Chapter 22: Mitigation

A. INTRODUCTION

The preceding chapters of this Environmental Impact Statement (EIS) discuss the potential for significant adverse environmental impacts resulting from the proposed project. Potential impacts were identified in the transportation areas of traffic, transit, air quality, and construction-period traffic; therefore, measures have been examined to minimize or eliminate these anticipated impacts. These mitigation measures are discussed below.

PRINCIPAL CONCLUSIONS

TRANSPORTATION

The proposed project could result in significant adverse impacts to traffic (surface streets and freeway facilities) and transit (bus) as detailed below. No significant adverse impacts were identified for pedestrians, parking, or vehicular and pedestrian safety.

Traffic: Intersections

As discussed in Chapter 14, "Transportation," in the 2023 With-Action without Hutchinson River Parkway (HRP) Improvements condition, the proposed project would result in potential significant adverse traffic impacts at 17 intersections during the weekday AM peak hour, 9 intersections during the weekday midday peak hour, and 16 intersections during the weekday PM peak hour. In the 2028 With-Action with HRP Improvements condition, there would be the potential for significant adverse traffic impacts at 18 intersections during the weekday AM peak hour, 10 intersections during the weekday midday peak hour, and 17 intersections during the weekday PM peak hour.

Some of the locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of standard mitigation measures (e.g., signal timing changes, restriping and changing parking regulations). However, in the 2023 With-Action without HRP Improvements condition, the significant adverse traffic impacts at 14 intersections could not be fully mitigated during one or more analysis peak hours. These include the Waters Place intersections of Marconi Street, BPC Driveway, Fink Avenue/HRP Southbound Off-ramp, and Westchester Avenue; intersection of Project Driveway and Marconi Street; East Tremont Avenue and Silver Street; Westchester Avenue intersections of Ericson Place/Middletown Road, Tan Place, East Tremont Avenue, Commerce Avenue, and Waters Avenue; Morris Park Avenue and Eastchester Road; East Tremont Avenue and Ericson Place; and Pelham Parkway (Eastbound) and Williamsbridge Road. In the 2028 With-Action with HRP Improvements condition, the significant adverse traffic impacts at 18 intersections could not be fully mitigated during one or more analysis peak hours. These include the 14 intersections identified in the 2023 With-Action without HRP Improvements condition and the intersection of Waters Place and Eastchester Road; Westchester

Avenue and Blondell Avenue; Williamsbridge Road and Eastchester Road; and the intersection of East-West Road and HRP Service Road.

Traffic: Freeway Facilities (HRP)

As discussed in Chapter 14, "Transportation," the proposed project could experience potential significant adverse impacts at four freeway locations under the 2023 With-Action without HRP Improvements condition and two freeway locations under the 2028 With-Action with HRP Improvements condition.

The recommended traffic intersection mitigation measures could mitigate the 2023 With-Action projected freeway facility impacts at the northbound HRP mainline segment south of the East Tremont Avenue off-ramp (Exit 2) and the East Tremont Avenue off-ramp during the weekday PM peak period. However, in the 2023 With-Action without HRP Improvements condition, the potential significant adverse impacts at the northbound HRP mainline segment south of the East Tremont Avenue off-ramp (Exit 2) and the East Tremont Avenue off-ramp, and the southbound HRP mainline segment north of the Waters Place (Exit 2) and the Waters Place off-ramp could not be fully mitigated during one or more analysis peak periods. In the 2028 With-Action with HRP Improvements condition, the potential significant adverse impacts at the northbound HRP mainline segment south of the East Tremont Avenue off-ramp (Exit 2) and the East Tremont Avenue off-ramp could not be fully mitigated during one or more analysis peak periods.

Transit

As discussed in Chapter 14, "Transportation," bus line-haul impacts were identified for the northbound Bx21 and eastbound and westbound Bx24 during the weekday AM peak hour, and the eastbound and westbound Bx24 during the weekday PM peak hour. Specifically, in the 2023 With-Action condition, there would be the potential for significant adverse bus line-haul impacts for the westbound Bx24 during the weekday AM peak hour and the eastbound and westbound Bx24 during the weekday PM peak hour. In the 2028 With-Action condition, there would be the potential for significant adverse bus line-haul impacts for the northbound Bx21, and eastbound and westbound Bx24 during the weekday AM peak hour, and the eastbound and westbound Bx24 during the weekday PM peak hour. Increases in service frequency for the northbound Bx21 and eastbound and westbound Bx24 would fully mitigate the projected line-haul impacts.

Summary

Implementation of proposed traffic mitigation measures would be subject to approval by the New York City Department of Transportation (NYCDOT) prior to installation. The traffic mitigation measures include signal timing changes, restriping and changes to parking regulations—standard measures routinely implemented throughout the City and generally considered to be feasible. In the event that certain proposed mitigation measures are deemed infeasible by NYCDOT, and no other alternative mitigation measures can be identified, those impacts would be considered unmitigated. As part of the traffic mitigation, the developer would commit to undertake a post-approval traffic monitoring plan (TMP). The developer in coordination with Empire State Development (ESD) will submit for NYCDOT's review and approval a TMP for a proposed scope for the monitoring at the completion and occupancy of the proposed project. Regarding the significant adverse bus line-haul impacts, reducing headways by increasing the number of buses for the impacted routes would mitigate the bus line-haul impacts. These changes would take place, subject to New York City Transit (NYCT)'s fiscal and operational constraints.

AIR QUALITY

As discussed in Chapter 15, "Air Quality," the proposed project would result in a significant adverse air quality impact at the intersections of Marconi Street and Waters Place and Waters Place and Fink Avenue/HRP Southbound Off Ramp. Maximum concentrations at each of these locations are predicted to exceed the annual *de minimis* criterion for fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) of 0.1 $\mu g/m^3$ for the Phase II 2028 With-Action condition.

As discussed below, the results of a mobile source analysis with the proposed traffic mitigation measures for these two intersections indicate that annual incremental concentrations of $PM_{2.5}$ would be substantially lower than the With-Action condition, and would not exceed the *de minimis* criterion for $PM_{2.5}$. Therefore, no unmitigated significant adverse air quality impacts would remain upon incorporation of the traffic mitigation measures.

CONSTRUCTION

As discussed in Chapter 20, "Construction," construction of the proposed project would result in temporary significant adverse traffic impacts during the peak construction period for both Phase I and Phase II construction. As detailed in Chapter 20, "Construction," the same or similar traffic mitigation measures identified to mitigate the operational impacts could be implemented early at the discretion of NYCDOT to mitigate the temporary traffic impacts during construction.

B. TRANSPORTATION

TRAFFIC—INTERSECTIONS

2023 WITH-ACTION (WITHOUT HRP IMPROVEMENTS)

As discussed in Chapter 14, "Transportation," traffic conditions were evaluated at 29 intersections for the weekday AM, midday, and PM peak hours. In the 2023 With-Action without HRP Improvements condition, the proposed project would result in significant adverse traffic impacts at 17 intersections during the weekday AM peak hour, 9 intersections during the weekday midday peak hour, and 16 intersections during the weekday PM peak hour, as summarized in **Table 22-1**.

Tables 22-2A through 22-2C itemize the mitigation measures recommended to address the identified impacts under the 2023 With-Action without HRP Improvements condition. With the implementation of these mitigation measures, which are subject to approval by NYCDOT prior to implementation, some of the significant adverse traffic impacts identified above could be fully mitigated. However, significant adverse traffic impacts at 14 intersections could not be fully mitigated. As part of the traffic mitigation, the developer would commit to undertake a post-approval TMP. The developer in coordination with ESD will submit for NYCDOT's review and approval a TMP for a proposed scope for the monitoring at the completion and occupancy of the proposed project.

A discussion of the recommended mitigation measures is provided below. **Tables 22-3A through 22-3E** compare the levels of service (LOS) and lane group delays for the impacted intersections under the 2023 No-Action, With-Action, and Mitigation without HRP Improvements conditions for the three analysis peak hours.

Table 22-1
2023 With-Action without HRP Improvements Condition—Summary of Significant Adverse Traffic Impacts

Intersection		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
EB/WB Street	**NB/SB Street**			
Pelham Parkway (Eastbound)	Williamsbridge Road	EB (ML)-LT	No Significant Impact	No Significant Impact
Pelham Parkway (Westbound)	Eastchester Road	No Significant Impact	No Significant Impact	SB-TR
Pelham Parkway (Eastbound)	Eastchester Road	EB (ML)-LT	No Significant Impact	SB-L
Morris Park Avenue	Eastchester Road	NB-L SB-LTR	NB-L SB-LTR	EB-L EB-R NB-L SB-LTR
Waters Place	Eastchester Road	WB-L WB-R NB-TR SB-DefL	WB-L NB-TR SB-DefL	WB-L WB-R SB-DefL
Williamsbridge Road	Eastchester Road	NB-LTR SB-TR	NB-LTR SB-TR	NB-LTR SB-TR
East Tremont Avenue	Silver Street	EB-L SB-R	SB-R	SB-R
Project Driveway	Marconi Street	No Significant Impact	No Significant Impact	WB-L
Waters Place	Marconi Street	EB-L EB-LT WB-TR SB-R	EB-DefL SB-L SB-R	EB-DefL SB-L SB-R
Waters Place	Bronx Psychiatric Center (BPC) Driveway	EB-DefL WB-TR	EB-LT	EB-LT
Waters Place	Fink Avenue/HRP Southbound Off-Ramp	NB-LR SB-R	EB-TR	EB-TR SB-R
Westchester Avenue	Ericson Place/Middletown Road	EB-DefL EB-TR WB-LT NB-LTR	EB-DefL EB-TR WB-LT SB-LTR	EB-DefL EB-TR NB-LTR SB-LTR
Waters Place	Westchester Avenue	NB-DefL SB-LTR	NB-LTR	EB-LT NB-LTR
Waters Avenue	Westchester Avenue	EB-LR	No Significant Impact	No Significant Impact
Tan Place	Westchester Avenue	NB-T	No Significant Impact	No Significant Impact
Blondell Avenue	Westchester Avenue	NB-LT	No Significant Impact	NB-LT
East Tremont Avenue	Westchester Avenue	NB-LT	No Significant Impact	NB-LT
Commerce Avenue	Westchester Avenue	NB-LTR SB-DefL	No Significant Impact	SB-LTR
East Tremont Avenue	Ericson Place	WB-T NB-LTR	No Significant Impact	NB-LTR
Total Impacted Intersections/Lane Groups		**17/34**	**9/18**	**16/29**

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left Turn; T = Through; R = Right Turn; DefL = De facto left-turn; ML = Mainline.

Table 22-2A
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Pelham Parkway (EB) and Williamsbridge Road	EB Green = 21 s SB Green = 28 s NB/SB Green = 26 s	Unmitigated	No change from No-Action
Pelham Parkway (EB) and Eastchester Road	EB Green = 35 s SB Green = 30 s NB/SB Green = 10 s	Shift 1 second of green time from the SB phase to the EB phase.	EB Green = 36 s SB Green = 30 s NB/SB Green = 9 s
Morris Park Avenue and Eastchester Road	EB/WB: Green = 33 s LPI = 7 s NB/SB: Green = 38 s NB: Green = 20 s	Unmitigated	No change from No-Action
Waters Place and Eastchester Road	WB: Green = 23 s NB/SB: Green = 40 s SB/WB-R: Green = 12 s	For the north leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the NB receiving lanes (centerline to east curb) from two 11-foot lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 4-foot buffer is provided. For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane and one 11-foot through lane to two 11-foot through lanes; restripe the NB approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional 3-foot buffer is provided. For the east leg of the intersection, remove parking along the north side of the street and restripe the WB approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane and one 12-foot left-turn lane. An additional 6-foot buffer is provided. Modify the three-phase signal to a four-phase signal to add a new pedestrian-actuated phase providing 27 seconds that allows the north and south crosswalks to operate simultaneously with the permitted WB right-turns. Add the NB-R movement to the WB phase. The timing/phasing presented in the “Recommended Signal Timing” column of this table shows the effective timing proportioned to reflect a full pedestrian-actuated phase that is activated an estimated five times an hour.	Pedestrian-actuated/WB-R: Green = 4 s WB/NB-R: Green = 27 s NB/SB: Green = 30 s SB/WB-R: Green = 14 s
Williamsbridge Road and Eastchester Road	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the north leg of the intersection, remove parking along the SB approach and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 11-foot left-turn/through lane to one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left turn lane. Move centerline two feet to the east for the length parallel to the 215-feet No Standing Anytime regulation along the NB receiving lanes. Shift 4 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 36 s NB/SB: Green = 44 s

Table 22-2A (cont'd)
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
East Tremont Avenue and Silver Street	EB/WB: Green = 42 s EB/SB-R: Green = 38 s Pedestrian Green= 25 s	Unmitigated	No change from No-Action
Waters Place and Marconi Street	EB Leading = 7 s EB/WB: Green = 42 s SB: Green = 26 s	For the east leg of the intersection, remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. A 3-foot buffer is provided. For the west leg of intersection, remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane and one 10-foot left-turn/through lane to one 11-foot left turn lane and two 11-foot through lanes. A 5-foot buffer is provided. For the WB receiving lanes, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus Stop further to the west. An additional 6-foot buffer is provided. Add SB-R movement to leading EB phase. Add WB-R movement to SB phase.	EB/SB-R = 7 s EB/WB: Green = 42 s SB/WB-R: Green = 26 s
Waters Place and BPC Driveway	EB/WB: Green = 45 s SB: Green = 35 s	For the east leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the EB receiving lanes (centerline to south curb) from two 11-foot through lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. For the west leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the WB receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. Add an EB Leading phase. Shift 11 seconds (Green/Amber/Red: 6/3/2) from the SB phase to the EB leading phase. Shift 2 seconds of green time from the SB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB Leading: Green= 6 s EB/WB: Green = 47 s SB: Green = 22 s

Table 22-2A (cont'd)
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Waters Place and Fink Avenue/HRP Southbound Off-Ramp	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the south leg of the intersection (from curb to curb) remove parking on both sides and restripe the northbound lanes from one 8-foot parking lane and a 12- foot right/ left turn lane to one 11-foot right-turn lane and one 11-foot left-turn lane. Restripe the southbound receiving lanes from one 8-foot parking lane and one 11-foot through lane to one 11-foot receiving lane. An additional 6-foot buffer is provided. Shift 5 seconds of green time from the EB/WB phase to the NB/SB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 35 s NB/SB: Green = 45 s
Westchester Avenue and Ericson Place/Middletown Road	EB Leading = 6 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 20 s	For the southbound approach (Middletown Road), remove the parking on the receiving approach and restripe the lanes from one 8-foot parking lane and one 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane, and one 11-foot through/left-turn lane. Also, move the centerline 9 feet towards the west curb line making one 17-foot receiving lane. For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and another 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane, and one 11-foot through/right-turn lane. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Shift 1 second of green time from the SB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB/SB-R Green = 6 s EB/WB: Green = 24 s NB: Green = 18 s SB: Green = 19 s
Waters Place and Westchester Avenue	EB: Green = 40 s NB/SB: Green = 40 s	Shift 11 seconds of green time from the EB phase to the NB/SB Phase.	EB: Green = 29 s NB/SB: Green = 51 s
Waters Avenue and Westchester Avenue	Unsignalized	Unmitigated	No change from No-Action
Tan Place and Westchester Avenue	WB: Green = 35 s NB/SB: Green = 45 s	Unmitigated	No change from No-Action
Blondell Avenue and Westchester Avenue	WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 4 seconds of green time from WB phase to NB/SB phase.	WB: Green = 47 s LPI = 7 s NB/SB: Green = 56 s
East Tremont Avenue and Westchester Avenue	EB/WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 4 seconds of green time from the EB/WB phase to the NB/SB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 47 s LPI = 7 s NB/SB: Green = 56 s
Commerce Avenue and Westchester Avenue	EB/WB: Green = 51 s NB/SB Green = 59 s	Shift 2 seconds of green time from the EB/WB phase to the NB/SB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 49 s NB/SB Green = 61 s
East Tremont Avenue and Ericson Place	EB/WB: Green = 25 s EB: Green = 16 s LPI = 7 s NB: Green = 27 s	Shift 1 second of green time from the EB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 26 s EB: Green = 15 s LPI = 7 s NB: Green = 27 s

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn; LPI = Leading Pedestrian Interval.

Table 22-2B
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday Midday Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Morris Park Avenue and Eastchester Road	EB/WB Green = 33 s NB/SB: Green = 38 s NB: Green = 20 s LPI = 7 s	Unmitigated	No change from No-Action
Waters Place and Eastchester Road	WB: Green = 31 s NB/SB: Green = 38 s SB/WB-R: Green = 6 s	For the north leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the NB receiving lanes (centerline to east curb) from two 11-foot lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 4-foot buffer is provided. For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the NB approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional 3-foot buffer is provided. For the east leg of the intersection, remove parking along the north side of the street and restripe the WB approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane, and one 12-foot left-turn lane. An additional 6-foot buffer is provided. Modify the three-phase signal to a four-phase signal to add a new pedestrian-actuated phase providing 27 seconds that allows the north and south crosswalks to operate simultaneously with the permitted WB right-turns. Add the NB-R movement to the WB phase. The timing/phasing presented in the “Recommended Signal Timing” column of this table shows the effective timing proportioned to reflect a full pedestrian-actuated phase that is activated an estimated five times an hour.	Pedestrian-actuated/WB-R: Green = 4 s WB/NB-R: Green = 29 s NB/SB: Green = 36 s SB/WB-R: Green = 6 s
Williamsbridge Road and Eastchester Road	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the north leg of the intersection, remove parking along the SB approach and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 11-foot left-turn/through lane to provide one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left turn lane. Move the centerline two-feet to the east for the length parallel to the 215-feet No Standing Anytime regulation along the NB receiving lanes. Shift 1 second of green time from the EB/WB phase to the NB/SB phase	EB/WB: Green = 39 s NB/SB: Green = 41 s
East Tremont Avenue and Silver Street	EB/WB: Green = 23 s EB/SB-R: Green = 30 s Pedestrian: Green = 22 s	Unmitigated	No change from No-Action

Table 22-2B (cont'd)
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday Midday Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Waters Place and Marconi Street	EB Leading = 7 s EB/WB: Green = 42 s SB: Green = 26 s	For the east leg of the intersection, remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. An additional 3-foot buffer is provided. For the west leg of the intersection, remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn/through lane to one 11-foot left turn lane and two 11-foot through lanes. A 5-foot buffer is provided. For the WB receiving lanes, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus Stop further to the west. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Add the WB-R movement to the SB phase. Shift 1 second of green time from the EB/WB phase to the EB/SB-R phase. Shift 3 seconds of green time from the EB/WB to the SB/WB-R phase. Impacts at this intersection would be partially mitigated.	EB/SB-R = 8 s EB/WB: Green = 38 s SB/WB-R: Green = 29 s
Waters Place and BPC Driveway	EB/WB: Green = 45 s SB: Green = 35 s	For the east leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the EB receiving lanes (centerline to south curb) from two 11-foot through lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. For the west leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the WB receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane, and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. Add an EB Leading phase. Shift 11 seconds (Green/Amber/Red: 6/3/2) from the SB phase to the EB leading phase. Shift 2 seconds of green time from the SB phase to the EB/WB phase.	EB Leading: Green= 6 s EB/WB: Green = 47 s SB: Green = 22 s
Waters Place and Fink Avenue/HRP Southbound Off-Ramp	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the south leg of the intersection (from curb to curb), remove the parking on both sides and restripe the northbound lanes from one 8-foot parking lane and a 12-foot right/ left turn lane to one 11-foot right-turn lane and one 11-foot left-turn lane. Restripe the southbound receiving lanes from one 8-foot parking lane and one 11-foot through lane to one 11-foot receiving lane. An additional 6-foot buffer is provided. Shift 1 second of green time from the NB/SB phase to the EB/WB phase.	EB/WB: Green = 41 s NB/SB: Green = 39 s

Table 22-2B (cont'd)
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday Midday Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Westchester Avenue and Ericson Place/Middletown Road	EB Leading: Green = 6 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 20 s	For the southbound approach (Middletown Road), remove the parking on the receiving approach and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane and one 11-foot through/left-turn lane. Also, move the centerline 9 feet towards the west curb line making one 17-foot receiving lane. For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and another 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane and one 11-foot through/right-turn lane. An additional 6-foot buffer is provided. Add the SB-R to the EB leading phase. Shift 1 second of green time from the NB phase to the EB/SB-R phase. Shift 1 second of green time from the SB phase to the EB/SB-R phase. Impacts at this intersection would be partially mitigated.	EB/SB-R = 8 s EB/WB: Green = 23 s NB: Green = 17 s SB: Green = 19 s
Waters Place and Westchester Avenue	EB: Green = 40 s NB/SB: Green = 40 s	Unmitigated	No change from No-Action

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn; LPI = Leading Pedestrian Interval.

Table 22-2C
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday PM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Pelham Parkway (WB) and Eastchester Road	WB: Green = 29 s NB/SB: Green = 30 s NB: Green = 45 s	Shift 1 second of green time from the NB phase to the NB/SB phase.	WB: Green = 29 s NB/SB: Green = 31 s NB: Green = 44 s
Pelham Parkway (EB) and Eastchester Road	EB: Green = 45 s SB: Green = 50 s NB/SB: Green = 10 s	Shift 1 second of green time from the NB/SB phase to the SB phase.	EB: Green = 45 s SB: Green = 49 s NB/SB: Green = 11 s
Morris Park Avenue and Eastchester Road	EB/WB: Green = 33 s NB/SB: Green = 38 s NB: Green = 20 s LPI = 7 s	Unmitigated	No change from No-Action
Waters Place and Eastchester Road	WB: Green = 23 s NB/SB: Green = 40 s SB/WB-R: Green = 12 s	For the north leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the NB receiving lanes (centerline to east curb) from two 11-foot lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 4-foot buffer is provided. For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the NB approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional 3-foot buffer is provided. For the east leg of the intersection, remove parking along north side of the street and restripe the WB approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane and one 12-foot left-turn lane. An additional 6-foot buffer is provided. Modify the three-phase signal to a four-phase signal to add a new pedestrian-actuated phase providing 27 seconds that allows the north and south crosswalks to operate simultaneously with the permitted WB right-turns. Add the NB-R movement to the WB phase. The timing/phasing presented in the “Recommended Signal Timing” column of this table shows the effective timing proportioned to reflect a full pedestrian-actuated phase that is activated an estimated five times an hour.	Pedestrian-actuated/WB-R: Green = 4 s WB/NB-R: Green = 27 s NB/SB: Green = 30 s SB/WB-R: Green = 14 s
Williamsbridge Road and Eastchester Road	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the north leg of the intersection, remove parking along the SB approach and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 11-foot left-turn/through/right-turn lane to one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left turn lane. Move the centerline two feet to the east for the length parallel to the 215-feet No Standing Anytime regulation along the NB approach. Shift 1 second of green time from the NB/SB phase to the EB/WB phase.	EB/WB: Green = 39 s NB/SB: Green = 41 s

Table 22-2C (cont'd)
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday PM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
East Tremont Avenue and Silver Street	EB/WB: Green = 42 s EB/SB-R: Green = 38 s Pedestrian: Green = 25 s	Unmitigated	No change from No-Action
Marconi Street and Project Driveway	EB/WB: Green = 18 s Pedestrian: Green = 17 s NB/SB: Green = 40 s	Unmitigated	No change from With-Action
Waters Place and Marconi Street	EB Leading = 7 s EB/WB: Green = 42 s SB: Green = 26 s	For the east leg of the intersection, remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. An additional 3-foot buffer is provided. For the west leg of the intersection, remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn/through lane to one 11-foot left-turn lane and two 11-foot through lanes. An additional 5-foot buffer is provided. For the WB receiving lanes, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus Stop further to the west. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Add the WB-R movement to the SB phase. Shift 4 seconds of green time from the EB/WB phase to proposed EB/SB-R phase. Impacts at this intersection would be partially mitigated.	Leading EB/SB-R = 11 s EB/WB: Green = 38 s SB/WBR: Green = 26 s
Waters Place and BPC Driveway	EB/WB: Green = 45 s SB: Green = 35 s	For the east leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the EB receiving lanes (centerline to south curb) from two 11-foot through lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. For the west leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the WB receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. Add an EB leading phase. Shift 5 seconds of green time from the EB/WB phase and 7 seconds of green time from the SB phase to the EB leading phase (Green/Amber/Red: 7/3/2).	EB Leading: Green= 7 s EB/WB: Green = 40 s SB: Green = 28 s

Table 22-2C (cont'd)
2023 With-Action without HRP Improvements Condition—
Recommended Mitigation Measures
Weekday PM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Waters Place and Fink Avenue/HRP Southbound Off-Ramp	EB/WB: Green = 40 s NB/SB: Green = 40 s	Unmitigated	No change from No-Action
Westchester Avenue and Ericson Place/Middletown Road	EB Leading: Green = 6 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 20 s	For the southbound approach (Middletown Road), remove the parking on the receiving approach and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane, and one 11-foot through/left-turn lane. Also, move the centerline 9 feet towards the west curb line making one 17-foot receiving lane. For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane and another 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane and one 11-foot through/right-turn lane. An additional 6-foot is provided. Add the SB-R movement to the EB leading phase. Shift 1 seconds of green time from the SB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 6 s EB/WB: Green = 24 s NB: Green = 18 s SB: Green = 19 s
Waters Place and Westchester Avenue	EB: Green = 40 s NB/SB: Green = 40 s	Unmitigated	No change from No-Action
Blondell Avenue and Westchester Avenue	WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 3 seconds of green time from the WB phase to the NB/SB phase.	WB: Green = 48 s LPI = 7 s NB/SB: Green = 55 s
East Tremont Avenue and Westchester Avenue	EB/WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 3 seconds of green time from the EB/WB phase to the NB/SB phase.	WB: Green = 48 s LPI = 7 s NB/SB: Green = 55 s
Commerce Avenue and Westchester Avenue	EB/WB: Green = 51 s NB/SB: Green = 59 s	Shift 2 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 49 s NB/SB: Green = 61 s
East Tremont Avenue and Ericson Place	EB/WB: Green = 25 s EB: Green = 16 s LPI = 7 s NB: Green = 27 s	Shift 1 second of green time from the EB phase to the EB/WB phase. Shift 1 second of green time from the EB phase to the NB phase.	EB/WB: Green = 26 s EB: Green = 14 s LPI = 7 s NB: Green = 28 s

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn; LPI = Leading Pedestrian Interval.

Table 22-3A
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour - Signalized Intersections

	Weekday AM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
3. & 4. Pelham Parkway (Eastbound) & Williamsbridge Road												
EB(ML)	LT	1.16	121.3	F	LT	1.22	144.3	F +	Unmitigated			
EB(SR)	TR	0.84	44.4	D	TR	0.85	44.6	D				
	R	0.77	51.2	D	R	0.77	51.2	D				
NB	T	0.84	39.9	D	T	0.84	39.9	D				
	R	0.32	27.9	C	R	0.32	27.9	C				
SB	L	0.46	11.6	B	L	0.46	11.6	B				
	LT	0.57	9.9	A	LT	0.57	9.9	A				
	Int.		49.5	E	Int.		55.8	E				
7. & 8. Pelham Parkway (Eastbound) & Eastchester Road												
EB(ML)	LT	0.99	51.7	D	LT	1.03	61.0	E +	LT	1.00	52.7	D
EB(SR)	TR	1.14	112.2	F	TR	1.14	113.8	F	TR	1.10	99.8	F
NB	TR	0.87	39.4	D	TR	0.92	45.0	D	TR	0.92	45.0	D
SB	L	0.54	31.9	C	L	0.56	33.9	C	L	0.59	35.8	D
	LT	0.77	22.2	C	LT	0.82	24.3	C	LT	0.84	26.0	C
	Int.		47.9	D	Int.		45.6	D	Int.		48.5	D
9. Morris Park Avenue & Eastchester Road												
EB	L	0.93	78.2	E	L	0.93	78.2	E	Unmitigated			
	LT	0.48	41.5	D	LT	0.48	41.5	D				
	R	0.71	49.7	D	R	0.76	52.7	D				
WB	LTR	0.24	35.8	D	LTR	0.24	36.0	D				
NB	L	0.81	70.4	E	L	0.84	74.8	E +				
	TR	0.45	18.7	B	TR	0.47	19.1	B				
SB	LTR	1.20	142.7	F	LTR	1.29	177.0	F +				
	Int.		83.3	F	Int.		98.4	F				
10. Waters Place & Eastchester Road												
WB	L	1.05	92.3	F	L	1.23	156.9	F +	L	0.55	28.7	C
	R	0.92	42.6	D	R	1.02	64.7	E +	R	0.82	25.1	C
NB	TR	0.98	45.9	D	TR	1.14	97.5	F +	T	0.63	28.3	C
									R	0.71	13.1	B
SB	DefL	0.84	48.1	D	DefL	1.14	124.6	F +	L	0.88	46.9	D
	T	0.49	10.8	B	T	0.49	10.8	B	T	0.24	11.1	B
	Int.		47.7	D	Int.		93.2	F	Int.		25.1	C
12. Williamsbridge Road & Eastchester Road												
EB	LTR	0.56	20.6	C	LTR	0.56	20.6	C	LTR	0.63	24.6	C
WB	LTR	0.45	18.7	B	LTR	0.45	18.8	B	LTR	0.50	22.2	C
NB	LTR	0.79	30.7	C	LTR	1.03	66.9	E +	LTR	0.93	41.3	D
SB	L	0.31	18.9	B	L	0.42	22.9	C	L	0.34	17.6	B
	TR	0.89	40.0	D	TR	0.99	58.7	E +	T	0.67	21.9	C
									R	0.12	12.8	B
	Int.		27.2	C	Int.		42.6	D	Int.		27.5	C
13. East Tremont Avenue & Silver Street												
EB	L	0.76	31.4	C	L	0.98	58.1	E +	Unmitigated			
	T	0.41	8.6	A	T	0.41	8.6	A				
WB	TR	0.65	36.1	D	TR	0.65	36.1	D				
SB	R	1.19	146.2	F	R	1.34	206.4	F +				
	Int.		60.1	E	Int.		85.4	F				
15. Waters Place & Marconi Street												
EB	L	1.60	313.5	F	L	2.40	671.7	F +	L	1.52	273.3	F
	LT	0.65	16.4	B	LT	1.22	141.5	F +	T	0.19	8.4	A
WB	TR	1.04	59.6	E	TR	1.28	157.4	F +	T	0.49	17.7	B
									R	0.96	27.7	C
SB	L	0.44	29.3	C	L	0.64	34.9	C	L	0.64	34.9	C
	R	0.64	35.7	D	R	0.86	52.3	D +	R	0.59	24.6	C
	Int.		87.1	F	Int.		228.1	F	Int.		70.1	E

Table 22-3A (cont'd)
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour - Signalized Intersections

	Weekday AM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
16. Waters Place & BPC Driveway												
EB	LT	0.67	21.3	C	DefL	1.24	200.0	F +	L	0.55	31.5	C
					T	0.79	27.6	C	T	0.27	7.2	A
WB	TR	1.18	108.7	F	TR	1.82	395.3	F +	TR	1.60	296.2	F +
SB	L	0.09	17.7	B	L	0.20	19.0	B	L	0.32	30.2	C
	LR	0.13	18.3	B	LR	0.27	20.0	C	LR	0.42	32.8	C
	Int.		84.9	F	Int.		302.5	F	Int.		222.3	F
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp												
EB	TR	0.44	18.4	B	TR	0.56	20.3	C	TR	0.64	25.2	C
WB	LT	0.54	19.9	B	LT	0.66	22.2	C	LT	0.75	28.4	C
NB	LR	1.30	182.1	F	LR	2.13	542.8	F +	L	1.33	183.8	F
									R	0.06	11.9	B
SB	L	0.55	21.3	C	L	0.55	21.3	C	L	0.49	16.9	B
	T	0.57	22.6	C	T	0.57	22.6	C	T	0.51	17.9	B
	Int.		45.6	D	Int.		131.1	F	Int.		56.0	E
18. Westchester Avenue & Ericson Place/Middletown Road												
EB	DefL	1.45	594.0	F	DefL	1.87	795.3	F +	DefL	1.78	739.5	F +
	TR	0.88	99.3	F	TR	0.90	112.1	F +	TR	0.88	93.3	F
WB	LT	1.34	459.6	F	LT	1.43	497.9	F +	LT	1.37	462.1	F
NB	LTR	0.98	115.6	F	LTR	1.06	147.1	F +	LTR	1.02	132.1	F +
SB	LTR	1.10	152.7	F	LTR	1.06	139.3	F	LT	0.88	63.0	E
									R	0.19	22.0	C
	Int.		237.4	F	Int.		292.2	F	Int.		255.0	F
19. Waters Place & Westchester Avenue												
EB	LT	0.54	19.9	B	LT	0.63	21.6	C	LT	0.87	39.3	D
NB	DefL	1.57	322.8	F	DefL	3.00	955.7	F +	DefL	1.60	318.5	F
	TR	1.14	278.4	F	TR	1.14	278.4	F	TR	0.89	121.7	F
SB	LTR	1.06	153.6	F	LTR	1.13	181.1	F +	LTR	0.84	37.5	D
	Int.		152.8	F	Int.		227.9	F	Int.		82.7	F
21. Tan Place & Westchester Avenue												
WB	L	0.15	18.5	B	L	0.15	18.5	B				
	R	0.68	29.7	C	R	0.87	43.1	D				
NB	T	0.68	69.9	E	T	0.92	165.7	F +	Unmitigated			
SB	T	0.56	21.1	C	T	0.58	21.7	C				
	Int.		38.6	D	Int.		79.9	E				
22. Blondell Avenue & Westchester Avenue												
WB	L	0.18	22.0	C	L	0.18	22.0	C	L	0.19	24.7	C
	T	0.34	24.4	C	T	0.34	24.4	C	T	0.37	27.5	C
NB	LT	0.72	53.0	D	LT	0.85	76.1	E +	LT	0.77	52.1	E
SB	TR	0.78	38.6	D	TR	0.80	40.5	D	TR	0.75	33.9	C
	Int.		39.7	D	Int.		48.9	D	Int.		38.5	D
23. East Tremont Avenue & Westchester Avenue												
EB	LTR	0.41	25.2	C	LTR	0.42	25.3	C	LTR	0.45	28.4	C
WB	LTR	0.59	28.2	C	LTR	0.59	28.3	C	LTR	0.64	32.1	D
NB	LT	1.16	206.2	F	LT	1.38	296.3	F +	LT	1.28	246.3	F +
SB	TR	0.58	32.1	C	TR	0.59	32.8	C	TR	0.55	28.4	C
	Int.		65.1	E	Int.		90.8	F	Int.		79.7	E
24. Commerce Avenue & Westchester Avenue												
EB	LT	0.46	27.2	C	LT	0.46	27.1	C	LT	0.48	28.9	C
WB	LT	0.34	24.8	C	LT	0.34	24.8	C	LT	0.35	26.3	C
	R	0.36	25.6	C	R	0.36	25.6	C	R	0.37	27.3	C
NB	LTR	0.60	41.1	D	LTR	0.70	46.5	D +	LTR	0.67	42.2	D
SB	LTR	0.69	50.1	D	DefL	0.65	99.0	F +	DefL	0.62	83.9	F +
					TR	0.62	33.0	C	TR	0.60	30.4	C
	Int.		38.2	D	Int.		39.7	D	Int.		37.2	C

Table 22-3A (cont'd)
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour - Signalized Intersections

Intersection	Weekday AM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
27. East Tremont Avenue & Ericson Place												
EB	LT	0.39	14.4	B	LT	0.41	14.6	B	LT	0.41	14.6	B
WB	T	1.02	67.6	E	T	1.06	82.4	F +	T	1.02	68.9	E
NB	LTR	1.07	84.8	F	LTR	1.30	175.0	F +	LTR	1.30	175.0	F +
	Int.		62.9	E	Int.		108.9	F	Int.		103.9	F

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity; Def = De Facto.
+ Denotes a significant adverse traffic impact.

Table 22-3B
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour - Unsignalized Intersections

Intersection	Weekday AM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp *												
SB	R	1.24	138.3	F	R	2.88	872.9	F +	Unmitigated			
20. Westchester Avenue & Waters Avenue												
EB	LR	0.85	44.4	E	LR	2.61	791.2	F +	Unmitigated			
NB	LT	0.41	12.2	B	LT	0.70	18.8	C				

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity
* Channelized Right Turn analyzed as Stop Controlled
+ Denotes a significant adverse traffic impact.

Table 22-3C
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday Midday Peak Hour - Signalized Intersections

Intersection	Weekday Midday											
	2023 No-Action				2023 With-Action				2023 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
9. Morris Park Avenue & Eastchester Road												
EB	L	0.79	61.8	E	L	0.80	62.2	E				
	LT	0.24	35.7	D	LT	0.24	35.7	D				
	R	0.67	48.1	D	R	0.73	51.6	D				
WB	LTR	0.14	33.7	C	LTR	0.14	33.8	C				
NB	L	0.79	68.2	E	L	0.88	78.3	E +	Unmitigated			
	TR	0.47	19.0	B	TR	0.52	19.9	B				
SB	LTR	1.13	114.8	F	LTR	1.22	150.4	F +				
	Int.		67.0	E	Int.		81.7	F				
10. Waters Place & Eastchester Road												
WB	L	0.81	38.1	D	L	1.04	77.0	E +	L	0.58	27.8	C
	R	0.62	22.1	C	R	0.78	28.5	C	R	0.75	25.8	C
NB	TR	0.89	35.1	D	TR	1.03	60.7	E +	T	0.38	20.0	B
									R	0.60	6.7	A
SB	DefL	1.08	105.0	F	DefL	1.53	291.1	F +	L	0.92	49.9	D
	T	0.59	17.3	B	T	0.59	17.3	B	T	0.26	12.3	B
	Int.		39.6	D	Int.		84.6	F	Int.		23.0	C
12. Williamsbridge Road & Eastchester Road												
EB	LTR	0.54	20.2	C	LTR	0.54	20.2	C	LTR	0.55	21.1	C
WB	LTR	0.56	20.6	C	LTR	0.56	20.6	C	LTR	0.58	21.6	C
NB	LTR	0.74	28.2	C	LTR	1.02	65.6	E +	LTR	0.91	40.6	D
SB	L	0.41	21.0	C	L	0.51	25.4	C	L	0.49	23.6	C
									T	0.89	37.8	C
	TR	1.04	70.7	E	TR	1.26	153.6	F +	R	0.18	15.2	B
	Int.		35.4	D	Int.		69.9	E	Int.		29.6	C
13. East Tremont Avenue & Silver Street												
EB	L	0.59	18.4	B	L	0.74	23.5	C				
	T	0.47	9.9	A	T	0.47	9.9	A				
WB	TR	0.66	34.7	C	TR	0.66	34.7	C	Unmitigated			
SB	R	1.19	133.7	F	R	1.46	249.7	F +				
	Int.		54.2	D	Int.		95.3	F				
15. Waters Place & Marconi Street												
EB	DefL	1.29	184.8	F	DefL	2.15	550.2	F +	L	1.21	141.5	F
	T	0.44	11.1	B	T	0.55	12.9	B	T	0.32	10.8	B
WB	TR	0.65	20.7	C	TR	0.87	29.5	C	T	0.43	19.4	B
									R	0.61	6.5	A
SB	L	0.99	70.2	E	L	1.27	168.1	F +	L	1.14	113.3	F +
	R	1.09	104.4	F	R	1.46	255.0	F +	R	0.90	40.6	D
	Int.		65.6	E	Int.		162.8	F	Int.		53.3	D
16. Waters Place & BPC Driveway												
EB	LT	0.76	22.8	C	LT	1.48	247.4	F +	L	0.82	40.4	D
									T	0.47	9.0	A
WB	TR	0.60	17.9	B	TR	0.83	24.9	C	TR	0.73	19.6	B
SB	L	0.11	18.0	B	L	0.39	21.8	C	L	0.62	38.1	D
	LR	0.14	18.4	B	LR	0.40	22.4	C	LR	0.64	40.2	D
	Int.		20.2	C	Int.		117.3	F	Int.		20.2	C
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp												
EB	TR	0.77	25.6	C	TR	1.00	48.8	D +	TR	0.97	42.7	D
WB	LT	0.34	17.0	B	LT	0.39	17.7	B	LT	0.38	16.9	B
NB	LR	0.41	20.2	C	LR	0.59	25.1	C	L	0.47	21.3	C
									R	0.01	14.6	B
SB	L	0.33	17.5	B	L	0.33	17.5	B	L	0.34	18.2	B
	T	0.20	15.8	B	T	0.29	17.3	B	T	0.30	18.0	B
	Int.		21.5	C	Int.		34.9	C	Int.		31.2	C

Table 22-3C (cont'd)
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday Midday Peak Hour - Signalized Intersections

Intersection	Weekday Midday											
	2023 No-Action				2023 With-Action				2023 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
18. Westchester Avenue & Ericson Place/Middletown Road												
EB	DefL	1.59	602.7	F	DefL	2.16	857.5	F +	DefL	1.90	699.5	F +
	TR	1.07	195.6	F	TR	1.10	206.8	F +	TR	1.06	186.3	F
WB	LT	1.17	418.5	F	LT	1.18	422.7	F +	LT	1.18	422.7	F +
NB	LTR	0.65	45.2	D	LTR	0.68	47.2	D	LTR	0.69	48.3	D
SB	LTR	1.05	149.1	F	LTR	1.12	177.5	F +	LT	0.68	47.4	D
									R	0.32	22.8	C
	Int.		268.5	F	Int.		352.7	F	Int.		290.0	F
19. Waters Place & Westchester Avenue												
EB	LT	0.79	26.2	C	LT	0.97	43.6	D	Unmitigated			
NB	LTR	0.90	42.6	D	LTR	1.19	129.6	F +				
SB	LTR	0.81	29.9	C	LTR	0.86	34.2	C				
	Int.		31.2	C	Int.		60.6	E				

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity; Def = De Facto
+ Denotes a significant adverse traffic impact.

Table 22-3D
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour - Signalized Intersections

Intersection	Weekday PM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
6. Pelham Parkway N & Eastchester Road												
WB	L	0.99	88.6	F	L	0.99	88.6	F	L	0.99	88.6	F
	LT	1.23	156.6	F	LT	1.23	156.6	F	LT	1.23	156.6	F
	R	0.28	39.3	D	R	0.28	39.3	D	R	0.28	39.3	D
NB	L	0.54	25.9	C	L	0.54	26.3	C	L	0.55	27.2	C
	T	0.36	9.3	A	T	0.41	9.7	A	T	0.41	9.7	A
SB	TR	0.86	53.9	D	TR	0.92	60.3	E +	TR	0.89	55.9	E
	Int.		82.1	F	Int.		81.4	F	Int.		80.6	F
7. & 8. Pelham Parkway (Eastbound) & Eastchester Road												
EB (ML)	LT	1.07	83.6	F	LT	1.07	83.6	F	LT	1.07	83.6	F
EB (SR)	TR	1.16	129.4	F	TR	1.16	129.4	F	TR	1.16	129.4	F
NB	TR	0.56	27.9	C	TR	0.62	29.0	C	TR	0.63	29.9	C
SB	L	0.56	40.2	D	L	0.60	45.2	D +	L	0.58	44.3	D
	LT	0.56	19.6	B	LT	0.60	20.4	C	LT	0.60	20.4	C
	Int.		60.6	E	Int.		60.0	E	Int.		60.2	E
9. Morris Park Avenue & Eastchester Road												
EB	L	1.02	100.3	F	L	1.03	103.3	F +	Unmitigated			
	LT	0.54	43.9	D	LT	0.54	44.1	D				
	R	0.69	49.0	D	R	0.78	55.1	E +				
WB	LTR	0.24	35.6	D	LTR	0.26	36.0	D				
NB	L	0.95	92.6	F	L	1.10	134.4	F +				
	TR	0.76	26.3	C	TR	0.83	29.4	C				
SB	LTR	1.15	124.3	F	LTR	1.28	178.7	F +				
	Int.		68.9	E	Int.		88.8	F				
10. Waters Place & Eastchester Road												
WB	L	1.25	159.5	F	L	1.82	412.1	F +	L	0.82	35.5	D
	R	0.81	31.8	C	R	1.04	69.1	E +	R	0.84	26.5	C
NB	TR	0.83	29.1	C	TR	0.92	36.2	D	T	0.55	26.6	C
									R	0.53	9.1	A
SB	DefL	0.83	43.9	D	DefL	1.08	97.0	F +	L	0.87	43.4	D
	T	0.58	12.3	B	T	0.58	12.3	B	T	0.28	11.5	B
	Int.		55.4	E	Int.		141.2	F	Int.		26.5	C
12. Williamsbridge Road & Eastchester Road												
EB	LTR	0.57	20.8	C	LTR	0.57	20.8	C	LTR	0.59	21.7	C
WB	LTR	0.60	21.3	C	LTR	0.60	21.3	C	LTR	0.61	22.2	C
NB	LTR	0.67	25.2	C	LTR	0.96	53.9	D +	LTR	0.82	32.8	C
SB	L	0.35	19.3	B	L	0.40	20.9	C	L	0.38	19.8	B
	TR	1.10	90.5	F	TR	1.51	261.8	F +	T	1.09	85.5	F
									R	0.20	15.3	B
	Int.		40.7	D	Int.		107.3	F	Int.		41.9	D
13. East Tremont Avenue & Silver Street												
EB	L	0.65	28.5	C	L	0.77	34.1	C	Unmitigated			
	T	0.52	10.0	A	T	0.52	10.0	A				
WB	TR	0.73	38.7	D	TR	0.73	38.7	D				
SB	R	1.39	229.3	F	R	1.98	487.4	F +				
	Int.		85.4	F	Int.		191.3	F				
14. Project Driveway & Marconi Street												
EB	LTR	0.63	42.6	D	LTR	0.66	42.9	D	Unmitigated			
WB	LTR	0.00	28.8	C	L	1.05	91.3	F +				
					TR	0.00	13.9	B				
NB	DefL	1.37	252.0	F	DefL	1.37	252.0	F				
	TR	0.57	21.8	C	T	0.58	21.9	C				
					R	0.16	6.4	A				
SB	LTR	0.96	40.4	D	LTR	0.96	40.6	D				
	Int.		47.8	D	Int.		54.4	D				

Table 22-3D (cont'd)
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour - Signalized Intersections

Intersection	Weekday PM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
15. Waters Place & Marconi Street												
EB	DefL	0.88	54.9	D	DefL	1.59	307.0	F +	L	0.93	47.4	D
	T	0.47	11.5	B	T	0.56	13.2	B	T	0.30	9.2	A
WB	TR	0.60	19.5	B	TR	0.82	25.7	C	T	0.61	22.2	C
									R	0.36	4.4	A
SB	L	1.35	503.6	F	L	1.96	772.0	F +	L	1.96	772.0	F +
	R	1.24	500.8	F	R	1.74	728.0	F +	R	1.08	301.0	F
	Int.		220.2	F	Int.		363.8	F	Int.		258.3	F
16. Waters Place & BPC Driveway												
EB	LT	0.97	40.7	D	LT	1.88	421.7	F +	L	0.81	42.3	D
									T	0.76	17.3	B
WB	TR	0.61	18.0	B	TR	0.78	22.6	C	TR	0.81	26.8	C
SB	L	0.13	18.2	B	L	0.47	23.1	C	L	0.59	31.2	C
	LR	0.21	19.2	B	LR	0.65	28.5	C	LR	0.82	44.1	D
	Int.		29.9	C	Int.		214.6	F	Int.		25.7	C
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp												
EB	TR	0.91	186.2	F	TR	1.31	359.9	F +	Unmitigated			
WB	LT	0.27	16.3	B	LT	0.34	17.2	B				
NB	LR	0.55	26.7	C	LR	0.74	38.0	D				
SB	L	0.44	19.1	B	L	0.44	19.1	B				
	T	0.54	21.2	C	T	0.66	25.7	C				
	Int.		103.3	F	Int.		217.6	F				
18. Westchester Avenue & Ericson Place/Middletown Road												
EB	DefL	1.52	555.2	F	DefL	2.41	945.7	F +	DefL	2.28	873.0	F +
	TR	1.15	209.5	F	TR	1.20	229.6	F +	TR	1.16	211.6	F
WB	LT	1.13	383.6	F	LT	1.14	385.0	F	LT	1.09	357.2	F
NB	LTR	0.96	94.3	F	LTR	0.97	104.9	F +	LTR	0.93	75.0	E
SB	LTR	1.13	169.7	F	LTR	1.25	225.5	F +	LT	0.48	36.7	D
									R	0.63	33.2	C
	Int.		249.4	F	Int.		375.0	F	Int.		316.6	F
19. Waters Place & Westchester Avenue												
EB	LT	0.95	258.9	F	LT	1.27	395.8	F +	Unmitigated			
NB	LTR	0.67	59.7	E	LTR	0.75	83.6	F +				
SB	LTR	0.68	24.0	C	LTR	0.70	24.8	C				
	Int.		149.6	F	Int.		247.1	F				
22. Blondell Avenue & Westchester Avenue												
EB	LTR	0.27	23.5	C	LTR	0.27	23.5	C	LTR	0.29	25.6	C
WB	LTR	0.25	23.1	C	LTR	0.25	23.1	C	LTR	0.27	25.1	C
NB	LT	0.68	50.1	D	LT	0.73	56.6	E +	LT	0.67	46.5	D
SB	TR	0.66	32.9	C	TR	0.71	35.3	D	TR	0.68	31.5	C
	Int.		36.1	D	Int.		39.3	D	Int.		34.8	C
23. East Tremont Avenue and Westchester Avenue												
EB	LTR	0.66	30.4	C	LTR	0.67	30.7	C	LTR	0.72	34.1	C
WB	LTR	0.57	27.8	C	LTR	0.57	27.8	C	LTR	0.60	30.5	C
NB	LT	0.86	64.9	E	LT	0.90	75.2	E +	LT	0.85	57.8	E
SB	TR	0.65	35.1	D	TR	0.69	36.8	D	TR	0.65	32.7	C
	Int.		36.7	D	Int.		39.2	D	Int.		36.6	D
24. Commerce Avenue & Westchester Avenue												
EB	LT	0.47	27.4	C	LT	0.47	27.4	C	LT	0.49	29.2	C
WB	LT	0.34	24.7	C	LT	0.34	24.7	C	LT	0.35	26.2	C
	R	0.31	24.6	C	R	0.31	24.6	C	R	0.33	26.1	C
NB	LTR	0.61	38.1	D	LTR	0.64	41.2	D	LTR	0.62	37.1	D
SB	LTR	0.74	53.2	D	LTR	0.80	63.0	E +	LTR	0.77	53.7	D
	Int.		38.5	D	Int.		43.1	D	Int.		39.4	D

Table 22-3D (cont'd)
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour - Signalized Intersections

27. East Tremont Avenue & Ericson Place												
EB	LT	0.72	20.6	C	LT	0.76	21.8	C	LT	0.82	26.6	C
WB	T	0.90	46.1	D	T	0.92	48.0	D	T	0.88	43.0	D
NB	LTR	1.06	80.8	F	LTR	1.11	97.4	F +	LTR	1.00	60.8	E
	Int.		47.7	D	Int.		54.2	D	Int.		42.6	D

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity; Def = De Facto
+ Denotes a significant adverse traffic impact.

Table 22-3E
2023 No-Action, With-Action, and Mitigation without HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour - Unsignalized Intersections

	Weekday PM											
	2023 No-Action				2023 With-Action				2023 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp *												
SB	R	0.58	16.4	C	R	1.02	72.7	F +	Unmitigated			

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity
* Channelized Right Turn analyzed as Stop Controlled
+ Denotes a significant adverse traffic impact.

Pelham Parkway (Eastbound) and Williamsbridge Road

The significant adverse impact at the eastbound left-turn/through lane group of this intersection during the weekday AM peak hour could not be mitigated.

Pelham Parkway (Westbound) and Eastchester Road

The significant adverse impact at the southbound through/right-turn lane group of this intersection during the weekday PM peak hour could be fully mitigated by shifting one second of green time from the northbound phase to the northbound/southbound phase.

Pelham Parkway (Eastbound) and Eastchester Road

The significant adverse impact at the eastbound mainline left-turn/through lane group of this intersection during the weekday AM peak hour could be fully mitigated by shifting one second of green time from the southbound phase to the eastbound phase.

The significant adverse impact at the southbound left-turn lane group of this intersection during the weekday PM peak hour could be fully mitigated by shifting one second of green time from the northbound/southbound phase to the southbound phase.

Morris Park Avenue and Eastchester Road

The significant adverse impacts at this intersection during the weekday AM, midday, and PM peak hours could not be mitigated.

Waters Place and Eastchester Road

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal timing/phasing changes are proposed.

For the north leg of the intersection, remove parking on both sides of the street and restripe the southbound approach lanes (west curb to centerline) from one eight-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the northbound receiving lanes (centerline to east curb) from two 11-foot though lanes and one 8-foot parking lane to two 11-foot through lanes. An additional four-foot buffer is provided. This restriping is expected to remove approximately 16 metered parking spaces (eight on both sides of the street).

For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the southbound receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the northbound approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional three-foot buffer is provided. This restriping is expected to remove approximately 24 metered parking spaces (13 on the east side and 11 on the west side of the street).

For the east leg of the intersection, remove parking along the north side of the street and restripe the westbound approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane, and one 12-foot left-turn lane. An additional six-foot buffer is provided. This restriping is expected to remove approximately 25 non-metered parking spaces (17 on the north side and eight on the south side of the street).

To facilitate the proposed westbound approach double left-turns and due to the low hourly pedestrian volumes projected to utilize the north (up to approximately 40 pedestrian trips) and south (up to approximately 50 pedestrian trips) crosswalks at this intersection under the With-Action condition, it is recommended that the intersection signal timing/phasing be modified from a three-phase signal to a four-phase signal to add a new pedestrian-actuated phase that allows the north and south crosswalks to operate simultaneously with the permitted westbound right-turns. When activated, this phase would provide a total of 22 seconds of green, three seconds of amber, and two seconds of all-red time, providing sufficient crossing time for pedestrians to cross Eastchester Road. The existing westbound signal phase would be modified to remove the south crosswalk from this phase and to add the northbound right-turn movement. The existing northbound/southbound phase and the southbound approach/westbound right-turn phase would be maintained but a portion of signal timing from these two phases would be reallocated to the new and modified phases described earlier. As noted earlier, due to the low hourly pedestrian volumes projected to utilize the north and south crosswalks, it is anticipated that the new pedestrian-actuated phase would be activated infrequently during the analysis peak hours such that the signal effectively operates like a three-phase signal with the unused time from the pedestrian-actuated phase assumed to be allocated to the other three phases. For the HCS software capacity analysis, prorated signal timing assumptions were used to represent the aggregate effective timings for the four phases.

The significant adverse impacts at the westbound approach, the northbound through/right-turn, and southbound de facto left-turn lane groups of this intersection during the weekday AM peak hour could be fully mitigated by the aforementioned lane restriping and signal timing/phasing

changes. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the westbound left-turn (by approximately 130 seconds), at the northbound through (by approximately 70 seconds), and at the southbound left-turn (by approximately 80 seconds).

The significant adverse impacts at the westbound left-turn, the northbound through/right-turn, and the southbound de facto left-turn lane groups of this intersection during the weekday midday peak hour could be fully mitigated by the aforementioned lane restriping and signal timing/phasing changes. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the westbound left-turn (by approximately 50 seconds) and at the southbound left-turn (by approximately 240 seconds).

The significant adverse impacts at the westbound approach and the southbound de facto left-turn lane groups of this intersection during the weekday PM peak hour could be fully mitigated by the aforementioned lane restriping and signal timing/phasing changes. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the westbound left-turn (by approximately 380 seconds) and at the southbound left-turn (by approximately 50 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during the three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Eastchester Road corridor to the north and in the area southeast of Eastchester Road between Blondell Avenue and Williamsbridge Road. Furthermore, based on the parking surveys, motorists who currently park on Waters Place have been identified to be mostly Metropolitan Transit Authority (MTA) employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Williamsbridge Road and Eastchester Road

The significant adverse impacts at the northbound approach and the southbound through/right-turn lane group of this intersection during the weekday AM, midday, and PM peak hours could be fully mitigated by removing parking along the southbound approach to provide one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left-turn lane. The centerline would be moved two feet to the east parallel to the 215-feet No Standing Regulation along the northbound receiving lanes. This restriping would remove approximately six metered parking spaces on the west side of the street.

For the weekday AM peak hour, shifting four seconds of green time from the eastbound/westbound phase to the northbound/southbound phase would also be needed. For the weekday midday and PM peak hours, shifting one second of green time from the eastbound/westbound phase to the northbound/southbound phase would also be needed.

Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the southbound through and right-turn (by more than 100 seconds) during the weekday midday peak hour. During the weekday PM peak hour, the recommended mitigation measures would substantially decrease the projected delays at

the southbound through and right-turn (by more than 150 seconds) relative to the With-Action condition delays.

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during the three weekday analysis peak hours and the weekday overnight. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Eastchester Road corridor to the north and in the area southeast of Eastchester Road between Blondell Avenue and Williamsbridge Road. As a result, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

East Tremont Avenue and Silver Street

The significant adverse impacts at this intersection during the weekday AM, midday, and PM peak hours could not be mitigated.

Project Driveway and Marconi Street

The significant adverse impact at the westbound left-turn lane group of this intersection during the weekday PM peak hour could not be fully mitigated.

Waters Place and Marconi Street

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal phasing changes are proposed.

For the east leg of the intersection, remove parking along both sides of the street and restripe the westbound approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. A three-foot buffer is provided. This restriping would remove approximately 50 non-metered parking spaces (22 on the north side and 28 on the south side of the street).

For the west leg of the intersection, remove parking along the approach side of the street and restripe the eastbound approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn lane to two 11-foot through lanes and one 11-foot left-turn lane. A five-foot buffer is provided. This restriping would remove approximately eight non-metered parking spaces on the south side of the street.

For the west leg of the intersection, remove parking along the westbound receiving lanes and, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus stop further to the west. A six-foot buffer is provided. This restriping would remove approximately 17 non-metered parking spaces on the north side of the street.

As part of the proposed mitigation, the signal phasing would be modified to permit the southbound right-turn movement to operate simultaneously with the eastbound leading signal phase and the westbound right-turn movement to operate simultaneously with the southbound signal phase.

Significant adverse impacts at the eastbound left-turn and left-turn/through, southbound right-turn, and westbound through/right-turn lane groups of this intersection are projected during the weekday AM peak hour. The aforementioned lane restriping and signal phasing change and the shift of one second of green time from the proposed eastbound/southbound right-turn phase to the

eastbound/westbound phase would fully mitigate these impacts. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 400 seconds), at the eastbound through (by approximately 130 seconds), and at the westbound through and right-turn (by more than 100 seconds).

Significant adverse impacts at the eastbound de facto left-turn lane group and the southbound approach of this intersection are projected during the weekday midday peak hour. The aforementioned lane restriping and signal phasing change and the following signal timing changes would fully mitigate the impacts for the eastbound de facto left-turn and southbound right-turn lane groups and would partially mitigate the impact on the southbound left-turn lane group. The proposed signal timing shifts would include shifting one second of green time from the eastbound/westbound phase to the proposed eastbound/southbound right-turn phase and a shift of three seconds of green time from the eastbound/westbound phase to the southbound/westbound right-turn phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 410 seconds), at the southbound left-turn (by approximately 50 seconds), and at the southbound right-turn (by approximately 210 seconds).

Significant adverse impacts at the eastbound de facto left-turn lane group and the southbound approach of this intersection are projected during the weekday PM peak hour. The aforementioned lane restriping and signal phasing changes and the following signal timing changes would fully mitigate the impacts for the eastbound de facto left-turn and southbound right-turn lane groups and would partially mitigate the impact on the southbound left-turn lane group. This would include shifting four seconds of green time from the eastbound/westbound phase to the proposed eastbound/southbound right-turn phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 260 seconds) and at the southbound right-turn (by approximately 430 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Waters Place corridor to the east near Fink Avenue. Furthermore, based on the parking surveys, motorists who currently park on Waters Place have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Waters Place and BPC Driveway

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal phasing changes are proposed.

For the east leg of intersection (from curb to curb), remove parking along both sides of the street and restripe the westbound approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the eastbound receiving lanes (centerline to south

curb) from two 11-foot through lanes, and one 8-foot parking lane to two 11-foot through lanes. An additional five-foot buffer is provided. This restriping would remove approximately 22 non-metered spaces (nine on the north side and 13 on the souths ide of the street).

For the west leg of intersection (from curb to curb), remove parking along both sides of the street and restripe the eastbound approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the westbound receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane, and one 8-foot parking lane to two 11-foot through lanes. An additional five-foot buffer is provided. This restriping would remove approximately 50 non-metered spaces (22 on the north side and 28 on the south side of the street).

As part of the proposed mitigation, the signal phasing would be modified to add an eastbound leading signal phase.

Significant adverse impacts are projected at the eastbound de facto left-turn and the westbound through/right-turn lane groups of this intersection during the weekday AM peak hour. The aforementioned lane restriping and signal phasing changes and the following signal timing changes would fully mitigate the impact on the eastbound de facto left-turn lane group and partially mitigate the impact on the westbound through/right-turn lane group. This would include shifting 11 seconds of green time from the southbound phase to the eastbound leading phase (six seconds green, three seconds amber, and two seconds red). It would also include shifting two seconds of green time from the southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 170 seconds) and at the westbound through/right-turn (by approximately 100 seconds).

Significant adverse impacts are projected at the eastbound left-turn/through lane group of this intersection during the weekday midday peak hour. The aforementioned lane restriping and signal phasing changes and the following signal timing changes would fully mitigate this impact. This would also include shifting 11 seconds of green time from the southbound phase to the eastbound leading phase (six seconds green, three seconds amber, and two seconds red). It would also include shifting two seconds of green time from the southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the eastbound left-turn (by approximately 210 seconds).

Significant adverse impacts are projected at the eastbound left-turn/through lane group of this intersection during the weekday PM peak hour. The aforementioned lane restriping and signal phasing changes and the following signal timing changes would fully mitigate this impact. This would include shifting seven seconds of green time from the southbound phase and five seconds of green time from eastbound/westbound phase to eastbound leading phase (seven seconds green, three seconds amber, and two seconds red). Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the eastbound left-turn (by approximately 380 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Waters Place corridor to the east near Fink Avenue. Furthermore, based on the parking surveys, motorists who currently

park on Waters Place have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Waters Place and Fink Avenue/HRP Southbound Off-Ramp

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping is proposed.

For the south leg of intersection (from curb to curb), remove the parking on both sides of the street and restripe the northbound lanes from one 8-foot parking lane and a 12-foot left/right-turn lane to one 11-foot left-turn lane and one 11-foot right-turn lane. Restripe the southbound receiving lanes from one 8-foot parking lane and one 11-foot through lane to one 11-foot receiving lane. An additional six-foot buffer is provided. This restriping would remove approximately 18 non-metered parking spaces (nine on both sides of the street).

Significant adverse impacts at the northbound approach and the southbound right-turn lane group of this intersection are projected during the weekday AM peak hour. Feasible mitigation measures for the southbound right-turn impact could not be identified. The northbound approach impact could be fully mitigated by the aforementioned lane restriping changes and the shift of five seconds of green time from the eastbound/westbound phase to the northbound/southbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the northbound left-turn and right-turn (by more than 350 seconds).

Significant adverse impacts at the eastbound approach of this intersection are projected during the weekday midday peak hour. The aforementioned lane restriping changes and the shift of one second of green time from the northbound/southbound phase to the eastbound/westbound phase would fully mitigate this impact.

Significant adverse impacts at the eastbound approach and the southbound right-turn lane group of this intersection are projected during the weekday PM peak hour. These impacts could not be fully mitigated.

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Waters Place corridor to the west of Fink Avenue. Furthermore, based on the parking surveys, motorists who currently park on Waters Place have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Westchester Avenue and Ericson Place/Middletown Road

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal phasing changes are proposed.

For the southbound approach (Middletown Road), remove the parking on the receiving approach and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane, and one 11-foot left-turn/through lane. Move the centerline nine feet towards the west curb line to create one 17-foot receiving lane. This restriping would remove approximately eight metered parking spaces on the east side of the street.

For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and one 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane, and one 11-foot through/right lane with a six-foot buffer. This restriping would remove approximately nine non-metered parking spaces on the west side of the street.

As part of the proposed mitigation, the signal phasing would be modified to permit the southbound right-turn movement to operate simultaneously with the eastbound leading signal phase.

Significant adverse impacts are projected at the northbound approach, westbound left-turn/through, and eastbound approach lane groups of this intersection during the weekday AM peak hour. The aforementioned lane restriping and signal phasing changes and the following signal timing changes would fully mitigate the impacts on the eastbound through/right-turn, westbound left-turn/through lane groups and partially mitigate the impact on the eastbound de facto left-turn and northbound approach lane groups. This would include a shift of one second of green time from the southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the eastbound de facto left-turn (by approximately 60 seconds).

Significant adverse impacts are projected at the southbound approach, westbound left-turn/through, and eastbound approach of this intersection during the weekday midday peak hour. The aforementioned lane restriping and signal phasing changes and the following signal timing changes would fully mitigate the impacts on the eastbound through/right-turn and southbound approach lane groups and would partially mitigate the impacts on the eastbound de facto left-turn and westbound left-turn/through lane groups. This would include a shift of one second of green time from the northbound phase to the eastbound/southbound right-turn phase, and a shift of one second of green time from the southbound phase to the eastbound/southbound right-turn phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound de facto left-turn (by approximately 160 seconds) and at the southbound approach (by approximately 130 seconds).

Significant adverse impacts are projected at the southbound approach, northbound approach, and eastbound approach of this intersection during the weekday PM peak hour. The aforementioned lane restriping and signal phasing changes and a shift of one second of green time from the southbound phase to the eastbound/westbound phase would fully mitigate the impacts on the eastbound through/right-turn, northbound approach, and southbound approach lane groups and would partially mitigate the impact on the eastbound de facto left-turn lane group. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound de facto left-turn (by approximately 70 seconds) and at the southbound approach (by approximately 190 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is very limited parking available within the surrounding residential

neighborhood. As a result, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Waters Place and Westchester Avenue

The significant adverse impacts at the southbound approach and northbound de facto left-turn lane group of this intersection during the weekday AM peak hour could be fully mitigated by shifting 11 seconds of green time from the eastbound phase to the northbound/southbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the northbound de facto left-turn (by approximately 640 seconds) and at the southbound approach (by approximately 140 seconds).

The significant adverse impact at the northbound approach of this intersection during the weekday midday peak hour could not be mitigated. No mitigation measures could be applied to the northbound lane group without causing or worsening a significant adverse impact to another lane group.

The significant adverse impacts at the northbound approach and eastbound left-turn/through lane groups of this intersection during the weekday PM peak hour could not be mitigated. No mitigation measures could be applied to either the eastbound or northbound lane groups without causing or worsening a significant adverse impact to a conflicting lane group.

Waters Avenue and Westchester Avenue

The significant adverse impacts at the eastbound approach of this intersection during the weekday AM peak hour could not be mitigated.

Tan Place and Westchester Avenue

The significant adverse impact at the northbound through lane group of this intersection during the weekday AM peak hour could not be mitigated. No mitigation measures could be applied to the northbound lane group without causing a significant adverse impact to another lane group.

Blondell Avenue and Westchester Avenue

The significant adverse impact at the northbound left-turn/through lane group of this intersection during the weekday AM and PM peak hours could be fully mitigated by shifting four and three seconds of green time, respectively, from the westbound phase to the northbound/southbound phase.

East Tremont Avenue and Westchester Avenue

The significant adverse impact at the northbound left-turn/through lane group of this intersection during the weekday AM and PM peak hours could be fully mitigated by shifting four and three seconds of green time, respectively, from the eastbound/westbound phase to the northbound/southbound phase. Furthermore, relative to the With-Action condition delay, the recommended mitigation measure would substantially decrease the projected delay at the northbound left-turn/through (by approximately 50 seconds) during the weekday AM peak hour.

Commerce Avenue and Westchester Avenue

Significant adverse impacts are projected at the southbound de facto left-turn and the northbound approach of this intersection during the weekday AM peak hour. The shifting of two seconds of green time from the eastbound/westbound phase to the northbound/southbound phase would fully

mitigated the impact on the northbound approach and would partially mitigate the impact on the southbound de facto left-turn lane group.

The significant adverse impact at the southbound approach of this intersection during the weekday PM peak hour could be fully mitigated by shifting two seconds of green time from the eastbound/westbound phase to the northbound/southbound phase.

East Tremont Avenue and Ericson Place

Significant adverse impacts are projected at the northbound approach and westbound through lane group of this intersection during the weekday AM peak hour. The northbound approach could not be fully mitigated. The westbound through could be fully mitigated by shifting one second of green time from the eastbound phase to the eastbound/westbound phase.

The significant adverse impact at the northbound approach of this intersection during the weekday PM peak hour could be fully mitigated by shifting one second of green time from the eastbound phase to the eastbound/westbound phase and one second of green time from the eastbound phase to the northbound phase.

Effects of Traffic Mitigation on Pedestrian Operations

As described above, intersection operations would improve overall with the implementation of the recommended traffic mitigation measures, which include signal timing changes, restriping and changes to parking regulations. These changes were incorporated into the pedestrian impact analyses and would not result in significant adverse pedestrian impacts.

Effects of Traffic Mitigation on Parking

As described above, some of the recommended traffic mitigation measures would necessitate the removal of existing on-street parking spaces along roadways near the impacted traffic intersections. **Table 22-4** summarizes the number and the type of on-street parking spaces that would need to be removed near these intersections.

On-street parking was observed to be generally well-utilized near the above intersections during the weekday midday peak period, with limited parking available in the immediate vicinity of these intersections to accommodate the displaced parking spaces. For the Waters Place corridor, motorists who currently park there have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of these intersections during the weekday analysis peak hours.

Table 22-4
Summary of On-Street Parking Spaces Removed
by Phase I Recommended Traffic Mitigation Measures

Roadway	From	To	Direction	Lateral Parking Removed (ft)	Existing Parking Type/Regulation	Estimated Number of Metered Spaces Removed	Estimated Number of Non-Metered Spaces Removed
Eastchester Road	Morris Park Avenue	Wilkinson Avenue	Northbound	250	Alternate Side, Bus Stop		10
Eastchester Road	Morris Park Avenue	Wilkinson Avenue	Southbound	250	Alternate Side, Metered, Bus Stop	10	
Eastchester Road	Bassett Avenue	Waters Place	Northbound	250	Alternate Side, Metered, Bus Stop	8	
Eastchester Road	Bassett Avenue	Waters Place	Southbound	250	Alternate Side, Metered, Bus Stop	8	
Eastchester Road	Blondell Avenue	Waters Place	Northbound	250	Alternate Side, Metered	13	
Eastchester Road	Blondell Avenue	Waters Place	Southbound	250	Metered	11	
Eastchester Road	Blondell Avenue	Williamsbridge Road	Southbound	250	Metered	6	
Ericson Place	Edwards Avenue	East Tremont Avenue	Northbound	250	No Regulation		9
Ericson Place	Roebling Avenue	Middletown Road	Northbound (Left)	250	Metered	13	
Fink Avenue	Waters Avenue	Waters Place	Northbound	180	No Regulation		9
Fink Avenue	Waters Place	Waters Avenue	Southbound	180	No Regulation		9
Middletown Road	Westchester Avenue	Mulford Avenue	Eastbound	250	Alternate Side, Metered	8	
Silver Street	Williamsbridge Road	East Tremont Avenue	Southbound	250	Alternate side		8
Waters Place	Fink Avenue	Bronx Psych Driveway	Eastbound	250	Alternate Side, Bus Stop		13
Waters Place	Fink Avenue	Bronx Psych Driveway	Westbound	250	Alternate Side, Bus Stop		9
Waters Place	Marconi Street	Bronx Psych Driveway	Eastbound	630	Alternate Side, Bus Stop		28
Waters Place	Marconi Street	Bronx Psych Driveway	Westbound	500	Alternate Side, Bus Stop		22
Waters Place	Eastchester Road	Marconi Street	Eastbound	250	Alternate Side, Bus Stop		8
Waters Place	Eastchester Road	Marconi Street	Westbound	410	Alternate Side, Bus Stop		17

2028 WITH-ACTION (WITH HRP IMPROVEMENTS)

As discussed in Chapter 14, "Transportation," in the 2028 With-Action with HRP Improvements condition, the proposed project would result in potential significant adverse traffic impacts at 18 intersections during the weekday AM peak hour, 10 intersections during the weekday midday peak hour and 17 intersections during the weekday PM peak hour, as summarized in **Table 22-5**.

Table 22-5
2028 With-Action with HRP Improvements Condition—
Summary of Significant Adverse Traffic Impacts

Intersection		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
EB/WB Street	**NB/SB Street**			
Pelham Parkway (Eastbound)	Williamsbridge Road	EB (ML)-LT	No Significant Impact	No Significant Impact
Pelham Parkway (Westbound)	Eastchester Road	No Significant Impact	No Significant Impact	SB-TR
Pelham Parkway (Eastbound)	Eastchester Road	EB (ML)-LT EB (SR)-TR NB-TR	No Significant Impact	EB (SR)-TR SB-L
Morris Park Avenue	Eastchester Road	EB-R NB-L SB-LTR	EB-R NB-L SB-LTR	EB-L EB-R NB-L SB-LTR
Waters Place	Eastchester Road	WB-L WB-R NB-TR SB-DefL	WB-L NB-TR SB-DefL	WB-L WB-R SB-DefL
Williamsbridge Road	Eastchester Road	NB-LTR SB-TR	NB-LTR SB-TR	NB-LTR SB-TR
East Tremont Avenue	Silver Street	EB-L SB-R	SB-R	SB-R
Project Driveway	Marconi Street	No Significant Impact	No Significant Impact	WB-L
Waters Place	Marconi Street	EB-L EB-LT WB-TR SB-R	EB DefL SB-L SB-R	EB DefL SB-L SB-R
Waters Place	BPC Driveway	EB-DefL WB-TR	EB-LT	EB-LT
Waters Place	Fink Avenue/HRP Southbound Off-Ramp	NB-LR SB-R	No Significant Impact	EB-TR NB-LR
Westchester Avenue	Ericson Place/Middletown Road	EB-DefL EB-TR WB-LT NB-LTR SB-LTR	EB-DefL EB-TR WB-LT SB-LTR	EB-DefL EB-TR WB-LT NB-LTR SB-LTR
Waters Place	Westchester Avenue	NB-DefL SB-LTR	NB-DefL NB-TR	EB-LT NB-LTR
Waters Avenue	Westchester Avenue	EB-LR NB-LT	No Significant Impact	No Significant Impact
Tan Place	Westchester Avenue	WB-R NB-T	No Significant Impact	No Significant Impact
Blondell Avenue	Westchester Avenue	NB-LT	No Significant Impact	NB-LT
East Tremont Avenue	Westchester Avenue	NB-LT	NB-LT	NB-LT
Commerce Avenue	Westchester Avenue	NB-LTR SB-DefL	No Significant Impact	SB-LTR
East Tremont Avenue	Ericson Place	WB-T NB-LTR	NB-LTR	NB-LTR
East-West Road	HRP Service Road	SB-R (HRP) SB-TR (PP)	No Significant Impact	EB-R SB-TR (PP)
Total Impacted Intersections/Lane Groups		**18/42**	**10/21**	**17/33**

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left Turn; T = Through; R = Right Turn; DefL = De facto left-turn; ML = Mainline; SR = Service Road; HRP = Hutchinson River Parkway; PP = Pelham Parkway.

As stated in Chapter 14, "Transportation," because there is no funding or plan to construct the HRP improvements by 2028, without some other means of addressing traffic expected to be generated by Phase II of the proposed project, this second phase of the proposed project cannot proceed. **Tables 22-6A through 22-6C** itemize the mitigation measures recommended to address

Table 22-6A
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Pelham Parkway (EB) and Williamsbridge Road	EB: Green = 21 s SB: Green = 28 s NB/SB: Green = 26 s	Unmitigated	No change from No-Action
Pelham Parkway (EB) and Eastchester Road	EB: Green = 35 s NB/SB: Green = 30 s SB: Green = 10 s	Shift 2 seconds of green time from the SB phase to the NB/SB phase. Shift 2 seconds of green time from the SB phase to the EB phase.	EB: Green = 37 s NB/SB: Green = 32 s SB: Green = 6 s
Morris Park Avenue and Eastchester Road	EB/WB: Green = 33 s LPI = 7 s NB/SB: Green = 38 s NB: Green = 20 s	Unmitigated	No change from No-Action
Waters Place and Eastchester Road	WB: Green = 23 s NB/SB: Green = 40 s SB/WB-R: Green = 12 s	For the north leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the NB receiving lanes (centerline to east curb) from two 11-foot lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 4-foot buffer is provided. For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the NB approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional 3-foot buffer is provided. For the east leg of the intersection, remove parking along north side of the street and restripe the WB approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane, and one 12-foot left-turn lane. An additional 6-foot buffer is provided. Modify the three-phase signal to a four-phase signal to add a new pedestrian-actuated phase providing 27 seconds that allows the north and south crosswalks to operate simultaneously with the permitted WB right-turns. Add the NB-R movement to the WB phase. The timing/phasing presented in the “Recommended Signal Timing” column of this table shows the effective timing proportioned to reflect a full pedestrian-actuated phase that is activated an estimated five times an hour.	Pedestrian-actuated/WB-R: Green = 4 s WB/NB-R: Green = 23 s NB/SB: Green = 30 s SB/WB-R: Green = 18 s

Table 22-6A (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Williamsbridge Road and Eastchester Road	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the north leg of the intersection, remove parking along SB approach and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 11-foot left-turn/through lane to one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left turn lane. Move the centerline two feet to the east for the length parallel to the 215-feet No Standing Anytime regulation along the NB receiving lanes. Shift 11 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 29 s NB/SB: Green = 51 s
East Tremont Avenue and Silver Street	EB/WB: Green = 42 s EB/SB-R: Green = 38 s Pedestrian: Green = 25 s	Unmitigated	No change from No-Action
Waters Place and Marconi Street	EB Leading: Green = 7 s EB/WB: Green = 42 s SB: Green = 26 s	For the east leg of the intersection, remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. An additional 3-foot buffer is provided. For the west leg of the intersection, remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn/through lane to one 11-foot left turn lane and two 11-foot through lanes. A 5-foot buffer is provided. For the westbound receiving lanes, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus Stop further to the west. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Add the WB-R movement to the SB phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 7 s EB/WB: Green = 42 s SB/WB R: Green = 26 s

Table 22-6A (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Waters Place and BPC Driveway	EB/WB: Green = 45 s SB: Green = 35 s	For the east leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the EB receiving lanes (centerline to south curb) from two 11-foot through lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. For the west leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the WB receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided Add an EB leading phase. Shift 11 seconds (Green/Amber/Red: 6/3/2) from the SB phase to the EB leading phase. Shift 2 seconds from the SB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB Leading: Green = 6 s EB/WB: Green = 47 s SB: Green = 22 s

Table 22-6A (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Waters Place and Fink Avenue/HRP Southbound Off-Ramp	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the south leg of the intersection (from curb to curb), remove the parking on both sides and restripe the northbound lanes from one 8-foot parking lane and a 12-foot right-turn/left-turn lane to one 11-foot right-turn lane and one 11-foot left-turn lane. Restripe the southbound receiving lanes from one 8-foot parking lane and one 11-foot through lane to one 11-foot receiving lane. An additional 6-foot buffer is provided. Shift 7 seconds of green time from the EB/WB phase to the NB/SB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 33 s NB/SB: Green = 47 s
Westchester Avenue and Ericson Place/Middletown Road	EB Leading: Green = 6 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 20 s	For the southbound approach (Middletown road), remove the parking on the receiving approach and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane, and one 11-foot through/left-turn lane. Also move the centerline 9 feet towards the west curb line making one 17 -foot receiving lane. For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and another 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane, and one 11-foot through/right-turn lane. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Shift 1 second of green time from the SB phase to the EB/WB Phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 6 s EB/WB: Green = 24 s NB: Green = 18 s SB: Green = 19 s
Waters Place and Westchester Avenue	EB: Green = 40 s NB/SB: Green = 40 s	Shift 4 seconds of green time from the EB phase to the NB/SB Phase. Impacts at this intersection would be partially mitigated.	EB: Green = 36 s NB/SB: Green = 44 s
Waters Avenue and Westchester Avenue	Unsignalized	Unmitigated	No change from No-Action
Tan Place and Westchester Avenue	WB: Green = 35 s NB/SB: Green = 45 s	Unmitigated	No change from No-Action
Blondell Avenue and Westchester Avenue	WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Unmitigated	No change from No-Action
East Tremont Avenue and Westchester Avenue	EB/WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Unmitigated	No change from No-Action
Commerce Avenue and Westchester Avenue	EB/WB: Green = 51 s NB/SB: Green = 59 s	Shift 4 seconds of green time from the EB/WB phase to the NB/SB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 47 s NB/SB Green = 63 s
East Tremont Avenue and Ericson Place	EB/WB: Green = 25 s EB: Green = 16 s LPI = 7 s NB: Green = 27 s	Unmitigated	No change from No-Action

Table 22-6A (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday AM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
East-West Road and HRP Service Road	EB-R/SB-R: Green = 20 s SB (PP): Green = 25 s SB (HRP): Green = 30 s	Unmitigated	No Change from No-Action

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn; LPI = Leading Pedestrian Interval; HRP = Hutchinson River Parkway; PP = Pelham Parkway.

the identified impacts under the 2028 With-Action with HRP Improvements condition. These measures are expected to be effective in mitigating the significant adverse traffic impacts at some of the intersections identified above. However, significant adverse traffic impacts at 18 intersections could not be fully mitigated. These measures would be subject to review and approval by NYCDOT prior to implementation, if a means of advancing Phase II of the proposed project materializes in the future.

Table 22-6B
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday Midday Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Morris Park Avenue and Eastchester Road	EB/WB: Green = 33 s LPI = 7 s NB/SB: Green = 38 s NB: Green = 20 s	Unmitigated	No change from No-Action
Waters Place and Eastchester Road	WB: Green = 31 s NB/SB: Green = 38 s SB/WB-R: Green = 6 s	For the north leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the NB receiving lanes (centerline to east curb) from two 11-foot lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 4-foot buffer is provided. For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the NB approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional 3-foot buffer is provided. For the east leg of the intersection, remove parking along north side of the street and restripe the WB approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane, and one 12-foot left-turn lane. An additional 6-foot buffer is provided. Modify the three-phase signal to a four-phase signal to add a new pedestrian-actuated phase providing 27 seconds that allows the north and south crosswalks to operate simultaneously with the permitted WB right-turns. Add the NB-R movement to the WB phase. The timing/phasing presented in the "Recommended Signal Timing" column of this table shows the effective timing proportioned to reflect a full pedestrian-actuated phase that is activated an estimated five times an hour.	Pedestrian-actuated/WB-R: Green = 4 s WB/NB-R: Green = 26 s NB/SB: Green = 30 s SB/WB-R: Green = 15 s
Williamsbridge Road and Eastchester Road	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the north leg of the intersection, remove parking along SB approach and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 11-foot left-turn/through lane to one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left-turn lane. Move the centerline two feet to the east for the length parallel to the 215-feet No Standing Anytime regulation along the NB receiving lanes. Shift 6 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 34 s NB/SB: Green = 46 s
East Tremont Avenue and Silver Street	EB/WB: Green = 23 s EB/SB-R: Green = 30 s Pedestrian: Green = 22 s	Unmitigated	No change from No-Action

Table 22-6B (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday Midday Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Waters Place and Marconi Street	EB Leading: Green = 7 s EB/WB: Green = 42 s SB: Green = 26 s	For the east leg of the intersection, remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. A 3-foot buffer is provided. For the west leg of the intersection, remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn/through lane to one 11-foot left-turn lane and two 11-foot through lanes. A 5-foot buffer is provided. For the westbound receiving lanes, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus Stop further to the west. A 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Add the WB-R movement to the SB phase. Shift 2 seconds of green time from the EB/WB phase to the EB/SB-R leading phase. Shift 2 seconds of green time from the EB/WB phase to the SB/WB-R phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 9 s EB/WB: Green = 38 s SB/WB-R: Green = 28 s
Waters Place and BPC Driveway	EB/WB: Green = 45 s SB: Green = 35 s	For the east leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one11-foot through lane; restripe the EB receiving lanes (centerline to south curb) from two 11-foot through lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. For the west leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the WB receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided Add an EB leading phase. Shift 11 seconds (Green/Amber/Red: 6/3/2) from the SB phase to the EB leading phase.	EB Leading: Green= 6 s EB/WB: Green = 45 s SB: Green = 24 s

Table 22-6B (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday Midday Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Westchester Avenue and Ericson Place/Middletown Road	EB Leading: Green = 6 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 20 s	For the southbound approach (Middletown Road), remove the parking on the receiving lane and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane, and one 11-foot through/left-turn lane. Also, move the centerline 9 feet towards the west curb line making one 17-foot receiving lane. For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and another 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane, and one 11-foot through/right-turn lane. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Shift 1 second of green time from the SB phase to the EB/SB-R leading phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 7 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 19 s
Waters Place and Westchester Avenue	EB: Green = 40 s NB/SB: Green = 40 s	Unmitigated	No change from No-Action
East Tremont Avenue and Westchester Avenue	EB/WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 2 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 49 s LPI = 7 s NB/SB: Green = 54 s
East Tremont Avenue and Ericson Place	EB/WB: Green = 25 s EB: Green = 16 s LPI = 7 s NB: Green = 27 s	Shift 1 second of green time from the EB/WB phase to the NB phase.	EB/WB: Green = 24 s EB: Green = 16 s LPI = 7 s NB: Green = 27 s

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn; LPI = Leading Pedestrian Interval.

Table 22-6C
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday PM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Pelham Parkway (Westbound) and Eastchester Road	WB: Green = 29 s NB/SB: Green = 30 s NB: Green = 45 s	Shift 2 seconds of green time from the NB phase to the NB/SB phase.	WB: Green = 29 s NB/SB: Green = 32 s NB: Green = 43 s
Pelham Parkway (Eastbound) and Eastchester Road	EB: Green = 45 s NB/SB: Green = 50 s SB: Green = 10 s	Shift 7 seconds of green time from the NB/SB phase to the SB phase. Shift 1 second of green time from the NB/SB phase to the EB phase.	EB: Green = 46 s NB/SB: Green = 42 s SB: Green = 17 s
Morris Park Avenue and Eastchester Road	EB/WB: Green = 33 s LPI = 7 s NB/SB: Green = 38 s NB: Green = 20 s	Unmitigated	No change from No-Action
Waters Place and Eastchester Road	WB: Green = 23 s NB/SB: Green = 40 s SB/WB-R: Green = 12 s	For the north leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the NB receiving lanes (centerline to east curb) from two 11-foot lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 4-foot buffer is provided. For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the SB receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the NB approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional 3-foot buffer is provided. For the east leg of the intersection, remove parking along north side of the street and restripe the WB approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane, and one 12-foot left-turn lane. An additional 6-foot buffer is provided. Modify the three-phase signal to a four-phase signal to add a new pedestrian-actuated phase providing 27 seconds that allows the north and south crosswalks to operate simultaneously with the permitted WB right-turns. Add the NB-R movement to the WB phase. The timing/phasing presented in the "Recommended Signal Timing" column of this table shows the effective timing proportioned to reflect a full pedestrian-actuated phase that is activated an estimated five times an hour. Impacts at this intersection would be partially mitigated.	Pedestrian-actuated/WB-R: Green = 4 s WB/NB-R: Green = 25 s NB/SB: Green = 30 s SB/WB-R: Green = 16 s
Williamsbridge Road and Eastchester Road	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the north leg of the intersection, remove parking along SB approach and restripe the SB approach lanes (west curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 11-foot left-turn/through lane to one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left turn lane. Move centerline two feet to the east for the length parallel to the 215-feet No Standing Anytime regulation along the NB approach. Shift 4 seconds of green time from the EB/WB phase to the NB/SB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 36 s NB/SB: Green = 44 s

Table 22-6C (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday PM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
East Tremont Avenue and Silver Street	EB/WB: Green = 42 s EB/SB-R: Green = 38 s Pedestrian: Green = 25 s	Unmitigated	No change from No-Action
Marconi Street and Project Driveway	EB/WB: Green = 18 s Pedestrian: Green = 17 s NB/SB: Green = 40 s	Unmitigated	No change from With-Action
Waters Place and Marconi Street	EB Leading: Green = 7 s EB/WB: Green = 42 s SB: Green = 26 s	For the east leg of the intersection, remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. A 3-foot buffer is provided. For the west leg of the intersection, remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn/through lane to one 11-foot left turn lane and two 11-foot through lanes. A 5-foot buffer is provided. For the westbound receiving lanes, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus Stop further to the west. A 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Add the WB-R movement to the SB phase. Shift 10 seconds of green time from the EB/WB phase to the SB/WB-R phase. Shift 3 seconds of green time from the EB/WB phase to the EB/SB-R leading phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 10 s EB/WB: Green = 29 s SB/WB-R: Green = 36 s
Waters Place and BPC Driveway	EB/WB: Green = 45 s SB: Green = 35 s	For the east leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the WB approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the EB receiving lanes (centerline to south curb) from two 11-foot through lanes and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. For the west leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the EB approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the WB receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane, and one 8-foot parking lane to two 11-foot through lanes. An additional 5-foot buffer is provided. Add an EB leading phase. Shift 11 seconds of green time from the EB/WB phase and 1 second of green time from the SB phase to the EB leading phase (EB leading phase Green/Amber/Red: 7/3/2). Impacts at this intersection would be partially mitigated.	EB Leading: Green = 7 s EB/WB: Green = 34 s SB: Green = 34 s

Table 22-6C (cont'd)
2028 With-Action with HRP Improvements Condition—
Recommended Mitigation Measures
Weekday PM Peak Hour

Intersection	No-Action Signal Timing	Recommended Mitigation Measure	Recommended Signal Timing
Waters Place and Fink Avenue/HRP Southbound Off-Ramp	EB/WB: Green = 40 s NB/SB: Green = 40 s	For the south leg of the intersection (from curb to curb), remove the parking on both sides and restripe the northbound lanes from one 8-foot parking lane and a 12-foot right-turn/left-turn lane to one 11-foot right-turn lane and one 11-foot left-turn lane. Restripe the southbound receiving lanes from one 8-foot parking lane and one 11-foot through lane to one 11-foot receiving lane. An additional 6-foot buffer is provided. Shift 4 seconds of green time from the NB/SB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB/WB: Green = 44 s NB/SB: Green = 36 s
Westchester Avenue and Ericson Place/Middletown Road	EB Leading: Green = 6 s EB/WB: Green = 23 s NB: Green = 18 s SB: Green = 20 s	For the southbound approach (Middletown Road), remove the parking on the receiving lane and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane and one 11-foot through/left-turn lane. Also move the centerline 9 feet towards the west curb line making one 17-foot receiving lane. For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and another 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane and one 11-foot through/right-turn lane. An additional 6-foot buffer is provided. Add the SB-R movement to the EB leading phase. Shift 1 second of green time from the SB phase to the EB/WB phase. Impacts at this intersection would be partially mitigated.	EB/SB-R: Green = 6 s EB/WB: Green = 24 s NB: Green = 18 s SB: Green = 19 s
Waters Place and Westchester Avenue	EB: Green = 40 s NB/SB: Green = 40 s	Unmitigated	No change from No-Action
Blondell Avenue and Westchester Avenue	WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 4 seconds of green time from the WB phase to the NB/SB phase.	WB: Green = 47 s LPI = 7 s NB/SB: Green = 56 s
East Tremont Avenue and Westchester Avenue	EB/WB: Green = 51 s LPI = 7 s NB/SB: Green = 52 s	Shift 4 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 47 s LPI = 7 s NB/SB: Green = 56 s
Commerce Avenue and Westchester Avenue	EB/WB: Green = 51 s NB/SB: Green = 59 s	Shift 4 seconds of green time from the EB/WB phase to the NB/SB phase.	EB/WB: Green = 47 s NB/SB: Green = 63 s
East Tremont Avenue and Ericson Place	EB/WB: Green = 25 s EB: Green = 16 s LPI = 7 s NB: Green = 27 s	Unmitigated	No change from No-Action
East-West Road and HRP Service Road	EB-R/SB-R: Green = 20 s SB (PP): Green = 25 s SB (HRP): Green = 30 s	Unmitigated	No change from No-Action

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn; LPI = Leading Pedestrian Interval; HRP = Hutchinson River Parkway; PP = Pelham Parkway.

A discussion of the recommended mitigation measures is provided below. **Tables 22-7A through 22-7D** compare the levels of service (LOS) and lane group delays for the impacted intersections under the 2028 No-Action, With-Action, and Mitigation with HRP Improvements conditions for the three analysis peak hours.

Table 22-7A
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour – Signalized Intersections

	Weekday AM											
	2028 No-Action				2028 With-Action				2028 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
3. & 4. Pelham Parkway (Eastbound) & Williamsbridge Road												
EB (ML)	LT	1.17	124.0	F	LT	1.28	172.3	F +				
EB (SR)	TR	0.85	44.8	D	TR	0.86	45.4	D				
	R	0.78	51.5	D	R	0.78	51.5	D				
NB	T	0.84	40.4	D	T	0.84	40.4	D	Unmitigated			
	R	0.32	27.9	C	R	0.32	27.9	C				
SB	L	0.47	11.7	B	L	0.47	11.7	B				
	LT	0.57	10.0	A	LT	0.57	10.0	A				
	Int.		50.4	D	Int.		63.9	E				
7. & 8. Pelham Parkway (Eastbound) & Eastchester Road												
EB (ML)	LT	1.00	53.1	D	LT	1.07	74.9	E +	LT	1.01	55.2	E
EB (SR)	TR	1.14	113.0	F	TR	1.15	117.0	F +	TR	1.08	90.8	F
NB	TR	0.87	39.9	D	TR	0.96	51.3	D +	TR	0.90	40.7	D
SB	L	0.54	32.2	C	L	0.58	35.5	D	L	0.68	42.5	D
	LT	0.77	22.3	C	LT	0.88	27.8	C	LT	0.91	32.5	C
	Int.		48.6	D	Int.		59.2	E	Int.		49.3	D
9. Morris Park Avenue & Eastchester Road												
EB	L	0.93	78.9	E	L	0.93	78.2	E				
	LT	0.48	41.7	D	LT	0.48	41.7	D				
	R	0.71	49.9	D	R	0.80	56.3	E +				
WB	LTR	0.24	35.8	D	LTR	0.26	36.3	D				
NB	L	0.81	71.2	E	L	0.88	80.1	F +	Unmitigated			
	TR	0.45	18.7	B	TR	0.49	19.5	B				
SB	LTR	1.21	146.0	F	LTR	1.36	209.4	F +				
	Int.		84.8	F	Int.		113.2	F				
10. Waters Place & Eastchester Road												
WB	L	1.06	93.8	F	L	1.36	212.0	F +	L	0.71	35.8	D
	R	0.92	43.7	D	R	1.10	90.4	F +	R	0.87	29.5	C
NB	TR	0.98	47.1	D	TR	1.28	158.4	F +	T	0.63	28.4	C
									R	0.93	31.5	C
SB	DefL	0.84	48.7	D	DefL	1.37	216.3	F +	L	0.93	50.1	D
	T	0.49	10.9	B	T	0.49	10.9	B	T	0.22	9.0	A
	Int.		48.7	D	Int.		145.3	F	Int.		31.4	C
12. Williamsbridge Road & Eastchester Road												
EB	LTR	0.57	20.6	C	LTR	0.57	20.6	C	LTR	0.79	35.5	D
WB	LTR	0.46	18.8	B	LTR	0.46	18.9	B	LTR	0.65	30.6	C
NB	LTR	0.80	30.9	C	LTR	1.23	141.6	F +	LTR	0.96	40.8	D
SB	L	0.31	19.0	B	L	0.54	30.3	C	L	0.32	13.2	B
	TR	0.90	40.8	D	TR	1.07	81.1	F +	T	0.63	16.4	B
									R	0.11	9.2	A
	Int.		27.5	C	Int.		72.8	E	Int.		30.6	C
13. East Tremont Avenue & Silver Street												
EB	L	0.76	32.0	C	L	1.17	123.0	F +				
	T	0.42	8.6	A	T	0.42	8.6	A				
WB	TR	0.65	36.2	D	TR	0.65	36.2	D	Unmitigated			
SB	R	1.20	149.5	F	R	1.45	253.4	F +				
	Int.		61.1	E	Int.		120.4	F				
15. Waters Place & Marconi Street												
EB	L	1.28	163.4	F	L	3.18	1019.0	F +	L	2.04	504.6	F +
	LT	0.44	10.4	B	LT	1.04	71.4	E +	T	0.20	8.4	A
WB	TR	0.69	21.4	C	TR	1.06	66.8	E +	T	0.50	17.8	B
									R	0.70	7.9	A
SB	L	0.28	26.4	C	L	0.46	29.8	C	L	0.46	29.8	C
	R	0.64	35.8	D	R	1.11	111.2	F +	R	0.76	31.9	C
	Int.		47.7	D	Int.		301.6	F	Int.		145.2	F

Table 22-7A (cont'd)
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour – Signalized Intersections

	Weekday AM											
	2028 No-Action				2028 With-Action				2028 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
16. Waters Place & BPC Driveway												
EB	LT	0.52	17.2	B	DefL	1.38	251.9	F +	L	0.61	34.7	C
					T	0.70	22.9	C	T	0.24	7.0	A
WB	TR	0.83	24.6	C	TR	1.38	200.0	F +	TR	1.22	125.8	F +
SB	L	0.07	17.5	B	L	0.20	19.0	B	L	0.32	30.1	C
	LR	0.13	18.2	B	LR	0.30	20.5	C	LR	0.47	34.1	C
	Int.		22.3	C	Int.		154.4	F	Int.		92.9	F
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp												
EB	TR	0.38	17.6	B	TR	0.50	19.3	B	TR	0.61	25.9	C
WB	LT	0.54	20.0	B	LT	0.75	24.9	C	LT	0.91	40.2	D
NB	LR	1.31	188.4	F	LR	2.84	864.2	F +	L	1.69	342.4	F +
									R	0.06	10.8	B
SB	L	0.59	22.2	C	L	0.63	23.4	C	L	0.53	16.6	B
	T	0.41	18.6	B	T	0.57	22.7	C	T	0.49	16.3	B
	Int.		46.8	D	Int.		236.1	F	Int.		105.5	F
18. Westchester Avenue & Ericson Place/Middletown Road												
EB	DefL	1.46	600.5	F	DefL	2.19	951.8	F +	DefL	2.05	867.2	F +
	TR	0.89	105.2	F	TR	0.93	124.5	F +	TR	0.90	104.7	F
WB	LT	1.34	462.5	F	LT	1.49	524.9	F +	LT	1.43	487.7	F +
NB	LTR	0.98	117.7	F	LTR	1.14	173.7	F +	LTR	1.08	150.2	F +
SB	LTR	1.10	154.4	F	LTR	1.20	195.2	F +	LT	0.69	43.9	D
									R	0.46	27.8	C
	Int.		240.9	F	Int.		348.3	F	Int.		291.2	F
19. Waters Place & Westchester Avenue												
EB	LT	0.50	19.3	B	LT	0.60	21.0	C	LT	0.67	25.2	C
NB	DefL	1.60	333.6	F	DefL	4.14	1466.0	F +	DefL	3.48	1167.0	F +
	TR	1.14	280.1	F	TR	1.14	280.1	F	TR	1.04	226.4	F
SB	LTR	1.06	155.1	F	LTR	1.20	207.1	F +	LTR	1.06	141.9	F
	Int.		157.7	F	Int.		326.3	F	Int.		253.6	F
21. Tan Place & Westchester Avenue												
WB	L	0.15	18.5	B	L	0.15	18.5	B				
	R	0.68	29.8	C	R	1.04	76.3	E +				
NB	T	0.68	70.5	E	T	1.13	258.2	F +	Unmitigated			
SB	T	0.56	21.2	C	T	0.60	22.3	C				
	Int.		38.9	D	Int.		129.1	F				
22. Blondell Avenue & Westchester Avenue												
WB	L	0.18	22.0	C	L	0.18	22.0	C				
	T	0.35	24.5	C	T	0.35	24.5	C				
NB	LT	0.72	54.0	D	LT	0.97	142.3	F +	Unmitigated			
SB	TR	0.78	38.9	D	TR	0.83	42.8	D				
	Int.		40.1	D	Int.		74.5	E				
23. East Tremont Avenue & Westchester Avenue												
EB	LTR	0.42	25.2	C	LTR	0.43	25.4	C				
WB	LTR	0.59	28.3	C	LTR	0.59	28.4	C				
NB	LT	1.16	207.9	F	LT	1.58	382.5	F +	Unmitigated			
SB	TR	0.58	32.2	C	TR	0.61	33.4	C				
	Int.		65.4	E	Int.		118.4	F				
24. Commerce Avenue & Westchester Avenue												
EB	LT	0.46	27.3	C	LT	0.46	27.2	C	LT	0.50	30.8	C
WB	LT	0.34	24.9	C	LT	0.34	24.9	C	LT	0.37	28.1	C
	R	0.36	25.7	C	R	0.36	25.7	C	R	0.39	29.1	C
NB	LTR	0.60	41.3	D	LTR	0.80	58.8	E +	LTR	0.74	46.2	D
SB	LTR	0.70	50.7	D	DefL	0.82	222.7	F +	DefL	0.73	136.1	F +
					TR	0.65	34.6	D	TR	0.61	29.4	C
	Int.		38.1	D	Int.		53.4	D	Int.		42.9	D

Table 22-7A (cont'd)
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour – Signalized Intersections

Intersection	Weekday AM											
	2028 No-Action				2028 With-Action				2028 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
27. East Tremont Avenue & Ericson Place												
EB	LT	0.40	14.4	B	LT	0.42	14.8	B	Unmitigated			
WB	T	1.02	69.3	E	T	1.11	99.4	F +				
NB	LTR	1.08	87.4	F	LTR	1.50	260.8	F +				
	Int.		64.5	E	Int.		157.2	F				
29. East-West Road & HRP Service Road												
EB	R	0.12	28.4	C	R	0.28	30.1	C	Unmitigated			
SB (HRP)	T	0.88	38.5	D	T	0.88	38.5	D				
	R	0.48	11.4	B	R	1.05	61.0	E +				
SB (PP)	TR	0.79	40.6	D	TR	1.04	80.1	F +				
	Int.		32.5	C	Int.		54.8	D				

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity; Def = De Facto; HRP = Hutchinson River Parkway; PP = Pelham Parkway.
+ Denotes a significant adverse traffic impact.

Table 22-7B
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday AM Peak Hour - Unsignalized Intersections

Intersection	Weekday AM											
	2028 No-Action				2028 With-Action				2028 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp *												
SB	R	0.47	14.5	B	R	1.10	120.3	F +	Unmitigated			
20. Westchester Avenue & Waters Avenue												
EB	LR	0.86	47.2	E	LR	23.18	10782.0	F +	Unmitigated			
NB	LT	0.42	12.3	B	LT	0.96	46.1	E +				

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity
* Channelized Right Turn analyzed as Stop Controlled.
+ Denotes a significant adverse traffic impact.

Table 22-7C
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday Midday Peak Hour – Signalized Intersections

	Weekday Midday											
	2028 No-Action				2028 With-Action				2028 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
9. Morris Park Avenue & Eastchester Road												
EB	L	0.80	62.2	E	LT	0.80	62.6	E				
	LT	0.24	35.7	D	LT	0.24	35.7	D				
	R	0.67	48.4	D	R	0.78	55.3	E +				
WB	LTR	0.14	33.7	C	LTR	0.15	33.8	C				
NB	L	0.80	68.6	E	L	0.94	90.4	F +	Unmitigated			
	TR	0.47	19.0	B	TR	0.56	20.8	C				
SB	LTR	1.14	118.4	F	LTR	1.34	201.7	F +				
	Int.		68.5	E	Int.		102.5	F				
10. Waters Place & Eastchester Road												
WB	L	0.81	38.4	D	L	1.22	144.3	F +	L	0.76	35.1	D
	R	0.62	22.1	C	R	0.90	39.5	D	R	0.77	22.2	C
NB	TR	0.90	35.9	D	TR	1.14	99.4	F +	T	0.46	25.0	C
									R	0.82	18.7	B
SB	DefL	1.09	108.5	F	DefL	1.85	432.5	F +	L	0.90	43.9	D
	T	0.59	17.4	B	T	0.59	17.4	B	T	0.25	10.7	B
	Int.		40.4	D	Int.		136.3	F	Int.		26.2	C
12. Williamsbridge Road & Eastchester Road												
EB	LTR	0.54	20.2	C	LTR	0.54	20.3	C	LTR	0.65	26.8	C
WB	LTR	0.56	20.6	C	LTR	0.57	20.8	C	LTR	0.68	27.4	C
NB	LTR	0.75	28.4	C	LTR	1.27	160.5	F +	LTR	0.93	40.6	D
SB	L	0.41	21.0	C	L	0.61	31.4	C	L	0.46	19.3	B
	TR	1.04	71.6	E	TR	1.43	229.2	F +	T	0.93	38.5	D
									R	0.16	12.2	B
	Int.		35.7	D	Int.		119.6	F	Int.		35.5	D
13. East Tremont Avenue & Silver Street												
EB	L	0.59	18.6	B	L	0.86	31.0	C				
	T	0.47	9.9	A	T	0.47	9.9	A				
WB	TR	0.67	34.9	C	TR	0.67	34.9	C	Unmitigated			
SB	R	1.19	135.4	F	R	1.68	346.8	F +				
	Int.		54.7	D	Int.		133.7	F				
15. Waters Place & Marconi Street												
EB	DefL	1.07	94.7	F	DefL	2.36	656.3	F +	L	1.53	278.8	F +
	T	0.44	11.1	B	T	0.59	13.6	B	T	0.33	10.4	B
WB	TR	0.50	17.9	B	TR	0.74	23.3	C	T	0.45	19.7	B
									R	0.44	4.7	A
SB	L	0.60	33.1	E	L	0.90	53.9	D +	L	0.84	44.1	D
	R	1.10	105.2	F	R	1.90	448.8	F +	R	1.17	118.4	F +
	Int.		48.3	D	Int.		230.9	F	Int.		87.4	F
16. Waters Place & BPC Driveway												
EB	LT	0.59	18.0	B	LT	1.23	138.4	F +	L	0.80	42.8	D
									T	0.40	9.2	A
WB	TR	0.47	15.7	B	TR	0.64	18.8	B	TR	0.59	17.6	B
SB	L	0.07	17.5	B	L	0.31	20.5	C	L	0.45	31.3	C
	LR	0.14	18.4	B	LR	0.45	23.5	C	LR	0.66	39.5	D
	Int.		17.0	B	Int.		71.0	E	Int.		20.2	C

Table 22-7C (cont'd)
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday Midday Peak Hour – Signalized Intersections

Intersection	Weekday Midday											
	2028 No-Action				2028 With-Action				2028 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
18. Westchester Avenue & Ericson Place/Middletown Road												
EB	DefL	1.61	611.9	F	DefL	2.61	1066.0	F +	DefL	2.42	956.4	F +
	TR	1.07	197.2	F	TR	1.13	218.9	F +	TR	1.10	203.4	F +
WB	LT	1.17	421.3	F	LT	1.19	428.4	F +	LT	1.19	428.4	F +
NB	LTR	0.66	45.6	D	LTR	0.72	49.3	D	LTR	0.71	48.4	D
SB	LTR	1.05	150.0	F	LTR	1.15	190.8	F +	LT	0.60	41.4	D
									R	0.36	24.8	C
	Int.		271.4	F	Int.		431.2	F	Int.		375.3	F
19. Waters Place & Westchester Avenue												
EB	LT	0.67	22.5	C	LT	0.87	30.5	C				
NB	LTR	0.91	43.6	D	DefL	0.94	79.2	E +				
					TR	1.13	112.1	F +	Unmitigated			
SB	LTR	0.81	30.4	C	LTR	0.81	29.5	C				
	Int.		30.5	C	Int.		48.4	D				
23. East Tremont Avenue & Westchester Avenue												
EB	LTR	0.51	27.0	C	LTR	0.53	27.3	C	LTR	0.55	29.0	C
WB	LTR	0.41	25.0	C	LTR	0.42	25.1	C	LTR	0.43	26.6	C
NB	LT	0.80	41.1	D	LT	0.88	49.3	D +	LT	0.85	43.9	D
SB	TR	0.50	26.1	C	TR	0.54	26.9	C	TR	0.52	25.3	C
	Int.		29.0	C	Int.		31.2	C	Int.		30.5	C
27. East Tremont Avenue & Ericson Place												
EB	LT	0.45	15.0	B	LT	0.49	15.6	B	LT	0.50	16.4	B
WB	T	0.72	34.7	C	T	0.77	36.6	D	T	0.80	39.0	D
NB	LTR	0.79	37.1	D	LTR	0.93	50.5	D +	LTR	0.89	44.4	D
	Int.		28.6	C	Int.		34.3	C	Int.		33.2	C

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity; Def = De Facto
+ Denotes a significant adverse traffic impact.

Table 22-7D
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour – Signalized Intersections

Weekday PM												
	2028 No-Action				2028 With-Action				2028 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
6. Pelham Parkway (Westbound) & Eastchester Road												
WB	L	0.99	89.8	F	L	0.99	89.9	F	L	0.99	89.9	F
	LT	1.24	159.8	F	LT	1.24	159.8	F	LT	1.24	159.8	F
	R	0.28	39.3	D	R	0.28	39.3	D	R	0.28	39.3	D
NB	L	0.54	26.2	C	L	0.55	26.6	C	L	0.57	28.3	C
	T	0.36	9.3	A	T	0.45	10.2	B	T	0.45	10.2	B
SB	TR	0.86	54.5	D	TR	0.96	66.9	E +	TR	0.90	56.0	E
	Int.		83.5	F	Int.		82.4	F	Int.		80.3	F
7. & 8. Pelham Parkway (Eastbound) & Eastchester Road												
EB (ML)	LT	1.08	86.4	F	LT	1.08	86.4	F	LT	1.06	77.7	E
EB (SR)	TR	1.17	133.2	F	TR	1.18	136.5	F +	TR	1.15	125.0	F
NB	TR	0.56	28.0	C	TR	0.67	30.2	C	TR	0.80	39.5	D
SB	L	0.56	40.6	D	L	0.63	49.9	D +	L	0.52	44.2	D
	LT	0.56	19.7	B	LT	0.62	21.0	C	LT	0.65	22.3	C
	Int.		62.2	E	Int.		61.7	E	Int.		60.0	E
9. Morris Park Avenue & Eastchester Road												
EB	L	1.03	103.1	F	L	1.04	106.2	F +				
	LT	0.54	44.2	D	LT	0.55	44.5	D				
	R	0.70	49.4	D	R	0.83	59.9	E +				
WB	LTR	0.25	35.7	D	LTR	0.27	36.1	D				
NB	L	0.96	93.4	F	L	1.25	190.0	F +	Unmitigated			
	TR	0.77	26.5	C	TR	0.90	34.0	C				
SB	LTR	1.17	130.2	F	LTR	1.41	235.9	F +				
	Int.		71.0	E	Int.		111.3	F				
10. Waters Place & Eastchester Road												
WB	L	1.25	162.8	F	L	2.37	654.9	F +	L	1.14	108.9	F
	R	0.82	32.2	C	R	1.25	149.1	F +	R	1.00	52.3	D +
NB	TR	0.84	29.4	C	TR	0.97	44.2	D	T	0.55	26.7	C
									R	0.61	11.6	B
SB	DefL	0.84	45.1	D	DefL	1.23	155.8	F +	L	0.91	46.3	D
	T	0.58	12.4	B	T	0.58	12.4	B	T	0.28	10.4	B
	Int.		56.5	E	Int.		249.4	F	Int.		53.8	D
12. Williamsbridge Road & Eastchester Road												
EB	LTR	0.57	20.8	C	LTR	0.57	20.8	C	LTR	0.64	25.0	C
WB	LTR	0.60	21.4	C	LTR	0.61	21.4	C	LTR	0.68	25.8	C
NB	LTR	0.68	25.4	C	LTR	1.26	160.3	F +	LTR	0.88	36.2	D
SB	L	0.35	19.4	B	L	0.43	22.2	C	L	0.36	17.5	B
	TR	1.10	92.2	F	TR	1.89	430.8	F +	T	1.32	175.8	F +
									R	0.19	13.5	B
	Int.		41.3	D	Int.		201.5	F	Int.		77.5	E
13. East Tremont Avenue & Silver Street												
EB	L	0.65	28.7	C	L	0.83	39.0	D				
	T	0.53	10.1	B	T	0.53	10.1	B				
WB	TR	0.73	38.9	D	TR	0.73	38.9	D	Unmitigated			
SB	R	1.40	232.7	F	R	2.52	730.3	F +				
	Int.		86.5	F	Int.		313.6	F				
14. Project Driveway & Marconi Street												
EB	LTR	0.69	47.0	D	LTR	0.65	42.0	D				
WB	LTR	0.38	34.1	C	L	1.40	226.3	F +				
					TR	0.15	14.3	B				
NB	DefL	1.11	158.3	F	DefL	1.11	159.3	F				
	TR	0.45	19.3	B	T	0.52	21.9	C	Unmitigated			
					R	0.17	6.5	A				
SB	LTR	1.23	136.6	F	LTR	1.20	124.6	F				
	Int.		104.7	F	Int.		126.7	F				

Table 22-7D (cont'd)
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour – Signalized Intersections

	2028 No-Action				2028 With-Action				2028 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
15. Waters Place & Marconi Street												
EB	DefL	0.78	36.8	D	DefL	1.78	388.9	F +	L	1.47	255.7	F +
	T	0.47	11.6	B	T	0.60	13.7	B	T	0.39	15.3	B
WB	TR	0.51	17.9	B	TR	0.76	23.5	C	T	0.89	40.1	D
									R	0.23	3.3	A
SB	L	0.80	256.8	F	L	1.31	485.1	F +	L	0.95	242.8	F
	R	1.25	503.7	F	R	2.53	1085.0	F +	R	1.27	329.1	F
	Int.		159.2	F	Int.		414.9	F	Int.		165.0	F
16. Waters Place & BPC Driveway												
EB	LT	0.73	21.3	C	LT	1.49	249.6	F +	L	0.98	89.4	F +
									T	0.72	19.7	B
WB	TR	0.51	16.4	B	TR	0.63	18.4	B	TR	0.82	32.1	C
SB	L	0.08	17.6	B	L	0.52	24.1	C	L	0.53	25.1	C
	LR	0.21	19.2	B	LR	0.82	37.7	D	LR	0.84	40.6	D
	Int.		19.0	B	Int.		124.7	F	Int.		31.8	C
17. Waters Place & Fink Avenue/HRP Southbound Off-Ramp												
EB	TR	0.69	90.9	F	TR	1.10	273.4	F +	TR	1.00	220.3	F +
WB	LT	0.27	16.3	B	LT	0.33	17.0	B	LT	0.28	14.1	B
NB	LR	0.57	27.4	C	LR	0.87	53.7	D +	L	0.77	42.3	D
									R	0.02	16.4	B
SB	L	0.51	20.3	C	L	0.66	24.2	C	L	0.74	30.0	C
	T	0.47	19.4	B	T	0.59	22.7	C	T	0.66	27.6	C
	Int.		49.6	D	Int.		147.8	F	Int.		122.1	F
18. Westchester Avenue & Ericson Place/Middletown Road												
EB	DefL	1.54	562.0	F	DefL	3.26	1332.0	F +	DefL	3.09	1238.0	F +
	TR	1.16	213.5	F	TR	1.26	253.6	F +	TR	1.22	234.3	F +
WB	LT	1.14	385.0	F	LT	1.15	388.8	F +	LT	1.10	360.6	F
NB	LTR	0.96	98.2	F	LTR	0.99	114.8	F +	LTR	0.95	90.3	F
SB	LTR	1.13	171.6	F	LTR	1.35	272.1	F +	LT	0.48	36.7	D
									R	0.77	44.7	D
	Int.		253.1	F	Int.		532.2	F	Int.		462.7	F
19. Waters Place & Westchester Avenue												
EB	LT	0.78	174.2	F	LT	1.16	348.3	F +	Unmitigated			
NB	LTR	0.67	61.1	E	LTR	0.81	113.6	F +				
SB	LTR	0.69	24.2	C	LTR	0.72	25.5	C				
	Int.		101.3	F	Int.		218.7	F				
22. Blondell Avenue & Westchester Avenue												
WB	L	0.28	23.5	C	L	0.28	23.5	C	L	0.30	26.4	C
	T	0.25	23.1	C	T	0.25	23.1	C	T	0.27	25.9	C
NB	LT	0.69	51.1	D	LT	0.77	65.4	E +	LT	0.70	48.6	D
SB	TR	0.66	33.0	C	TR	0.77	38.2	D	TR	0.72	32.4	C
	Int.		36.5	D	Int.		43.4	D	Int.		36.0	D
23. East Tremont Avenue & Westchester Avenue												
EB	LTR	0.66	30.5	C	LTR	0.69	31.3	C	LTR	0.75	36.0	D
WB	LTR	0.57	27.9	C	LTR	0.57	27.9	C	LTR	0.62	31.6	C
NB	LT	0.87	66.2	E	LT	0.93	87.3	F +	LT	0.86	58.4	E
SB	TR	0.66	35.3	D	TR	0.73	38.6	D	TR	0.67	32.7	C
	Int.		37.0	D	Int.		41.9	D	Int.		37.6	D
24. Commerce Avenue & Westchester Avenue												
EB	LT	0.48	27.5	C	LT	0.48	27.5	C	LT	0.52	31.2	C
WB	LT	0.34	24.7	C	LT	0.34	24.7	C	LT	0.37	27.8	C
	R	0.32	24.9	C	R	0.32	24.9	C	R	0.34	27.8	C
NB	LTR	0.61	38.3	D	LTR	0.68	44.6	D	LTR	0.62	35.8	D
SB	LTR	0.75	53.7	D	LTR	0.86	78.3	E +	LTR	0.79	53.6	D
	Int.		38.7	D	Int.		50.0	D	Int.		39.9	D

Table 22-7D (cont'd)
2028 No-Action, With-Action, and Mitigation with HRP Improvements Conditions
Level of Service Analysis
Weekday PM Peak Hour – Signalized Intersections

Intersection	2028 No-Action				2028 With-Action				2028 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
29. East-West Road & HRP Service Road												
27. East Tremont Avenue & Ericson Place												
EB	LT	0.73	20.8	C	LT	0.80	23.6	C				
WB	T	0.91	46.8	D	T	0.94	50.4	D				
NB	LTR	1.07	82.9	F	LTR	1.14	109.7	F	+	Unmitigated		
	Int.		48.7	D	Int.		59.2	E				
EB			R	0.48	33.0	C	R	1.24	154.8	F	+	
SB (HRP)			T	0.78	32.2	C	T	0.78	32.2	C		
			R	0.15	7.8	A	R	0.28	9.0	A		Unmitigated
SB (PP)			TR	0.89	49.9	D	TR	0.97	62.6	E	+	
			Int.		35.5	D	Int.		75.0	E		

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection; v/c = Volume/Capacity; Def = De Facto; HRP = Hutchinson River Parkway; PP = Pelham Parkway.
+ Denotes a significant adverse traffic impact.

Pelham Parkway (Eastbound) and Williamsbridge Road

The significant adverse impact at the eastbound left-turn/through lane group of this intersection during the weekday AM peak hour could not be mitigated.

Pelham Parkway (Westbound) and Eastchester Road

The significant adverse impact at the southbound approach of this intersection during the weekday PM peak hour could be fully mitigated by shifting two seconds of green time from the northbound phase to the northbound/southbound phase.

Pelham Parkway (Eastbound) and Eastchester Road

The significant adverse impacts at the eastbound mainline left-turn/through, eastbound service road through/right-turn, and northbound approach lane groups of this intersection during the weekday AM peak hour could be fully mitigated by shifting two seconds of green time from the southbound phase to the northbound/southbound phase and by shifting two seconds of green time from the southbound phase to the eastbound phase.

The significant adverse impacts at the eastbound service road through/right-turn and southbound left-turn lane groups of this intersection during the weekday PM peak hour could be fully mitigated by shifting seven seconds of green time from the northbound/southbound phase to the southbound phase and by shifting one second of green time from the northbound/southbound phase to the eastbound phase.

Morris Park Avenue and Eastchester Road

The significant adverse impacts at this intersection during the weekday AM, midday, and PM peak hours could not be mitigated.

Waters Place and Eastchester Road

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal timing/phasing changes are proposed.

For the north leg of the intersection, remove parking on both sides of the street and restripe the southbound approach lanes (west curb to centerline) from one eight-foot parking lane, one 10-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the northbound receiving lanes (centerline to east curb) from two 11-foot though lanes and one 8-foot parking lane to two 11-foot through lanes. An additional four-foot buffer is provided. This restriping is expected to remove approximately 16 metered parking spaces (eight on both sides of the street).

For the south leg of the intersection (from curb to curb), remove parking along both sides of the street and restripe the southbound receiving lanes (west curb to centerline) from one 8-foot parking lane, one 10-foot through lane, and one 11-foot through lane to two 11-foot through lanes; restripe the northbound approach lanes (centerline to east curb) from one 12-foot through lane, one 9-foot though/right-turn lane, and one 8-foot parking lane to two 11-foot through lanes and one 11-foot right-turn lane. An additional three-foot buffer is provided. This restriping is expected to remove approximately 24 metered parking spaces (13 on the east side and 11 on the west side of the street).

For the east leg of the intersection, remove parking along the north side of the street and restripe the westbound approach (north curb to centerline) from one 8-foot parking lane, one 20-foot right lane, and one 12-foot left-turn lane to one 11-foot right-turn lane, one 11-foot left-turn lane, and one 12-foot left-turn lane. An additional six-foot buffer is provided. This restriping is expected to remove approximately 25 non-metered parking spaces (17 on the north side and eight on the south side of the street).

To facilitate the proposed westbound approach double left-turns and due to the low hourly pedestrian volumes projected to utilize the north (up to approximately 60 pedestrian trips) and south (up to approximately 50 pedestrian trips) crosswalks at this intersection under the With-Action condition, it is recommended that the intersection signal timing/phasing be modified from a three-phase signal to a four-phase signal to add a new pedestrian-actuated phase that allows the north and south crosswalks to operate simultaneously with the permitted westbound right-turns. When activated, this phase would provide a total of 22 seconds of green, three seconds of amber, and two seconds of all-red time, providing sufficient crossing time for pedestrians to cross Eastchester Road. The existing westbound signal phase would be modified to remove the south crosswalk from this phase and to add the northbound right-turn movement. The existing northbound/southbound phase and the southbound approach/westbound right-turn phase would be maintained but a portion of signal timing from these two phases would be reallocated to the new and modified phases described earlier. As noted earlier, due to the low hourly pedestrian volumes projected to utilize the north and south crosswalks, it is anticipated that the new pedestrian-actuated phase would be activated infrequently during the analysis peak hours such that the signal effectively operates like a three-phase signal with the unused time from the pedestrian-actuated phase assumed to be allocated to the other three phases. For the HCS software capacity analysis, prorated signal timing assumptions were used to represent the aggregate effective timings for the four phases.

The significant adverse impacts at the westbound approach, northbound through/right-turn, and southbound de facto left-turn lane groups of this intersection during the weekday AM peak hour could be fully mitigated by the aforementioned lane restriping and signal timing/phasing changes.

Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the westbound left-turn (by approximately 180 seconds), at the westbound right-turn (by approximately 60 seconds), at the northbound through and right-turn (by approximately 130 seconds), and at the southbound left-turn (by approximately 170 seconds).

The significant adverse impacts at the westbound left-turn, northbound through/right-turn, and southbound de facto left-turn lane groups of this intersection during the weekday midday peak hour could be fully mitigated by the aforementioned lane restriping and signal timing/phasing changes. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the westbound left-turn (by approximately 110 seconds), at the northbound through and right-turn (by approximately 70 seconds), and at the southbound left-turn (by approximately 390 seconds).

The significant adverse impacts at the westbound approach and southbound de facto left-turn lane groups of this intersection during the weekday PM peak hour could be fully mitigated by the aforementioned lane restriping and signal timing/phasing changes except for the westbound right-turn lane group. The westbound right-turn lane group would be partially mitigated. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the westbound left-turn (by approximately 550 seconds), at the westbound right-turn (by approximately 100 seconds), and at the southbound left-turn (by approximately 110 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during the three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Eastchester Road corridor to the north and in the area southeast of Eastchester Road between Blondell Avenue and Williamsbridge Road. Furthermore, based on the parking surveys, motorists who currently park on Waters Place have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Williamsbridge Road and Eastchester Road

The significant adverse impacts at the northbound approach and the southbound through/right-turn lane group of this intersection during the weekday AM, midday, and PM peak hours could be fully mitigated remove parking along the southbound approach to provide one 11-foot right-turn lane, one 10-foot through lane, and one 11-foot left turn lane. The centerline would be moved two feet to the east parallel to the 215-feet No Standing Anytime regulation along the northbound receiving lanes. This restriping would remove approximately six metered parking spaces on the west side of the street.

For the weekday AM peak hour, shifting 11 seconds of green time from the eastbound/westbound phase to the northbound/southbound phase would also be needed to fully mitigate the impacts. For the weekday midday peak hour, shifting six seconds of green time from the eastbound/westbound phase to the northbound/southbound phase would also be needed. And for the weekday PM peak

hour, shifting 4 seconds of green time from the eastbound/westbound phase to the northbound/southbound phase would partially mitigate the impacts.

Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the northbound approach (by approximately 100 seconds) and at the southbound through and right-turn (by approximately 60 seconds) during the weekday AM peak hour. During the weekday midday peak hour, the recommended mitigation measures would substantially decrease the projected delays at the northbound approach (by approximately 120 seconds) and at the southbound through and right-turn (by approximately 190 seconds) relative the With-Action condition delays. And during the weekday PM peak hour, the recommended mitigation measures would substantially decrease the projected delays at the northbound approach (by approximately 120 seconds) and at the southbound through and right-turn (by approximately 250 seconds) relative to the With-Action condition delays.

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during the three weekday analysis peak hours and the weekday overnight. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Eastchester Road corridor to the north and in the area southeast of Eastchester Road between Blondell Avenue and Williamsbridge Road. As a result, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

East Tremont Avenue and Silver Street

The significant adverse impact at this intersection during the weekday AM, midday, and PM peak hours could not be mitigated.

Project Driveway and Marconi Street

The significant adverse impact at the westbound left-turn lane group of this intersection during the weekday PM peak hour could not be mitigated.

Waters Place and Marconi Street

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal phasing changes are proposed.

For the east leg of the intersection, remove parking along both sides of the street and restripe the westbound approach lanes (north curb to centerline) from one 8-foot parking lane, one 17-foot through/right-turn lane, and one 12-foot through lane to one 11-foot right-turn lane, one 11-foot through lane, and one 12-foot through lane. A three-foot buffer is provided. This restriping would remove approximately 50 non-metered parking spaces (22 on the north side and 28 on the south side of the street).

For the west leg of the intersection, remove parking along the approach side of the street and restripe the eastbound approach lanes (south curb to centerline) from one 8-foot parking lane, one 20-foot through lane, and one 10-foot left-turn lane to two 11-foot through lanes and one 11-foot left-turn lane. A five-foot buffer is provided. This restriping would remove approximately eight non-metered parking spaces on the south side of the street.

For the west leg of the intersection, remove parking along the westbound receiving lanes and, restripe (north curb to centerline) the existing 28-foot through lane and 12-foot through lane to a 12-foot curb lane, 11-foot through lane, and 12-foot through lane. Retain the current regulations for the curb lane: No Standing Anytime closest to the corner followed by a No Standing Bus stop

further to the west. A six-foot buffer is provided. This restriping would remove approximately 17 non-metered parking spaces on the north side of the street.

As part of the proposed mitigation, the signal phasing would be modified to permit the southbound right-turn movement to operate simultaneously with the eastbound leading signal phase and the westbound right-turn movement to operate simultaneously with the southbound signal phase.

Significant adverse impacts at the eastbound left-turn and left-turn/through, southbound right-turn, and westbound through/right-turn lane groups of this intersection are projected during the weekday AM peak hour. The aforementioned lane restriping and signal phasing changes would fully mitigate the impacts at the eastbound left-turn/through, westbound through/right-turn, and southbound right-turn lane group and would partially mitigate the impact at the eastbound left-turn lane group. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 510 seconds), at the eastbound through (by approximately 60 seconds), at the westbound through and right-turn (by approximately 50 seconds), and at the southbound right-turn (by approximately 80 seconds).

Significant adverse impacts at the eastbound de facto left-turn and the southbound approach lane groups of this intersection are projected during the weekday midday peak hour. The aforementioned lane restriping and signal phasing changes along with the following signal timing changes would fully mitigate the impacts at the southbound left-turn lane group and would partially mitigate the impacts at the eastbound de facto left-turn and southbound right-turn lane groups. The proposed signal timing changes would include shifting 12 seconds of green time from the eastbound/westbound phase to the proposed eastbound/southbound right-turn phase and shifting five seconds of green time from the eastbound/westbound phase to the southbound/westbound right-turn phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 380 seconds) and at the southbound right-turn (by approximately 330 seconds).

Significant adverse impacts at the eastbound de facto left-turn and the southbound approach lane groups of this intersection are projected during the weekday PM peak hour. The aforementioned lane restriping and signal phasing changes along with the following signal timing changes would fully mitigate the impacts at the southbound approach and would partially mitigate the impact at the eastbound de facto left-turn lane group. This would include a shift of 10 seconds of green time from the eastbound/westbound phase to the southbound/westbound right-turn phase and a shift of three seconds of green time from the eastbound/westbound phase to the eastbound/southbound right-turn leading phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 130 seconds), at the southbound left-turn (by approximately 240 seconds), and at the southbound right-turn (by approximately 760 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Waters Place corridor to the east near Fink Avenue. Furthermore, based on the parking surveys, motorists who currently park on Waters Place have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street

parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Waters Place and BPC Driveway

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal phasing changes are proposed.

For the east leg of intersection (from curb to curb), remove parking along both sides of the street and restripe the westbound approach lanes (north curb to centerline) from one 8-foot parking lane, one 11-foot through/right-turn lane, and one 10-foot through lane to one 11-foot through/right-turn lane and one 11-foot through lane; restripe the eastbound receiving lanes (centerline to south curb) from two 11-foot through lanes, and one 8-foot parking lane to two 11-foot through lanes. An additional five-foot buffer is provided. This restriping would remove approximately 22 non-metered spaces (nine on the north side and 13 on the south side of the street).

For the west leg of intersection (from curb to curb), remove parking along both sides of the street and restripe the eastbound approach lanes (south curb to centerline) from one 8-foot parking lane, one 10.5-foot through lane, and one 11-foot left-turn/through lane to two 11-foot through lanes and one 11-foot left-turn lane; restripe the westbound receiving lanes (centerline to north curb) from one 11-foot through lane, one 11.5-foot through lane, and one 8-foot parking lane to two 11-foot through lanes. An additional five-foot buffer is provided. This restriping would remove approximately 50 non-metered spaces (22 on the north side and 28 on the south side of the street).

As part of the proposed mitigation, the signal phasing would be modified to add an eastbound leading signal phase.

Significant adverse impacts are projected at the eastbound de facto left-turn lane group and westbound approach of this intersection during the weekday AM peak hour. The aforementioned lane restriping and signal phasing changes along with the following signal timing changes would fully mitigate the impacts at the eastbound de facto left-turn lane group and partially mitigate the impacts at the westbound approach lane group. This would include shifting 11 seconds of green time from the southbound phase to the eastbound leading phase (six seconds green, three seconds amber, and two seconds red). It would also include shifting two seconds of green time from the southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound left-turn (by approximately 220 seconds) and at the westbound approach (by approximately 70 seconds).

Significant adverse impact are projected at the eastbound left-turn/through lane group of this intersection during the weekday midday peak hour. The aforementioned lane restriping and signal phasing changes along with the following signal timing changes would partially mitigate the impact at the eastbound left-turn/through lane group. This would include shifting 11 seconds of green time from the southbound phase to the eastbound leading phase (six seconds green, three seconds amber, and two seconds red). Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the eastbound left-turn (by approximately 100 seconds).

Significant adverse impacts are projected at the eastbound left-turn/through lane group of this intersection during the weekday PM peak hour. The aforementioned lane restriping and signal phasing changes along with the following signal timing changes would partially mitigate the

impacts at the eastbound left-turn/through lane group. This would include the shift of 11 seconds of green time from the eastbound/westbound phase and one second of green time from the southbound phase to the eastbound leading phase (seven seconds green, three seconds amber, and two seconds red). Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the eastbound left-turn (by approximately 160 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Waters Place corridor to the east near Fink Avenue. Furthermore, based on the parking surveys, motorists who currently park on Waters Place have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Waters Place and Fink Avenue/HRP Southbound Off-Ramp

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping is proposed.

For the south leg of intersection (from curb to curb), remove the parking on both sides of the street and restripe the northbound lanes from one 8-foot parking lane and a 12-foot left/right-turn lane to one 11-foot left-turn lane and one 11-foot right-turn lane. Restripe the southbound receiving lanes from one 8-foot parking lane and one 11-foot through lane to one 11-foot receiving lane. An additional six-foot buffer is provided. This restriping would remove approximately 18 non-metered parking spaces (nine on both sides of the street).

Significant adverse impacts at the northbound approach and the southbound right-turn lane groups of this intersection are projected during the weekday AM peak hour. Feasible mitigation measures for the northbound approach and southbound right-turn lane impacts could not be identified. The northbound approach impact could be partially mitigated by the aforementioned lane restriping changes and by shifting seven seconds of green time from the eastbound/westbound phase to the northbound/southbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the northbound left-turn and right-turn (by more than 500 seconds).

Significant adverse impacts at the eastbound approach and northbound approach of this intersection are projected during the weekday PM peak hour. The northbound approach impact could be fully mitigated, and the eastbound approach impact partially mitigated, by the aforementioned lane restriping changes and by shifting four seconds of green time from the northbound/southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound approach (by approximately 50 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is some limited parking available within the Waters Place corridor

to the west of Fink Avenue. As a result, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Westchester Avenue and Ericson Place/Middletown Road

Significant adverse impacts are projected at this intersection during the weekday AM, midday, and PM peak hours. The following lane restriping and signal phasing changes are proposed.

For the southbound approach (Middletown Road), remove the parking on the receiving approach and restripe the lanes from one 8-foot parking lane and a 15-foot left-turn/through/right-turn lane to one 8-foot parking lane, one 11-foot right-turn lane, and one 11-foot left-turn/through lane. Move the centerline nine feet towards the west curb line to create one 17-foot receiving lane. This restriping would remove approximately eight metered parking spaces on the east side of the street.

For the northbound approach (Ericson Place), remove the parking on the left (along the median) and restripe the lanes from one 8-foot parking lane, one 20-foot left-turn/through/right-turn lane, and one 8-foot parking lane to one 8-foot parking lane, one 11-foot left-turn/through lane, and one 11-foot through/right lane with a six-foot buffer. This restriping would remove approximately nine non-metered parking spaces on the west side of the street.

As part of the proposed mitigation, the signal phasing would be modified to permit the southbound right-turn movement to operate simultaneously with the eastbound leading signal phase.

Significant adverse impacts are projected at the southbound approach, northbound approach, westbound left-turn/through, and eastbound de facto left-turn and through/right-turn lane groups of this intersection during the weekday AM peak hour. The aforementioned lane restriping changes and signal phasing and the following signal timing changes would fully mitigate the impacts on the eastbound through/right-turn and southbound approach lane groups and partially mitigate the impacts on the eastbound de facto left-turn, westbound left-turn/through, and northbound approach lane groups. This would include a shift of one second of green time from the southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the eastbound de facto left-turn (by approximately 80 seconds) and at the southbound approach (by approximately 150 seconds).

Significant adverse impacts are projected at the southbound approach, westbound left-turn/through, and eastbound through/right-turn and de facto left-turn lane groups of this intersection during the weekday midday peak hour. The aforementioned lane restriping changes and signal phasing and the following signal timing changes would fully mitigate the impacts on the southbound approach lane groups and partially mitigate the impacts on the westbound left-turn/through and eastbound through/right-turn and de facto left-turn lane groups. This would include a shift of one second of green time from the southbound phase eastbound/southbound right-turn leading phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound de facto left-turn (by approximately 110 seconds) and at the southbound approach (by approximately 150 seconds).

Significant adverse impacts are projected at the southbound approach, northbound approach, westbound left-turn/through, and eastbound through/right-turn and de facto left-turn lane groups of this intersection during the weekday PM peak hour. The aforementioned lane restriping changes and signal phasing and the following signal timing changes would fully mitigate the impacts on

the westbound left-turn/through, northbound approach, and southbound approach lane groups and partially mitigate the impacts on the eastbound through/right-turn and de facto left-turn lane groups. This would include a shift of one second of green time from the southbound phase to the eastbound/westbound phase. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the eastbound de facto left-turn (by approximately 90 seconds) and at the southbound approach (by approximately 230 seconds).

Based on observations and an inventory of neighborhood parking utilization, the proposed reduction in parking for this location was examined during all three weekday analysis peak hours and the weekday overnight period. Although parking would be generally unavailable during the weekday midday period, there is very limited parking available within the surrounding residential neighborhood. As a result, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of this location during the weekday analysis peak hours.

Waters Place and Westchester Avenue

The significant adverse impacts at the southbound approach and northbound de facto left-turn lane groups of this intersection during the weekday AM peak hour could not be fully mitigated. Shifting four seconds of green time from the eastbound phase to the northbound/southbound phase would fully mitigate the impact to the southbound approach and would partially mitigate the impact to the northbound de facto left-turn lane group. Furthermore, relative to the With-Action condition delays, the recommended mitigation measures would substantially decrease the projected delays at the northbound de facto left-turn (by approximately 300 seconds), at the northbound through/right-turn (by approximately 50 seconds), and at the southbound approach (by approximately 60 seconds).

The significant adverse impacts at the northbound de facto left-turn and through/right-turn lane groups of this intersection during the weekday midday peak hour could not be mitigated. No mitigation measures could be applied to the northbound lane groups without causing or worsening a significant adverse impact to another lane group.

The significant adverse impacts at the northbound approach and eastbound left-turn/through lane groups of this intersection during the weekday PM peak hour could not be mitigated. No mitigation measures could be applied to either the eastbound or northbound lane groups without causing or worsening a significant adverse impact to another lane group.

Waters Avenue and Westchester Avenue

The significant adverse impacts at the eastbound approach and northbound approach of this intersection during the weekday AM peak hour could not be mitigated.

Tan Place and Westchester Avenue

The significant adverse impacts at the westbound right-turn and northbound through lane group of this intersection during the weekday AM peak hour could not be mitigated. No mitigation measures could be applied to either the westbound or northbound lane groups without causing a significant adverse impact to another lane group.

Blondell Avenue and Westchester Avenue

The significant adverse impacts at the northbound left-turn/through lane group of this intersection during the weekday AM peak hour could not be mitigated.

The significant adverse impacts at the northbound left-turn/through lane group of this intersection during the weekday PM peak hour could be fully mitigated by shifting four seconds of green time from the westbound phase to the northbound/southbound phase.

East Tremont Avenue and Westchester Avenue

The significant adverse impact at the northbound left-turn/through lane group of this intersection during the weekday AM peak hour could not be mitigated.

The significant adverse impact at the northbound left-turn/through lane group of this intersection during the weekday midday peak hour could be fully mitigated by shifting two seconds of green time from the eastbound/westbound phase to the northbound/southbound phase.

The significant adverse impact at the northbound left-turn/through lane group of this intersection during the weekday PM peak hour could be fully mitigated by shifting four seconds of green time from the eastbound/westbound phase to the northbound/southbound phase.

Commerce Avenue and Westchester Avenue

The significant adverse impacts at the northbound approach and southbound de facto left-turn lane group of this intersection during the weekday AM peak hour could be partially mitigated by shifting four seconds of green time from the eastbound/westbound phase to the northbound/southbound phase. Furthermore, relative to the With-Action condition delay, the recommended mitigation measures would substantially decrease the projected delay at the southbound de facto left-turn (by approximately 90 seconds).

The significant adverse impact at the southbound approach of this intersection during the weekday PM peak hour could be fully mitigated by shifting four seconds of green time from the eastbound/westbound phase to the northbound/southbound phase.

East Tremont Avenue and Ericson Place

The significant adverse impacts at the westbound through and northbound approach lane groups of this intersection during the weekday AM peak hour could not be mitigated.

The significant adverse impacts at the northbound approach of this intersection during the weekday midday peak hour could be fully mitigated by shifting one second of green time from the eastbound/westbound phase to the northbound phase.

The significant adverse impact at the northbound approach of this intersection during the weekday PM peak hour could not be mitigated.

East-West Road and HRP Service Road

The significant adverse impacts at the southbound (HRP) right-turn lane and the southbound (Pelham Parkway) through/right-turn lane groups of this intersection during the weekday AM peak hour could not be mitigated. No mitigation measures could be applied to either the southbound lane groups without causing a significant adverse impact to another lane group.

The significant adverse impacts at the eastbound right-turn and southbound (Pelham Parkway) approach lane groups of this intersection during the weekday PM peak hour could not be mitigated. No mitigation measures could be applied to either the eastbound or southbound lane groups without causing a significant adverse impact to another lane group.

Effects of Traffic Mitigation on Pedestrian Operations

As described above, intersection operations would improve overall with the implementation of the recommended traffic mitigation measures, which include signal timing changes, restriping and changes to parking regulations. These changes were incorporated into the pedestrian impact analyses and would not result in significant adverse pedestrian impacts.

Effects of Traffic Mitigation on Parking

As described above, some of the recommended traffic mitigation measures would necessitate the removal of existing on-street parking spaces along certain roadways near the impacted traffic intersections. **Table 22-8** summarizes the number and the type of on-street parking spaces that would need to be removed near these intersections.

Table 22-8
Summary of On-Street Parking Spaces Removed
by Phase II Recommended Traffic Mitigation Measures

Roadway	From	To	Direction	Lateral Parking Removed (ft)	Existing Parking Type/Regulation	Estimated Number of Metered Spaces Removed	Estimated Number of Non-Metered Spaces Removed
Eastchester Road	Morris Park Avenue	Wilkinson Avenue	Northbound	250	Alternate Side, Bus Stop		10
Eastchester Road	Morris Park Avenue	Wilkinson Avenue	Southbound	250	Alternate Side, Metered, Bus Stop	10	
Eastchester Road	Bassett Avenue	Waters Place	Northbound	250	Alternate Side, Metered, Bus Stop	8	
Eastchester Road	Bassett Avenue	Waters Place	Southbound	250	Alternate Side, Metered, Bus Stop	8	
Eastchester Road	Blondell Avenue	Waters Place	Northbound	250	Alternate Side, Metered	13	
Eastchester Road	Blondell Avenue	Waters Place	Southbound	250	Metered	11	
Eastchester Road	Blondell Avenue	Williamsbridge Road	Southbound	250	Metered	6	
Ericson Place	Edwards Avenue	East Tremont Avenue	Northbound	250	No Regulation		9
Ericson Place	Roebling Avenue	Middletown Road	Northbound (Left)	250	Metered	13	
Fink Avenue	Waters Avenue	Waters Place	Northbound	180	No Regulation		9
Fink Avenue	Waters Place	Waters Avenue	Southbound	180	No Regulation		9
Middletown Road	Westchester Avenue	Mulford Avenue	Eastbound	250	Alternate Side, Metered	8	
Silver Street	Williamsbridge Road	East Tremont Avenue	Southbound	250	Alternate side		8
Waters Place	Fink Avenue	Bronx Psych Driveway	Eastbound	250	Alternate Side, Bus Stop		13
Waters Place	Fink Avenue	Bronx Psych Driveway	Westbound	250	Alternate Side, Bus Stop		9
Waters Place	Marconi Street	Bronx Psych Driveway	Eastbound	630	Alternate Side, Bus Stop		28
Waters Place	Marconi Street	Bronx Psych Driveway	Westbound	500	Alternate Side, Bus Stop		22
Waters Place	Eastchester Road	Marconi Street	Eastbound	250	Alternate Side, Bus Stop		8
Waters Place	Eastchester Road	Marconi Street	Westbound	410	Alternate Side, Bus Stop		17

On-street parking was observed to be generally well-utilized near the above intersections during the weekday midday peak period, with limited parking available in the immediate vicinity of these intersections to accommodate the displaced parking spaces. For the Waters Place corridor, motorists who currently park there have been identified to be mostly MTA employees who work at the Pelham train yard on the south side of Waters Place. The developer would be willing to work with the MTA on providing on-site parking on the project site for these employees whose current on-street parking spaces would be displaced by the recommended mitigation measures. However, it is unlikely that the displaced parking spaces could be fully accommodated within close proximity of these intersections during the weekday analysis peak hours.

TRAFFIC—FREEWAY FACILITIES (HRP)

As discussed in Chapter 14, "Transportation," freeway facility traffic conditions were evaluated for the northbound and southbound HRP for the weekday AM, midday, and PM peak periods. In both the

2023 With-Action without HRP Improvements and 2028 With-Action with HRP Improvements conditions, the proposed project would not result in the potential for significant adverse traffic impacts for the HRP mainline and ramps. This conclusion is based on the analysis results from the FREEVAL highway analysis methodologies. Because some of the projected queues, based on the HCS analysis, for the adjacent intersections could extend beyond the corresponding ramp analysis segments, actual conditions may be worse than the reported levels of service. Accordingly, four freeway locations under the 2023 With-Action conditions and two freeway locations under the 2028 With-Action conditions could experience potential significant adverse impacts.

Based on the recommended traffic intersection mitigations presented above, the potential effects on the impacted freeway locations are discussed below.

2023 WITH-ACTION (WITHOUT HRP IMPROVEMENTS)

The northbound HRP mainline segment south of the East Tremont Avenue off-ramp (Exit 2) and the East Tremont Avenue off-ramp could experience potential significant adverse impacts during the weekday AM and PM peak periods. The recommended traffic mitigation measures at the East Tremont Avenue and Ericson Place intersection during the weekday AM peak hour would not change the northbound approach 95th percentile queue relative to the With-Action condition. Therefore, the projected freeway facility impacts during the weekday AM peak period could not be fully mitigated. For the weekday PM peak hour, the recommended traffic mitigation measures at the East Tremont Avenue and Ericson Place intersection would decrease the northbound approach 95th percentile queue such that it would no longer extend beyond the corresponding ramp analysis segment. Therefore, the projected freeway facility impacts during the weekday PM peak period would be mitigated.

The southbound HRP mainline segment north of the Waters Place (Exit 2) and the Waters Place off-ramp could experience potential significant adverse impacts during the weekday AM, midday, and PM peak periods. The recommended traffic mitigation measures at the Waters Place and Fink Avenue/HRP SB Off-ramp intersection during the weekday AM peak hour are expected to decrease the southbound approach 95th percentile queues. However, the overall 95th percentile queue length is still projected to extend beyond the corresponding ramp analysis segment such that the projected freeway facility impacts during the weekday AM peak period could not be fully mitigated. During the weekday midday and PM peak hours, the recommended traffic mitigation measures at the Waters Place and Fink Avenue/HRP SB Off-ramp intersection are not expected to change the southbound approach 95th percentile queues relative to the With-Action condition. Therefore, the projected freeway facility impacts during the weekday midday and PM peak periods could not be fully mitigated.

2028 WITH-ACTION (WITH HRP IMPROVEMENTS)

The northbound HRP mainline segment south of the East Tremont Avenue off-ramp (Exit 2) and the East Tremont Avenue off-ramp could experience potential significant adverse impacts during the weekday AM and PM peak periods. No feasible traffic mitigation measures were identified at the East Tremont Avenue and Ericson Place intersection during the weekday AM and PM peak hours. Therefore, there would be no changes to the northbound approach 95th percentile queues relative to the With-Action condition and the projected freeway facility impacts during the weekday AM and PM peak periods could not be fully mitigated.

TRANSIT

BUS LINE-HAUL

As detailed in Chapter 14, "Transportation," the proposed project would result in significant adverse bus line-haul impacts on the northbound Bx21 and the eastbound and westbound Bx24 during the weekday AM peak period and on the eastbound and westbound Bx24 during the weekday PM peak period. Specifically, in the 2023 With-Action condition, there would be the potential for significant adverse bus line-haul impacts for the westbound Bx24 during the weekday AM peak hour and the eastbound and westbound Bx24 during the weekday PM peak hour. In the 2028 With-Action condition, there would be the potential for significant adverse bus line-haul impacts for the northbound Bx21 and eastbound and westbound Bx24 during the weekday AM peak hour, and the eastbound and westbound Bx24 during the weekday PM peak hour. **Table 22-9** summarizes the potential bus line-haul impacts for both the 2023 and 2028 With-Action conditions.

Table 22-9
Summary of Significant Adverse Transit (Bus Line-Haul) Impacts

Bus Route	2023 With-Action		2028 With-Action	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Bx21 Northbound			X	
Bx21 Southbound				
Bx24 Eastbound		X	X	X
Bx24 Westbound	X	X	X	X
Total Impacted	**1**	**2**	**3**	**2**

Notes: X = Impacted

Table 22-10 provides a comparison of the No-Action service and the number of buses required to fully mitigate the identified significant adverse line-haul impacts along the Bx24 bus route under the 2023 With-Action condition.

Table 22-10
2023 Mitigated With-Action Condition Bus Line-Haul Analysis

Peak Hour (1)	Route	Direction	Maximum Load Point	With-Action Condition			With-Action Condition with Mitigation		
				No-Action Peak Hour Buses (2)	No-Action Available Capacity (3)	Available Capacity with Proposed Action	Mitigated With-Action Peak Hour Buses (4)	No-Action Available Capacity (3)	Available Capacity with Proposed Action and Mitigation
AM	Bx24	EB	Research Ave & Ampere Ave	2	78	32	2	78	32
	Bx24	WB	Pelham Bay Station	3	47	**-103**	**5**	47	5
PM	Bx24	EB	Pelham Bay Station	3	49	**-107**	**5**	49	1
	Bx24	WB	Pelham Bay Station	2	47	**-11**	**3**	47	43

Notes:
(1) Peak Hours: 7:30-8:30 AM and 4:00-5:00 PM.
(2) Assumes service adjustment to address capacity shortfalls in No-Action condition.
(3) Available capacity per NYCT loading guidelines of 54 passengers per standard bus and 85 passengers per articulated bus.
(4) Total number of buses per hour so that NYCT loading guideline capacities would not be exceeded.

Table 22-11 provides a comparison of the No-Action service and the number of buses required to fully mitigate the identified significant adverse line-haul impacts along the Bx21 and Bx24 bus routes under the 2028 With-Action condition.

Table 22-11
2028 Mitigated With-Action Condition Bus Line-Haul Analysis

Peak Hour (1)	Route	Direction	Maximum Load Point	With-Action Condition			With-Action Condition with Mitigation		
				No-Action Peak Hour Buses (2)	No-Action Available Capacity (3)	Available Capacity with Proposed Action	Mitigated With-Action Peak Hour Buses (4)	No-Action Available Capacity (3)	Available Capacity with Proposed Action and Mitigation
AM	Bx21	NB	Morris Park Ave & White Plains Rd	8	28	**-12**	**9**	28	42
	Bx21	SB	Boston Rd & E 169 St	11	41	41	11	41	41
	Bx24	EB	Research Ave & Ampere Ave	2	78	**-6**	**3**	78	48
	Bx24	WB	Pelham Bay Station	3	47	**-222**	**8**	47	48
PM	Bx21	NB	3 Ave & E 149 St	8	80	73	8	80	73
	Bx21	SB	Morris Park Ave & White Plains Rd	8	67	25	8	67	25
	Bx24	EB	Pelham Bay Station	3	49	**-243**	**8**	49	27
	Bx24	WB	Pelham Bay Station	2	47	**-52**	**3**	47	2

Notes:
(1) Peak Hours: 7:30-8:30 AM and 4:00-5:00 PM.
(2) Assumes service adjustment to address capacity shortfalls in No-Action condition.
(3) Available capacity per NYCT loading guidelines of 54 passengers per standard bus and 85 passengers per articulated bus.
(4) Total number of buses per hour so that NYCT loading guideline capacities would not be exceeded.

While NYCT routinely monitors changes in bus ridership and would make the necessary service adjustments where warranted, these service adjustments are subject to the agency's fiscal and operational constraints and, if implemented, are expected to take place over time.

C. AIR QUALITY

Chapter 15, "Air Quality," presents the maximum predicted carbon monoxide (CO) and particulate matter (PM_{10} and $PM_{2.5}$) concentrations related to traffic generated by the proposed project, and concludes that Phase I of the proposed project would not result in any significant adverse air quality impacts. If Phase II of the proposed project (2028 With-Action condition) advances, the intersections of Marconi Street and Waters Place and Waters Place and Fink Avenue/HRP Southbound Off Ramp are predicted to exceed the annual *de minimis* criterion for $PM_{2.5}$ of 0.1 $\mu g/m^3$. Therefore, mitigation measures to address the air quality impacts at these locations were evaluated.

Traffic mitigation measures were developed to reduce congestion and increase speeds along Waters Place as well as other locations in the affected area. **Table 22-12** presents the results of the mobile source analysis with the proposed traffic mitigation measures for both intersections.

As shown in the table, the results of this modeling analysis (performed in accordance with methodologies described in Chapter 15, "Air Quality") indicate that annual incremental concentrations of $PM_{2.5}$ with the proposed traffic mitigation measures would be substantially lower than the With-Action condition, and would not exceed the *de minimis* criterion for $PM_{2.5}$. Therefore, no unmitigated significant adverse air quality impacts would remain upon incorporation of the traffic mitigation measures.

Table 22-12
Maximum Predicted Annual Average $PM_{2.5}$ Incremental Concentrations
2028 with HRP Improvements and Traffic Mitigations ($\mu g/m^3$)

Analysis Site	Location	Increment	Increment (With Mitigation)	*De Minimis* Criterion
2	Marconi Street and Waters Place	0.254	0.05	0.1
3	Waters Pl, Fink Ave and HRP SB Off Ramp	0.165	0.09	0.1

Note: $PM_{2.5}$ *de minimis* criterion—annual (neighborhood scale), 0.1 $\mu g/m^3$.

D. CONSTRUCTION

TRAFFIC

As discussed in Chapter 20, "Construction," construction of the proposed project would result in temporary significant adverse traffic impacts during the peak construction period for both Phase I and Phase II construction.

For the 2022 Phase I construction With-Action condition, five of the analyzed intersections would be significantly impacted during the weekday 6 AM to 7 AM construction peak hour and 12 of the analyzed intersections would be significantly impacted during the weekday 3 PM to 4 PM construction peak hour. As detailed in Chapter 20, "Construction," the same or similar traffic mitigation measures identified to mitigate the operational impacts could be implemented early at the discretion of NYCDOT to mitigate the temporary impacts during construction. With the implementation of traffic mitigation measures, the significant adverse traffic impacts identified during the weekday AM construction peak hour could be fully mitigated at all but one intersection and the significant adverse traffic impacts identified during the weekday PM peak hour could be fully mitigated at all but four intersections. Impacts at the Westchester Avenue and Ericson Place/Middletown Road intersection could not be fully mitigated during the weekday AM construction peak hour and impacts at the Morris Park Avenue and Eastchester Road; Marconi Street and Project Driveway; Westchester Avenue and Ericson Place/Middletown Road; and Waters Place and Westchester Avenue intersections could not be fully mitigated during the weekday PM construction peak hour.

For the 2027 Phase II construction With-Action condition, six of the analyzed intersections would be significantly impacted during the weekday 6 AM to 7 AM construction peak hour and 14 of the analyzed intersections would be significantly impacted during the weekday 3 PM to 4 PM construction peak hour. As detailed in Chapter 20, "Construction," the same or similar traffic mitigation measures identified to mitigate the operational impacts could be implemented early at the discretion of NYCDOT to mitigate the temporary impacts during construction. The recommended traffic mitigation measures are expected to be effective in mitigating all of the significant adverse traffic impacts identified during the weekday AM construction peak hour and all of the significant adverse traffic impacts identified during the weekday PM peak hour except for six intersections. Impacts at the Morris Park Avenue and Eastchester Road; East Tremont Avenue and Silver Street; Waters Place and Marconi Street; Waters Place and Fink Avenue/HRP Southbound Off-Ramp; Westchester Avenue and Ericson Place/Middletown Road; and Waters

Place and Westchester Avenue intersections could not be fully mitigated during the weekday PM construction peak hour. ✷