20.0 Mitigation

Introduction

In accordance with the 2021 *CEQR Technical Manual*, in cases where significant adverse impacts are identified, mitigation measures to reduce or eliminate the impacts to the fullest extent practicable are developed and evaluated.

Principal Conclusions

As presented in **Chapters 2** through **19** of this Environmental Impact Statement (EIS), the Proposed Actions would result in significant adverse impacts in the following technical areas: Open Space (indirect), Shadows, Historic and Cultural Resources, Transportation, and Construction. Mitigation measures being proposed to address those impacts, where feasible and/or practical, are discussed below. If no feasible mitigation can be identified, an unavoidable significant adverse impact would result.

Open Space

As presented in **Chapter 5, Open Space**, the Proposed Actions would result in indirect significant adverse impacts to total, active, and passive open space in the residential ½-mile study area.

Possible measures that could mitigate the Proposed Actions' indirect significant adverse impact to open space in the residential Study Area may include: expanding existing parks, creating new open space on publicly owned land, encouraging owners of privately owned sites to create new open space as part of their redevelopment, making playgrounds accessible to the community after school hours through the Schoolyards to Playgrounds program, establishing new pedestrian plazas in streets through the City's Plaza program, and/or improving existing parks to allow for more diverse programming. These potential mitigation measures are currently being explored in coordination with the lead agency, DCP, and the New York City Department of Parks and Recreation and will be refined between the DEIS and FEIS.

As discussed in **Chapter 25, Conceptual Analysis**, as part of the Proposed Actions, a zoning text amendment is proposed that would create a zoning authorization allowing for the bonus of floor area and height modification with the provision of publicly accessible open space on zoning lots zoned R9 larger than 25,000 square feet (sf).

Though these potential mitigation measures may increase publicly accessible open space in the residential ½-mile Study Area, opportunities to create new open space in sufficient amounts to fully mitigate an indirect impact (approximately three acres) are limited. Therefore, the indirect significant adverse impact would not be fully mitigated, and an unavoidable significant adverse indirect open space impact would occur.

Shadows

As presented in **Chapter 6, Shadows,** incremental shadow generated by the Proposed Actions would result in significant adverse impacts to two sunlight-sensitive resources (St. Bartholomew's Episcopal Church and Lefferts Place Block Association Garden). The analysis determined that a portion of Lefferts Place Block Association Garden would not receive adequate sunlight during the growing season (at least the six-to-eight-hour minimum specified in the *CEQR Technical Manual*) as a result of incremental shadow coverage, and vegetation at this resource could be significantly impacted. Additionally, the analysis determined that incremental shadow coverage would result in a reduction in direct sunlight exposure for sunlight-sensitive features at St. Bartholomew's Episcopal Church, which could affect the public's enjoyment or appreciation of those features.

According to the *CEQR Technical Manual*, possible measures that could mitigate significant adverse shadow impacts on open spaces may include relocating sunlight-sensitive features within an open space to avoid sunlight loss; relocating, replacing, or monitoring vegetation for a set period of time; undertaking additional maintenance to reduce the likelihood of species loss; or providing for replacement facilities on another nearby site. Other potential mitigation strategies include the redesign or reorientation of the open space to provide for replacement facilities, vegetation, or other features. The *CEQR Technical Manual* guidance also discusses strategies to reduce or eliminate shadow impacts, including modifications to the height, shape, size, or orientation of a proposed development that creates the significant adverse shadow impact. Measures to reduce or eliminate the significant adverse shadow impact will be explored between the DEIS and FEIS. Absent the implementation of mitigation measures, the Proposed Actions would result in unmitigated significant adverse impacts on St. Bartholomew's Episcopal Church and the Lefferts Place Block Association Garden.

Historic and Cultural Resources

As discussed in **Chapter 7, Historic and Cultural Resources,** the Proposed Actions would result in significant adverse impacts to architectural and archaeological resources.

Architectural Resources

The Proposed Actions would result in a significant adverse impact to architectural resources as a result of demolition, shadows, and adjacent construction. The Proposed Actions would

result in significant adverse direct impacts to the State/National Registers of Historic Places (S/NR)-Eligible former Olivet Church. This impact as a result of demolition would be unavoidable, as the building is privately owned and could be demolished to allow for development as-of-right under the Proposed Actions. measures to partially mitigate the significant adverse impacts will be developed by DCP in consultation with LPC between the DEIS and FEIS.

Development at nine projected and potential development sites under the Proposed Actions could potentially result in construction-related impacts to five S/NR- and Landmarks Preservation Commission (LPC)-Eligible historic resources, one of which is an eligible historic district. These resources are located within 90 feet of Projected and Potential Development Sites. These resources could experience construction-related damage, which could result in significant adverse impacts. Implementation of a Construction Protection Plan (CPP) pursuant to the NYC Department of Buildings (DOB) Technical Policy and Procedure Notice (TPPN) #10/88 would avoid or mitigate the potential for significant adverse impacts. As neither the district nor the individual landmark are S/NR-Listed or designated New York City Landmark (NYCL), the resources are notafforded the protections under NYC DOB's TPPN #10/88. Since there would be no mechanism to require commitment to the CPP on sites within 90 feet of the eligible resources noted above, there would not be feasible strategies to fully mitigate the potential for significant adverse impacts, which may result in an unavoidable impact to architectural resources. Mitigation measures will continue to be explored by DCP and LPC between the DEIS and the FEIS.

Archaeological Resources

The Proposed Actions would result in construction activity on sites that the Phase 1A Archaeological Study concluded was potentially sensitive for 19th century and early 20th century historic archaeological resources. In order to mitigate significant adverse impacts on archaeological resources, additional archaeological analysis would be required on the site before it is redeveloped. While there are no mechanisms currently in place to ensure that this archaeological analysis would occur on the privately owned sites subsequent to the Proposed Actions, if redevelopment would involve either federal or state funding or permitting, then further environmental review could be required, and historic resource issues could be addressed. Environmental review could necessitate Phase 1B archaeological testing and possibly mitigation for identified significant resources through avoidance or data recovery. If future development does not entail federal or state funding and occurs as-of-right, the Proposed Actions would result in significant adverse impacts on archaeological resources and there would be no mechanism available to require archaeological analysis to determine the presence of archaeological resources; therefore, these impacts would be unmitigated.

Transportation

As described below, the Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 27 intersections , b) subway line haul conditions on northbound C trains in the AM peak hour and southbound C trains in the PM peak hour, and c) pedestrian elements

at 12 sidewalks, four corners, and four crosswalks. Mitigation measures that could address the significant adverse impacts are discussed below.

Traffic

As described in greater detail in **Chapter 13, Transportation,** the Proposed Actions would result in significant adverse traffic impacts at 27 study area intersections (24 signalized and 3 unsignalized) during one or more analyzed peak hours; specifically 41 lane groups at 21 intersections during the weekday AM peak hour, 26 lane groups at 21 intersections in the midday peak hour, 44 lane groups at 25 intersections in the PM peak hour, and 46 lane groups at 25 intersections during the Saturday peak hour. Implementation of traffic engineering improvements such as signal timing changes, the installation of new traffic signals, and modifications to lane striping and curbside parking regulations are being proposed and would provide mitigation for many of the anticipated traffic impacts. These proposed traffic engineering improvements are subject to final review and approval by the New York City Department of Transportation (DOT). If DOT determines that an identified traffic engineering improvement is infeasible, and no alternative and equivalent measure is identified, then that impact would remain unmitigated and would constitute an unavoidable adverse impact.

Assuming all the proposed mitigation measures are implemented, **Table 20-1** shows that significant adverse impacts would be fully mitigated at 13 lane groups in the weekday AM peak hour, 13 lane groups in the midday peak hour, 12 lane groups in the weekday PM peak hour, and 11 lane groups in the Saturday peak hour. Intersections where all impacts would be fully mitigated would total 6, 22, 9, and 6 during these same periods, respectively. **Table 20-2** provides a more detailed summary of the intersections and lane groups that would have unmitigated significant adverse traffic impacts. In total, impacts to one or more lane groups would remain unmitigated in one or more peak hours at 22 intersections.

Table 20-1: Summary of Lane Groups/Intersections with Significant Adverse Traffic Impacts

Peak Hour	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	121/31	80/10	41/21	13/6	28/15
Weekday Midday	120/31	94/10	26/21	13/11	13/10
Weekday PM	120/31	76/6	44/25	12/9	32/16
Saturday	119/31	73/6	46/25	11/6	35/19

Table 20-2: Lane Groups With Unmitigated Significant Adverse Traffic Impacts

	Peak Hour			
	Weekday AM	**Weekday Midday**	**Weekday PM**	**Saturday**
Atlantic Av & 4th Av			EB-T, NB-LTR, SB-LT	EB-T, NB-LTR, SB-LT
Atlantic Av & S Portland Av				WB-L
Atlantic Av & Carlton Av	WB-TR, NB-LTR		WB-L, NB-LTR	WB-L, NB-LTR
Atlantic Av &Clermont Av.	EB-L	EB-L	EB-L	EB-L
Atlantic Av & Vanderbilt Av	WB-TR			
Atlantic Av & Washington Av	EB-TR, WB-L, NB-L	EB-TR, NB-L	EB-TR, NB-L	EB-TR, NB-L
Atlantic Av & Grand Av	WB-L, SB-TR	WB-L	WB-L, SB-L, SB-TR	WB-L, SB-L, SB-TR
Atlantic Av & Classon av	EB-L, WB-TR, NB-L, NB-TR	EB-L, WB-TR, NB-TR	EB-L, WB-TR, NB-L, NB-TR	EB-L, WB-TR, NB-L, NB-TR
Atlantic Av & Franklin Av	WB-L, SB-LT	EB-TR	EB-TR, WB-L, SB-LT, SB-R	EB-TR, WB-L, SB-LT, SB-R
Atlantic Av & Bedford Av	WB-TR, NB-L, NB-T	WB-TR	WB-TR, NB-L, NB-T	WB-TR, NB-L, NB-T
Atlantic Av & Nostrand Av	SB-LT, SB-R	SB-LT	EB-TR, WB-T	SB-LTR
Atlantic Av & New York Av	WB-T			
Grand Av & Fulton St			EB-TR	EB-TR
Classon Av & Dean St	EB-LT, NB-TR	EB-LT	EB-LT	EB-LT, NB-TR
Franklin Av & Fulton St				
Franklin Av & Leffert Pl.	EB-R	EB-R	EB-R	EB-R
Franklin Av & Pacific St	SB-TR	SB-TR	SB-TR	SB-TR
Franklin St/Franklin Av & Dean St	EB-TR, SB-LT		EB-TR, SB-LT	EB-TR, SB-LT
Bedford Av & Fulton St	NB-LT		EB-L	NB-R
Bedford Av & Pacific St				WB-TR
Bedford Av/Roger Av & Dean St			EB-LTR	EB-LTR
Bergen St & Roger Av				WB-TR

Notes: NB—northbound, SB—southbound, EB—eastbound, WB—westbound L—left-turn, T—through, R—right-turn

Transit

Subway Line Haul

In the 2034 future with the Proposed Actions, northbound C trains are expected to be operating over capacity in the AM peak hour, and the Proposed Actions would increase this demand by an average of approximately 20.81 passengers per car. Southbound C trains are also expected to be operating over capacity in the PM peak hour, and the Proposed Actions would increase this demand by an average of approximately 18.60 passengers per car. These significant adverse impacts could be fully mitigated by the addition of two northbound

and southbound C trains during the AM and PM peak hours, respectively. As standard practice, NYCT routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria, within fiscal and operating constraints which would mitigate this impact. In the absence of these measures, this impact would remain unmitigated.

Pedestrians

Incremental demand from the Proposed Actions would significantly adversely impact 12 sidewalks, four crosswalks, and four corners in one or more analyzed peak hours. Recommended mitigation measures consisting of the relocation/removal of impediments to sidewalk flow and the widening of crosswalks would fully mitigate the impacts to five sidewalks and three crosswalks. **Table 20-3** shows a summary of fully mitigated and unmitigated significant adverse impacts. Implementation of the proposed mitigation measures would be subject to final review and approval by DOT, as well as NYC Parks if a street tree is to be removed. If DOT determines that an identified pedestrian improvement is infeasible, alternative and equivalent measures will be explored. Absent the identification and implementation of additional feasible mitigation measures that would mitigate the pedestrian impacts to the greatest extent practicable, the Proposed Actions would result in unmitigated significant adverse pedestrian impacts.

Table 20-3: Summary of significant pedestrian impacts

Peak Hour	Sidewalks/ Crosswalks/ Corners Analyzed	Sidewalks/ Crosswalks/ Corners with No Significant Impacts	Sidewalks/ Crosswalks/ Corners with Significant Impacts	Mitigated Sidewalks/ Crosswalks/ Corners	Unmitigated Sidewalks/ Crosswalks/ Corners
Weekday AM	62/39/68	55/39/68	7/0/0	3/0/0	4/0/0
Weekday Midday	62/39/68	54/38/68	8/1/0	4/1/0	4/0/0
Weekday PM	62/39/68	51/35/64	11/4/4	5/3/0	6/1/4
Saturday	62/39/68	51/35/64	11/4/4	5/3/0	6/1/4

Construction

As presented in **Chapter 19, Construction,** approval of the Proposed Actions would result in significant adverse construction transportation (traffic and pedestrian), air quality and noise impacts throughout and adjacent to the Project Area (refer to **Figure 19-3**).

Transportation

As presented in **Chapter 19, Construction,** it is expected that potential significant adverse traffic and pedestrian impact could occur during construction. The mitigation measures identified in **Chapter 20, Mitigation,** for 2034 operational traffic and pedestrian impacts would also be similarly effective at mitigating any potential impacts from construction traffic during the peak-construction activity expected with the Proposed Actions.

Air Quality

As presented in **Chapter 19, Construction,** $PM_{2.5}$ would be below its NAAQS for all analyzed Sites and would exceed annual *de minimis* threshold at projected development sites 10 and 14. The exceedance of the de minimis threshold would be considered a significant adverse air quality impact. Between the DEIS and FEIS, additional review and evaluation will be performed to determine whether the identified impacts related to Annual PM2.5 increments will be avoided. This may include use of more refined assumptions in terms of construction equipment usage, and the use of newer construction equipment with lower particulate emissions, as applicable.

At this time, no practicable mitigation measures have been identified. Between the Draft and Final EIS, mitigation measures will be explored. In the event practicable mitigation measures are not identified, this would be an unmitigated impact.

Noise

The analysis in **Chapter 19** was based on a conceptual construction schedule. The conceptual construction schedule conservatively accounts for overlapping construction activities at development sites. The noise analysis results show that the predicted noise levels could exceed the construction noise impact criteria throughout the Project Area. It is possible that the actual construction may be of less magnitude, or that construction on multiple projected development sites may not overlap, in which case construction noise would be less intense than the analysis predicts.

Proposed mitigation could include a variety of source and path controls. Between publication of the DEIS and FEIS, all possible mitigation measures to address the identified construction noise impacts will be explored. In the event no additional practicable or feasible mitigation measures are determined, the significant adverse construction noise impacts would be unavoidable.

Open Space

As presented in **Chapter 5, Open Space**, approval of the Proposed Actions would result in total, active, and passive open space ratios in the residential ½-mile study area below the City's guideline ratios. The total residential study area open space ratio would decline by 6.29 percent to 0.276 acres per 1,000 residents; the active residential study area open space ratio would decline by 6.29 percent to 0.202 acres per 1,000 residents; and the passive residential study area open space ratio would decrease 6.29 percent, and the open space ratio would be 0.074 acres per 1,000 residents. As these decreases would exceed the CEQR impact thresholds, the Proposed Actions would result in a significant adverse indirect impact on total, passive, and active open space in the residential study area.

Possible measures that could mitigate the Proposed Actions' indirect significant adverse impact to open space in the resident study area may include: expanding existing parks, creating new open space on publicly owned land, encourage owners of privately-owned sites to create new open space as part of their redevelopment, making playgrounds accessible to

the community after school hours through the Schoolyards to Playgrounds program, establishing new pedestrian plazas in streets through the City's Plaza program, and/or improving existing parks to allow for more diverse programming. These potential mitigation measures are currently being explored in coordination with the lead agency, DCP, in consultation with NYC Parks and will be refined between the DEIS and FEIS.

As discussed in **Chapter 25, Conceptual Analysis**, as part of the Proposed Actions, a zoning text amendment is proposed which would create a zoning authorization that would allow for the bonus of floor area and height modification with the provision of publicly accessible open space on zoning lots zoned R9 larger than 25,000 sf. If property owners elect to seek this authorization in the future, it is anticipated that new publicly accessible open space would be introduced on Projected Development Sites in the future, serving to offset the new demand introduced by the Proposed Actions.

Though these potential mitigation measures may increase publicly accessible open space in the residential ½-mile study area, opportunities to create new open space in sufficient amounts to fully mitigate an indirect impact (approximately three acres) are limited. Therefore, the indirect significant adverse impact would not be fully mitigated, and an unavoidable significant adverse indirect open space impact would occur.

Shadows

Incremental shadow generated by the Proposed Actions would result in significant adverse impacts on two sunlight-sensitive resources: St. Bartholomew's Episcopal Church and Lefferts Place Block Association Garden. The analysis determined that a portion of Lefferts Place Block Association Garden would not receive adequate sunlight during the growing season (at least the six-to-eight-hour minimum specified in the *CEQR Technical Manual*) as a result of incremental shadow coverage, and vegetation at this resource could be significantly impacted. Additionally, the analysis determined that incremental shadow coverage would result in a reduction in direct sunlight exposure for sunlight-sensitive features at St. Bartholomew's Episcopal Church, which could affect the public's enjoyment or appreciation of those features.

As presented in **Table 6-4** of **Chapter 6, Shadows** St. Bartholomew's Episcopal Church would experience incremental shadow on all four analysis days, ranging between two hours and 29 minutes on the December 21 analysis day and five hours 51 minutes on the June 21 analysis day. St. Bartholomew's Protestant Episcopal Church and Rectory is located on Pacific Street between Bedford Avenue and Nostrand Avenue. The church was built between 1886-1890 and was individually registered as a New York City Landmark in 1974 and a U.S. National Historic Landmark in 1980. The church is an example of Romanesque Revival architecture and contains sunlight-sensitive stained-glass windows on the building's southern, eastern, and western facades. Project-generated shadows are expected to cover portions of the western-facing stained-glass windows on three of the four analysis days, excluding the December 21 analysis day. On the March 21 analysis day, these shadows are

expected to be minor, occurring on only a small part of the windows for a limited duration of less than one hour.

However, as noted above, shadow coverage of the building's sunlight-sensitive features is expected to be larger and of longer duration on the May 6/August 6 and June 21 analysis days. On these days, incremental shadows would cover portions of the western-facing stained-glass windows for at least three and four hours, respectively. Additionally, incremental shadows on these days would cover most the church's stained-glass windows for approximately one hour. As these incremental shadows may have the potential to affect the public's enjoyment of this resource's sunlight-sensitive features, this is being considered a significant adverse shadow impact.

Incremental shadow generated by the Proposed Actions would be cast on the Lefferts Place Block Association Garden on all four analysis days, ranging between four hours and 20 minutes on the June 21 analysis day and seven hours 11 minutes on the March 21/September 21 analysis day. Lefferts Place Block Association Garden is a 0.06-acre community garden located on Lefferts Place between Classon and Franklin Avenues. The garden includes planting beds. Incremental shadow cast on the Lefferts Place Block Association Garden would reduce direct sunlight for an already sunlight-deprived open space resource. Except for the June 21 analysis day, both the duration and coverage of shadows on the garden would be significant, with incremental shadows covering large portions of the resource for hours at a time. Such shadows would be particularly prevalent on the March 21/September 21 analysis day, during which the garden would experience the longest duration (seven hours and 11 minutes) and coverage (100% of the garden area at approximately 1:00 PM) of incremental shadows. Due to incremental shadow coverage, Lefferts Place Block Association Garden would not receive the minimum of six hours of direct sunlight on the March 21/September 21 and June 21 analysis days, both of which are within the growing season according to the *CEQR Technical Manual*. Given that the duration and coverage of the incremental shadows on Lefferts Place Block Association Garden may have the potential to affect vegetation as well as the public's enjoyment of this feature, this is being considered a significant adverse shadow impact.

According to the *CEQR Technical Manua*l, possible measures that could mitigate significant adverse shadow impacts on open spaces may include relocating sunlight-sensitive features within an open space to avoid sunlight loss; relocating, replacing, or monitoring vegetation for a set period of time; undertaking additional maintenance to reduce the likelihood of species loss; or providing for replacement facilities on another nearby site. Other potential mitigation strategies include the redesign or reorientation of the open space to provide for replacement facilities, vegetation, or other features. The *CEQR Technical Manual* guidance also discusses strategies to reduce or eliminate shadow impacts, including modifications to the height, shape, size, or orientation of a proposed development that creates the significant adverse shadow impact. Measures to reduce or eliminate the significant adverse shadow impact will be explored between the DEIS and FEIS. Absent the implementation of mitigation measures, the Proposed Actions would result in unmitigated significant adverse impacts on St. Bartholomew's Episcopal Church and the Lefferts Place Block Association Garden.

Historic Resources

Architectural Resources

The Proposed Actions would result in a significant adverse impact to architectural resources as a result of demolition, shadows, and adjacent construction. The Proposed Actions would result in significant adverse direct impacts to the S/NR-Eligible Olivet Church. This impact as a result of demolition would be unavoidable, as the building is privately owned and could be demolished to allow for development as-of-right under the Proposed Actions. Mitigation measures outlined in Chapter 9 of the 2021 *CEQR Technical Manual* that could minimize or reduce these impacts include redesign, adaptive reuse, construction protection plans (CPP) and relocating architectural resources. If these measures are not feasible to avoid the adverse direct impact, measures such as photographically documenting the eligible structures in accordance with the standards of the Historic American Buildings Survey (HABS) could partially mitigate the identified significant adverse direct impact to NYC-E and S/NR-Eligible historic architectural resources. Measures to partially mitigate the significant adverse impacts will be developed by DCP in consultation with LPC between the DEIS and FEIS.

Development at nine projected and potential development sites under the Proposed Actions could potentially result in construction-related impacts to seven S/NR- and LPC-Eligible historic resources, one of which is a historic district. These resources are located within 90 feet of projected and potential development sites. These resources could experience construction-related damage, which could result in significant adverse impacts. Implementation of a CPP pursuant to the NYC DOB TPPN #10/88 would avoid or mitigate the potential for significant adverse impacts. As neither the district nor the individual landmark are S/NR-Listed or designated NYCL, the resources are not afforded the protections under NYC DOB's TPPN #10/88. Since there would be no mechanism to require commitment to the CPP on sites within 90 feet of the eligible resources noted above, there would not be feasible strategies to fully mitigate the potential for significant adverse impacts, which may result in an unavoidable impact to architectural resources. Mitigation measures will continue to be explored by DCP in consultation with LPC between the DEIS and FEIS.

Archaeological Resources

The Proposed Actions would result in construction activity on sites that the Phase 1A Archaeological Study concluded was potentially sensitive for 19th century and early 20th century historic archaeological resources. In order to mitigate significant adverse impacts on archaeological resources, additional archaeological analysis would be required on the site before it is redeveloped. While there are no mechanisms currently in place to ensure that this archaeological analysis would occur on the privately owned sites subsequent to the Proposed Actions, if redevelopment would involve either federal or state funding or permitting, then further environmental review could be required, and historic resource issues could be addressed. Environmental review could necessitate Phase 1B archaeological testing and possibly mitigation for identified significant resources through avoidance or data recovery. If future development does not entail federal or state funding and occurs as-of-

right, the Proposed Actions would result in significant adverse impacts on archaeological resources and there would be no mechanism available to require archaeological analysis to determine the presence of archaeological resources; therefore, these impacts would be unmitigated. Mitigation measures will continue to be explored by DCP in consultation with LPC between the DEIS and FEIS.

Transportation

The Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 27 intersections b) one subway stair at the Franklin Avenue (C/S) subway station, c) subway line haul conditions on northbound C trains in the AM peak hour and southbound C trains in the PM peak hour, and d) pedestrian elements at 12 sidewalks, four corners, and four crosswalks. Mitigation measures that could address the significant adverse impacts are discussed below.

Working in concert with the NYC DOT, DCP will continue broad planning efforts for the future of Atlantic Avenue. While the mitigation measures identified below address some traffic, transit and pedestrian impacts from a CEQR perspective, additional infrastructure improvements may be identified as part of the planning process to better serve all street users.

Traffic

As described in **Chapter 13, Transportation**, the Proposed Actions would result in significant adverse traffic impacts at 27 study area intersections (24 signalized and three unsignalized) during one or more analyzed peak hours; specifically, 41 lane groups at 21 intersections during the weekday AM peak hour, 26 lane groups at 21 intersections in the midday peak hour, 44 lane groups at 25 intersections in the PM peak hour, and 46 lane groups at 25 intersections during the Saturday peak hour.

As demonstrated below, many of these impacts could be mitigated through the implementation of traffic engineering improvements, including:

- Modification of existing traffic signal phasing and/or timing,
- Installation of new traffic signals or all-way stop control,
- Elimination of on-street parking to add a travel lane, and
- Modifications to lane striping.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 20-4** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM, midday, PM, and Saturday peak hours. Implementation of the recommended traffic engineering improvements is subject to review and approval by DOT. If DOT determines that an identified traffic engineering improvement is infeasible, alternative and equivalent measures will be explored. Absent the identification

and implementation of additional feasible mitigation measures that would mitigate the traffic impacts to the greatest extent practicable, the Proposed Actions would result in unmitigated significant adverse impacts. **Tables 20-5** through **20-8** show the v/c ratios, delays, and levels of service (LOS) for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No Action and With Action conditions for the weekday AM, midday, PM, and Saturday peak hours, respectively. According to *CEQR Technical Manual* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation Condition compared with the No Action Condition is no longer deemed significant following the impact criteria described in **Chapter 13, Transportation**. **Tables 20-5** through **20-8** show that significant adverse impacts would be fully mitigated at 13 lane groups in the weekday AM peak hour, 13 lane groups in the midday, 12 lane groups in the PM, and 11 lane groups in the Saturday peak hour. Intersections where all impacts would be fully mitigated would total 6, 22, 9, and 6 during these same periods, respectively. In total, impacts to one or more lane group(s) would remain unmitigated in one or more peak hours at 22 intersections. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Proposed Actions (see also Chapter 22, “Unavoidable Adverse Impacts”).

Effects of Pedestrian Mitigation on Traffic Conditions

Proposed pedestrian mitigation measures would not affect traffic conditions at any analyzed intersection in any peak hour.

Table 20-4: Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No-Action/With Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	
1. Atlantic Avenue (EB/WB) @ 4th Avenue (NB/SB)	NB	27	32	27	32	28	32	27	32	Transfer 3s from EB/WB 1s to NB and 2s to SB in AM. Transfer 2s from EB/WB 2s to SB in MD.
	EBT/WB	10	10	10	10	10	10	10	10	
	EB/WB	50	43	40	43	47	41	40	43	
	SB	33	35	43	35	35	37	43	35	
2. Atlantic Avenue (EB/WB) @ Flatbush Avenue (NB/SB)	NB/SB	61	61	61	61	58	59	58	59	· Transfer 3s of green time from NB/SB to EB/WB in AM/PM. · Transfer 2s of green time from NB/SB to EB/WB in MD/SatMD.
	EBT/WBT	15	15	15	15	15	15	15	15	
	EB/WB	44	44	44	44	47	46	47	46	
4. Atlantic Avenue (EB/WB) @ South Portland Avenue	EB/WB	58	37	63	61	58	37	63	61	Unmitigable.
	LPI	7	7	7	7	7	7	7	7	
	NB/SB	38	35	35	37	38	35	35	37	
	WB	17	11	15	15	17	11	15	15	
5. Atlantic Avenue (EB/WB) @ Carlton Avenue	EB/WB	56	40	61	59	56	39	61	59	· Transfer 1s of green time from EB/WB to NB in MD
	EBL/WBL	12	12	14	12	12	12	14	12	
	NB	52	38	45	49	52	39	45	49	
6. Atlantic Avenue (EB/WB) @ Clermont Avenue	EB/WB	72	45	72	73	72	45	72	73	Unmitigable.
	LPI	10	10	10	10	10	10	10	10	
	SB	38	35	38	37	38	35	38	37	
7. Atlantic Avenue (EB/WB) @ Vanderbilt Avenue	EB/WB	54	30	56	54	52	32	55	56	Transfer 2s from EB/WB to WB and 1s from NB/SB to NB in AM Transfer 2s from NB/SB to EB/WB in MD. Transfer 1s from EB/WB to NB in PM Transfer 2s from WBL to EB/WB in SatMD
	NB	13	11	13	13	14	11	14	13	
	NB/SB	40	38	38	40	39	36	38	40	
	WB	13	11	13	13	15	11	13	11	
8. Atlantic Avenue (EB/WB) @ Washington Avenue	EB/WBT	54	34	60	60	54	34	60	60	Unmitigable.
	WB	15	12	16	16	15	12	16	16	
	NBT/SB	15	15	15	15	15	15	15	15	
	NB/SB	36	29	29	29	36	29	29	29	
9. Atlantic Avenue (EB/WB) @ Grand Avenue	EB/WB	71	48	70	71	71	48	70	71	Unmitigable.
	LPI	10	10	10	10	10	10	10	10	
	SB	39	32	40	39	39	32	40	39	
10. Atlantic Avenue (EB/WB) @ Classon Avenue	EB/WB	60	36	60	60	60	36	60	60	Unmitigable.
	EB	18	14	18	18	18	14	18	18	
	LPI	10	10	10	10	10	10	10	10	
	NB	32	30	32	32	32	30	32	32	
11. Atlantic Avenue (EB/WB) @ Franklin Avenue	EB/WB	58	35	62	60	58	35	62	60	Unmitigable.
	WB	14	14	14	14	14	14	14	14	
	LPI	10	10	10	10	10	10	10	10	
	SB	38	31	34	36	38	31	34	36	
12. Atlantic Avenue (EB/WB) @ Bedford Avenue	EBT/WB	54	32	50	52	54	32	50	52	Unmitigable.
	NB	48	40	50	50	48	40	50	50	
	EB	18	18	20	18	18	18	20	18	
13. Atlantic Avenue (EB/WB) @ Nostrand Avenue	EBT/WB	69	40	59	73	69	40	59	73	Unmitigable.
	LPI	10	10	10	10	10	10	10	10	
	SB	41	40	51	37	41	40	51	37	
14. Atlantic Avenue (EB/WB) @ New York Avenue	EBT/WB	57	37	55	55	60	39	58	58	Ban parking on the west curb of the NB approach for 200'. Restripe west curb to an 11' left turn lane. Transfer 3s of green from NB to EB/WB in AM/PM/SatMD, and 2s in MD (Ban parking for 50' on the north curb of WB receiving side to make safely turning maneuver for northbound left turn vehicle)
	LPI	10	10	10	10	10	10	10	10	
	NB	38	30	38	38	35	28	35	35	
	EB	15	13	17	17	15	13	17	17	

Notes :

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

Table 20-4 (cont'd): Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No-Action/With Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	
15. Grand Avenue (NB)/ Fulton Street (EB-WB)	EB/WB	43	40	43	40	43	40	46	43	Ban parking for 120' on north curb of the WB approach. Restriped WB approach for a 11' left turn lane and 11' thru lane. Transfer 3s from SB to EB/WB in PM/SatMD
	LPI	7	10	7	10	7	10	7	10	
	SB	40	40	40	40	40	40	37	37	
16. Grand Avenue (SB)/ Pacific Street (WB)	WB	Unsignalized				25	25	24	25	Install signal at this intersection with 60 second cycle length. Ban parking for 100' on the south curb of the WB approach. Restripe the WB approach with a 11' left turn and 11' thru lane.
	SB					35	35	36	35	
17. Grand Avenue (SB)/ Dean Street (EB)	EB	Unsignalized				25	25	27	25	Install signal at this intersection with 60 second cycle length. Ban parking from Dean St to Pacific St on the east curb of the SB approach. Restripe the SB approach with a 11' left turn and 13' thru lane.
	SB					35	35	33	35	
18. Classon Avenue (NB)/ Fulton Street (EB-WB)	EB/WB	51	48	51	48	51	48	48	45	Transfer 3 s from EB/WB to NB in PM and SATMD.
	LPI	7	10	7	10	7	10	7	10	
	NB	32	32	32	32	32	32	35	35	
19. Classon Avenue (NB)/ Pacific Street (WB)	WB	19	19	19	19	19	19	19	21	Ban parking for 150' on north curb of the WB approach. Restriped for a 11' right turn lane and 12' thru lane. Transfer 2 s of green time from NB to WB in SatMD.
	LPI	7	7	7	7	7	7	7	7	
	NB	34	34	34	34	34	34	34	32	
20. Classon Avenue (NB)/ Dean Street (EB)	WB	19	19	19	19	19	19	19	19	Unmitigable.
	LPI	7	7	7	7	7	7	7	7	
	NB	34	34	34	34	34	34	34	34	
21. Franklin Avenue (SB)/ Fulton Street (EB/WB)	EB/WB	45	45	45	45	47	45	46	45	Transfer 2 s and 1 s from SB to EB/WB in AM and PM.
	SB	45	45	45	45	43	45	44	45	
22. Franklin Avenue (SB)/ Leffert Pl (EB)	EB	Unsignalized				Unsignalized				Unmitigable.
	SB									
23. Franklin Avenue (SB)/ Pacific Street (WB)	WB	24	24	22	24	24	24	22	24	Unmitigable.
	SB	36	36	38	36	36	36	38	36	
24. Franklin Avenue (SB)/ Dean Street (EB)	EB	20	20	20	20	20	19	20	20	Transfer 1s from EB to SB in MD peak hour.
	LPI	7	7	7	7	7	7	7	7	
	SB	33	33	33	33	33	34	33	33	
25. Bedford Avenue (NB)/ Fulton Street (EB/WB)	EB/WB	46	42	52	42	46	40	49	39	Ban parking for 200' on the north curb of the WB approach. Restripe WB approach with a 12' thru and 11' right turn lane. Transfer 2s from EB/WB to NB in MD, 3s in PM and SatMD.
	LPI	10	10	10	10	10	10	10	10	
	NB	64	38	58	38	64	40	61	41	
27. Bedford Avenue (NB)/ Pacific Street (WB)	WB	42	32	42	36	42	32	44	36	Transfer 2 s from NB to WB in PM.
	LPI	10	10	10	10	10	10	10	10	
	NB	68	48	68	74	68	48	66	74	
28. Bedford Avenue (NB/SB)/ Roger Ave(NB) @ Dean St (EB)	EB	42	33	42	36	45	36	42	36	Transfer 3s from NB to EB in AM and MD peak hour.
	LPI	10	10	10	10	10	10	10	10	
	NB	68	47	68	74	65	44	68	74	
29: Bedford Av & Bergen St/ Roger Av Roger Av (NB) & Bedford Av (NB/SB)	WB	37	32	37	36	38	34	40	36	Transfer 1 s from NB/SB to WB in AM, 2 s in MD, 3s in PM.
	LPI	10	10	10	10	10	10	10	10	
	NB/SB	73	48	73	74	72	46	70	74	

Notes :
(1) Signal timings shown indicate green plus yellow (including all red) for each phase.

Table 20-5: Action-With-Mitigation Conditions at Impacts Lane Groups - AM

			No-Action Weekday AM			With-Action Weekday AM				Mitigation Weekday AM			
Signalized Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS		V/C Ratio	Delay (sec/veh)	LOS	
1: Atlantic Av & 4th Av	EB	T	0.72	30.3	C	0.76	31.9	C		0.81	36.1	D	
	EB	R	0.28	28.1	C	0.28	28.1	C		0.30	30.7	C	
	WB	T	0.89	9.4	A	0.99	19.6	B		1.05	38.9	D	
	NB	L	0.79	68.9	E	0.81	72.1	E		0.78	66.8	E	
	NB	LTR	0.99	113.6	F	1.05	130.2	F	*	1.01	115.7	F	
	NB	R	0.83	77.0	E	0.86	81.2	F	*	0.82	74.6	E	
	SB	LT	1.18	149.6	F	1.24	175.0	F	*	1.16	139.8	F	
2: Atlantic Av & Flatbush Av	EB	T	0.77	17.8	B	0.84	20.3	C		0.79	17.7	B	
	EB	R	0.78	33.0	C	0.78	33.0	C		0.69	26.9	C	
	WB	T	0.80	22.8	C	0.89	29.0	C		0.84	25.4	C	
	WB	R	1.21	142.0	F	1.36	204.9	F	*	1.17	126.8	F	
	NB	T	0.71	28.1	C	0.71	28.1	C		0.75	31.2	C	
	SB	T	0.51	24.1	C	0.51	24.1	C		0.54	26.5	C	
3: Atlantic Av & Fort Greene Pl.	EB	T	0.64	2.4	A	0.70	2.8	A		0.70	2.8	A	
	WB	T	0.64	7.3	A	0.71	7.5	A		0.71	7.5	A	
4: Atlantic Av & S Portland Av	EB	TR	0.59	10.4	B	0.64	11.5	B		0.64	11.4	B	
	WB	L	0.57	22.0	C	0.63	25.4	C		0.63	25.4	C	
	WB	T	0.67	18.6	B	0.73	20.3	C		0.73	20.3	C	
	NB	LT	0.57	32.2	C	0.59	34.3	C		0.59	34.3	C	
	NB	R	0.37	27.7	C	0.39	29.4	C		0.39	29.4	C	
	SB	L	0.60	50.2	D	0.61	50.9	D		0.61	50.9	D	
	SB	TR	0.43	39.8	D	0.44	39.9	D		0.44	39.9	D	
5: Atlantic Av & Grafton Av	EB	L	0.59	62.6	E	0.59	65.5	E		0.59	65.5	E	
	EB	T	0.76	32.8	C	0.81	35.1	D		0.81	35.1	D	
	WB	L	0.51	27.2	C	0.59	25.3	C		0.59	25.3	C	
	WB	TR	1.06	59.5	E	1.19	112.3	F	*	1.19	112.0	F	*
	NB	LTR	1.05	90.6	F	1.15	123.7	F	*	1.15	123.7	F	*
6: Atlantic Av & Clermont Av.	EB	L	1.16	166.6	F	1.33	218.6	F	*	1.33	218.6	F	*
	EB	T	0.61	4.3	A	0.65	4.6	A		0.65	4.6	A	
	WB	TR	0.97	16.5	B	1.07	42.5	D		1.07	41.5	D	
	SB	LR	0.66	46.5	D	0.74	50.8	D		0.74	50.8	D	
7: Atlantic Av & Vanderbilt Av	EB	T	0.90	23.7	C	0.96	31.5	C		1.00	42.8	D	
	EB	R	0.43	18.9	B	0.47	21.1	C		0.51	25.0	C	
	WB	L	0.86	65.1	E	0.93	87.1	F	*	0.80	59.7	E	
	WB	TR	1.01	51.6	D	1.11	85.4	F	*	1.11	85.4	F	*
	NB	L	0.81	54.8	D	0.85	59.8	E	*	0.83	56.9	E	
	NB	T	0.52	30.3	C	0.52	30.3	C		0.52	30.3	C	
	NB	R	0.18	24.3	C	0.18	24.3	C		0.18	24.3	C	
	SB	T	0.77	52.2	D	0.77	52.4	D		0.79	55.2	E	
	SB	R	0.40	39.0	D	0.41	39.2	D		0.43	40.7	D	
8: Atlantic Av & Washington Av	EB	TR	1.03	66.0	E	1.09	89.1	F	*	1.09	89.1	F	*
	WB	L	0.56	67.6	E	0.67	81.6	F	*	0.67	81.6	F	*
	WB	TR	0.92	33.5	C	0.98	42.5	D		0.98	42.5	D	
	NB	L	1.15	145.5	F	1.28	195.5	F	*	1.28	195.5	F	*
	NB	T	0.60	34.1	C	0.61	34.5	C		0.61	34.5	C	
	SB	TR	0.45	30.3	C	0.45	30.3	C		0.45	30.3	C	
9: Atlantic Av & Grand Av	EB	TR	0.72	22.4	C	0.80	25.2	C		0.80	25.1	C	
	WB	L	0.94	20.9	C	1.70	325.5	F	*	1.70	325.5	F	*
	WB	T	0.83	2.8	A	0.89	3.1	A		0.89	3.1	A	
	SB	L	0.40	38.3	D	0.71	53.5	D		0.71	53.5	D	
	SB	TR	0.87	64.6	E	1.07	110.4	F	*	1.07	110.4	F	*
10: Atlantic Av & Classon av	EB	L	1.10	110.0	F	1.29	185.0	F	*	1.29	185.0	F	*
	EB	T	0.57	10.5	B	0.61	12.1	B		0.61	12.0	B	
	WB	TR	1.10	67.1	E	1.20	113.6	F	*	1.20	113.6	F	*
	NB	L	0.72	49.6	D	1.28	181.7	F	*	1.28	188.9	F	*
	NB	TR	1.25	169.8	F	1.96	477.2	F	*	1.96	479.8	F	*
11: Atlantic Av & Franklin Av	EB	TR	0.85	34.6	C	1.01	50.2	D		1.01	50.2	D	
	WB	L	0.50	26.3	C	1.05	67.6	E	*	1.05	67.6	E	*
	WB	T	0.81	13.4	B	0.87	14.8	B		0.87	14.8	B	
	SB	LT	0.84	52.7	D	0.96	69.3	E	*	0.96	69.3	E	*
	SB	R	0.44	40.6	D	0.60	48.2	D		0.60	48.2	D	
12: Atlantic Av & Bedford Av	EB	L	1.19	175.1	F	1.22	162.5	F		1.22	162.5	F	
	EB	T	0.53	24.0	C	0.58	26.1	C		0.58	26.1	C	
	WB	TR	0.98	53.7	D	1.12	97.7	F	*	1.12	97.7	F	*
	NB	L	1.23	131.1	F	1.43	218.2	F	*	1.43	218.0	F	*
	NB	T	1.15	90.5	F	1.18	107.4	F	*	1.18	107.2	F	*
	NB	R	0.36	14.8	B	0.48	17.8	B		0.48	17.8	B	
13: Atlantic Av & Nostrand Av	EB	TR	0.65	21.6	C	0.72	23.3	C		0.72	23.3	C	
	WB	T	0.97	8.5	A	1.09	45.8	D		1.09	45.0	D	
	SB	LT	0.99	72.3	E	1.06	93.4	F	*	1.06	93.4	F	*
	SB	R	0.62	45.9	D	0.79	59.4	E	*	0.79	59.4	E	*
	SB	LTR	-	-	-	-	-	-		-	-	-	
14: Atlantic Av & New York Av	EB	L	0.79	81.8	F	0.79	78.5	E		0.79	78.5	E	
	EB	T	0.74	32.8	C	0.83	36.5	D		0.80	30.9	C	
	WB	T	1.16	115.9	F	1.25	152.7	F	*	1.18	122.2	F	*
	WB	R	0.27	23.1	C	0.27	23.2	C		0.25	21.0	C	
	NB	L	-	-	-	-	-	-		0.55	46.0	D	
	NB	T	-	-	-	-	-	-		0.80	59.7	E	
	NB	LT	1.25	175.5	F	1.26	179.5	F	*	-	52.6	D	
	NB	TR	-	-	-	-	-	-		-	-	-	
	NB	R	0.26	36.3	D	0.26	36.3	D		0.29	39.4	D	
	NB	LTR	-	-	-	-	-	-		-	-	-	

Table 20-5 (cont'd): Action-With-Mitigation Conditions at Impacts Lane Groups - AM

Signalized Intersections	Approach	Lane Group	No-Action Weekday AM V/C Ratio	Delay (sec/veh)	LOS	With-Action Weekday AM V/C Ratio	Delay (sec/veh)	LOS		Mitigation Weekday AM V/C Ratio	Delay (sec/veh)	LOS	
15: Grand Av & Fulton St	EB	TR	0.83	39.4	D	0.83	39.4	D		0.83	39.4	D	
	WB	L								0.62	32.2	C	
	WB	T								0.81	34.3	C	
	WB	LT	1.42	227.4	F	1.70	353.0	F	*		33.8	C	
	SB	LT	0.31	20.3	C	0.38	21.2	C		0.38	21.2	C	
	SB	R	0.20	19.2	B	0.22	19.5	B		0.22	19.5	B	
16: Grand Av & Pacific St	WB	L								0.43	9.9	A	
	WB	T								0.50	10.1	B	
	WB	LT	0.40	11.3	B	0.59	16.0	C			10.0	A	
	SB	TR	0.51	12.5	B	0.72	19.9	C		0.80	9.9	A	
			(Unsignalized)			(Unsignalized)				(Signalized)			
17: Grand Av & Dean St	EB	TR	0.29	9.9	A	0.40	12.0	B		0.71	28.1	C	
	SB	L								0.62	13.2	B	
	SB	T								0.41	8.5	A	
	SB	LT	0.49	11.9	B	0.73	19.7	C			10.6	B	
			(Unsignalized)			(Unsignalized)				(Signalized)			
18: Classon av & Fulton St	EB	LT	0.41	15.6	B	0.48	17.0	B		0.48	17.0	B	
	WB	TR	0.72	10.3	B	0.76	9.9	A		0.76	11.2	B	
	NB	LTR	0.77	36.1	D	0.92	47.8	D		0.92	47.8	D	
19: Classon Av & Pacific Street	WB	T								0.92	31.2	C	
	WB	R								0.87	29.8	C	
	WB	TR	0.98	64.1	E	1.65	322.7	F	*		30.6	C	
	NB	LT	0.51	4.3	A	0.72	7.5	A		0.72	7.5	A	
20: Classon Av & Dean St	EB	LT	1.01	77.8	E	1.78	388.7	F	*	1.78	385.3	F	*
	NB	TR	0.94	19.3	B	1.12	66.6	E	*	1.12	66.6	E	*
21: Franklin Av & Fulton St	EB	T	0.38	26.2	C	0.47	26.3	C		0.45	22.6	C	
	EB	R	0.23	24.7	C	0.29	24.1	C		0.27	20.9	C	
	WB	LT	0.86	39.5	D	0.99	62.1	E	*	0.94	49.9	D	
	SB	LTR	0.73	25.2	C	0.82	29.3	C		0.87	34.1	C	
23: Franklin Av & Pacific St	WB	LT	0.80	22.5	C	0.98	43.0	D		0.98	43.0	D	
	SB	TR	0.97	30.8	C	1.51	245.0	F	*	1.51	245.0	F	*
24: Franklin St/Fran	EB	TR	0.84	33.8	C	1.05	56.5	E	*	1.05	56.5	E	*
Dean St	SB	LT	1.03	36.8	D	1.26	125.5	F	*	1.26	125.5	F	*
25: Bedford Av & Fulton St	EB	L	0.95	113.9	F	1.64	367.5	F	*	0.95	95.2	F	
	EB	T	0.47	34.6	C	0.49	35.1	D		0.49	35.1	D	
	WB	T								0.80	49.6	D	
	WB	R								0.39	33.5	C	
	WB	TR	1.05	96.9	F	1.10	112.7	F	*		45.3	D	
	NB	LT	1.13	99.8	F	1.19	124.0	F	*	1.19	124.0	F	*
	NB	R	0.14	17.4	B	0.32	22.2	C		0.32	22.2	C	
27: Bedford Av & Pacific St	WB	TR	0.72	45.9	D	0.78	50.3	D		0.78	50.3	D	
	NB	LT	0.89	9.6	A	0.97	16.3	B		0.97	15.2	B	
28. Bedford Av/	EB	LTR	0.79	43.2	D	1.07	75.4	E	*	0.98	47.9	D	
	NB	T	0.76	8.7	A	0.80	10.8	B		0.84	13.9	B	
Roger Av & Dean St	NB	R	0.14	5.0	A	0.15	5.5	A		0.16	6.9	A	
Bedford Av ->	NB	T	0.71	7.5	A	0.73	8.2	A		0.77	10.9	B	
29: Bedford Av & Bergen St	WB	L	0.24	17.5	B	0.26	17.5	B		0.25	16.9	B	
	WB	TR	0.96	28.5	C	1.01	38.4	D		0.98	30.9	C	
	NB	LT	0.75	26.4	C	0.79	28.2	C		0.80	29.6	C	
	SB	TR	0.08	14.4	B	0.10	13.1	B		0.10	14.9	B	
30: Bergen St & Roger Av	WB	TR	1.14	135.3	F	1.15	137.7	F		1.11	123.5	F	
	NB	LT	0.78	24.3	C	0.79	24.4	C		0.80	25.6	C	

Unsignalized Intersections	Approach	Lane Group	No-Action Weekday AM V/C Ratio	Delay (sec/veh)	LOS	With-Action Weekday AM V/C Ratio	Delay (sec/veh)	LOS		Mitigation Weekday AM V/C Ratio	Delay (sec/veh)	LOS	
8A: Atlantic Av & Washington Av	NB	R	0.20	11.9	B	0.24	12.4	B		0.24	12.4	B	
22: Franklin Av & Leffert Pl.	EB	R	0.23	17.2	C	1.72	480.1	F	*	1.72	480.1	F	*
26: Bedford Av & Harkimer st	NB	T	0.43	0.0	A	0.44	0.0	A		0.44	0.0	A	
		R			A	0.08	0.0	A		0.08	0.0	A	

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left turn lane on this approach
V/C ratio - volume to capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes an impact movement (With action LOS E with delay 5 sec >= No action delay, or With action F with delay 4 sec >= No action delay)
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Table 20-6: Action-With-Mitigation Conditions at Impacted Lane Groups - Midday

			No-Action Weekday Midday			With-Action Weekday Midday				Mitigation Weekday Midday			
Signalized Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS		V/C Ratio	Delay (sec/veh)	LOS	
1: Atlantic Av & 4th Av	EB	T	0.84	40.6	D	0.90	45.4	D		0.94	52.0	D	
	EB	R	0.32	32.9	C	0.32	32.9	C		0.34	35.0	C	
	WB	T	0.84	11.7	B	0.92	15.0	B		0.96	23.2	C	
	NB	L	0.61	50.9	D	0.64	52.0	D		0.64	52.0	D	
	NB	LTR	0.70	57.2	E	0.73	59.6	E		0.73	59.6	E	
	NB	R	0.64	53.3	D	0.65	53.7	D		0.65	53.7	D	
	SB	LT	1.04	97.4	F	1.11	120.0	F	*	1.04	95.0	F	
2: Atlantic Av & Flatbush Av	EB	T	0.69	15.3	B	0.79	19.8	B		0.76	17.6	B	
	EB	R	0.80	32.7	C	0.80	33.0	C		0.76	28.5	C	
	WB	T	0.63	14.4	B	0.71	17.1	B		0.69	16.2	B	
	WB	R	1.06	89.1	F	1.14	115.4	F	*	1.07	87.1	F	
	NB	T	0.57	24.7	C	0.57	24.7	C		0.59	26.4	C	
	SB	T	0.53	24.3	C	0.53	24.3	C		0.55	26.0	C	
3: Atlantic Av & Fort Greene Pl.	EB	T	0.56	1.1	A	0.61	1.1	A		0.61	1.2	A	
	WB	T	0.59	18.8	B	0.64	19.9	B		0.64	19.9	B	
4: Atlantic Av & S Portland Av	EB	TR	0.75	28.3	C	0.82	31.2	C		0.82	31.2	C	
	WB	L	0.72	36.0	D	0.82	49.1	D		0.82	49.1	D	
	WB	T	0.71	21.2	C	0.76	22.7	C		0.76	22.7	C	
	NB	LT	0.39	25.4	C	0.42	25.9	C		0.42	25.9	C	
	NB	R	0.24	23.2	C	0.27	23.6	C		0.27	23.6	C	
	SB	L	0.39	27.0	C	0.40	27.3	C		0.40	27.3	C	
	SB	TR	0.31	24.1	C	0.31	25.5	C		0.31	24.1	C	
5: Atlantic Av & Carlton Av	EB	L	0.68	46.8	D	0.72	52.1	D		0.72	52.7	D	
	EB	T	0.68	25.4	C	0.75	27.1	C		0.77	28.5	C	
	WB	L	0.19	6.2	A	0.21	7.0	A		0.21	7.5	A	
	WB	TR	0.87	12.0	B	0.98	21.2	C		1.01	29.2	C	
	NB	LTR	1.02	72.5	E	1.07	87.5	F	*	1.03	76.3	E	
6: Atlantic Av & Clermont Av.	EB	L	0.83	75.3	E	1.16	170.6	F	*	1.16	169.5	F	*
	EB	T	0.67	29.8	C	0.72	31.7	C		0.72	31.8	C	
	WB	TR	0.78	10.3	B	0.87	11.4	B		0.87	12.9	B	
	SB	LR	0.52	27.7	C	0.55	28.4	C		0.55	28.4	C	
7: Atlantic Av & Vanderbilt Av	EB	T	1.10	80.0	E	1.19	115.5	F	*	1.10	77.7	E	
	EB	R	0.85	54.6	D	0.88	58.0	E		0.79	41.4	D	
	WB	L	0.89	70.8	E	0.89	71.3	E		0.89	68.6	E	
	WB	TR	0.80	28.4	C	0.88	33.3	C		0.83	28.8	C	
	NB	L	0.68	29.4	C	0.69	30.4	C		0.75	37.3	D	
	NB	T	0.53	18.5	B	0.53	18.5	B		0.55	20.3	C	
	NB	R	0.19	13.8	B	0.19	13.8	B		0.20	15.0	B	
	SB	T	0.73	32.9	C	0.73	32.9	C		0.78	37.5	D	
	SB	R	0.18	20.3	C	0.18	20.4	C		0.20	22.1	C	
8: Atlantic Av & Washington Av	EB	TR	1.19	123.7	F	1.28	163.3	F	*	1.28	163.3	F	*
	WB	L	0.65	66.2	E	0.65	66.2	E		0.65	66.2	E	
	WB	TR	0.72	22.5	C	0.78	24.2	C		0.78	24.2	C	
	NB	L	0.86	64.9	E	0.99	90.4	F	*	0.99	90.4	F	*
	NB	T	0.38	19.0	B	0.39	19.2	B		0.39	19.2	B	
	SB	TR	0.45	20.2	C	0.45	20.3	C		0.45	20.3	C	
9: Atlantic Av & Grand Av	EB	TR	0.71	21.1	C	0.80	23.6	C		0.79	23.5	C	
	WB	L	0.94	61.3	E	1.57	287.0	F	*	1.57	287.0	F	*
	WB	T	0.63	15.4	B	0.67	15.6	B		0.67	15.6	B	
	SB	L	0.33	22.5	C	0.54	29.0	C		0.54	30.4	C	
	SB	TR	0.62	28.2	C	0.77	36.2	D		0.77	38.0	D	
10: Atlantic Av & Classon av	EB	L	1.04	83.2	F	1.27	167.0	F	*	1.27	167.0	F	*
	EB	T	0.58	12.1	B	0.62	14.2	B		0.62	14.1	B	
	WB	TR	1.01	52.5	D	1.12	89.3	F	*	1.12	89.3	F	*
	NB	L	0.45	31.3	C	0.76	49.2	D		0.76	49.2	D	
	NB	TR	0.69	34.3	C	1.03	76.4	E	*	1.03	76.4	E	*
11: Atlantic Av & Franklin Av	EB	TR	0.93	21.4	C	1.14	84.1	F	*	1.14	84.0	F	*
	WB	L	0.57	37.2	D	0.88	41.8	D		0.88	41.8	D	
	WB	T	0.59	23.8	C	0.64	24.5	C		0.64	24.5	C	
	SB	LT	0.77	36.3	D	0.89	46.2	D		0.89	46.2	D	
	SB	R	0.33	28.0	C	0.47	32.5	C		0.47	32.5	C	
12: Atlantic Av & Bedford Av	EB	L	1.06	115.7	F	1.07	97.0	F		1.07	97.0	F	
	EB	T	0.53	6.4	A	0.57	6.9	A		0.57	6.9	A	
	WB	TR	0.99	55.9	E	1.12	99.9	F	*	1.12	99.9	F	*
	NB	L	0.71	24.7	C	0.94	40.4	D		0.94	41.3	D	
	NB	T	0.87	27.0	C	0.91	28.6	C		0.91	29.5	C	
	NB	R	0.24	18.2	B	0.33	18.4	B		0.33	19.3	B	
13: Atlantic Av & Nostrand Av	EB	TR	0.78	27.9	C	0.85	31.2	C		0.85	31.2	C	
	WB	T	0.94	25.8	C	1.04	47.1	D		1.04	53.7	D	
	SB	LT	1.15	115.0	F	1.23	147.6	F	*	1.23	147.6	F	*
	SB	R	0.42	23.6	C	0.58	28.3	C		0.58	28.3	C	
	SB	LTR	-	-	-	-	-	-		-	-	-	
14: Atlantic Av & New York Av	EB	L	0.81	67.1	E	0.81	61.3	E		0.81	61.3	E	
	EB	T	0.77	36.0	D	0.84	37.8	D		0.81	33.1	C	
	WB	T	1.04	71.2	E	1.11	93.0	F	*	1.04	68.5	E	
	WB	R	0.41	25.6	C	0.42	25.8	C		0.39	23.5	C	
	NB	L	-	-	-	-	-	-		0.30	29.4	C	
	NB	T	-	-	-	-	-	-		-	-	-	
	NB	LT	-	-	-	-	-	-		-	-	-	
	NB	TR	-	-	-	-	-	-		1.02	89.4	F	
	NB	R	-	-	-	-	-	-		-	-	-	
	NB	LTR	1.22	156.3	F	1.24	161.1	F	*	-	76.1	E	

Table 20-6 (cont'd): Action-With-Mitigation Conditions at Impacted Lane Groups - MD

Signalized Intersections	Approach	Lane Group	No-Action Weekday Midday V/C Ratio	Delay (sec/veh)	LOS		With-Action Weekday Midday V/C Ratio	Delay (sec/veh)	LOS		Mitigation Weekday Midday V/C Ratio	Delay (sec/veh)	LOS	
15: Grand Av &	EB	TR	0.72	33.2	C		0.88	47.0	D		0.88	47.0	D	
Fulton St	WB	L									0.41	25.8	C	
	WB	T									0.58	26.5	C	
	WB	LT	0.89	49.3	D		1.07	95.0	F	*		26.4	C	
	SB	LT	0.24	19.4	B		0.29	19.9	B		0.29	19.9	B	
	SB	R	0.12	18.1	B		0.13	18.3	B		0.13	18.3	B	
16: Grand Av &	WB	L									0.39	30.0	C	
Pacific St	WB	T									0.36	29.0	C	
	WB	LT	0.28	9.7	A		0.43	12.1	B			29.4	C	
	SB	TR	0.41	10.5	B		0.57	13.8	B		0.66	16.5	B	
			(Unsignalized)				(Unsignalized)				(Signalized)			
17: Grand Av &	EB	TR	0.29	9.7	A		0.38	11.3	B		0.63	23.9	C	
Dean St	SB	L									0.63	15.7	B	
	SB	T									0.44	8.9	A	
	SB	LT	0.46	11.5	B		0.66	16.6	C			11.6	B	
			(Unsignalized)				(Unsignalized)				(Signalized)			
18: Classon av &	EB	LT	0.51	19.4	B		0.57	21.0	C		0.57	21.0	C	
Fulton St	WB	TR	0.52	19.3	B		0.54	18.6	B		0.54	18.6	B	
	NB	LTR	0.75	30.6	C		0.89	34.5	C		0.89	34.5	C	
19: Classon Av &	WB	T									0.64	27.6	C	
Pacific Street	WB	R									0.91	46.5	D	
	WB	TR	0.72	41.2	D		1.42	224.3	F	*		37.0	D	
	NB	LT	0.47	4.0	A		0.61	5.7	A		0.61	5.7	A	
20: Classon Av &	EB	LT	1.02	79.7	E		1.57	298.4	F	*	1.57	293.9	F	*
Dean St	NB	TR	0.85	27.0	C		0.96	35.8	D		0.96	35.8	D	
21: Franklin Av &	EB	T	0.46	21.6	C		0.54	23.7	C		0.54	23.7	C	
Fulton St	EB	R	0.19	16.2	B		0.26	17.9	B		0.26	17.9	B	
	WB	LT	0.80	35.4	D		0.93	54.0	D		0.93	54.0	D	
	SB	LTR	0.64	22.4	C		0.71	24.4	C		0.71	24.4	C	
23: Franklin Av &	WB	LT	0.46	19.6	B		0.63	24.0	C		0.63	24.0	C	
Pacific St	SB	TR	0.93	34.5	C		1.41	209.1	F	*	1.41	209.1	F	*
24: Franklin St/Fran	EB	TR	0.78	39.5	D		0.93	42.0	D		1.01	50.2	D	
Dean St	SB	LT	0.88	13.1	B		1.15	74.0	E	*	1.10	53.8	D	
25: Bedford Av &	EB	L	0.73	43.3	D		0.97	86.2	F	*	0.73	41.4	D	
Fulton St	EB	T	0.70	32.6	C		0.75	36.2	D		0.79	41.5	D	
	WB	T									0.54	25.2	C	
	WB	R									0.48	25.6	C	
	WB	TR	0.85	39.9	D		0.89	45.2	D			25.4	C	
	NB	LT	1.05	73.9	E		1.11	95.5	F	*	1.05	71.1	E	
	NB	R	0.30	23.4	C		0.57	36.4	D		0.52	31.4	C	
27: Bedford Av &	WB	TR	0.64	34.3	C		0.75	39.7	D		0.75	39.7	D	
Pacific St	NB	LT	0.68	5.9	A		0.78	7.7	A		0.78	6.3	A	
28. Bedford Av/	EB	LTR	0.72	38.1	D		0.99	75.4	E	*	0.90	52.1	D	
	NB	T	0.61	8.2	A		0.66	8.7	A		0.71	10.9	B	
Roger Av & Dean St	NB	R	0.10	6.2	A		0.11	6.2	A		0.12	7.9	A	
Bedford Av ->	NB	T	0.60	9.5	A		0.65	10.2	B		0.70	12.6	B	
29: Bedford Av &	WB	L	0.36	11.3	B		0.39	11.5	B		0.36	10.7	B	
Bergen St	WB	TR	0.53	12.8	B		0.58	12.8	B		0.54	11.9	B	
	NB	LT	0.53	19.5	B		0.58	20.7	C		0.61	22.9	C	
	SB	TR	0.10	15.8	B		0.11	14.5	B		0.11	16.5	B	
30: Bergen St &	WB	TR	0.96	67.8	E		1.06	93.8	F	*	0.99	71.0	E	
Roger Av	NB	LT	0.62	19.8	B		0.66	20.9	C		0.70	23.1	C	

Unsignalized Intersections	Approach	Lane Group	No-Action Weekday Midday V/C Ratio	Delay (sec/veh)	LOS		With-Action Weekday Midday V/C Ratio	Delay (sec/veh)	LOS		Mitigation Weekday AM V/C Ratio	Delay (sec/veh)	LOS	
8A: Atlantic Av &	NB	R	0.09	10.4	B		0.13	10.6	B		0.13	10.6	B	
Washington Av														
22: Franklin Av &	EB	R	0.25	16.6	C		1.18	220.2	F	*	1.18	220.2	F	*
Leffert Pl.														
26: Bedford Av &	NB	T	0.30	0.0	A		0.31	0.0	A		0.31	0.0	A	
Harkimer st		R	0.07	0.0	A		0.08	0.0	A		0.08	0.0	A	

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes an impact movement (With action LOS E with delay 5 sec >= No action delay, or With-action F with delay 4 sec >= No action delay)
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Table 20-7: Action-With-Mitigation Conditions at Impacted Lane Groups - PM

			No-Action Weekday PM			With-Action Weekday PM				Mitigation Weekday PM			
Signalized Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS		V/C Ratio	Delay (sec/veh)	LOS	
1: Atlantic Av & 4th Av	EB	T	0.94	52.0	D	1.01	68.6	E	*	1.01	68.6	E	*
	EB	R	0.37	37.6	D	0.37	37.6	D		0.37	37.6	D	
	WB	T	0.87	27.6	C	1.00	41.3	D		1.00	43.9	D	
	NB	L	0.84	74.7	E	0.87	78.6	E		0.87	78.6	E	
	NB	LTR	1.17	168.1	F	1.23	192.4	F	*	1.23	192.4	F	*
	NB	R	0.90	88.1	F	0.92	90.7	F		0.92	90.7	F	
	SB	LT	1.13	118.3	F	1.21	147.6	F	*	1.21	147.6	F	*
2: Atlantic Av & Flatbush Av	EB	T	0.91	18.9	B	0.99	23.6	C		0.94	17.5	B	
	EB	R	0.59	21.9	C	0.59	21.8	C		0.55	19.7	B	
	WB	T	0.65	36.6	D	0.75	41.3	D		0.71	38.7	D	
	WB	R	1.00	94.0	F	1.08	119.1	F	*	0.99	91.7	F	
	NB	T	0.62	25.6	C	0.62	25.6	C		0.65	28.3	C	
	SB	T	0.78	31.9	C	0.78	31.9	C		0.83	36.3	D	
3: Atlantic Av & Fort Greene Pl.	EB	T	0.71	12.8	B	0.78	14.2	B		0.78	16.2	B	
	WB	T	0.58	10.0	A	0.66	10.7	B		0.66	10.7	B	
4: Atlantic Av & S Portland Av	EB	TR	0.70	14.3	B	0.76	18.4	B		0.76	18.4	B	
	WB	L	0.52	22.6	C	0.63	30.4	C		0.63	30.4	C	
	WB	T	0.54	14.7	B	0.60	15.7	B		0.60	15.7	B	
	NB	LT	0.44	34.1	C	0.50	38.6	D		0.50	38.6	D	
	NB	R	0.44	33.9	C	0.48	37.3	D		0.48	37.3	D	
	SB	L	0.80	67.2	E	0.82	70.6	E		0.82	70.6	E	
	SB	TR	1.23	181.8	F	1.24	185.4	F		1.24	185.4	F	
5: Atlantic Av & Carlton Av	EB	L	0.46	39.1	D	0.53	46.7	D		0.53	46.7	D	
	EB	T	0.82	31.7	C	0.89	35.8	D		0.89	35.8	D	
	WB	L	0.94	104.1	F	1.23	200.4	F	*	1.23	200.8	F	*
	WB	TR	0.74	26.1	C	0.86	32.0	C		0.86	32.3	C	
	NB	LTR	0.96	70.4	E	1.03	88.8	F	*	1.03	88.8	F	*
6: Atlantic Av & Clermont Av.	EB	L	0.64	18.3	B	0.98	65.1	E	*	0.98	65.1	E	*
	EB	T	0.62	3.4	A	0.67	3.3	A		0.67	3.3	A	
	WB	TR	0.69	7.4	A	0.79	7.8	A		0.79	7.3	A	
	SB	LR	0.80	54.6	D	0.83	57.5	E		0.83	57.5	E	
7: Atlantic Av & Vanderbilt Av	EB	T	0.92	21.0	C	0.99	30.4	C		1.01	36.0	D	
	EB	R	0.57	14.6	B	0.60	15.6	B		0.61	16.9	B	
	WB	L	1.31	208.3	F	1.31	209.0	F		1.31	208.9	F	
	WB	TR	0.72	23.4	C	0.81	27.0	C		0.83	28.2	C	
	NB	L	0.73	55.2	E	0.79	61.7	E	*	0.73	53.3	D	
	NB	T	0.38	28.5	C	0.38	28.5	C		0.37	27.7	C	
	NB	R	0.20	25.9	C	0.20	25.9	C		0.20	25.2	C	
	SB	T	1.10	115.9	F	1.10	116.7	F		1.10	116.7	F	
	SB	R	0.30	37.6	D	0.31	38.0	D		0.31	38.0	D	
8: Atlantic Av & Washington Av	EB	TR	1.12	94.5	F	1.20	128.4	F	*	1.20	128.4	F	*
	WB	L	0.64	73.9	E	0.64	73.9	E		0.55	73.9	E	
	WB	TR	0.69	18.7	B	0.75	20.4	C		0.75	20.4	C	
	NB	L	0.64	61.5	E	0.90	95.6	F	*	0.90	95.6	F	*
	NB	T	0.43	34.4	C	0.44	34.8	C		0.44	34.8	C	
	SB	TR	0.68	42.7	D	0.68	42.8	D		0.68	42.8	D	
9: Atlantic Av & Grand Av	EB	TR	0.90	31.7	C	1.00	47.6	D		1.00	46.7	D	
	WB	L	2.31	642.1	F	3.23	1035.0	F	*	3.23	1035.1	F	*
	WB	T	0.69	21.5	C	0.74	21.1	C		0.74	21.1	C	
	SB	L	0.71	50.9	D	1.04	109.5	F	*	1.04	109.5	F	*
	SB	TR	1.15	134.7	F	1.35	215.5	F	*	1.35	215.5	F	*
10: Atlantic Av & Classon av	EB	L	1.23	147.0	F	1.54	274.3	F	*	1.54	274.4	F	*
	EB	T	0.73	4.6	A	0.78	4.8	A		0.78	4.8	A	
	WB	TR	0.93	35.2	D	1.03	56.8	E	*	1.03	56.8	E	*
	NB	L	0.44	36.6	D	0.93	64.4	E	*	0.93	73.4	E	*
	NB	TR	0.91	57.0	E	1.67	342.7	F	*	1.67	345.2	F	*
11: Atlantic Av & Franklin Av	EB	TR	0.99	39.0	D	1.22	125.4	F	*	1.22	125.3	F	*
	WB	L	0.80	54.5	D	1.32	195.1	F	*	1.32	195.1	F	*
	WB	T	0.63	22.5	C	0.67	23.1	C		0.67	23.1	C	
	SB	LT	1.24	166.0	F	1.46	261.5	F	*	1.46	261.5	F	*
	SB	R	0.87	78.7	E	1.19	172.9	F	*	1.19	172.9	F	*
12: Atlantic Av & Bedford Av	EB	L	1.22	176.8	F	1.23	177.8	F		1.23	177.8	F	
	EB	T	0.76	3.4	A	0.85	3.6	A		0.85	3.6	A	
	WB	TR	1.00	62.0	E	1.14	110.6	F	*	1.14	110.6	F	*
	NB	L	0.79	25.9	C	1.08	77.0	E	*	1.08	75.8	E	*
	NB	T	1.15	98.4	F	1.22	124.0	F	*	1.22	123.2	F	*
	NB	R	0.58	23.4	C	0.80	39.6	D		0.80	38.4	D	
13: Atlantic Av & Nostrand Av	EB	TR	0.97	47.1	D	1.09	81.8	F	*	1.09	81.8	F	*
	WB	T	1.15	122.6	F	1.35	213.3	F	*	1.35	213.2	F	*
	SB	LT	0.75	37.6	D	0.80	39.9	D		0.80	39.9	D	
	SB	R	0.42	31.1	C	0.65	40.3	D		0.65	40.3	D	
	SB	LTR	-	-	-	-	-	-		-	-	-	
14: Atlantic Av & New York Av	EB	L	0.86	100.5	F	0.86	86.8	F		0.86	86.8	F	
	EB	T	0.92	10.5	B	1.04	28.9	C		0.99	14.4	B	
	WB	T	1.17	120.7	F	1.25	154.4	F	*	1.18	122.8	F	
	WB	R	0.38	26.6	C	0.39	26.9	C		0.36	24.4	C	
	NB	L	-	-	-	-	-	-		0.34	39.8	D	
	NB	T	-	-	-	-	-	-		-	-	-	
	NB	LT	-	-	-	-	-	-		-	-	-	
	NB	TR	-	-	-	-	-	-		1.03	102.0	F	
	NB	R	-	-	-	-	-	-		-	-	-	
	NB	LTR	1.24	174.6	F	1.26	179.1	F	*	-	88.1	F	

Table 20-7 (cont'd): Action-With-Mitigation Conditions at Impacted Lane Groups - PM

Signalized Intersections	Approach	Lane Group	No-Action Weekday PM V/C Ratio	Delay (sec/veh)	LOS	With-Action Weekday PM V/C Ratio	Delay (sec/veh)	LOS	Mitigation Weekday PM V/C Ratio	Delay (sec/veh)	LOS
15: Grand Av & Fulton St	EB	TR	1.07	87.6	F	1.27	163.5	F *	1.17	120.6	F *
	WB	L							0.77	49.8	D
	WB	T							0.58	22.6	C
	WB	LT	1.52	278.5	F	2.13	550.9	F *		30.3	C
	SB	LT	0.49	23.2	C	0.55	24.5	C	0.61	28.0	C
	SB	R	0.16	18.6	B	0.18	19.0	B	0.20	21.3	C
16: Grand Av & Pacific St	WB	L							0.63	24.0	C
	WB	T							0.50	19.7	B
	WB	LT	0.38	11.9	B	0.66	19.7	C		21.8	C
	SB	TR	0.76	20.9	C	1.04	68.4	F *	1.06	42.9	D
			(Unsignalized)			(Unsignalized)			(Signalized)		
17: Grand Av & Dean St	EB	TR	0.62	17.8	C	0.72	22.1	C	0.97	54.1	D
	SB	L							1.08	72.8	E
	SB	T							0.83	17.7	B
	SB	LT	0.97	49.6	E	1.39	199.7	F *		36.8	D
			(Unsignalized)			(Unsignalized)			(Signalized)		
18: Classon av & Fulton St	EB	LT	0.66	21.6	C	0.76	26.0	C	0.81	31.8	C
	WB	TR	0.49	13.5	B	0.51	15.2	B	0.55	18.4	B
	NB	LTR	0.85	40.1	D	1.07	84.8	F *	0.96	51.3	D
19: Classon Av & Pacific Street	WB	T							0.80	21.5	C
	WB	R							0.90	25.4	C
	WB	TR	0.68	21.9	C	1.54	269.2	F *		23.3	C
	NB	LT	0.50	4.5	A	0.76	8.8	A	0.76	8.8	A
20: Classon Av & Dean St	EB	LT	1.35	197.2	F	2.33	630.5	F *	2.33	626.8	F *
	NB	TR	0.85	26.4	C	1.02	49.6	D	1.02	49.6	D
21: Franklin Av & Fulton St	EB	T	0.57	20.9	C	0.71	23.6	C	0.69	22.3	C
	EB	R	0.29	18.6	B	0.41	19.8	B	0.39	19.0	B
	WB	LT	0.72	29.1	C	0.94	56.0	E *	0.90	47.5	D
	SB	LTR	0.78	26.7	C	0.87	32.0	C	0.89	34.9	C
23: Franklin Av & Pacific St	WB	LT	0.64	31.8	C	0.93	49.0	D	0.93	50.9	D
	SB	TR	1.02	32.8	C	1.60	286.4	F *	1.60	286.5	F *
24: Franklin St/Fran Dean St	EB	TR	1.26	135.8	F	1.56	271.0	F *	1.56	271.0	F *
	SB	LT	1.12	70.7	E	1.49	231.8	F *	1.49	231.8	F *
25: Bedford Av & Fulton St	EB	L	0.56	39.7	D	0.97	94.1	F *	0.81	60.1	E *
	EB	T	0.54	31.8	C	0.58	33.2	C	0.62	36.8	D
	WB	T							0.55	34.3	C
	WB	R							0.41	32.6	C
	WB	TR	0.79	43.8	D	0.82	47.2	D		33.8	C
	NB	LT	1.12	100.2	F	1.19	129.4	F *	1.13	100.9	F
	NB	R	0.35	25.4	C	0.64	42.3	D	0.58	35.4	D
27: Bedford Av & Pacific St	WB	TR	0.74	47.3	D	0.88	60.8	E *	0.83	53.4	D
	NB	LT	0.67	6.2	A	0.78	8.1	A	0.81	9.9	A
28. Bedford Av/	EB	LTR	1.16	108.8	F	1.58	298.6	F *	1.58	298.6	F *
	NB	T	0.55	8.3	A	0.60	9.8	A	0.60	8.8	A
Roger Av & Dean St	NB	R	0.10	6.7	A	0.11	7.5	A	0.11	6.7	A
Bedford Av >	NB	T	0.68	9.2	A	0.72	10.6	B	0.72	9.3	A
29: Bedford Av & Bergen St	WB	L	0.40	15.4	B	0.45	16.1	B	0.40	15.0	B
	WB	TR	0.78	17.9	B	0.85	20.0	B	0.78	17.6	B
	NB	LT	0.69	23.6	C	0.75	26.2	C	0.79	30.2	C
	SB	TR	0.17	21.6	C	0.19	21.9	C	0.20	22.0	C
30: Bergen St & Roger Av	WB	TR	1.19	155.1	F	1.32	208.0	F	1.21	157.2	F
	NB	LT	0.57	18.2	B	0.57	18.1	B	0.59	20.3	C

Unsignalized Intersections	Approach	Lane Group	No-Action Weekday PM V/C Ratio	Delay (sec/veh)	LOS	With-Action Weekday PM V/C Ratio	Delay (sec/veh)	LOS	Mitigation Weekday PM V/C Ratio	Delay (sec/veh)	LOS
8A: Atlantic Av & Washington Av	NB	R	0.19	12.4	B	0.25	13.0	B	0.25	13.0	B
22: Franklin Av & Leffert Pl.	EB	R	0.50	28.9	D	6.25	@NA	F *	6.25	@NA	F *
26: Bedford Av & Harkimer st	NB	T	0.36	0.0	A	0.37	0.0	A	0.37	0.0	A
		R	0.08	0.0	A	0.09	0.0	A	0.09	0.0	A

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, Defl - Analysis considers a defacto left turn lane on this approach
V/C ratio - volume to capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes an impact movement (With action LOS E with delay 5 sec >= No action delay, or With action F with delay 4 sec >= No action delay)
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Table 20-8: Action-With-Mitigation Conditions at Impacted Lane Groups - SAT

Signalized Intersections	Approach	Lane Group	No-Action Saturday Midday V/C Ratio	Delay (sec/veh)	LOS	With-Action Saturday Midday V/C Ratio	Delay (sec/veh)	LOS	Mitigation Saturday Midday V/C Ratio	Delay (sec/veh)	LOS
1: Atlantic Av & 4th Av	EB	T	0.95	52.2	D	1.04	73.1	E *	1.04	73.1	E *
	EB	R	0.53	42.0	D	0.53	42.0	D	0.53	42.0	D
	WB	T	0.89	15.7	B	1.04	40.4	D	1.04	42.8	D
	NB	L	0.62	50.4	D	0.62	50.7	D	0.62	50.7	D
	NB	LTR	0.86	76.8	E	0.89	83.7	F *	0.89	83.7	F *
	NB	R	0.65	53.3	D	0.67	54.5	D	0.67	54.5	D
	SB	LT	1.18	143.0	F	1.27	181.6	F *	1.27	181.6	F *
2: Atlantic Av & Flatbush Av	EB	T	0.91	24.4	C	1.01	33.0	C	0.97	24.9	C
	EB	R	0.74	30.8	C	0.74	28.6	C	0.70	26.9	C
	WB	T	0.75	37.3	D	0.84	40.3	D	0.81	37.8	D
	WB	R	1.16	143.4	F	1.24	171.7	F *	1.18	146.4	F
	NB	T	0.56	24.5	C	0.56	24.5	C	0.58	26.2	C
	SB	T	0.61	26.1	C	0.61	26.1	C	0.63	27.9	C
3: Atlantic Av & Fort Greene Pl.	EB	T	0.76	2.7	A	0.84	5.0	A	0.84	4.5	A
	WB	T	0.68	13.3	B	0.75	14.1	B	0.75	14.1	B
4: Atlantic Av & S Portland Av	EB	TR	0.73	5.0	A	0.81	6.7	A	0.81	7.8	A
	WB	L	1.04	91.6	F	1.22	158.9	F *	1.22	158.9	F *
	WB	T	0.56	15.9	B	0.61	16.8	B	0.61	16.8	B
	NB	LT	0.56	44.5	D	0.61	46.4	D	0.61	46.4	D
	NB	R	0.45	40.8	D	0.49	41.4	D	0.49	41.4	D
	SB	L	0.83	73.4	E	0.85	77.5	E	0.85	77.5	E
	SB	TR	0.93	89.7	F	0.94	91.8	F	0.94	85.5	F
5: Atlantic Av & Carlton Av	EB	L	0.80	78.5	E	0.80	81.5	F	0.80	81.5	F
	EB	T	0.75	30.4	C	0.83	33.7	C	0.83	33.7	C
	WB	L	0.82	43.7	D	0.92	57.6	E *	0.92	56.8	E *
	WB	TR	0.92	16.0	B	1.05	46.5	D	1.05	46.1	D
	NB	LTR	0.90	57.0	E	0.97	69.5	E *	0.97	69.5	E *
6: Atlantic Av & Clermont Av.	EB	L	1.17	153.5	F	1.84	432.8	F *	1.84	432.8	F *
	EB	T	0.62	6.9	A	0.68	8.2	A	0.68	8.2	A
	WB	TR	0.76	18.3	B	0.85	19.8	B	0.85	18.9	B
	SB	LR	0.66	46.8	D	0.70	48.9	D	0.70	48.9	D
7: Atlantic Av & Vanderbilt Av	EB	T	0.92	61.9	E	1.02	76.7	E *	0.98	63.5	E
	EB	R	0.15	39.3	D	0.18	37.5	D	0.18	34.9	C
	WB	L	0.44	29.2	C	0.44	30.5	C	0.53	36.4	D
	WB	TR	0.83	28.6	C	0.93	36.3	D	0.93	36.3	D
	NB	L	0.24	24.8	C	0.27	25.3	C	0.27	25.3	C
	NB	T	0.26	25.2	C	0.26	25.2	C	0.26	25.2	C
	NB	R	0.23	25.2	C	0.23	25.2	C	0.23	25.2	C
	SB	T	0.41	37.9	D	0.42	38.0	D	0.42	38.0	D
	SB	R	0.57	44.7	D	0.59	45.6	D	0.59	45.6	D
8: Atlantic Av & Washington Av	EB	TR	0.98	49.6	D	1.07	75.3	E *	1.07	75.3	E *
	WB	L	0.48	63.3	E	0.48	63.3	E	0.48	63.3	E
	WB	TR	0.75	20.1	C	0.81	22.3	C	0.81	22.3	C
	NB	L	1.08	136.8	F	1.32	226.8	F *	1.32	226.8	F *
	NB	T	0.46	35.1	D	0.48	35.6	D	0.48	35.6	D
	SB	TR	0.26	31.2	C	0.26	31.2	C	0.26	31.2	C
9: Atlantic Av & Grand Av	EB	TR	0.75	23.2	C	0.86	27.6	C	0.86	27.6	C
	WB	L	1.95	442.6	F	3.82	1283.6	F *	3.82	1282.0	F *
	WB	T	0.78	7.8	A	0.84	9.0	A	0.84	7.4	A
	SB	L	0.61	46.1	D	0.91	79.4	E *	0.91	79.4	E *
	SB	TR	0.76	52.2	D	0.98	83.7	F *	0.98	83.7	F *
10: Atlantic Av & Classon av	EB	L	1.20	142.6	F	1.47	253.3	F *	1.47	254.1	F *
	EB	T	0.60	7.8	A	0.65	9.2	A	0.65	10.1	B
	WB	TR	1.03	58.2	E	1.16	108.0	F *	1.16	108.0	F *
	NB	L	0.87	77.9	E	1.38	228.8	F *	1.38	233.4	F *
	NB	TR	1.42	253.3	F	2.48	717.4	F *	2.48	717.7	F *
11: Atlantic Av & Franklin Av	EB	TR	0.88	33.7	C	1.08	76.2	E *	1.08	76.1	E *
	WB	L	0.69	29.9	C	1.33	182.6	F *	1.33	182.6	F *
	WB	T	0.67	11.4	B	0.73	12.9	B	0.73	12.9	B
	SB	LT	1.06	95.6	F	1.27	178.0	F *	1.27	178.0	F *
	SB	R	0.59	48.3	D	0.87	76.7	E *	0.87	76.7	E *
12: Atlantic Av & Bedford Av	EB	L	1.26	208.2	F	1.28	196.5	F	1.28	196.6	F
	EB	T	0.68	10.3	B	0.75	14.1	B	0.75	14.1	B
	WB	TR	0.95	48.6	D	1.10	92.5	F *	1.10	92.5	F *
	NB	L	1.15	101.5	F	1.53	268.9	F *	1.53	268.9	F *
	NB	T	1.15	96.6	F	1.21	124.5	F *	1.21	124.5	F *
	NB	R	0.36	15.4	B	0.48	22.0	C	0.48	22.0	C
13: Atlantic Av & Nostrand Av	EB	TR	0.66	19.6	B	0.75	21.8	C	0.75	21.8	C
	WB	T	0.81	33.4	C	0.91	38.4	D	0.91	37.7	D
	SB	LT	-	-	-	-	-	-	-	-	-
	SB	R	-	-	-	-	-	-	-	-	-
	SB	LTR	1.21	151.5	F	1.49	272.2	F *	1.49	272.2	F *
14: Atlantic Av & New York Av	EB	L	1.16	190.1	F	1.16	182.4	F	1.16	182.4	F
	EB	T	0.72	8.8	A	0.84	11.3	B	0.80	8.5	A
	WB	T	1.06	78.9	E	1.14	109.3	F *	1.08	82.4	F
	WB	R	0.42	27.9	C	0.43	28.3	C	0.39	25.4	C
	NB	L	-	-	-	-	-	-	0.34	39.9	D
	NB	T	-	-	-	-	-	-	-	-	-
	NB	LT	-	-	-	-	-	-	-	-	-
	NB	TR	-	-	-	-	-	-	1.05	104.8	F
	NB	R	-	-	-	-	-	-	-	-	-
	NB	LTR	1.26	178.3	F	1.27	182.9	F *	-	90.1	F

Table 20-8(cont'd): Action-With-Mitigation Conditions at Impacted Lane Groups - Sat

Signalized Intersections	Approach	Lane Group	No-Action Saturday Midday V/C Ratio	Delay (sec/veh)	LOS		With-Action Saturday Midday V/C Ratio	Delay (sec/veh)	LOS		Mitigation Saturday Midday V/C Ratio	Delay (sec/veh)	LOS	
15: Grand Av & Fulton St	EB	TR	0.97	63.3	E		1.24	155.5	F	*	1.14	113.1	F	*
	WB	L									0.68	40.7	D	
	WB	T									0.57	24.2	C	
	WB	LT	1.30	182.9	F		1.89	446.8	F	*		28.9	C	
	SB	LT	0.34	20.6	C		0.41	21.8	C		0.45	24.5	C	
	SB	R	0.16	18.7	B		0.19	19.1	B		0.21	21.5	C	
16: Grand Av & Pacific St	WB	L									0.64	15.7	B	
	WB	T									0.45	11.7	B	
	WB	LT	0.40	11.2	B		0.66	18.7	C			13.7	B	
	SB	TR	0.50	12.1	B		0.78	23.7	C		0.85	15.8	B	
			(Unsignalized)				(Unsignalized)				(Signalized)			
17: Grand Av & Dean St	EB	TR	0.44	12.0	B		0.62	17.7	C		0.89	41.8	D	
	SB	L									0.92	36.4	D	
	SB	T									0.53	10.9	B	
	SB	LT	0.62	15.4	C		1.01	59.1	F	*		21.6	C	
			(Unsignalized)				(Unsignalized)				(Signalized)			
18: Classon av & Fulton St	EB	LT	0.57	21.0	C		0.69	25.0	C		0.75	29.9	C	
	WB	TR	0.57	21.2	C		0.60	20.5	C		0.65	22.7	C	
	NB	LTR	0.88	43.7	D		1.09	91.4	F	*	0.97	54.2	D	
19: Classon Av & Pacific Street	WB	T									0.68	13.9	B	
	WB	R									1.01	34.6	C	
	WB	TR	0.73	20.4	C		1.75	358.6	F	*		23.7	C	
	NB	LT	0.59	4.7	A		0.80	8.8	A		0.86	10.8	B	
20: Classon Av & Dean St	EB	LT	1.34	195.9	F		2.37	649.9	F	*	2.37	643.5	F	*
	NB	TR	0.97	37.3	D		1.14	82.9	F	*	1.14	82.9	F	*
21: Franklin Av & Fulton St	EB	T	0.55	23.7	C		0.69	26.5	C		0.69	27.6	C	
	EB	R	0.27	17.5	B		0.40	19.5	B		0.40	20.4	C	
	WB	LT	0.72	29.3	C		0.90	47.2	D		0.90	47.2	D	
	SB	LTR	0.77	26.3	C		0.89	33.5	C		0.89	33.5	C	
23: Franklin Av & Pacific St	WB	LT	0.54	27.6	C		0.82	34.4	C		0.82	34.4	C	
	SB	TR	1.18	99.8	F		1.88	413.2	F	*	1.88	413.2	F	*
24: Franklin St/Fran Dean St	EB	TR	0.94	27.8	C		1.18	108.2	F	*	1.18	108.2	F	*
	SB	LT	1.11	58.7	E		1.47	217.5	F	*	1.47	217.5	F	*
25: Bedford Av & Fulton St	EB	L	0.98	89.5	F		1.43	251.3	F	*	0.94	71.1	E	
	EB	T	0.51	23.2	C		0.57	24.6	C		0.62	28.4	C	
	WB	T									0.58	27.0	C	
	WB	R									0.67	33.5	C	
	WB	TR	1.00	67.9	E		1.05	81.6	F	*		29.8	C	
	NB	LT	1.23	139.2	F		1.30	172.1	F	*	1.19	123.2	F	
	NB	R	0.47	30.1	C		0.99	113.3	F	*	0.82	66.3	E	*
27: Bedford Av & Pacific St	WB	TR	0.84	61.4	E		1.04	101.7	F	*	1.04	101.7	F	*
	NB	LT	0.70	6.6	A		0.81	10.9	B		0.81	10.9	B	
28. Bedford Av/	EB	LTR	1.08	108.5	F		1.58	318.0	F	*	1.58	318.0	F	*
	NB	T	0.65	6.3	A		0.71	7.2	A		0.71	7.2	A	
Roger Av & Dean St	NB	R	0.08	2.7	A		0.09	3.1	A		0.09	3.1	A	
Bedford Av ->	NB	T	0.53	4.7	A		0.58	4.7	A		0.58	4.7	A	
29: Bedford Av & Bergen St	WB	L	0.19	14.9	B		0.23	14.9	B		0.23	14.9	B	
	WB	TR	0.86	19.1	B		0.95	23.8	C		0.95	23.8	C	
	NB	LT	0.57	19.1	B		0.63	20.9	C		0.63	20.9	C	
	SB	TR	0.09	5.7	A		0.10	5.7	A		0.10	5.7	A	
30: Bergen St & Roger Av	WB	TR	1.21	164.8	F		1.41	244.8	F	*	1.41	244.8	F	*
	NB	LT	0.75	22.3	C		0.81	24.9	C		0.81	24.9	C	

Unsignalized Intersections	Approach	Lane Group	No-Action Saturday Midday V/C Ratio	Delay (sec/veh)	LOS	With-Action Saturday Midday V/C Ratio	Delay (sec/veh)	LOS		Mitigation Saturday Midday V/C Ratio	Delay (sec/veh)	LOS	
8A: Atlantic Av & Washington Av	NB	R	0.20	12.2	B	0.28	13.3	B		0.28	13.3	B	
22: Franklin Av & Leffert Pl.	EB	R	0.34	22.7	C	5.64	@NA	F	*	5.64	@NA	F	*
26: Bedford Av & Harkimer st	NB	T	0.38	0.0	A	0.40	0.0	A		0.40	0.0	A	
		R	0.07	0.0	A	0.09	0.0	A		0.09	0.0	A	

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes an impact movement (With action LOS E with delay 5 sec >= No action delay, or With-action F with delay 4 sec >= No action delay)
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Proposed Scheule For Traffic Mitigation Measures

Subject to the final review and approval of DOT, the mitigation measures summarized in **Table 20-4** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Proposed Actions in 2034. As the development of the Proposed Actions would be expected to occur over an approximately 10-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out in 2034.

Based on the anticipated construction schedule shown in Chapter 20, "Construction," incremental vehicle trips associated with traffic generated by projected development sites could potentially result in significant adverse traffic impacts beginning in the third quarter of 2026 when completed incremental development on four projected development sites would result in a net increase of 410 dwelling units, 27,133 gsf of office space, and 21,464 gsf of community facility space, along with the net displacement of 28,230 gsf of warehouse space. This level of new development would generate more than the *CEQR Technical Manual* analysis threshold of 50 peak hour vehicle trip ends in all peak periods. At this earlier time, implementation of some or all of the mitigation measures developed for full build-out of the Proposed Actions in 2034 would be considered by DOT at impacted intersections, likely focusing on those corridors where project-generated traffic would be most concentrated, such as along Atlantic Avenue.

Effects Of Traffic Mitigation On Parking Conditions

As discussed above, the proposed traffic mitigation plan would incorporate a number of modifications to curbside parking regulations. As shown in **Table 20-4**, new restrictions would be implemented along the north curb of Fulton Street near the cross streets of Grand and Bedford Avenues. New "no standing anytime" restrictions in these areas would displace a total of approximately 16 on-street parking spaces. New restrictions would also be implemented along the north and south curbs of Pacific Avenue near the cross streets of Classon and Grand Avenues, respectively. The new "no standing anytime" restrictions in these areas would displace a total of approximately13 on-street parking spaces. Along the north curb of Atlantic Avene and the west curb of New York Avenue at the intersection of Atlantic Avenue and New York Avenue, New "no standing anytime" restrictions would be implemented, which would displace a total of approximately 13 additional spaces. Lastly, approximately 10 spaces would be displaced at Grand Avenue and Dean Street due to new "no standing anytime" restrictions on the east curb of Grand Avenue near the southbound approach.

As discussed in **Chapter 13, Transportation,** the Proposed Actions would generate a peak net parking demand of approximately 2,133 spaces in the weekday evening period and 2,104 spaces in the overnight period. With the proposed traffic mitigation, the displacement would increase the demand by up to approximately 52 spaces during each of these periods. As discussed in Chapter 13, "Transportation," the Project Area is located within Parking Zone 2 and the inability of a proposed project or the surrounding area to accommodate future parking demands would be considered a parking shortfall, but would generally not be considered significant under *CEQR Technical Manual* guidance due to the magnitude of available

alternative modes of transportation, As such, given that the Project Area is well served by alternate modes of transportation, any potential parking shortfall would not be considered significant as a result of these traffic mitigation measures.

Transit

Subway Line Haul

As shown in **Table 13-34** in Chapter 13, "Transportation," development associated with the Proposed Actions would add approximately 1,179 new subway trips, or an average of approximately 20.81 passengers per car, to northbound C trains in the AM peak hour, increasing the volume-to-capacity ratio from 1.05 in the No Action condition to 1.19 in the future with the Proposed Actions. As also shown in **Table 13-34** in Chapter 13, "Transportation," development associated with the Proposed Actions would add approximately 914 new subway trips, or an average of approximately 18.60 passengers per car, to southbound C trains in the PM peak hour, increasing the volume-to-capacity ratio from 1.02 in the No Action condition to 1.19 in the future with the Proposed Actions. As AM peak hour demand on northbound C trains and PM peak hour demand on southbound C trains would exceed practical capacity in the 2034 With Action condition, and as the Proposed Actions would increase this demand by more than the five passengers per car *CEQR Technical Manual* impact threshold, northbound and southbound C trains in the AM and PM peak hours, respectively, would be considered significantly adversely impacted by the Proposed Actions based on *CEQR Technical Manual* criteria.

As standard practice, NYCT routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria within fiscal and operating constraints. As shown in **Table 20-9**, given the level of new demand generated by the Proposed Actions, the addition of two northbound C trains during the AM peak hour (increasing average frequency from 7.1 to 9.1 trains per hour) would result in below-capacity conditions (i.e., a v/c ratio of 0.93), mitigating the potential impact. Similarly, with the addition of two southbound C trains during the PM peak hour (increasing average frequency from 6.1 to 8.1 trains per hour) would result in below-capacity conditions (i.e., a v/c ration of 0.87), mitigating the potential impact. In the absence of the additional frequencies or other mitigation measures, the impact to northbound and southbound C services during the AM and PM peak hours, respectively, would remain unmitigated.

Table 20-9: Summary of Significant Subway Line Haul Impacts

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains per Hour	Average Cars per Hour	Project Increment	Average Passenger per Hour [1]	Average Passengers per Car	Guideline Passenger per Car [(2)]	v/c Ratio[3]	Average Additional Passenger per Car
2034 With-Action Condition											
AM	C	NB	High St	7.1	8	1,179	9,865	172	145	1.19	20.81*
PM	C	SB	High St	6.1	8	914	8,044	162	140	1.16	18.60*
2034 Action-With-Mitigation Condition											
AM	C	NB	High St	9.1	8	1,179	9,865	134	145	0.93	16.23
PM	C	SB	High St	8.1	8	914	8,044	122	140	0.87	14.03

Notes:
1.Based on 2019 ridership data and train throughput data from NYCT. Passenger volumes grown by 0.5 percent/year to account for growth in demand during the 2019 to 2024 period and 0.25 percent per year until build year. Existing data was provided by NYCT in 2024.
2.Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
3.Volume to guideline capacity ratio.

Pedestrians

As discussed in **Chapter 13, Transportation**, the results of the analyses of pedestrian conditions show that demand from the Proposed Actions would significantly adversely impact 12 sidewalks, four corners, and four crosswalks in one or more peak hours under the With Action Condition (see **Table 20-10**).

A significant adverse pedestrian impact is considered mitigated if measures implemented return the anticipated conditions to an acceptable level, following the same criteria used in determining impacts. Standard mitigation for projected significant adverse pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture or other impediments to pedestrian flow; providing curb extensions, neck-downs, or lane reductions to reduce pedestrian crossing distance; and sidewalk widening. Discussed below are recommended mitigation measures to address the Proposed Actions' significant adverse pedestrian impacts. The mitigation measures generally consist of the relocation/removal of impediments to sidewalk flow along with crosswalk widening. Implementation of the recommended pedestrian improvements is subject to review and approval by DOT. If DOT determines that an identified pedestrian improvement is infeasible, alternative and equivalent measures will be explored. Absent the identification and implementation of additional feasible mitigation measures that would mitigate the pedestrian impacts to the greatest extent practicable, the Proposed Actions would result in unmitigated significant adverse pedestrian impacts.

Table 20-10: Summary of Significant Pedestrian Impacts

Corridor/Intersection	Impacted Element	Peak Hour			
		AM	Midday	PM	SAT
Pacific St Between Classon Ave & Franklin Ave	South Sidewalk			X	
Classon Ave between Pacific St & Dean St	East Sidewalk		X	X	X
Franklin Ave Between Fulton St & Brevoort Place	East Sidewalk	X	X	X	X
Franklin Ave Between Brevoort Place & Atlantic Ave	East Sidewalk	X	X	X	X
Atlantic Ave between Franklin Ave & Bedford Place	North Sidewalk		X	X	X
Atlantic Ave between Franklin Ave & Bedford Ave	South Sidewalk	X		X	X
Franklin Ave Between Atlantic Ave & Pacific St	West Sidewalk			X	X
Franklin Ave Between Lefferts Place & Atlantic Ave	West Sidewalk	X	X	X	X
Bedford Ave between Fulton St & Herkimer St	East Sidewalk	X		X	X
Bedford Ave between Fulton St & Brevoort Place	West Sidewalk		X		X
Atlantic Ave between Bedford Ave & Nostrand Ave	South Sidewalk	X	X	X	X
Atlantic Ave between Bedford Place & Bedford Ave	North Sidewalk	X	X	X	X
Atlantic Ave at Classon Ave	East Crosswalk			X	X
Atlantic Ave at Franklin Ave	East Crosswalk			X	X
Atlantic Ave at Franklin Ave	West Crosswalk			X	X
Atlantic Ave at Bedford Ave	North Crosswalk		X	X	X
Franklin Ave at Atlantic Ave	Northeast Corner			X	X
Franklin Ave at Atlantic Ave	Southwest Corner			X	X
Franklin Ave at Atlantic Ave	Northwest Corner			X	X
Bedford Ave at Atlantic Ave	Northeast Corner			X	X

Sidewalks

Of the 62 sidewalks analyzed, 12 are expected to be significantly adversely impacted by incremental demand from the Proposed Actions. Table **20-11** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in Table **20-13** and discussed below, with implementation of the proposed mitigation measures, the Proposed Actions' significant adverse impacts to five sidewalks would be fully mitigated. Practicable mitigation measures could not be identified for significant adverse impacts in one or more peak hours at seven sidewalks, and these impacts would therefore remain unmitigated.

Table 20-11: Action-With-Mitigation Sidewalk Conditions

Sidewalk	No Action			With Action			Action-With-Mitigation			
	Effective Width (ft)	Average Space (ft^2/ped)	LOS	Effective Width (ft)	Average Space (ft^2/ped)	LOS	Effective Width (ft)	Average Space (ft^2/ped)	LOS	Mitigation Measures
AM Peak Hour										
East Sidewalk along Franklin Ave Between Fulton St & Brevoort Pl	1.5	25.8	D	1.5	13.5	E*	1.5	13.5	E*	Unmitigated
East Sidewalk along Franklin Ave Between Brevoort Pl & Atlantic Ave	1.5	15.5	E	1.5	8.3	F*	1.5	8.3	F*	Unmitigated
South Sidewalk along Atlantic Ave between Franklin Ave & Bedford Ave	1.5	136.4	B	1.5	26.0	D*	2.5	44.6	C	Relocate sign currently located in front of the wall to less constrained point
West Sidewalk along Franklin Ave Between Lefferts Pl & Atlantic Ave	1.5	95.6	B	1.5	23.1	D*	1.5	23.1	D*	Unmitigated
East Sidewalk along Bedford Ave between Fulton St & Herkimer St	3.0	76.8	C	3.0	23.3	D*	3.0	23.3	D*	Unmitigated
South Sidewalk along Atlantic Ave between Bedford Ave & Nostrand Ave	0.5	74.6	C	0.5	25.6	D*	4.0	213.7	B	Relocate the light currently located in front of the ramp to less constrained point
North Sidewalk along Atlantic Ave between Bedford Pl & Bedford Ave	4.5	378.1	B	4.5	24.0	D*	4.5	24.0	D*	Unmitigated
Midday Peak Hour										
East Sidewalk along Classon Ave between Pacific St & Dean St	3.0	53.6	C	3.0	26.3	D*	10.0	91.2	B	Remove / pave the gravel area.
East Sidewalk along Franklin Ave Between Fulton St & Brevoort Pl	1.5	38.2	D	1.5	19.1	E*	1.5	19.1	E*	Unmitigated
East Sidewalk along Franklin Ave Between Brevoort Pl & Atlantic Ave	1.5	26.7	D	1.5	13.5	E*	1.5	13.5	E*	Unmitigated
North Sidewalk along Atlantic Ave between Franklin Ave & Bedford Pl	3.0	270.3	B	3.0	29.8	D*	3.0	29.8	D*	Unmitigated
West Sidewalk along Franklin Ave Between Lefferts Pl & Atlantic Ave	1.5	67.9	C	1.5	20.9	E*	1.5	20.9	E*	Unmitigated
West Sidewalk along Bedford Ave between Fulton St & Brevoort Pl	1.0	48.1	C	1.0	25.6	D*	2.0	54.1	C	Relocate tree currently located in front of fence to less constrained point
South Sidewalk along Atlantic Ave between Bedford Ave & Nostrand Ave	0.5	66.7	C	0.5	25.3	D*	4.0	211.4	B	Relocate the light currently located in front of the ramp to less constrained point
North Sidewalk along Atlantic Ave between Bedford Pl & Bedford Ave	4.5	305.4	B	4.5	10.5	F*	4.5	10.5	F*	Unmitigated
PM Peak Hour										
South Sidewalk along Pacific St Between Classon Ave & Franklin Ave	4.0	187.4	B	4.0	30.8	D*	5.5	43.0	C	Relocate 2 trees currently located in front of fence to less constrained point
East Sidewalk along Classon Ave between Pacific St & Dean St	3.0	38.5	D	3.0	19.0	E*	10.0	67.8	C	Remove / pave the gravel area.
East Sidewalk along Franklin Ave Between Fulton St & Brevoort Pl	1.5	23.4	D	1.5	10.4	F*	1.5	10.4	E*	Unmitigated
East Sidewalk along Franklin Ave Between Brevoort Pl & Atlantic Ave	1.5	18.4	E	1.5	9.0	F*	1.5	9.0	F*	Unmitigated
North Sidewalk along Atlantic Ave between Franklin Ave & Bedford Pl	3.0	248.5	B	3.0	19.8	E*	3.0	19.8	E*	Unmitigated
South Sidewalk along Atlantic Ave between Franklin Ave & Bedford Ave	1.5	105.3	B	1.5	24.5	D*	2.5	42.1	C	Relocate the sign currently located in front of the wall to less constrained point
West Sidewalk along Franklin Ave Between Atlantic Ave &	3.0	86.2	C	3.0	26.6	D*	3.0	26.6	D*	Unmitigated

Pacific St										
West Sidewalk along Franklin Ave Between Lefferts Pl & Atlantic Ave	1.5	63.6	C	1.5	16.0	E*	1.5	16.0	E*	Unmitigated
East Sidewalk along Bedford Ave between Fulton St & Herkimer St	3.0	73.8	C	3.0	23.2	D*	3.0	23.2	D*	Unmitigated
South Sidewalk along Atlantic Ave between Bedford Ave & Nostrand Ave	0.5	63.9	C	0.5	19.9	E*	4.0	170.6	B	Relocate the light currently located in front of the ramp to less constrained point
North Sidewalk along Atlantic Ave between Bedford Pl & Bedford Ave	4.5	345.0	B	4.5	17.2	E*	4.5	17.2	E*	Unmitigated
SAT Peak Hour										
East Sidewalk along Classon Ave between Pacific St & Dean St	3.0	54.8	C	3.0	26.9	D*	10.0	92.9	B	Remove / pave the gravel area.
East Sidewalk along Franklin Ave Between Fulton St & Brevoort Pl	1.5	21.3	E	1.5	8.2	F*	1.5	8.2	F*	Unmitigated
East Sidewalk along Franklin Ave Between Brevoort Pl & Atlantic Ave	1.5	15.3	E	1.5	6.9	F*	1.5	6.9	F*	Unmitigated
North Sidewalk along Atlantic Ave between Franklin Ave & Bedford Pl	3.0	188.5	B	3.0	17.2	E*	3.0	17.2	E*	Unmitigated
South Sidewalk along Atlantic Ave between Franklin Ave & Bedford Ave	1.5	97.7	B	1.5	25.0	D*	2.5	42.9	C	Relocate the sign currently located in front of the wall to less constrained point
West Sidewalk along Franklin Ave Between Atlantic Ave & Pacific St	3.0	99.7	B	3.0	26.4	D*	3.0	26.4	D*	Unmitigated
West Sidewalk along Franklin Ave Between Lefferts Pl & Atlantic Ave	1.5	79.6	C	1.5	14.9	E*	1.5	14.9	E*	Unmitigated
East Sidewalk along Bedford Ave between Fulton St & Herkimer St	3.0	85.2	C	3.0	21.2	E*	3.0	21.2	E*	Unmitigated
West Sidewalk along Bedford Ave between Fulton St & Brevoort Pl	1.0	45.0	C	1.0	21.7	E*	2.0	46.7	C	Relocate tree currently located in front of fence to less constraint point
South Sidewalk along Atlantic Ave between Bedford Ave & Nostrand Ave	0.5	57.3	C	0.5	15.9	E*	4.0	140.6	B	Relocate the light currently located in front of the ramp to less constrained point
North Sidewalk along Atlantic Ave between Bedford Pl & Bedford Ave	4.5	250.5	B	4.5	11.3	E*	4.5	11.3	E*	Unmitigated
Note: * denotes a significant adverse impact based on *CEQR Technical Manual* criteria.										

East Sidewalk on Franklin Avenue between Fulton Street and Brevoort Place

Pedestrian flow along this sidewalk is constrained by two curbside tree pits each opposite of a low fence enclosing the front yard of an adjacent property. Both are located near the south end of the block. As removing and relocating these tree pits would likely prove impracticable, the Proposed Actions' significant adverse impacts would remain unmitigated during all impacted peak hours.

East Sidewalk on Franklin Avenue between Brevoort Place and Atlantic Avenue

Pedestrian flow along this sidewalk is constrained by three curbside tree pits opposite of a low fence enclosing the side yard of an adjacent property. These tree pits are located near the north end of the block. As removing and relocating these tree pits would likely prove impracticable, the Proposed Actions' significant adverse impacts would remain unmitigated during all impacted peak hours.

South Sidewalk on Atlantic Avenue between Franklin Avenue and Bedford Avenue

Pedestrian flow along this sidewalk is most constrained at a point where a sign is located opposite a staircase of an adjacent building. Relocation of the street sign would fully mitigate the significant adverse impact during all impacted peak hours. In the absence of the application of this mitigation measure, the impact would remain unmitigated.

West Sidewalk on Franklin Avenue between Lefferts Place and Atlantic Avenue

Pedestrian flow along this sidewalk is constrained by multiple tree pits each opposite of a low fence enclosing the front yard of an adjacent property. As removal or relocation of all of the tree pits along this block would be impracticable, the Proposed Actions' significant adverse impacts would remain unmitigated during all impacted peak hours.

East Sidewalk on Bedford Avenue between Fulton Street and Herkimer Street

Pedestrian flow along this sidewalk is constrained by the presence of a subway station entrance stair at curbside. As removal or relocation of this stair would be impracticable, the Proposed Actions' significant adverse impact in the weekday AM, PM, and Saturday peak hours would remain unmitigated.

South Sidewalk on Atlantic Avenue between Bedford Avenue and Nostrand Avenue

Pedestrian flow along this sidewalk is constrained by a light pole opposite of an adjacent building's wheelchair ramp. Relocating of the light pole would fully mitigate the significant adverse impact in all impacted peak hours. In the absence of the application of this mitigation measure, the impact would remain unmitigated.

North Sidewalk on Atlantic Avenue between Bedford Place and Bedford Avenue

Pedestrian flow along this sidewalk is constrained by two tree pits located along this sidewalk. As removal or relocation of the tree pits along this block would be impracticable, the Proposed Actions' significant adverse impact would remain unmitigated during all impacted peak hours.

East Sidewalk on Classon Avenue between Pacific Street and Dean Street

Pedestrian flow along this sidewalk is constrained by the presence of a tree pit and utility pole opposite a patch of gravel. Removing or paving the gravel would fully mitigate the significant adverse impact in all impacted peak hours. In the absence of the application of this mitigation measure, the impact would remain unmitigated.

North Sidewalk on Atlantic Avenue between Franklin Avenue and Bedford Place

Pedestrian flow along this sidewalk is constrained by multiple tree pits opposite a tall barb-wired fence. As removal or relocation of the tree pits along this block would be impracticable, the Proposed Actions' significant adverse impacts would remain unmitigated during all impacted peak hours.

West Sidewalk on Bedford Avenue between Fulton Street and Brevoort Place

Pedestrian flow along this sidewalk is constrained by a curbside tree pit opposite of a fence enclosing the side yard of an adjacent property. Relocating the tree pit would fully mitigate the significant adverse impacts all impacted peak hours. In the absence of the application of this mitigation measure, the impacts would remain unmitigated.

South Sidewalk on Pacific Street between Classon Avenue and Franklin Avenue

Pedestrian flow along this sidewalk is constrained by two curbside tree pits opposite of a low fence enclosing the front yard of an adjacent property. Relocating the tree pits would fully mitigate the significant adverse impacts in the weekday PM peak hour. In the absence of the application of this mitigation measure, the impacts would remain unmitigated.

West Sidewalk on Franklin Avenue between Atlantic Avenue and Pacific Street

Pedestrian flow along this sidewalk is constrained by multiple curbside tree pits each opposite of a low fence enclosing the front yard of an adjacent property. As removal or relocation of the tree pits along this block would be impracticable, the Proposed Actions' significant adverse impact would remain unmitigated during all impacted peak hours.

Crosswalks

Of the 39 crosswalks analyzed, four are expected to be significantly adversely impacted by incremental demand from the Proposed Actions in the weekday midday, PM, and/or Saturday peak hours. **Table 20-12** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in **Table 20-12** and discussed below, with implementation of the proposed mitigation measures, all of the impacts would be fully mitigated in the respective periods, with the exception of the east crosswalk on Atlantic Avenue and Classon Avenue.

Table 20-12: Action-With-Mitigation Crosswalk Conditions

Location	Crosswalk	No Action			With Action			Action-With-Mitigation			
		Width (ft)	Average Space (ft^2/ped)	LOS	Width (ft)	Average Space (ft^2/ped)	LOS	Width (ft)	Average Space (ft^2/ped)	LOS	Mitigation Measures
Midday Peak Hour											
Atlantic Ave & Bedford Ave	North	13.5	267.1	A	13.5	18.8	D*	19.0	27.3	C	Widen Crosswalk by 5.5 ft
PM Peak Hour											
Atlantic Ave & Classon Ave	East	16.0	42.4	B	16.0	12.9	E*	16.0	15.5	D*	Unmitigated†
Atlantic Ave & Franklin Ave	East	17.0	48.4	B	17.0	15.4	D*	21.5	19.9	D	Widen Crosswalk by 4.5 ft
Atlantic Ave & Franklin Ave	West	15.0	51.1	B	15.0	17.0	D*	17.0	19.5	D	Widen Crosswalk by 2.0 ft
Atlantic Ave & Bedford Ave	North	13.5	239.8	A	13.5	13.2	E*	19.0	19.8	D	Widen Crosswalk by 5.5 ft
SAT Peak Hour											
Atlantic Ave & Classon Ave	East	16.0	41.5	B	16.0	12.6	E*	16.0	15.0	D*	Unmitigated†
Atlantic Ave & Franklin Ave	East	17.0	52.8	B	17.0	16.7	D*	21.5	21.6	D	Widen Crosswalk by 4.5 ft
Atlantic Ave & Franklin Ave	West	15.0	64.8	A	15.0	19.2	D*	17.0	22.0	D	Widen Crosswalk by 2.0 ft
Atlantic Ave & Bedford Ave	North	13.5	258.6	A	13.5	15.4	D*	19.0	22.9	D	Widen Crosswalk by 5.5 ft

Note: Action-with-mitigation takes into account traffic mitigation measures
* denotes a significant adverse impact based on *CEQR Technical Manual* criteria.
† Location can be improved with widening but deemed not feasible due to potential DOT improvement (to be reassessed in FEIS)

North Crosswalk on Atlantic Avenue and Bedford Avenue

As shown in **Table 20-12**, under the Proposed Actions the north crosswalk on Atlantic Avenue and Bedford Avenue would operate at LOS D or worse in the weekday midday, PM, and Saturday peak hours, and would be considered significantly adversely impacted in these periods based on *CEQR Technical Manual* criteria. With a 5.5-foot widening (to a total of 19 feet in width), conditions would improve to a non-adverse impact LOS D or better in the weekday midday, PM and Saturday peak hours, and the Proposed Actions' significant adverse impact to this crosswalk would be fully mitigated. In the absence of the application of this mitigation measure, the impact would remain unmitigated.

East Crosswalk on Atlantic Avenue and Classon Avenue

As shown in **Table 20-12**, under the Proposed Actions the east crosswalk on Atlantic Avenue and Classon Avenue would operate at LOS D in the weekday PM and Saturday peak hours and would be considered significantly adversely impacted in both periods based on *CEQR Technical Manual* criteria. Due to NYCDOT's plan for improvement at this intersection, proposed crosswalk mitigations are not feasible. Mitigation measures will be reassessed between the publication of the DEIS and FEIS. Therefore, the Proposed Actions significant adverse impacts in the weekday PM, and Saturday peak hours would remain unmitigated.

East Crosswalk on Atlantic Avenue and Franklin Avenue

As shown in **Table 20-12**, under the Proposed Actions the east crosswalk on Atlantic Avenue and Franklin Avenue would operate at LOS D in the weekday PM and Saturday peak hours

and would be considered significantly adversely impacted in these periods based on *CEQR Technical Manual* criteria. With a 4.5-foot widening (to a total of 21.5 feet in width), conditions on this crosswalk would improve to a non-adverse impact LOS D in the weekday PM and Saturday peak hours, and the Proposed Actions' significant adverse impacts to this crosswalk would be fully mitigated. In the absence of the application of this mitigation measure, the impact would remain unmitigated.

West Crosswalk on Atlantic Avenue and Franklin Avenue

As shown in **Table 20-12**, under the Proposed Actions the west crosswalk on Atlantic Avenue and Franklin Avenue would operate at LOS D in the weekday PM and Saturday peak hours and would be considered significantly adversely impacted in these periods based on *CEQR Technical Manual* criteria. With a 2-foot widening (to a total of 17 feet in width), conditions on this crosswalk would improve to a non-adverse impact LOS D in the weekday PM and Saturday peak hours, and the Proposed Actions' significant adverse impacts to this crosswalk would be fully mitigated. In the absence of the application of this mitigation measure, the impact would remain unmitigated.

Corners

Of the 68 corners analyzed, four are expected to be significantly adversely impacted by incremental demand from the Proposed Actions in the weekday PM, and/or Saturday peak hours. As shown in **Table 20-13**, the Proposed Actions significant adverse impacts for all four corners in the weekday PM, and/or Saturday peak hours would remain unmitigated.

Table 20-13: Action-With-Mitigation Corner Conditions

Location	Corner	No-Action		With-Action		Action-With-Mitigation		
		Average Space (ft^2/ped)	LOS	Average Space (ft^2/ped)	LOS	Average Space (ft^2/ped)	LOS	Mitigation Measures
PM Peak Hour								
Franklin Ave & Atlantic Ave	NE	63.6	A	11.9	E*	11.9	E*	Unmitigated
Franklin Ave & Atlantic Ave	SW	81.3	A	13.4	E*	13.4	E*	Unmitigated
Franklin Ave & Atlantic Ave	NW	59.5	B	15.4	D*	15.4	D*	Unmitigated
Bedford Ave & Atlantic Ave	NE	225.3	A	12.0	E*	12.0	E*	Unmitigated
SAT Peak Hour								
Franklin Ave & Atlantic Ave	NE	56.6	B	9.6	E*	9.6	E*	Unmitigated
Franklin Ave & Atlantic Ave	SW	92.2	A	16.0	D*	16.0	D*	Unmitigated
Franklin Ave & Atlantic Ave	NW	54.9	B	11.5	E*	11.5	E*	Unmitigated
Bedford Ave & Atlantic Ave	NE	216.3	A	16.3	D*	16.3	D*	Unmitigated

Note: * denotes a significant adverse impact based on *CEQR Technical Manual* criteria.

Effects of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures (discussed previously) would potentially affect pedestrian conditions at a total of nine analyzed crosswalks and 18 analyzed corner areas at six intersections in one or more peak hours. The recommended traffic mitigation measures

at each of these locations would consist of signal timing adjustments of one to three seconds. As shown in **Tables 20-14** and **20-15**, with implementation of these proposed signal timing adjustments, all affected analyzed crosswalks and corner areas would continue to operate at a non-adverse impact LOS D or better in all analyzed peak hours, and there would be no new pedestrian impacts. Sufficient pedestrian crossing time would also continue to be provided at all crosswalks.

Table 20-14: Action-With-Traffic Mitigation Crosswalk Conditions

		With-Action Condition								Action-with-Mitigation								
		Average Pedestrian Space (ft^2/ped)				Level of Service				Average Pedestrian Space (ft^2/ped)				Level of Service				Proposed Traffic Mitigation
Intersection	Crosswalk	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
Fulton St and Classon Ave	South	125.0	121.8	127.3	105.6	A	A	A	A	125.0	121.8	117.3	96.6	A	A	A	A	Transfer 3 s from EB/WB to NB in PM and SAT/MD.
Pacific St & Classon Ave	North	71.5	43.3	48.0	39.4	A	B	B	C	71.5	43.3	48.0	46.0	A	B	B	B	Ban parking for 150' on north curb of the WB approach. Restriped for a 11' right turn lane and 12' thru lane. Transfer 2 s of green time from NB to WB in Sat/MD.
	East	68.4	48.1	26.5	31.5	A	B	C	C	68.4	48.1	26.5	28.7	A	B	C	C	
	South	77.5	73.9	44.9	39.5	A	A	B	C	77.5	73.9	44.9	44.5	A	A	B	B	
	West	81.7	51.7	56.5	43.4	A	B	B	B	81.7	51.7	56.5	39.2	A	B	B	C	
Fulton St & Franklin Ave	East	25.7	36.2	23.1	21.8	C	C	D	D	23.9	36.2	22.3	21.8	D	C	D	D	Transfer 2 s and 1 s from SB to EB/WB in AM and PM.
Dean St & Franklin Ave	East	63.3	74.9	50.6	44.9	A	A	B	B	63.3	79.1	50.6	44.9	A	A	A	B	Transfer 1s from EB to SB in MD peak hour.
	West	81.1	73.9	53.8	50.5	A	A	B	B	81.1	77.5	53.8	50.5	A	A	A	B	
Fulton St & Bedford Ave	West	132.9	60.3	75.9	39.0	A	A	A	C	132.9	66.0	77.8	44.5	A	A	A	B	Ban parking for 200' on the north curb of the WB approach. Restripe WB approach with a 12' thru and 11' right turn lane. Transfer 2s from EB/WB to NB in MD, 3s in PM and Sat/MD.

Table 20-15: Action-With-Traffic Mitigation Corner Conditions

		With-Action Condition								Action-with-Mitigation								
		Average Pedestrian Space (ft^2/ped)				Level of Service				Average Pedestrian Space (ft^2/ped)				Level of Service				
Intersection	Corner	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	Proposed Traffic Mitigation
Grand Ave & Fulton St	SE	333.5	295.0	224.7	217.9	A	A	A	A	333.5	295.0	225.1	218.5	A	A	A	A	Ban parking for 120' on north curb of the WB approach. Restriped WB approach for a 11' left turn lane and 11' thru lane. Transfer 3s from SB to EB/WB in PM/Sat/MD
	SW	198.2	200.1	183.9	156.7	A	A	A	A	198.2	200.1	184.2	157.1	A	A	A	A	
Classon Ave & Fulton St	SE	203.1	205.2	177.5	162.5	A	A	A	A	203.1	205.2	177.3	162.3	A	A	A	A	Transfer 3 s from EB/WB to NB in PM and SAT/MD.
	SW	273.8	241.1	230.7	195.2	A	A	A	A	273.8	241.1	230.6	195.1	A	A	A	A	
Classon Ave & Pacific St	NE	200.1	143.2	101.5	102.9	A	A	A	A	200.1	143.2	101.5	102.5	A	A	A	A	Ban parking for 150' on north curb of the WB approach. Restriped for a 11' right turn lane and 12' thru lane. Transfer 2 s of green time from NB to WB in Sat/MD.
	SE	194.4	156.9	83.8	100.1	A	A	A	A	194.4	156.9	83.8	99.9	A	A	A	A	
	SW	264.8	189.3	170.2	136.2	A	A	A	A	264.8	189.3	170.2	136.1	A	A	A	A	
	NW	218.4	154.3	168.4	133.0	A	A	A	A	218.4	154.3	168.4	132.8	A	A	A	A	
Franklin Ave & Fulton St	NE	79.4	104.8	69.4	63.4	A	A	A	A	79.2	104.8	69.2	63.4	A	A	A	A	Transfer 2 s and 1 s from SB to EB/WB in AM and PM.
	SE	89.9	88.8	84.3	80.5	A	A	A	A	89.8	88.8	84.2	80.5	A	A	A	A	
	SW	91.4	108.9	88.8	88.8	A	A	A	A	91.3	108.9	88.8	88.8	A	A	A	A	
Franklin Ave & Dean St	NE	86.1	108.8	76.0	71.9	A	A	A	A	86.1	108.9	76.0	71.9	A	A	A	A	Transfer 1s from EB to SB in MD peak hour.
	SE	298.5	349.3	254.8	220.3	A	A	A	A	298.5	349.4	254.8	220.3	A	A	A	A	
	SW	308.0	294.8	222.8	207.8	A	A	A	A	308.0	294.8	222.8	207.8	A	A	A	A	
	NW	83.7	89.3	51.8	50.5	A	A	B	B	83.7	89.3	51.8	50.5	A	A	B	B	
Bedford Ave & Fulton St	NE	35.4	48.0	25.7	20.9	C	B	C	D	35.4	48.4	26.1	21.8	C	B	C	D	Ban parking for 200' on the north curb of the WB approach. Restripe WB approach with a 12' thru and 11' right turn lane. Transfer 2s from EB/WB to NB in MD, 3s in PM and Sat/MD.
	SW	45.9	30.5	20.4	22.5	B	C	D	D	45.9	30.5	20.1	22.5	B	C	D	D	
	NW	80.8	62.3	43.3	37.9	A	A	B	C	80.8	62.4	43.3	38.2	A	A	B	C	

Proposed Schedule for Pedestrian Mitigation Measures

Subject to DOT and DPR approval, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse sidewalk and crosswalk impacts resulting from full build-out of the Proposed Actions in 2034. As the development of the Proposed Actions would be expected to occur over an approximately 10-year period, it is possible that the sidewalk, corner, and crosswalk impacts could occur prior to full build-out in 2034.

Based on the anticipated construction schedule shown in **Chapter 19, Construction,** 200 or more incremental pedestrian trips generated by the Proposed Actions would potentially occur on the impacted sidewalks and crosswalks beginning in the second quarter of 2027. At this earlier point in time, implementation of the mitigation measures developed for full build-out of the Proposed Actions in 2034 would be considered to address the potential significant adverse pedestrian impacts.

Construction

Air Quality

As presented in **Chapter 19, Construction,** $PM_{2.5}$ would be below its NAAQS for all analyzed Sites and would exceed annual *de minimis* threshold at projected development sites 10 and 14. The exceedance of the de minimis threshold would be considered a significant adverse air quality impact. Between the DEIS and FEIS, additional review and evaluation will be performed to determine whether the identified impacts related to Annual PM2.5 increments will be avoided. This may include use of more refined assumptions in terms of construction equipment usage, and the use of newer construction equipment with lower particulate emissions, as applicable.

At this time, no practicable mitigation measures have been identified. Between the Draft and Final EIS, mitigation measures will be explored. In the event practicable mitigation measure are not identified, this would be an unmitigated impact.

Noise

As presented in **Chapter 19, Construction,** approval of the Proposed Actions would result in significant adverse construction noise impacts throughout and adjacent to the Project Area (refer to **Figure 19-3**).

The analysis in **Chapter 19** was based on a conceptual construction schedule. The conceptual construction schedule conservatively accounts for overlapping construction activities at development sites. The noise analysis results show that the predicted noise levels could exceed the construction noise impact criteria throughout the Project Area. It is possible that the actual construction may be of less magnitude, or that construction on multiple projected development sites may not overlap, in which case construction noise would be less intense than the analysis predicts.

Construction would be required to follow the NYC Noise Control Code for construction noise control measures. The following proposed mitigation measures beyond the noise controls already identified in Chapter 19, Construction, may partially mitigate significant adverse impacts at some affected receptors:

- Noise barriers constructed from plywood or other materials at a height of 12 to 16 feet utilized to provide shielding;
- Utilization of isolation pads between the pile driver hammer and piles;

- Acoustical shrouds surrounding the pile driver hammer and piles;
- Electric cranes or cranes with exhaust silencers that have lower noise emission levels; and
- Excavators with exhaust silencers that have lower noise emission levels.

Between publication of the DEIS and FEIS, all possible mitigation measures to address the identified construction noise impacts will be explored. In the event no additional practicable or feasible mitigation measures are determined, the significant adverse construction noise impacts associated with the construction of projected development sites 6, 9, 10, 14, 15, 20, 22, 45, 54, and 55 would be unavoidable.