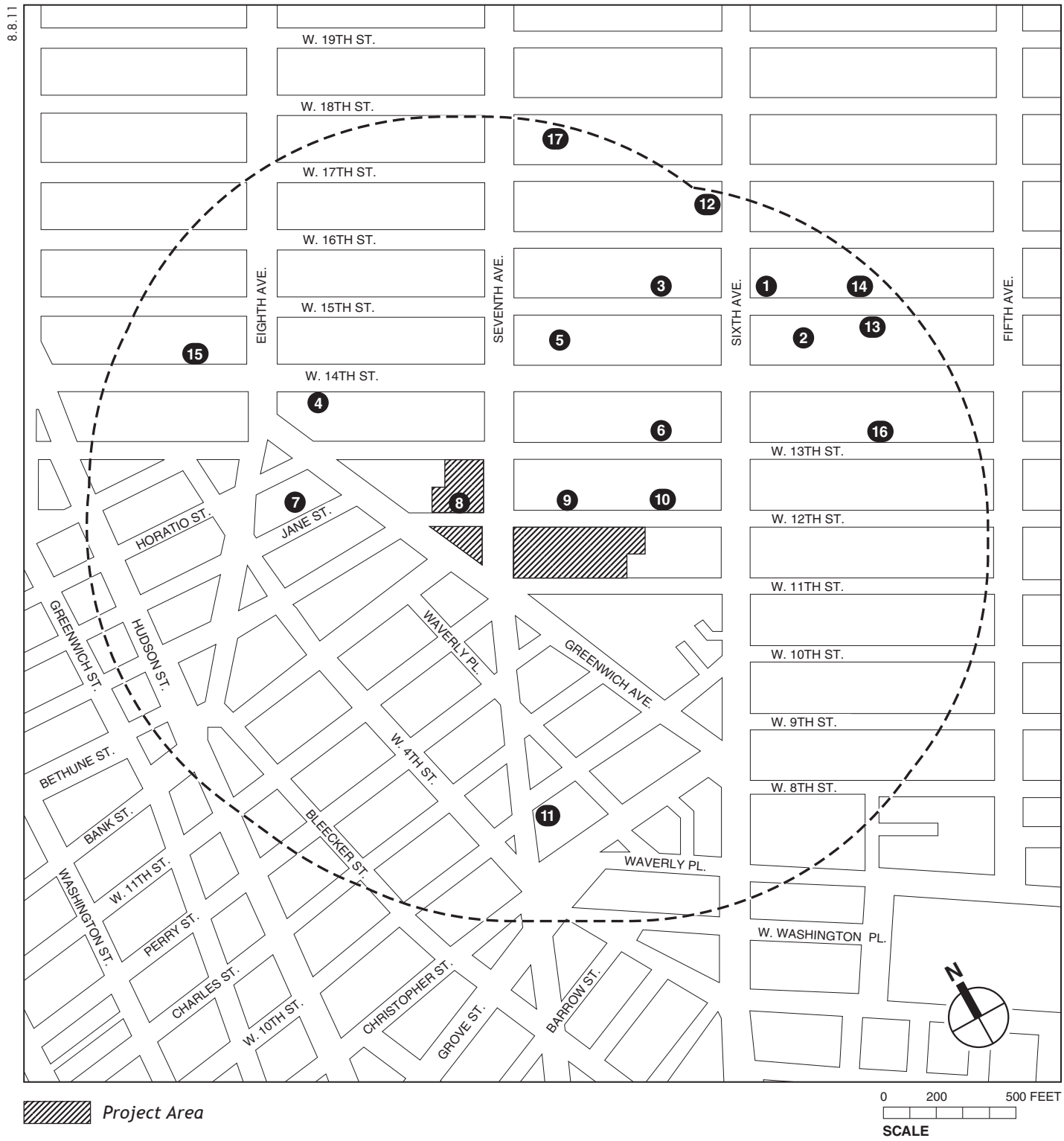


Figure 14-12
Off Street Parking Facilities

Table 14-19
2011 Existing Off-Street Parking - 1/4 Mile
Weekday Utilization

Map #	Name/Operator	Address/Location	License Number	Licensed Capacity	Utilization Rate				Utilized Spaces				Available Spaces			
					AM	MD	PM	ON	AM	MD	PM	ON	AM	MD	PM	ON
1	Market 15 Parking LLC	552-566 Ave. of the Americas	1232453	42	50%	90%	75%	50%	21	38	32	21	21	4	10	21
2	Universal Parking LLC	55 W. 14th Street	369041	129	50%	75%	75%	30%	65	97	97	39	64	32	32	90
3	Vincent 15 Parking LLC	553-571 Avenue of the Americas	1373390	90	60%	80%	60%	50%	54	72	54	45	36	18	36	45
4	W. 14th St. Garage Corp.	222 W. 14th Street	1290959	80	35%	80%	80%	50%	28	64	64	40	52	16	16	40
5	Fleur Garage Corp.	77 7th Avenue	883898	94	40%	80%	60%	50%	38	75	56	47	56	19	38	47
6	107 Garage Corp.	107 W. 13th Street	1146389	96	50%	90%	60%	50%	48	86	58	48	48	10	38	48
7	Value Management Corp.	11 Jane Street	937560	92	60%	75%	60%	40%	55	69	55	37	37	23	37	55
8	Saint Vincent Catholic Medical Centers of NY	203 W. 12th Street	1100547	48	33%	90%	33%	25%	16	43	16	12	32	5	32	36
9	Quik Park W. 12th Street LLC	75-179 W. 12th Street	1247513	43	60%	95%	60%	45%	26	41	26	19	17	2	17	24
10	Chivian Garage Corp.	101 W. 12th Street	900505	98	33%	75%	75%	20%	32	74	74	20	66	24	24	78
11	Ribar Parking LLC	160-168 W. 10th Street	1262404	200	50%	80%	70%	50%	100	160	140	100	100	40	60	100
12	Central Parking Systems	587 Sixth Avenue	1338540	42	50%	50%	80%	20%	21	21	34	8	21	21	8	34
13	Valet Parking Corporation	10 W. 15th Street	834487	117	15%	80%	50%	15%	18	94	59	18	99	23	58	99
14	5th Avenue Garage Corporation	96 5th Avenue	1010035	75	50%	90%	90%	20%	38	68	68	15	37	7	7	60
15	14th & 8th Avenue LLC	85 8the Avenue	953178	47	75%	95%	95%	55%	35	45	45	26	12	2	2	21
16	Ronel Operating LLC	25 W. 13th Street	1316955	62	75%	75%	75%	75%	47	47	47	47	15	15	15	15
17	18th Street Parking Corporation	140 W. 18th Street	1037089	21	60%	90%	90%	60%	13	19	19	13	8	2	2	8
				1,376	**48%**	**81%**	**69%**	**40%**	**655**	**1113**	**944**	**555**	**721**	**263**	**432**	**821**

Notes: Survey conducted by AKRF Inc, March and May 2011.
ON = Overnight

THE FUTURE WITHOUT THE PROPOSED PROJECTS (NO BUILD CONDITION)

In the No Build condition, it is assumed that the East Site would remain vacant while the O'Toole Building would be fully re-tenanted with medical office use. As shown in **Table 14-20**, the parking demand generated by the O'Toole Building in the No Build condition would be accommodated by the available public parking supply currently exists within the study area.

Table 14-20
2011 Existing and 2015 No Build Parking Supply and Utilization

	Weekday AM	Weekday Midday	Weekday PM	Weekday Overnight
2011 Public Parking Supply	1,376	1,376	1,376	1,376
2011 Public Parking Demand	655	1113	944	555
2011 Public Parking Utilization	48%	81%	69%	40%
2015 No Build Public Parking Supply	1,376	1376	1376	1376
2015 No Build Background Incremental Demand	7	11	9	6
2015 No Build O'Toole Building Parking Demand	87	84	11	0
2015 No Build Public Parking Demand Total	749	1208	964	561
2015 No Build Public Parking Utilization	54%	88%	70%	41%

THE FUTURE WITH THE PROPOSED PROJECTS (BUILD CONDITION)

In the future with the proposed projects, there would be parking demand generated by the residential, medical office, and retail uses in the East Site, and the health care services in the renovated O'Toole Building. While the parking demand generated by the Center for Comprehensive Care is anticipated to be accommodated by the public garages within the study area, the parking demand generated by the East Site would largely be accommodated by the proposed accessory parking garage. Based on 2000 U.S. Census data, the car ownership rate of

owner-occupied housing in the area is 37 percent. This car ownership rate would result in a maximum residential overnight parking demand of approximately 167 spaces generated by the 450 residential units assumed for this analysis. Most of this parking demand would be accommodated by the 152 space below-grade accessory parking garage located on the East Site with access and egress on West 12th Street. The remaining residential parking demand is anticipated to be accommodated in the available overnight off-street parking spaces within a ¼-mile of the project area. The proposed projects' incremental parking demand is shown in **Table 14-21**.

Table 14-21
Projected Incremental Parking Demand

Hour	O'Toole Building	East Site			East Site Project and Center for Comprehensive Care Demand	East Site Accessory Garage Demand	Off-Site Public Garages Demand
	Center for Comprehensive Care	Residential	Medical Office	Retail			
12 AM - 01 AM	12	167	0	0	179	152	27
01 AM - 02 AM	11	167	0	0	178	152	26
02 AM - 03 AM	11	167	0	0	178	152	26
03 AM - 04 AM	11	167	0	0	178	152	26
04 AM - 05 AM	9	167	0	0	176	152	24
05 AM - 06 AM	9	167	0	0	176	152	24
06 AM - 07 AM	9	167	0	0	176	152	24
07 AM - 08 AM	13	162	1	0	176	148	28
08 AM - 09 AM	45	149	16	0	210	149	61
09 AM - 10 AM	46	141	18	1	206	144	62
10 AM - 11 AM	45	136	16	1	198	139	59
11 AM - 12 PM	43	134	15	1	193	137	56
12 PM - 01 PM	37	134	15	1	187	137	50
01 PM - 02 PM	38	134	15	1	188	137	51
02 PM - 03 PM	37	134	15	1	187	137	50
03 PM - 04 PM	34	134	15	1	184	138	46
04 PM - 05 PM	35	137	13	1	186	138	48
05 PM - 06 PM	11	145	2	1	159	135	24
06 PM - 07 PM	8	152	0	1	161	140	21
07 PM - 08 PM	4	158	0	1	163	146	17
08 PM - 09 PM	2	161	0	0	163	147	16
09 PM - 10 PM	2	163	0	0	165	149	16
10 PM - 11 PM	2	165	0	0	167	151	16
11 PM - 12 AM	3	167	0	0	170	152	18

In addition, the 48-space below-grade public parking garage in the O'Toole Building would be removed and the space would be reused for support space for the Center for Comprehensive Care. Vehicle trips associated with this parking garage would be displaced and these drivers are anticipated to seek parking in other off-street parking facilities in the study area. As shown in **Table 14-22**, there would be an adequate supply of parking spaces to accommodate the parking demand generated by the proposed projects and the displaced parking associated with the removal of the 48-space below-grade public parking garage in the O'Toole Building. Therefore, the proposed projects would not result in a parking shortfall or the potential for a significant adverse parking impact.

Table 14-22
2015 No Build and Build Parking Supply and Utilization

	Weekday AM	Weekday Midday	Weekday PM	Weekday Overnight
2015 No Build Public Parking Supply	1,376	1376	1376	1376
2015 No Build Background Incremental Demand	7	11	9	6
2015 No Build O'Toole Building Parking Demand	87	84	11	0
2015 No Build Public Parking Demand Total	749	1208	964	561
2015 No Build Public Parking Utilization	54%	88%	70%	41%
2015 Build O'Toole Building Displaced Public Parking Supply	-48	-48	-48	-48
2015 Build Public Parking Supply	1,328	1328	1328	1328
2015 Build Proposed Projects Parking Demand				
Proposed Projects Total Incremental Parking Demand	210	187	159	179
On-Site Accessory Garage Parking Demand [(1)]	149	137	135	152
Off-Site Public Parking Demand	61	50	24	27
Negative No Build O'Toole Building Public Parking Demand	-87	-84	-11	0
Net Incremental Public Parking Demand	-26	-34	13	27
2015 Build Public Parking Demand Total	723	1174	977	588
2015 Build Public Parking Utilization	54%	88%	74%	44%

Note:
(1) On-site accessory parking demand presented for informational purposes only and is not part of the public parking demand calculations.

Sample Calculation:

2015 Build Public Parking Demand Total AM = [No Build Public Parking Demand Total] + [Proposed Projects Off-Site Public Parking Demand] – [No Build O'Toole Building Parking Demand]

2015 Build Public Parking Demand Total AM = 749 + 61 - 87 = 723

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