

## Greenpoint-Williamsburg Rezoning EIS

### CHAPTER 22: MITIGATION

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#### A. INTRODUCTION

The preceding chapters of the EIS discuss the potential for significant adverse impacts to result from the proposed action. Where such potential impacts have been identified – in the areas of community facilities, open space, traffic, subway stations, subway line haul and bus services – measures are examined to minimize or eliminate the anticipated impacts. These mitigation measures are discussed below. In addition, the effect of the proposed traffic mitigation measures on air quality is also discussed.

#### B. SOCIOECONOMIC CONDITIONS

As discussed in Chapter 3, “Socioeconomic Conditions,” the proposed action has the potential to cause significant indirect residential displacement impacts. The action would increase the population of the proposed action area by more than 5 percent and introduce residents with socioeconomic characteristics that are significantly different from the characteristics of residents in parts of the study area, and the study area contains a population that could be vulnerable to displacement pressures.

In total, it is estimated that vulnerable population in the Greenpoint-Williamsburg study area is limited to approximately 2,510 residents who could be subject to indirect displacement pressures under the proposed action. These people are living in approximately 838 housing units located in the proposed action area and primary study area. Overall, the vulnerable population represents less than 2 percent of the total study area population and between 2 and 3 percent of the population living in the proposed action area and primary study area.

The *CEQR Technical Manual* states that:

[M]itigation would consist of relocation of the displaced residents within the neighborhood or providing new housing elsewhere within the study area to offset the effects of the action. Mitigation measures for indirect residential displacement can include: providing appropriate, comparable space as part of the project, either on-site or off-site but within a reasonable distance of the current location of the units that would be displaced; contributions to tenant advocacy groups; or enacting laws and regulations to prevent indirect displacement from occurring.

The City could mitigate indirect residential displacement impacts caused by the proposed action in a variety of ways. One option is for the Department of Housing and Preservation (HPD) to work with local Community Development Corporations to counsel displaced tenants and connect them to affordable housing resources. Another is for HPD to utilize publicly controlled properties in the Greenpoint-Williamsburg area for the development of affordable housing. Under current HPD policy, existing Greenpoint or Williamsburg residents would be entitled to 50 percent of any affordable units constructed on publicly-controlled property. A third mitigation option would involve the use of inclusionary zoning

policies and existing city housing programs to preserve existing affordable units and increase the affordable housing supply available to displaced residents.

These mitigation options and their potential to fully or partially mitigate displacement impacts caused by the proposed action were more thoroughly explored after the DEIS was completed. In an effort to provide a rezoning scenario in which the potential for a significant adverse indirect residential displacement impact would be reduced, a new project alternative was developed: the Revised Affordable Housing Bonus and Incentives (RAHBI) Alternative. With the use of incentive packages, the RAHBI Alternative would provide approximately 1,398 affordable housing units. Under HPD's community preference policy, eligible residents of Brooklyn Community District 1 would receive preference for half of the affordable units in any given development, if built under city-sponsored programs, and most of the displaced residents would likely qualify for the affordable units. However, the population of potentially displaced residents is expected to comprise only a portion of the households selected for the affordable units, and not all of the potentially displaced population are expected to be able to rent these units. Therefore, significant adverse impacts resulting from indirect residential displacement are only partially mitigated under this alternative. The RAHBI Alternative is more fully discussed in Chapter 23, "Alternatives."

The affordable housing program analyzed in the Revised AHBI Alternative has been incorporated into the modified zoning text application (N050110(A)ZRK) filed subsequent to the issuance of the DEIS. However, this program is not part of the original zoning text application (N050110ZRK). Therefore, the partial mitigation for the indirect residential displacement impact that is provided by the Revised AHBI Alternative is not provided under the proposed action. Therefore, under the proposed action, the indirect residential displacement impact would remain unmitigated.

## C. COMMUNITY FACILITIES

As discussed in Chapter 4, "Community Facilities and Services," development of the proposed action would result in a significant adverse impact on elementary schools within the Greenpoint sub-area, as well as the overall ½-mile study area by 2013. In the future with the proposed action, elementary schools within the Greenpoint sub-area would be at 135 percent of capacity, a potential shortfall of 778 seats, whereas the ½-mile study area would operate at 105 percent of capacity, a potential shortfall of 409 seats. If the Greenpoint-Williamsburg rezoning is approved, the City would construct or lease a new elementary or K-8 school in the project area as part of the Department of Education's Five Year Capital Plan, 2010-2014, as the development associated with the proposed action proceeds. Planning for this mitigation would be provided for in the Department of Education's Five Year Capital Plan, 2005-2009, as amended in FY2005. This mitigation would be supplemented through administrative actions that the DOE would undertake to mitigate the shortfall in school seats, such as adjusting catchment areas and/or reorganizing grade levels within schools. DOE would continue to monitor trends in demand for school seats in the area. The DOE responses to identified demand could take place in stages and include administrative actions and/or enlargement of existing schools, followed by the later construction or lease of new school facilities at an appropriate time.

In general, the proposed action would allow for the development of community facility space, including new school facilities, within the project area. It should also be noted that any new school facility would be subject to its own site selection and environmental reviews.

## D. OPEN SPACE

As discussed in Chapter 5, “Open Space,” given the lack of supply of open space resources in the Greenpoint sub-area, the proposed action would reduce the open space ratio under Scenario B. Under Scenario B, the proposed action would decrease the active open space ratio by 21.2 percent and the total open space ratio by 10.3 percent within the Greenpoint sub-area, a decrease of 0.091 acres per 1,000 resident and 0.082 acres per resident, respectively, as compared to No-Action conditions. As the Greenpoint sub-area currently experiences a shortfall of open space, and as the existing deficiency of open space would increase as a result of the proposed action, it represents a significant adverse indirect impact.

The Greenpoint sub-area was assessed for possible mitigation measures in accordance with CEQR guidelines. The *CEQR Technical Manual* identifies several ways in which open space impacts can be mitigated. For indirect open space impacts, possible mitigation measures include:

- creating new public open space in Greenpoint of the type needed to serve the proposed population and offset their impact on existing open space in the study area;
- create new public open space elsewhere in the study area of a type needed to serve the needs of the added population;
- improve existing open spaces in the study area to increase their utility, safety, and capacity to meet identified needs in the study area.

As discussed in Chapter 5, under Scenario A, the 27.8 acre Inlet Park would be created on the former Bayside Fuel site, with 5.6 acres located within the Greenpoint sub-area, and as such, no significant adverse impacts on open space resources in the Greenpoint sub-area would occur under Scenario A. Under Scenario B, however, a power plant proposed by the TransGas Energy Company would be constructed on the former Bayside Fuel site, a lot located along the southern edge of the Bushwick Inlet, under No-Action conditions and would remain in place in the future with the proposed action. As a result, under Scenario B, the proposed Inlet Park would be smaller in size at 15.9 acres (11.9 acres smaller), with none of the new park located within the Greenpoint sub-area.

The development of a 1,100 megawatt power plant on the site of the Bayside Fuel facility (Block 2277, Lot 1) under Scenario B is subject to State approvals which the City believes are unlikely to occur. However, in the event that development of the power plant proceeds, possible mitigation measures identified to eliminate impacts within the Greenpoint sub-area under Scenario B include the redevelopment of McCarren Park pool site, and the distribution of approximately 1.5 acres of additional active open space resources throughout the Greenpoint sub-area. New open space resources could be created on vacant or underutilized, preferably City-owned sites throughout the Greenpoint sub-area. Potential locations for the creation of new active open space resources identified to date are Block 2472, Lot 425, currently the site of an MTA bus maintenance facility and part of the MTA master lease; and Block 2472, Lot 32, currently leased to the Greenpoint Lumber Exchange and the site of a DEP loading dock associated with the sludge storage tank. The City would proceed to establish these and/or other sites upon a final determination that development of the power plant is proceeding.

In addition to the creation of 1.5 acres of additional active open space resources throughout the Greenpoint sub-area, another possible identified mitigation measure includes the redevelopment of the McCarren Park pool site, which has been closed since 1984, for active recreation. Coordination with the New York City Parks Department and other City agencies would be necessary to determine possible funding and rehabilitation plans for the site. If refurbished and upgraded, this facility would add

approximately 5.5 acres of active open space to the study area, of which half, or approximately 2.75 acres, would be included within the Greenpoint sub-area for analysis purposes.

With these mitigation measures in place, an additional 4.25 acres of open space (100 percent active) would be added to the Greenpoint sub-area, for a total of 40.36 acres within the Greenpoint sub-area under Scenario B. As such, the total open space ratio would be 0.798 acres per 1,000 residents, an increase of 0.3 percent from the total open space ratio of 0.796 per 1,000 residents under No-Action conditions. The active open space ratio would be 0.422 acres per 1,000 residents, a decrease of 1.6 percent from the active open space ratio of 0.429 per 1,000 residents under No-Action conditions. As these mitigation measures would slightly increase the total amount of open space per 1,000 residents, no significant adverse impacts on the Greenpoint sub-area open space resources would be anticipated as a result of the proposed action.

## **E. TRAFFIC**

As discussed in Chapter 16, “Traffic and Parking” and shown in Table 16-13, demand from projected development sites would result in significant adverse traffic impacts at 10 signalized and three unsignalized intersections in one or more peak periods by 2013. A traffic mitigation plan was therefore developed to address these impacts. The paragraphs below discuss the measures that would be included in the traffic mitigation plan, and the effects of these measures on each of the impacted intersections. Table 22-1 summarizes the measures contained in the mitigation plan. Long-term future measures identified in the NYCDDC/USDOT *Kent Avenue/Franklin Street Reconstruction* Design Report are also provided in Table 22-1 for reference.

According to the *CEQR Technical Manual*, a significant traffic impact is considered mitigated if measures implemented return projected future conditions to what they would be if a proposed action were not in place, or to acceptable levels. For a Future No-Action level of service (LOS) D, E or F, mitigating back to the No-Action condition is required; for No-Action LOS A, B or C, mitigating to mid-LOS D is required (45 seconds of delay for signalized intersections, and 30 seconds of delay for unsignalized intersections). Tables 22-2 through 22-4 show the effectiveness of the proposed traffic mitigation measures during the weekday AM, midday and PM peak periods based on these criteria.

### **Signalized Intersections**

#### ***Franklin Street/Calyer Street***

To address the project’s midday peak hour impact to the northbound Franklin Street approach, it is proposed to transfer two seconds of green time from the all-pedestrian signal phase to the Franklin Street phase in the midday. As shown in Table 22-3, this measure would reduce delay on this approach to 38.9 seconds in the midday (below the CEQR mid-LOS D threshold of 45 seconds), fully mitigating the impact from the proposed action at this location. It is worth noting that mitigation recommended for this intersection in the *Kent Avenue/Franklin Street Reconstruction* Design Report included the transfer of five seconds of green time from the all-pedestrian phase to the Franklin Street phase in the AM peak hour, and four seconds in the PM.

**TABLE 22-1**  
**Proposed Traffic Mitigation Measures**

Intersection	Approach	Period	Current Signal Timing (Seconds) (1)	Greenpoint - Williamsburg Proposed Mitigation Measures		Kent Avenue / Franklin Street Reconstruction Mitigation Measures
				Mitigation Signal Timing (Seconds) (1)	Description of Mitigation	Description of Mitigation
Franklin Street (N-S) Calyer Street (E-W)	NB/SB Ped	MD	36/36/36 24/24/24	36/38/36 24/22/24	Transfer 2 sec. of green time from Ped. phase to NB/SB approach in MD.	Daylight curb lane along SB approach in AM and along NB approach in PM. Transfer 5 sec. from Ped. phase to NB/SB phase in AM and 4 sec. in PM.
Franklin Street (N-S) Quay Street (EB)	NB/SB EB	PM	36/36/36 24/24/24	36/36/38 24/24/22	Transfer 2 sec. of green time from EB phase to NB/SB phase in PM.	
Kent Avenue (N-S) South 3rd Street (E-W)	NB/SB Ped.	PM	36/36/36 24/24/24	36/36/37 24/24/23	Transfer 1 sec. of green time from Ped. phase to NB/SB phase in PM.	Transfer 5 sec. of green time from Ped. phase to NB/SB phase in AM.
Manhattan Avenue (N-S) Driggs Avenue (WB)	NB/SB WB	PM	55/55/55 35/35/35	55/55/52 35/35/38	Transfer 3 sec. from NB/SB phase to WB phase in PM.	
McGuinness Boulevard (N-S) Green Street (EB)	NB/SB EB	ALL	78/78/78 42/42/42	78/78/78 42/42/42	Implement no standing 7AM-10AM for 120' on the NB approach. Implement NS 7AM-7PM for 120 feet on the south curb of the eastbound approach.	
McGuinness Boulevard (N-S) Greenpoint Avenue (E-W)	NB/SB EB/WB NBLT/SBLT	PM	74/74/74 46/46/46 --/--/--	66/61/61 41/46/46 13/13/13	Implement exclusive 13 sec. NB/SB left-turn phase. Re-stripe WB approach to provide an exclusive left-turn lane and two through lanes.	
McGuinness Boulevard (N-S) Calyer Street (EB)	NB/SB EB	AM/PM	78/79/79 42/41/41	78/79/79 42/41/41	Implement no standing 7AM-10AM, 4PM-7PM for 120' on the EB approach.	
McGuinness Boulevard (N-S) Meserole Avenue (WB)	NB/SB WB NB	MD/PM	90/90/90 30/30/30 --/--/--	77/75/75 30/32/30 13/13/15	Implement no standing 4-7PM for 120' on the SB approach and on south curb of the WB approach. Implement 13 sec. NB-LT phase in AM and 15 sec. in PM. Transfer 2 sec. of green time from NB/SB to WB in MD.	
Driggs Avenue (SB) North 7th Street (EB)	SB EB	AM	63/63/63 27/27/27	60/63/63 30/27/27	Transfer 3 sec. of green time from SB phase to EB phase in AM.	
Union Avenue (N-S) Metropolitan Avenue (E-W)	NB/SB EB/WB	MD/PM	40/40/40 80/80/80	40/42/43 80/78/77	Transfer 2 sec. of green time from EB/WB phase to NB/SB phase in MD and 3 sec. in PM.	
Kent Avenue (N-S) North 6th Street (WB)	NB/SB WB	All	unsignalized	38/38/38 22/22/22	Install new traffic signal with 60 sec. cycle length.	Kent Ave./Franklin St. Reconstruction Report found that a signal may be warranted at this intersection as new development occurs in the future.
Kent Avenue (N-S) North 7th Street (EB)	NB/SB EB	All	unsignalized	38/38/38 22/22/22	Install new traffic signal with 60 sec. cycle length.	
Manhattan Avenue (N-S) Green Street (EB)	NB/SB EB	All	unsignalized	48/48/48 42/42/42	Install new traffic signal with 90 sec. cycle length.	
Kent Avenue (N-S) North 11th Street (EB)	NB/SB EB	All	unsignalized	38/38/38 22/22/22	Install new traffic signal with 60 sec. cycle length to facilitate pedestrian access to future park.	Kent Ave./Franklin St. Reconstruction Report found that a signal may be warranted at this intersection as new development occurs in the future.

**Notes:**

(1) Signal timings shown indicate green plus yellow (including all-red) for each phase.  
Ped. - all pedestrian phase.

**TABLE 22-2**  
**2013 With Mitigation Traffic Conditions in AM Peak Hour**

Signalized Intersection	Lane Group	AM Peak Hour								
		2013 No-Action			2013 With Action			2013 With Mitigation		
		V/C RATIO	DELAY (SEC/VEH)	LOS	V/C RATIO	DELAY (SEC/VEH)	LOS	V/C RATIO	DELAY (SEC/VEH)	LOS
McGuinness Boulevard (N-S) @ Green Street (EB)	NB-TR	0.99	41.7	D	1.06	64.0	E *	1.00	43.5	D
	SB-L	0.89	98.6	F	0.89	98.6	F	0.89	98.6	F
	SB-T	0.57	15.6	B	0.58	15.8	B	0.58	15.8	B
	EB-LTR	0.65	44.2	D	1.15	132.6	F *	0.61	39.5	D
McGuinness Boulevard (N-S) @ Greenpoint Avenue (E-W)	NB-L	<u>0.47</u>	<u>26.0</u>	<u>C</u>	<u>0.39</u>	<u>23.1</u>	<u>C</u>	<u>0.21</u>	<u>22.2</u>	<u>C</u>
	NB-TR	<u>0.86</u>	<u>27.1</u>	<u>C</u>	<u>0.89</u>	<u>29.3</u>	<u>C</u>	<u>0.97</u>	<u>44.5</u>	<u>D</u>
	SB-L	<u>0.95</u>	<u>126.4</u>	F	<u>0.95</u>	<u>126.4</u>	F	<u>0.32</u>	<u>47.4</u>	<u>D</u>
	SB-TR	<u>0.58</u>	<u>17.5</u>	<u>B</u>	<u>0.62</u>	<u>18.2</u>	<u>B</u>	<u>0.68</u>	<u>22.9</u>	<u>C</u>
	EB-LTR	<u>0.47</u>	<u>33.4</u>	<u>C</u>	<u>0.66</u>	<u>44.3</u>	<u>D</u>	<u>0.75</u>	<u>55.7</u>	<u>E</u>
	WB-LTR	<u>0.60</u>	<u>36.9</u>	<u>D</u>	<u>0.55</u>	<u>35.0</u>	<u>D</u>	WB-L <u>0.50</u>	<u>41.7</u>	<u>D</u>
								WB-TR <u>0.35</u>	<u>34.2</u>	<u>C</u>
McGuinness Boulevard (N-S) @ Calyer Street (EB)	NB-TR	0.85	24.7	C	0.87	25.8	C	0.87	25.9	C
	SB-L	0.85	98.2	F	0.85	98.2	F	0.85	98.2	F
	SB-T	0.81	23.0	C	0.84	24.7	C	0.84	24.7	C
	EB-LTR	0.84	57.5	E	1.16	138.2	F *	0.62	39.8	D
McGuinness Boulevard (N-S) @ Meserole Avenue (WB)	NB-L	0.32	12.7	B	0.49	22.2	C	0.27	29.0	C
	NB-T	0.83	16.9	B	0.85	17.9	B	0.85	17.9	B
	SB-TR	0.71	12.5	B	0.77	14.3	B	0.91	30.3	C
	WB-LTR	0.75	54.7	D	0.78	56.8	E	0.78	56.8	E
Driggs Avenue (SB) @ North 7th Street (EB)	SB-LT	0.41	9.5	A	0.41	9.5	A	0.43	11.3	B
	EB-TR	0.77	49.7	D	0.91	66.9	E *	0.79	48.2	D
<b>Unsignalized Intersection</b>										
Manhattan Avenue (N-S) @ Green Street (E-W)	SB-LT	0.03	8.0	A	0.03	8.0	A	NB-TR 0.45	17.9	B
	EB-LTR	0.38	15.7	C	0.85	42.0	E *	SB-LT 0.32	15.9	B
								EB-LTR 0.87	43.1	D
Kent Avenue (N-S) @ North 11th Street (E-W)	SB-LT	0.01	8.4	A	0.01	8.4	A	NB-TR 0.65	13.9	B
	EB-LTR	0.17	18.1	C	0.02	16.7	C	SB-LT 0.85	23.9	C
								EB-LTR 0.02	14.9	B
Kent Avenue (N-S) @ North 7th Street (E-W)	NB-LTR	0.00	8.7	A	0.00	8.8	A	0.59	12.3	B
	SB-LTR	0.03	8.4	A	0.03	8.4	A	0.93	33.4	C
	EB-LTR	0.01	17.3	C	0.54	34.2	D *	0.28	17.5	B
Kent Avenue (N-S) @ North 6th Street (E-W)	SB-LT	0.01	16.5	C	0.01	20.5	C	0.88	26.8	C
	WB-LTR	0.13	14.2	B	0.22	19.0	C	0.18	16.5	B

ABBREVIATION:

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound  
L-Left, T-Through, R-Right, E-W: East-West Roadway, N-S: North-South Roadway  
V/C Ratio - Volume to Capacity Ratio  
SEC/VEH - Seconds per Vehicle  
LOS - Level of Service  
\*- Denotes Impacted Location  
\*\*- Denotes Unmitigated Impacted Location

**TABLE 22-3**  
**2013 With Mitigation Traffic Conditions In Midday Peak Hour**

Signalized Intersection	Lane Group	MD Peak Hour									
		2013 No-Action			2013 With Action			2013 With Mitigation			
		V/C RATIO	DELAY (SEC/VEH)	LOS	V/C RATIO	DELAY (SEC/VEH)	LOS	V/C RATIO	DELAY (SEC/VEH)	LOS	
Franklin Street (N-S) @ Calyer Street (E-W)	NB-LTR	0.84	26.9	C	1.00	54.7	D *	0.94	38.9	D	
	SB-LTR	0.90	37.0	D	0.94	43.6	D	0.88	32.4	C	
McGuinness Boulevard (N-S) @ Green Street (EB)	NB-TR	0.65	17.7	B	0.66	18.0	B	0.66	18.0	B	
	SB-L	0.43	20.8	C	0.44	21.8	C	0.44	21.8	C	
	SB-T	0.51	14.6	B	0.53	14.9	B	0.53	14.9	B	
	EB-LTR	0.65	44.7	D	0.80	54.1	D *	0.42	35.4	D	
McGuinness Boulevard (N-S) @ Greenpoint Avenue (E-W)	NB-L	<u>0.60</u>	<u>34.8</u>	<u>C</u>	<u>0.59</u>	<u>36.5</u>	<u>D</u>	<u>0.35</u>	<u>31.7</u>	<u>C</u>	
	NB-TR	<u>0.62</u>	<u>18.6</u>	<u>B</u>	<u>0.64</u>	<u>19.1</u>	<u>B</u>	<u>0.76</u>	<u>29.4</u>	<u>C</u>	
	SB-L	<u>0.36</u>	<u>19.3</u>	<u>B</u>	<u>0.38</u>	<u>20.3</u>	<u>C</u>	<u>0.27</u>	<u>28.9</u>	<u>C</u>	
	SB-TR	<u>0.54</u>	<u>16.7</u>	<u>B</u>	<u>0.58</u>	<u>17.3</u>	<u>B</u>	<u>0.69</u>	<u>26.0</u>	<u>C</u>	
	EB-LTR	<u>0.28</u>	<u>29.9</u>	<u>C</u>	<u>0.30</u>	<u>30.4</u>	<u>C</u>	<u>0.27</u>	<u>29.8</u>	<u>C</u>	
	WB-LTR	<u>0.74</u>	<u>41.9</u>	<u>D</u>	<u>0.75</u>	<u>42.2</u>	<u>D</u>	WB-L <u>0.65</u>	<u>44.2</u>	<u>D</u>	
								WB-TR <u>0.40</u>	<u>31.5</u>	<u>C</u>	
McGuinness Boulevard (N-S) @ Meserole Avenue (WB)	NB-L	0.38	14.4	B	0.56	24.0	C	0.36	30.4	C	
	NB-T	0.57	9.9	A	0.58	10.1	B	0.60	11.2	B	
	SB-TR	0.68	11.7	B	0.70	12.3	B	0.85	26.6	C	
	WB-LTR	0.72	54.0	D	0.78	60.5	E *	0.73	52.9	D	
Union Avenue (N-S) @ Metropolitan Avenue (E-W)	NB-LTR	0.99	86.8	F	1.01	90.9	F *	0.95	75.2	E	
	SB-LTR	0.73	49.7	D	0.75	51.0	D	0.71	46.6	D	
	EB-LTR	0.63	17.9	B	0.64	18.3	B	0.66	21.2	C	
	WB-LTR	0.67	19.0	B	0.68	19.3	B	0.70	20.0	B	
Unsignalized Intersection											
Manhattan Avenue (N-S) @ Green Street (E-W)	SB-LT	0.03	7.8	A	0.03	7.8	A	NB-TR	0.33	16.0	B
	EB-LTR	0.34	15.5	C	0.46	18.4	C	SB-LT	0.39	17.0	B
								EB-LTR	0.50	23.6	C
Kent Avenue (N-S) @ North 11th Street (E-W)	SB-LT	0.05	8.7	A	0.05	8.8	A	NB-TR	0.67	14.4	B
	EB-LTR	0.08	15.9	C	0.01	16.1	C	SB-LT	0.69	15.9	B
								EB-LTR	0.01	14.8	B
Kent Avenue (N-S) @ North 7th Street (E-W)	NB-LTR	0.00	8.1	A	0.00	8.2	A		0.68	14.8	B
	SB-LTR	0.04	8.5	A	0.04	8.6	A		0.66	14.6	B
	EB-LTR	0.01	14.3	B	0.17	18.5	C		0.12	15.8	B
Kent Avenue (N-S) @ North 6th Street (E-W)	NB-TR	0.00	8.1	A	0.03	8.3	A		0.70	15.5	B
	SB-LT	0.16	15.8	C	0.01	14.9	B		0.56	11.8	B
	WB-LTR	0.01	13.1	B	0.28	21.0	C		0.26	17.7	B

ABBREVIATION:

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound  
L-Left, T-Through, R-Right, E-W: East-West Roadway, N-S: North-South Roadway  
V/C Ratio - Volume to Capacity Ratio  
SEC/VEH - Seconds per Vehicle  
LOS - Level of Service  
\* - Denotes Impacted Location  
\*\* - Denotes Unmitigated Impacted Location

**TABLE 22-4**  
**2013 With Mitigation Traffic Conditions in PM Peak Hour**

Signalized Intersection	Lane Group	PM Peak Hour									
		2013 No-Action			2013 With Action			2013 With Mitigation			
		V/C RATIO	DELAY (SEC/VEH)	LOS	V/C RATIO	DELAY (SEC/VEH)	LOS	V/C RATIO	DELAY (SEC/VEH)	LOS	
Franklin Street (N-S) @ Quay Street (EB)	NB-T	0.78	20.9	C	1.04	61.7	E	*	0.98	43.2	D
	SB-T	0.62	14.1	B	0.64	14.6	B		0.60	12.3	B
	EB-LR	0.52	22.4	C	0.55	23.3	C		0.61	27.7	C
Kent Avenue (N-S) @ South 3rd Street (EB)	NB-TR	0.32	8.6	A	0.44	9.7	A		0.43	9.0	A
	SB-LT	0.92	33.2	C	1.00	50.6	D	*	0.97	41.3	D
Manhattan Avenue (N-S) @ Driggs Avenue (WB)	NB-LT	0.17	10.7	B	0.19	11.0	B		0.20	12.6	B
	SB-TR	0.29	12.0	B	0.29	12.1	B		0.31	13.9	B
	WB-TR	0.94	54.9	D	1.01	70.3	E	*	0.92	48.5	D
McGuinness Boulevard (N-S) @ Green Street (EB)	NB-TR	0.69	18.6	B	0.70	18.9	B		0.70	18.9	B
	SB-L	0.52	26.2	C	0.54	27.3	C		0.54	27.3	C
	SB-T	0.75	19.6	B	0.82	22.0	C		0.82	22.0	C
	EB-LTR	0.71	47.5	D	0.89	64.1	E	*	0.47	36.3	D
McGuinness Boulevard (N-S) @ Greenpoint Avenue (E-W)	NB-L	1.01	138.8	F	1.15	188.3	F	*	0.39	48.3	D
	NB-TR	0.68	20.0	B	0.71	21.1	C		0.85	33.9	C
	SB-L	0.57	30.4	C	0.63	37.3	D		0.40	39.8	D
	SB-TR	0.71	20.2	C	0.80	22.9	C		0.95	40.7	D
	EB-LTR	0.56	35.7	D	0.58	36.3	D		0.58	36.3	D
	WB-LTR	0.80	45.8	D	0.93	62.1	E	*	WB-L 0.70	50.7	D
									WB-TR 0.72	42.3	D
McGuinness Boulevard (N-S) @ Calyer Street (EB)	NB-TR	0.73	20.1	C	0.77	21.4	C		0.77	21.4	C
	SB-L	0.62	32.9	C	0.69	41.3	D		0.69	41.3	D
	SB-T	0.66	17.3	B	0.68	17.8	B		0.68	17.8	B
	EB-LTR	0.96	74.8	E	1.09	110.6	F	*	0.57	38.4	D
McGuinness Boulevard (N-S) @ Meserole Avenue (WB)	NB-L	0.43	19.9	B	1.07	127.0	F	*	0.52	44.8	D
	NB-T	0.64	11.1	B	0.67	11.8	B		0.67	11.8	B
	SB-TR	0.89	20.6	C	0.94	25.4	C		0.80	22.4	C
	WB-LTR	0.92	83.8	F	1.13	147.1	F	*	0.56	44.1	D
Union Avenue (N-S) @ Metropolitan Avenue (E-W)	NB-LTR	0.97	87.6	F	1.02	99.6	F	*	0.96	80.9	F
	SB-LTR	0.40	35.5	D	0.41	35.6	D		0.38	33.0	C
	EB-LTR	0.76	22.6	C	0.76	22.6	C		0.80	26.3	C
	WB-LTR	0.81	25.1	C	0.90	32.4	C		0.93	39.9	D
Unsignalized Intersection											
Manhattan Avenue (N-S) @ Green Street (E-W)	SB-LT	0.04	7.9	A	0.04	7.9	A		NB-TR 0.37	16.6	B
	EB-LTR	0.46	19.9	B	0.64	27.6	D		SB-LT 0.49	19.0	B
									EB-LTR 0.64	28.4	C
Kent Avenue (N-S) @ North 11th Street (E-W)	SB-LT	0.04	8.4	A	0.04	8.6	A		NB-TR 0.71	15.7	B
	EB-LTR	0.09	20.1	C	0.01	20.8	C		SB-LT 0.92	31.5	C
									EB-LTR 0.01	14.8	B
Kent Avenue (N-S) @ North 7th Street (E-W)	NB-LTR	0.01	8.9	A	0.00	8.9	A		0.77	18.0	B
	SB-LTR	0.03	8.5	A	0.04	8.7	A		0.91	30.1	C
	EB-LTR	0.01	20.3	C	0.39	38.4	E		0.14	15.9	B
Kent Avenue (N-S) @ North 6th Street (E-W)	NB-TR	0.00	8.8	A	0.08	9.3	A		0.88	28.2	C
	SB-LT	0.01	19.0	B	0.02	35.3	E		0.84	21.9	C
	WB-LTR	0.20	15.7	B	0.69	54.6	F	*	0.33	18.3	B

ABBREVIATION:

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound  
 L-Left, T-Through, R-Right, E-W: East-West Roadway, N-S: North-South Roadway  
 V/C Ratio - Volume to Capacity Ratio  
 SEC/VEH - Seconds per Vehicle  
 LOS - Level of Service  
 \* - Denotes Impacted Location  
 \*\* - Denotes Unmitigated Impacted Location



***Franklin Street/Quay Street***

To address the proposed action's PM peak hour impact to northbound Franklin Street at Quay Street, it is proposed to transfer two seconds of green time from the eastbound Quay Street phase to the Franklin Street phase in the PM. As shown in Table 22-4, this measure would reduce delay on this approach to 43.2 seconds (below the CEQR mid-LOS D threshold of 45 seconds), and improve the level of service to LOS D compared to LOS E in the With-Action condition. The proposed action's impact at this location would therefore be fully mitigated with this measure.

***Kent Avenue/South 3<sup>rd</sup> Street***

Traffic generated by the proposed action would impact southbound Kent Avenue in the PM peak hour. To address this impact it is proposed to transfer one second of green time from the all-pedestrian phase at this intersection to the northbound/southbound Kent Avenue phase in the PM. As shown in Table 22-4, this measure would reduce delay on the southbound approach to 41.3 seconds (below the CEQR mid-LOS D threshold of 45 seconds), fully mitigating the impact from the proposed action at this location. It should be noted that mitigation recommended for this intersection in the *Kent Avenue/Franklin Street Reconstruction* Design Report included the transfer of five seconds of green time from the all-pedestrian phase to the Kent Avenue phase, which would not appear necessary by 2013.

***Manhattan Avenue/Driggs Avenue***

To address the proposed action's PM peak hour impact to westbound Driggs Avenue at Manhattan Avenue, it is proposed to transfer three seconds of green time from the northbound/southbound Manhattan Avenue signal phase to the Driggs Avenue phase in the PM. As shown in Table 22-4, this measure would fully mitigate the impact by reducing delay on the westbound approach to 48.5 seconds, below the 54.9 seconds of delay in the No-Action. The level of service on this approach would be returned to its No-Action LOS D compared to LOS E in the future with the proposed action.

***McGuinness Boulevard/Green Street***

The proposed action would impact the northbound McGuinness Boulevard approach in the AM peak hour, and the eastbound Green Street approach in all three peak hours. To mitigate these impacts, it is proposed to increase approach capacity by implementing a no standing 7-10 AM regulation for 120 feet along the east curb of the northbound approach, and a no standing 7 AM-7 PM regulation for 120 feet along the south curb of the eastbound approach. These changes to curbside regulations would displace upwards of six parking spaces along each of the two approaches for the periods when the proposed regulations are in effect. As shown in Tables 22-2 through 22-4, with these measures the northbound approach would operate at LOS D with 43.5 seconds of delay in the AM while the eastbound Green Street approach would operate at LOS D with less than 40 seconds of delay in all three peak hours. All of the proposed action's impacts at this intersection would therefore be fully mitigated with these measures.

***McGuinness Boulevard/Greenpoint Avenue***

In the PM peak hour, the northbound left-turn on McGuinness Boulevard and the westbound Greenpoint Avenue approach would be impacted due to increased traffic. To mitigate these impacts, it is proposed to implement a new 13-second northbound/southbound exclusive left-turn phase by transferring green time from the northbound/southbound through phase. It is also proposed to re-stripe the two-lane westbound approach to provide for an exclusive left-turn lane in addition to a through lane, and a through-

right-turn lane. With this measure, in the PM peak hour, the northbound left-turn movement would operate at LOS D compared to LOS F in the No-Action, and the westbound approach would operate at LOS D with lower total approach (44.7 seconds) delay than in the No-Action. All of these impacts would therefore be fully mitigated. The eastbound Greenpoint Avenue approach would, however, operate at LOS E in the AM peak hour under mitigation conditions, compared to LOS C in the AM in the No-Action. Additional measures were therefore evaluated to address the impact to the eastbound approach in the AM. However, further signal timing adjustments to return this approach to its No-Action condition would be impractical as they would result in new or worsened impacts on other approaches and a reduction in pedestrian crossing time on McGuinness Boulevard. Increasing capacity through changes to curbside regulations or modifications to lane striping was also found to be ineffective, as was widening the approach to achieve an additional lane. The proposed action's impact to eastbound Greenpoint Avenue at McGuinness Boulevard in the AM peak hour would therefore remain unmitigated (at LOS E). There would be no other unmitigated impacts in any other peak hour.

#### ***McGuinness Boulevard/Calyer Street***

To address the proposed action's impacts to eastbound Calyer Street at McGuinness Boulevard in the AM and PM peak hours, it is proposed to implement a no standing 7-10 AM, 4-7 PM regulation for 120 feet along the south curb of the eastbound approach. This measure would displace upwards of six parking spaces during these periods. As shown in Tables 22-2 and 22-4, with this measure, the eastbound Calyer Street approach would operate at LOS D with less than 40 seconds of delay in both periods, and the proposed action's impacts at this intersection would be fully mitigated.

#### ***McGuinness Boulevard/Meserole Avenue***

At this intersection, the proposed action would result in impacts to the northbound McGuinness Boulevard left-turn movement in the PM peak hour, and to the westbound Meserole Avenue approach in the midday and PM peak hours. To address these impacts it is proposed to implement a no standing 4-7 PM regulation for 120 feet along west curb of the southbound approach, and along the south curb of the westbound approach. These changes to curbside regulations would displace upwards of six parking spaces along each of the two approaches during the 4-7 PM period. It is further proposed to implement a northbound through and protected left-turn phase with 13 seconds of green time in the AM and midday and 15 seconds in the PM (transferred from the northbound/southbound phase). Lastly, two seconds of green time would be transferred from the northbound/southbound phase to the westbound phase in the midday peak period. As shown in Tables 22-3 and 22-4, with these measures, westbound Meserole Avenue would operate at LOS D with less delay than in the No-Action condition in the midday and PM peak periods, and the northbound left-turn on McGuinness Boulevard would operate at LOS D with less than 45 seconds of delay in the PM. All of the proposed action's impacts at this intersection would therefore be fully mitigated with these measures.

#### ***Driggs Avenue/North 7<sup>th</sup> Street***

To address the proposed action's impact to the eastbound North 7<sup>th</sup> Street approach in the AM peak hour, it is proposed to transfer three seconds of green time from the southbound Driggs Avenue signal phase to the eastbound phase in the AM. This measure would reduce eastbound delay to 48.2 seconds compared to 49.7 seconds in the No-Action, and return the level of service to LOS D, fully mitigating the AM impact to this approach.

***Union Avenue/Metropolitan Avenue***

The proposed action would impact the northbound Union Avenue approach to Metropolitan Avenue in the midday and PM peak hours. To address these impacts, it is proposed to transfer two seconds of green time from the eastbound/westbound Metropolitan Avenue phase to the northbound/southbound Union Avenue phase in the midday, and three seconds in the PM. As shown in Tables 22-3 and 22-4, with these signal timing adjustments, the northbound approach would operate at LOS E with 75.2 seconds of delay in the midday peak hour compared to LOS F with 86.8 seconds in the midday under No-Action conditions. In the PM peak hour, the northbound approach would operate at LOS F with 80.9 seconds of delay compared to LOS F and 87.6 seconds of delay in the No-Action. The proposed measures would therefore mitigate all impacts at this intersection.

**Unsignalized Intersections*****Kent Avenue/North 6<sup>th</sup> Street***

To address the proposed action's impact to westbound North 6<sup>th</sup> Street at Kent Avenue in the PM peak hour, it is proposed to install a traffic signal with a 60-second cycle length at this unsignalized intersection. As shown in Tables 22-2 through 22-4, with a 38-second northbound-southbound phase and a 22-second westbound phase, this new signal would return the westbound approach to LOS B in all periods, fully mitigating the PM peak hour impact. All approaches at this intersection would operate at LOS C or better in all peak periods. It should be noted that this intersection was also evaluated for signalization in the *Kent Avenue/Franklin Street Reconstruction Design Report*. That study found that, although not warranted based on existing traffic volumes, a new signal would likely improve conditions at this intersection, and may become warranted once new developments are constructed and vehicular traffic and pedestrian volumes increase.

***Kent Avenue/North 7<sup>th</sup> Street***

To address the proposed action's impact to eastbound North 6<sup>th</sup> Street at Kent Avenue in the AM peak hour, it is proposed to install a traffic signal with a 60-second cycle length at this unsignalized intersection. As shown in Tables 22-2 through 22-4, with a 38-second northbound-southbound phase and a 22-second eastbound phase, this new signal would return the eastbound approach to LOS B in all periods, fully mitigating the AM peak hour impact. All approaches at this intersection would operate at LOS C or better in all peak periods.

***Manhattan Avenue/Green Street***

To address the proposed action's impact to eastbound Green Street at Manhattan Avenue in the AM peak hour, it is proposed to install a traffic signal with a 90-second cycle length at this unsignalized intersection. As shown in Tables 22-2 through 22-4, with a 48-second northbound-southbound phase and a 42-second eastbound phase, signalizing this intersection would fully mitigate the AM peak hour impact to the eastbound approach. In the AM peak hour, the eastbound approach would operate at LOS D with the proposed signal compared to LOS E with stop control under the proposed action. The eastbound approach and all other approaches would otherwise operate at LOS C or better in all periods with the proposed signal.

## Summary

In summary, as shown in Tables 22-2 through 22-4, the proposed traffic mitigation plan would fully address all impacts at five intersections in the AM peak hour, four in the midday and nine in the PM peak hour. Twelve out of thirteen intersections impacted by the proposed action would no longer be impacted with implementation of the proposed mitigation plan. However, one unmitigable impact would remain on the eastbound Greenpoint Avenue approach to McGuinness Boulevard in the AM peak hour, when the approach would operate at LOS E with 55.7 seconds of delay, but well below its capacity with a v/c ratio of 0.75. At this location, NYCDOT provided an updated signal plan and additional mitigation measures were researched, considered and evaluated between the issuance of the DEIS and FEIS. However, no successful measures were identified, and the projected significant adverse impact at Greenpoint Avenue and McGuinness Boulevard would remain unmitigated in the AM peak hour.

## F. TRANSIT AND PEDESTRIANS

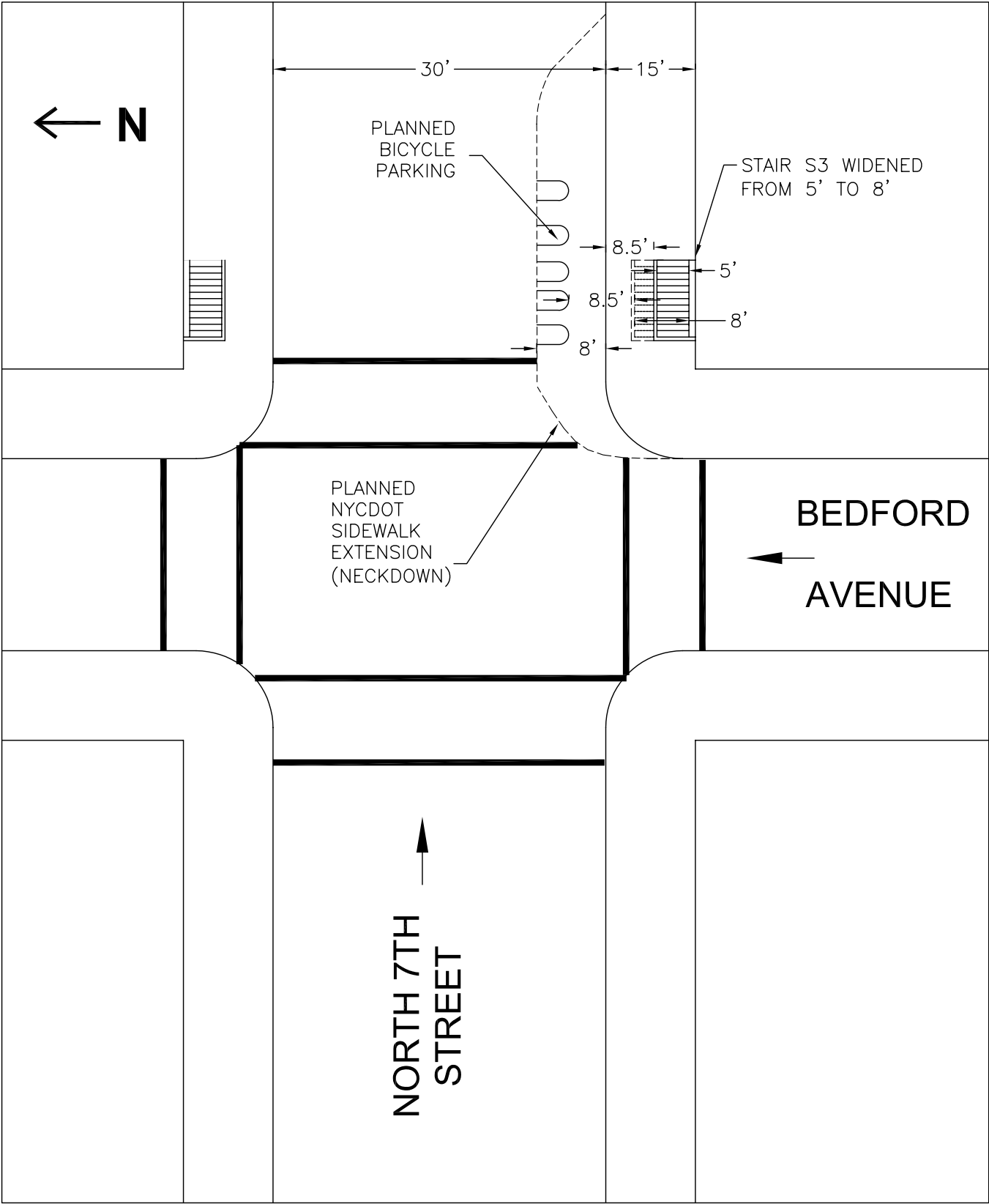
### Subway Stations

The results of the analyses of conditions at study area subway stations in the future with the proposed action show that demand from projected development sites would significantly impact one street stair at the Bedford Avenue (L) station in both peak periods. As shown in Table 22-5, in the 2013 future with the proposed action, stair S3 at the southeast corner of Bedford Avenue and North 7<sup>th</sup> Street would deteriorate from LOS C to LOS E in both the AM and PM peak periods. Upwards of 15 inches of theoretical widening would be required to return this stair to an acceptable level of service (a v/c ratio of less than 1.00) based on the methodology that was utilized for the *Hudson Yards Rezoning & Development Program GEIS* (June 2004).

Mitigation measures to address subway station stairway impacts typically involve physically widening an affected stairway in order to increase its capacity, or implementing measures that would decrease demand, typically by providing new and/or more convenient access points. At Stair S3, at the southeast corner of Bedford Avenue and North 7<sup>th</sup> Street, a two to three-foot widening would be required to restore this stair to acceptable levels of service in both the AM and PM peak periods. Table 22-5 shows peak hour conditions with Stair S3 widened from the existing five feet to seven feet in width. As shown in Table 22-5, with a two-foot widening, Stair S3 would operate at LOS C with v/c ratios of 0.85 or less in the AM and PM peak periods, fully mitigating the impact.

As shown in Figure 22-1, Stair S3 is located adjacent to the building line on the south sidewalk of North 7<sup>th</sup> Street east of Bedford Avenue. Currently, this sidewalk is approximately 15 feet in width at this location, and there is approximately 8.5 feet of existing clearance between the stairway and the curb. As discussed in Chapter 17, "Transit and Pedestrians," by 2013 it is anticipated that NYCDOT will have installed a transit neckdown at this location, widening the sidewalk adjacent to Stair S3 to a total of approximately 23 feet in order to accommodate the installation of bicycle racks. As shown in Figure 22-1, with Stair S3 widened by upwards of three feet, a minimum of 8.5 feet of clearance would remain between the stair and the curbside bicycle racks, equivalent to the existing clearance adjacent to the stair. Based on anticipated peak hour pedestrian volumes, flow conditions with this amount of clear sidewalk space would be an acceptable 10 PFM or less in the 2013 future with the proposed action. Further detailed

Proposed Mitigation for Stair S3 at Bedford Avenue (L) Station



**TABLE 22-5**  
**2013 Future With Mitigation Subway Station Analysis**  
**Bedford Avenue (L) Station**

**2013 WITH-ACTION CONDITION**

No.	Station Element/Location	Peak Period (1)	Effective Width in Feet (2)	Maximum 15 Minute Capacity (3)	No-Action Pk 15 Min Volume	Pk 15 Min Project Increment	With-Action Pk 15 Min Volume	2013 No-Action			2013 With-Action			Width Increment Threshold in Inches (5)	
								PFM (4)	V/C	LOS	PFM (4)	V/C	LOS		
S3	Stairway @ SE Corner Bedford Avenue/ N. 7th Street	AM	3.20	480	416	220	636	8.67	0.87	C	13.25	1.33	E	12.48	≥ 3.00 *
		PM	3.20	480	396	266	662	8.25	0.83	C	13.79	1.38	E	14.56	≥ 3.00 *

**2013 WITH MITIGATION CONDITION**

No.	Station Element/Location	Peak Period (1)	Effective Width in Feet (2)	Maximum 15 Minute Capacity (3)	No-Action Pk 15 Min Volume	Pk 15 Min Project Increment	With-Action Pk 15 Min Volume	2013 No-Action			2013 With Mitigation			Width Increment Threshold in Inches (5)	
								PFM (4)	V/C	LOS	PFM (4)	V/C	LOS		
S3	Stairway @ SE Corner Bedford Avenue/ N. 7th Street	AM	5.20	780	416	220	636	8.67	0.87	C	8.15	0.82	C		
		PM	5.20	780	396	266	662	8.25	0.83	C	8.49	0.85	C		

**Notes:**

- (1) Peak Hours: 8-9 am and 5-6 pm.  
(2) Effective width measured as stairwell width less one foot to account for handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.  
(3) Stair capacity in persons per 15 minutes based on NYC Transit guidelines of 10 PFM (see Note 4).  
(4) Persons per foot width of stairway per minute.  
(5) Width increment threshold needed to restore stairway to future no action conditions.  
\* denotes a significant adverse impact based on CEQR criteria.

development of this proposed mitigation would be undertaken in consultation with NYC Transit - Operations Planning and the New York City Department of Transportation.

## Subway Line Haul

As shown in Table 17-24 in Chapter 17, “Transit and Pedestrians,” the proposed action would add approximately 1,013 new subway trips, or an average of approximately 7.0 passengers per car, to Manhattan-bound L trains in the AM peak hour, increasing the volume-to-capacity ratio from 0.97 in the No-Action to 1.02 in the future with the proposed action. As AM peak hour demand on Manhattan-bound L trains would exceed practical capacity in the 2013 No-Action condition, and as the proposed action would increase this demand by more than the five passengers per car CEQR impact threshold, the Canarsie/14<sup>th</sup> Street (L) Line would be significantly impacted by the proposed action based on CEQR criteria.

As standard practice, New York City Transit routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria, within fiscal and operating constraints. As shown in Table 22-6, given the level of new demand generated by the proposed action, the addition of one Manhattan-bound train during the AM peak hour (increasing the frequency from 18 to 19 trains per hour) would be required to mitigate the potential AM peak hour impact to Manhattan-bound L-train service. The addition of one Manhattan-bound L train in the AM peak hour would return the Canarsie/14th Street Line to below capacity conditions, with a v/c ratio of 0.97.

**TABLE 22-6**  
**2013 Future with Mitigation Subway Line Haul Conditions**  
**Canarsie/14<sup>th</sup> Street (L) Line**

2013 Future With the Proposed Action							
Route	Peak Hour	Peak Direction	Trains per Hour	Cars per Hour	Available Capacity (1)	Passengers per Hour	V/C Ratio (2)
L	AM	Manhattan-Bound	18	144	20,880	21,364	1.02
	PM	Brooklyn-Bound	15	120	17,400	13,964	0.80
2013 Future With Mitigation							
Route	Peak Hour	Peak Direction	Trains per Hour	Cars per Hour	Available Capacity (1)	Passengers per Hour	V/C Ratio (2)
L	AM	Manhattan-Bound	19	152	22,040	21,364	0.97
	PM	Brooklyn-Bound	15	120	17,400	13,964	0.80
<b>Notes:</b> (1) Capacity based on 145 passengers/car for 60' cars per NYC Transit subway car loading guidelines. Trains operate with eight 60'-cars. (2) Volume-to-capacity ratio.							

## Bus Service

The results of the analysis of local bus conditions in the future with the proposed action show that demand from projected development sites would significantly impact northbound B61 service in the PM peak period. As shown in Table 17-29, in the PM peak period eastbound B61 buses would experience a capacity shortfall of 26 spaces at their maximum load point at York and Gold Streets. This compares to a capacity surplus of 97 spaces in the future without the proposed action. According to current NYC Transit guidelines, increases in bus load levels to above their maximum capacity at any load point is considered a significant adverse impact as it would necessitate the addition of more bus service along that route. As with subway line haul conditions, New York City Transit as standard practice routinely conducts periodic ridership counts and adjusts bus service frequency to meet its service criteria, within fiscal and operating constraints. Given the level of new demand generated by the proposed action, one additional northbound bus per hour during the PM peak hour would be required to mitigate the potential impact to northbound B61 service.

## Pedestrians

As discussed in Chapter 17, “Transit and Pedestrians,” new demand generated by the proposed action would not significantly impact any analyzed sidewalk, corner area or crosswalk. In addition, existing pedestrian volumes along the Kent Avenue/Franklin Street corridor are very light, and accidents involving pedestrians account for only two percent of accidents occurring along the corridor. Therefore, no pedestrian mitigation is warranted or proposed as part of this action. However, as noted in Chapter 17, the development of the proposed waterfront park on Site 211 would increase pedestrian activity along the Kent Avenue/Franklin Street corridor. Many of these trips en route to and from the park would cross Kent Avenue at the intersection of North 11<sup>th</sup> Street. Although these new trips are not expected to impact pedestrian facilities at this location, the installation of a new traffic signal with a 60-second cycle length is recommended at this intersection in order to facilitate pedestrian access to and from the park. As shown in Tables 22-2 through 22-4, with a 38-second phase for Kent Avenue and a 22-second phase for North 11<sup>th</sup> Street, all approaches at this intersection would operate at LOS C or better in all periods.

It should be noted that this intersection was also evaluated for signalization in the NYCDDC/USDOT *Kent Avenue/Franklin Street Reconstruction* Design Report. That study found that, although not warranted based on existing traffic volumes, a new signal would likely improve conditions at this intersection, and may become warranted once new developments are constructed and vehicular traffic and pedestrian volumes increase.

## G. AIR QUALITY

Chapter 18, “Air Quality,” shows the maximum predicted 8-hour carbon monoxide (CO) concentrations for the proposed action, and concludes that the proposed action would not result in any significant adverse air quality impacts. Therefore, no air quality mitigation is required. This section considers the effects on air quality of the proposed action with implementation of the traffic mitigation measures discussed above.

Table 22-7 illustrates the effect that proposed traffic mitigation measures developed to address significant impacts identified in the traffic analysis in Chapter 16, “Traffic and Parking” would have on maximum



predicted CO concentrations with the proposed action. The values shown are the highest predicted concentrations for the analyzed receptor locations. Table 22-7 shows that the proposed traffic mitigation measures would be below the National Ambient Air Quality Standards (NAAQS) and would not result in any significant adverse air quality impacts.

**Table 22-7**  
**2013 Future with Mitigation Maximum Predicted 8-Hour Average Carbon Monoxide**  
**Concentrations (parts per million)**

Receptor Site	Location	Time Period	8-hour Concentration (ppm)	
			Future With Action	Future With Mitigation
1	McGuinness Boulevard at Green Street	PM	3.8	3.8
2	McGuinness Boulevard at Greenpoint Avenue	PM	3.9	4.1
3	Franklin Street at Green Street	PM	2.4	2.4
4	Kent Avenue at North 7 <sup>th</sup> Street	PM	2.4	2.5
5	Franklin Street at Calyer Street	PM	2.5	2.5
<b>National Ambient Air Quality Standard:</b> 8-hour CO - 9 ppm.				