

A. INTRODUCTION

The preceding chapters of this environmental impact statement (EIS) discuss the potential for significant adverse impacts to result from the proposed Lambert Houses project. Where such potential impacts have been identified—in the areas of community facilities (schools), shadows (on historic resources and open space), and transportation (traffic, pedestrians)—measures are examined to minimize or eliminate the anticipated impacts to the fullest extent practicable. These mitigation measures are discussed below.

Areas in which the proposed project would result in significant adverse impacts that cannot be fully mitigated through reasonably practicable measures are discussed in Chapter 22, “Unavoidable Adverse Impacts.”

B. SCHOOLS

The Development Site is located in Sub-district 2 of Community School District (CSD) 12. Since the proposed project would result in the introduction of a new residential population, which would create new demands on local school resources, the EIS assessed the effects on school capacity within Sub-district 2 of CSD 12. As discussed in Chapter 4, “Community Facilities,” based on the public school student generation rates provided in the *CEQR Technical Manual*, the proposed project would result in 934 units over the No Action condition. These units could introduce approximately 364 elementary students, 149 intermediate school students, and 177 high school students.

ELEMENTARY SCHOOLS

The proposed project includes the option to construct a new public elementary school (grades kindergarten through fifth) of approximately 86,608 square feet on a portion of Parcel 10, subject to approvals and requirements of the School Construction Authority (SCA). This school would increase the elementary school capacity of Sub-district 2/CSD 12 by 500 seats and would accommodate all project-generated demand for elementary school seats. With the development of the proposed public elementary school on Parcel 10, the proposed project would introduce more new capacity than elementary school students. As a result, the proposed project would decrease the elementary school utilization rate by approximately 3.55~~four~~ percentage points. Therefore, because the proposed action would not increase elementary school utilization rate, the proposed project would not result in a significant adverse impact on elementary schools in the study area.

The FEIS analyzes an alternative (the “No School Alternative”) which replaces the proposed school on parcel 10 with an additional 55 residential units. As described in Chapter 20, “Alternatives,” the FEIS discloses the potential for significant adverse impacts to elementary schools under this alternative. To mitigate this potential impact, the SCA will continue its efforts

to secure sites for the seats that have already been funded for this subdistrict. Furthermore, elementary school enrollment in Sub-district 2/CSD 12 will be monitored by DOE during the remaining years of the current Five-Year Capital Plan for Fiscal Years 2015-2019 and the two succeeding Five-Year Capital Plans for Fiscal Years 2020-2024 and Fiscal Years 2024-2029. If a need for additional capacity is identified, DOE will evaluate the appropriate timing and mix of measures to address increased school enrollment. The various measures utilized by DOE to address increased school enrollments include: relocating DOE administrative functions to other sites, thereby freeing up space for classrooms; restructuring or reprogramming existing school space within the district and, development of additional public school capacity through new construction or expansion of existing school facilities. If additional school construction is warranted, and funding is available, it will be identified in the Five-Year Capital Plan that covers the period in which the capacity need would occur (see FEIS Appendix 21).

The applicant, Phipps Houses, is in discussions with SCA and will continue to work with SCA to determine appropriate terms for the proposed 500-seat elementary school as the phased project is constructed; these terms will be formalized in a Letter of Intent (LOI).

~~The applicant is in discussions with SCA and will continue to work with SCA to determine appropriate terms for the proposed 500-seat elementary school between the DEIS and FEIS; these terms will be formalized in a Letter of Intent (LOI).~~

INTERMEDIATE SCHOOLS

As discussed in Chapter 4, “Community Facilities,” the intermediate school students introduced by the proposed project would increase utilization in Sub-district 2/CSD 12 by 8.33-01 percent compared with the No Action condition. The proposed project would result in an increase in the intermediate school utilization rate of more than 5 percentage points, and therefore the proposed project would result in a significant adverse impact on intermediate schools.

~~Measures to mitigate the impact on intermediate schools will be explored further between the DEIS and FEIS. Potential mitigation measures for the proposed action’s impacts on intermediate school enrollment could include administrative the following actions undertaken by DOE: relocating Department administrative functions to other sites, thereby freeing up space for classrooms; restructuring or reprogramming existing school space within the district and, development of additional public school capacity through new construction or expansion of existing school facilities. If additional school construction is warranted, and funding is available, it will be identified in the Five Year Capital Plan that covers the period in which the capacity need would occur.~~

~~, such as shifting the boundaries of school catchment areas within the CSD to move students to schools with available capacity, or creating new satellite facilities in less crowded schools. SCA and DOE could also commit to monitoring conditions in the district and address future needs in the Capital Plan as appropriate. To mitigate the identified intermediate schools impact, the SCA will continue its efforts to secure sites for the seats that have already been funded for this subdistrict. Furthermore, intermediate school enrollment in Sub-district 2/CSD 12 will be monitored by DOE during the remaining years of the current Five-Year Capital Plan for Fiscal Years 2015-2019 and the two succeeding Five-Year Capital Plans for Fiscal Years 2020-2024 and Fiscal Years 2024-2029. If a need for additional capacity is identified, DOE will evaluate the appropriate timing and mix of measures to address increased school enrollment. The various measures utilized by DOE to address increased school enrollments include: relocating DOE administrative functions to other sites, thereby freeing up space for classrooms; restructuring or~~

~~reprogramming existing school space within the district and, development of additional public school capacity through new construction or expansion of existing school facilities. If additional school construction is warranted, and funding is available, it will be identified in the Five-Year Capital Plan that covers the period in which the capacity need would occur (See FEIS Appendix 21). enrollment in Sub-district 2/CSD 12 will be monitored by DOE during the remaining years of the current Five Year Capital Plan for Fiscal Years 2015-2019 and the two succeeding Five-Year Capital Plans for Fiscal Years 2020-2024 and Fiscal Years 2024-2029. If a need for additional capacity is identified, DOE will evaluate the appropriate timing and mix of measures, identified above, to address increased school enrollment (see Appendix 21).~~

~~Absent the implementation of measures by SCA or DOE, the proposed project would result in an unmitigated significant adverse impact on intermediate school seat demand if projections prove correct.~~

HIGH SCHOOLS

~~The proposed project would not result in any potential significant adverse impacts on high school seats, and no mitigation is required.~~

C. SHADOWS

As discussed in Chapter 6, “Shadows,” the shadow study concluded that new project-generated shadows would be cast on the east façade windows of the Beck Memorial Presbyterian Church, adjacent to Parcel 3 at 980 East 180th Street. The church has been determined eligible for listing on the State/National Registers of Historic Places and as a New York City Landmark.

The church’s east façade windows would receive between two and a quarter and four and a half hours of incremental shadow in the mornings, depending on the season. At times, the new shadow would eliminate the remaining sunlight from the east windows of the church. Therefore, given the substantial extent and duration of incremental shadows, the analysis identified that the proposed project could cause significant adverse shadow impacts to the windows, if they are uncovered by shutters and viewable from within a public space in the church interior.

Site visits in late 2015 and early 2016 found the structure to be boarded up with plywood and locked, and all its windows sheathed in metal. Additional research found that services are no longer held in the building; that the building has been boarded up and locked for at least four years; and that the windows were covered up because of the building’s generally unsafe condition. No information is currently available regarding plans to re-open or make building repairs in the near future or by the 2029 build year for the proposed project. Therefore, since no mitigation measures can be identified at this time to address the potential shadows impact, ~~and~~ Should plans become available for the re-opening of the church between DEIS and FEIS, mitigation measures will be explored at that time through consultation with the New York City Landmarks Preservation Commission (LPC) and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP). Otherwise, the impact would remain unmitigated.

The shadow study also concluded that River Park, adjacent to Parcels 1, 3 and 5 of the Development Site, would receive approximately six hours of new shadows in the mid-day and afternoons of the fall, winter and early spring, and the use of the park during these times could consequently be significantly impacted. In the late spring and summer, new shadows on River Park would be more limited in duration and extent but would still be substantial in the final hour

of the analysis day and would cause significant adverse impacts in those seasons. HPD, DCP, and DPR explored measures to mitigate this impact will be explored between publication of the DEIS and FEIS and concluded that to avoid the potential impact to the adjacent church windows and to River Park, the buildings on Parcels 1, 3, and 5 would need to be substantially smaller than currently designed. The reduction in height necessary to eliminate the potential shadows impact would be substantial, and would result in the construction of fewer affordable housing units, and would thus not meet the goals of the project. Therefore, this impact would remain unmitigated.

D. TRANSPORTATION

INTRODUCTION

PRINCIPAL CONCLUSIONS

Transportation

As discussed in Chapter 12, “Transportation,” traffic conditions were evaluated at 16 intersections for the weekday AM, midday and PM peak hours. In the 2029 With Action condition, the proposed project would result in significant adverse traffic impacts at 7 intersections during the weekday AM peak hour, 3 intersections during the weekday midday peak hour, and 5 intersections during the weekday PM peak hour. Two out of the seven ~~A majority of the~~ locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of the recommended mitigation measures. However, the significant adverse impacts at the intersections of East Tremont Avenue and Boston Road/West Farms Road, East Tremont Avenue and Devoe Avenue/East 177th Street, East 177th Street and Sheridan Expressway, East 178th Street and Boston Road, and East 180th Street and Boston Road could not be fully mitigated during one or more analysis peak hours. ~~Between the DEIS and FEIS, continuing coordination between HPD and the New York City Department of Transportation (NYCDOT) would determine if identified mitigation measures can be further refined and/or additional measures could be identified as feasible to address the unmitigated impacts. If such mitigation measures are identified to be feasible, some of the unmitigated impacts could become mitigated. On the other hand, if any of the mitigation measures identified to be feasible in the DEIS are determined to be infeasible, there could be additional unmitigated impacts disclosed.~~

Pedestrian conditions were evaluated at 15 sidewalks, 8 corners, and 6 crosswalks for the weekday peak hours. In the 2029 With Action condition, the proposed project would result in significant adverse pedestrian impacts at two crosswalks, one of which has two separate segments, segments of one crosswalk during the weekday ~~AM, midday, and PM~~ peak hours. Widening both segments of this crosswalk was identified to mitigate the projected pedestrian impacts.

TRANSPORTATION

TRAFFIC

As discussed in Chapter 12, “Transportation,” traffic conditions were evaluated at 16 intersections for the weekday AM, midday and PM peak hours. In the 2029 With Action condition, the proposed project would result in significant adverse traffic impacts at 7

intersections during the weekday AM peak hour, 3 intersections during the weekday midday peak hour, and 5 intersections during the weekday PM peak hour, as summarized in **Table 21-T1**.

Table 21-T1
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 | | | |
| East 180th Street | Boston Road | WB-LTR SB-LTR | | WB-LTR SB-LTR |
| East 180th Street | Devoe Avenue | EB-TR | | |
| East 178th Street | Boston Road | EB-LR | | EB-LR |
| East Tremont Avenue | Daly Avenue | SB-LTR | | |
| East Tremont Avenue | Boston Road/West Farms Road | WB-LTR NB-LTR (Boston Road) SB-DefL | WB-LTR NB-LTR (West Farms Road) NB-LTR (Boston Road) SB-DefL SB-LTR | WB-LTR NB-LTR (West Farms Road) NB-LTR (Boston Road) SB-DefL |
| East Tremont Avenue | Devoe Avenue/East 177th Street | NB-L | NB-L | NB-L |
| East 177th Street/Sheridan Expressway | Devoe Avenue/East 177th Street | SB-LT SB-R | SB-LT | EB-LTR SB-LT |
| Total Impacted Intersections/Lane Groups | | 7/11 | 3/6 | 5/10 |
| Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound | | | | |

Tables 21-T2A to 21-T2C itemize the recommended mitigation measures to address the identified impacts. With the implementation of these mitigation measures, which are subject to review and approval by NYCDOT, the significant adverse traffic impacts identified above could be fully mitigated except for the intersections of East Tremont Avenue and Boston Road/West Farms Road (weekday AM, midday, and PM peak hours), East Tremont Avenue and Devoe Avenue/East 177th Street (weekday AM and PM peak hours), East 177th Street and Sheridan Expressway (weekday AM and PM peak hours), East 178th Street and Boston Road (weekday PM peak hour), and East 180th Street and Boston Road (weekday AM and PM peak hours) (See Appendix 21). ~~Between the DEIS and FEIS, continuing coordination between HPD and NYCDOT would determine if identified mitigation measures can be further refined and/or additional measures could be identified as feasible to address the unmitigated impacts. If such mitigation measures are identified to be feasible, some of the unmitigated impacts could become mitigated. On the other hand, if any of the mitigation measures identified to be feasible in the DEIS are determined to be infeasible, there could be additional unmitigated impacts disclosed.~~

A discussion of the recommended mitigation measures is provided below. **Tables 21-T3A to 21-T3C** compare the levels of service (LOS) and lane group delays for the impacted intersections under the 2029 No Action, With Action, and Mitigation conditions for the three analysis peak hours.

Table 21-T2A

Recommended Mitigation Measures - Weekday AM Peak Hour

| Intersection | No Action Signal Timing | Recommended Mitigation Measures | Recommended Signal Timing |
|---|---|---|--|
| East 180th Street and Boston Road | EB/WB: Green = 55 s NB/SB: Green = 55 s | Unmitigated | No change from No Action |
| East 180th Street and Devoe Avenue | EB/WB: Green = 55 s NB/SB: Green = 55 s | Shift 2 seconds of green time from the NB phase to the EB/WB phase. | EB/WB: Green = 57 s NB/SB: Green = 53 s |
| East 178th Street and Boston Road | EB: Green = 31 s NB/SB: Green = 79 s | Shift 2 seconds of green time from the NB/SB phase to the EB phase. | EB: Green = 33 s NB/SB: Green = 77 s |
| East Tremont Avenue and Daly Avenue | EB/WB: Green = 79 s SB: Green = 31 s | Shift 1 second of green time from the EB/WB phase to the SB phase. | EB/WB: Green = 78 s SB: Green = 32 s |
| East Tremont Avenue and Boston Road/West Farms Road | EB: Green = 27 s WB: Green = 29 s NB (Boston Road): Green = 22 s NB (West Farms Road)/SB: Green = 22 s | Unmitigated | No change from No Action |
| East Tremont Avenue and Devoe Avenue/East 177th Street | WB Lead: Green = 15 s EB/WB: Green = 47 s NB/SB: Green = 43 s | Unmitigated | No change from No Action |
| East 177th Street and Sheridan Expressway | EB/SB Right-Turn: Green = 33 s WB: Green = 54 s NB/SB: Green = 16 s | Unmitigated | No change from No Action |
| Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; LPI = Leading Pedestrian Interval | | | |

Table 21-T2B

Recommended Mitigation Measures - Weekday Midday Peak Hour

| Intersection | No Action Signal Timing | Recommended Mitigation Measures | Recommended Signal Timing |
|---|---|--|---|
| East Tremont Avenue and Boston Road/West Farms Road | EB: Green = 19 s WB: Green = 19 s NB (Boston Road): Green = 15 s NB (West Farms Road)/SB: Green = 17 s | Unmitigated | No change from No Action |
| East Tremont Avenue and Devoe Avenue/East 177th Street | WB Lead: Green = 15 s EB/WB: Green = 47 s NB/SB: Green = 43 s | Shift 2 seconds of green time from the WB phase to the NB/SB phase. | WB Lead: Green = 15 s EB/WB: Green = 45 s NB/SB: Green = 45 s |
| East 177th Street and Sheridan Expressway | EB/SB Right-Turn: Green = 33 s WB: Green = 48 s NB/SB: Green = 22 s | Shift 1 second of green time from the EB/SB Right-Turn phase to the NB/SB phase. | EB/SB Right-Turn: Green = 32 s WB: Green = 48 s NB/SB: Green = 23 s |
| Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; LPI = Leading Pedestrian Interval | | | |

Table 21-T2C

Recommended Mitigation Measures - Weekday PM Peak Hour

| Intersection | No Action Signal Timing | Recommended Mitigation Measures | Recommended Signal Timing |
|---|---|---------------------------------|---------------------------|
| East 180th Street and Boston Road | EB/WB: Green = 55 s NB/SB: Green = 55 s | Unmitigated | No change from No Action |
| East 178th Street and Boston Road | EB: Green = 31 s NB/SB: Green = 79 s | Unmitigated | No change from No Action |
| East Tremont Avenue and Boston Road/West Farms Road | EB: Green = 27 s WB: Green = 29 s NB (Boston Road): Green = 22 s NB (West Farms Road)/SB: Green = 22 s | Unmitigated | No change from No Action |
| East Tremont Avenue and Devoe Avenue/East 177th Street | WB Lead: Green = 15 s EB/WB: Green = 47 s NB/SB: Green = 43 s | Unmitigated | No change from No Action |
| East 177th Street and Sheridan Expressway | EB/SB Right-Turn: Green = 32 s WB: Green = 48 s NB/SB: Green = 23 s | Unmitigated | No change from No Action |
| Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; LPI = Leading Pedestrian Interval | | | |

Table 21-T3A
2029 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday AM Peak Hour - Signalized Intersections

| Intersection | Weekday AM | | | | | | | | | | | |
|--|----------------|-----------|-------------|-----|------------------|-----------|-------------|-----|-----------------|-----------|-------------|-----|
| | 2029 No Action | | | | 2029 With Action | | | | 2029 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 |
| East 180th Street and Boston Road | | | | | | | | | | | | |
| EB | L | 0.03 | 18.1 | B | L | 0.04 | 18.3 | B | Unmitigated | | | |
| WB | TR | 0.72 | 33.8 | C | TR | 0.77 | 37.3 | D | | | | |
| | - | - | - | - | - | - | - | - | | | | |
| | LTR | 1.02 | 72.9 | E | LTR | 1.13 | 111.2 | F + | | | | |
| | - | - | - | - | - | - | - | - | | | | |
| NB | LTR | 0.46 | 25.6 | C | LTR | 0.72 | 36.0 | D | | | | |
| SB | LTR | 0.70 | 34.5 | C | LTR | 0.92 | 60.4 | E + | | | | |
| | Intersection | | 48.4 | D | Intersection | | 69.4 | E | | | | |
| East 180th Street and Devoe Avenue | | | | | | | | | | | | |
| EB | TR | 0.75 | 34.3 | C | TR | 0.92 | 50.8 | D + | TR | 0.89 | 44.6 | D |
| WB | LT | 0.69 | 31.3 | C | LT | 0.71 | 31.9 | C | LT | 0.68 | 29.5 | C |
| NB | LR | 0.43 | 23.9 | C | LR | 0.45 | 24.1 | C | LR | 0.46 | 25.7 | C |
| | Intersection | | 30.7 | C | Intersection | | 38.1 | D | Intersection | | 35.0 | D |
| East 178th Street and Boston Road | | | | | | | | | | | | |
| EB | LR | 0.55 | 45.9 | D | LR | 0.68 | 55.9 | E + | LR | 0.63 | 50.4 | D |
| NB | T | 0.25 | 9.0 | A | T | 0.35 | 10.2 | B | T | 0.36 | 11.1 | B |
| SB | T | 0.22 | 8.6 | A | T | 0.26 | 9.0 | A | T | 0.27 | 9.9 | A |
| | Intersection | | 17.5 | B | Intersection | | 18.4 | B | Intersection | | 18.1 | B |
| East Tremont Avenue and Daly Avenue | | | | | | | | | | | | |
| EB | TR | 0.46 | 11.5 | B | TR | 0.46 | 11.5 | B | TR | 0.47 | 12.1 | B |
| WB | LT | 0.58 | 13.6 | B | LT | 0.59 | 13.8 | B | LT | 0.59 | 14.4 | B |
| SB | LTR | 0.50 | 42.3 | D | LTR | 0.67 | 48.7 | D + | LTR | 0.65 | 46.8 | D |
| | Intersection | | 17.2 | B | Intersection | | 19.7 | B | Intersection | | 19.9 | B |
| East Tremont Avenue and Boston Road/West Farms Road | | | | | | | | | | | | |
| EB | LTR | 0.71 | 48.6 | D | LTR | 0.80 | 53.0 | D + | Unmitigated | | | |
| WB | LTR | 1.77 | 395.5 | F | LTR | 1.96 | 483.2 | F + | | | | |
| NB (West Farms Road) | LTR | 2,760.36 | 856,944.8 | FD | LTR | 2,760.36 | 856,944.8 | FD | | | | |
| NB (Boston Road) | LTR | 1.25 | 187.9 | F | LTR | 1.28 | 199.0 | F + | | | | |
| SB | DefL | 1,651.48 | 384,7307.9 | F | DefL | 2,051.83 | 557,9459.9 | F + | | | | |
| | TR | 0.68 | 59.7 | E | TR | 0.70 | 61.7 | E | | | | |
| | Intersection | | 373.9355.7 | F | Intersection | | 415.7397.3 | F | | | | |
| East Tremont Avenue and Devoe Avenue/East 177th Street | | | | | | | | | | | | |
| EB | LT | 0.46 | 28.5 | C | LT | 0.47 | 28.8 | C | Unmitigated | | | |
| WB | L | 0.75 | 27.3 | C | L | 0.76 | 28.2 | C | | | | |
| | LTR | 0.93 | 43.0 | D | LTR | 0.94 | 46.2 | D | | | | |
| NB | L | 1.15 | 132.5 | F | L | 1.27 | 179.1 | F + | | | | |
| SB | TR | 0.59 | 36.1 | D | TR | 0.60 | 36.5 | D | | | | |
| | LT | 0.16 | 26.8 | C | LT | 0.22 | 27.7 | C | | | | |
| | R | 0.32 | 29.8 | C | R | 0.43 | 32.1 | C | | | | |
| | Intersection | | 50.4 | D | Intersection | | 59.2 | E | | | | |
| East 177th Street and Sheridan Expressway | | | | | | | | | | | | |
| EB | L | 0.36 | 35.5 | D | L | 0.36 | 35.6 | D | Unmitigated | | | |
| WB | LTR | 0.58 | 42.5 | D | LTR | 0.58 | 42.7 | D | | | | |
| | LT | 1.04 | 66.2 | E | LT | 1.04 | 66.2 | E | | | | |
| | R | 0.44 | 24.8 | C | R | 0.47 | 25.4 | C | | | | |
| NB | LTR | 0.62 | 79.6 | E | LTR | 0.62 | 79.6 | E | | | | |
| SB | LT | 1,902.04 | 476,8540.7 | F | LT | 2,062.20 | 549,0611.4 | F + | | | | |
| | R | 1,141.16 | 110,5120.0 | F | R | 1,221.25 | 145,3156.6 | F + | | | | |
| | Intersection | | 106.5115.2 | F | Intersection | | 123.5133.0 | F | | | | |
| Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound Bold and "+" denotes a significant adverse traffic impact | | | | | | | | | | | | |

Table 21-T3B

2029 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday Midday Peak Hour - Signalized Intersections

| Intersection | Weekday Midday | | | | | | | | | | | | | |
|--|----------------|-----------------|-------------------|-----------|------------------|-----------------|-------------------|-------------|-----------------|-----------------|------------------|-----|----------|---|
| | 2029 No Action | | | | 2029 With Action | | | | 2029 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 | | |
| East Tremont Avenue and Boston Road/West Farms Road | | | | | | | | | | | | | | |
| EB | LTR | 0.63 | 36.7 | D | LTR | 0.66 | 37.5 | D | Unmitigated | | | | | |
| WB | LTR | 1.41 | 229.5 | F | LTR | 1.47 | 253.8 | F + | | | | | | |
| NB (West Farms Road) | LTR | <u>1.540.23</u> | <u>293.334.7</u> | <u>FC</u> | LTR | <u>1.550.23</u> | <u>342.634.7</u> | <u>FC</u> + | | | | | | |
| | R | <u>1.59</u> | <u>333.0</u> | <u>E</u> | R | <u>1.65</u> | <u>360.1</u> | <u>F</u> ± | | | | | | |
| NB (Boston Road) | LTR | 1.12 | 123.7 | F | LTR | 1.13 | 128.3 | F + | | | | | | |
| SB | DefL LTR | <u>1.520.83</u> | <u>326.456.3</u> | <u>FE</u> | DefL LTR | <u>1.690.92</u> | <u>393.768.5</u> | <u>FE</u> + | | | | | | |
| | Intersection | | 475.7158.2 | | F | Intersection | | 492.4172.2 | | F | | | | |
| East Tremont Avenue and Devoe Avenue/East 177th Street | | | | | | | | | | | | | | |
| EB | LT | 0.47 | 28.7 | C | LT | 0.48 | 28.8 | C | LT | 0.50 | 30.5 | D | | |
| WB | L | 0.61 | 21.6 | C | L | 0.61 | 21.8 | C | L | 0.63 | 23.8 | B | | |
| | LTR | 0.53 | 19.0 | B | LTR | 0.54 | 19.3 | B | LTR | 0.57 | 21.3 | B | | |
| NB | L | 1.14 | 131.0 | F | L | 1.20 | 150.6 | F + | L | 1.13 | 125.3 | F | | |
| | TR | 0.63 | 37.4 | D | TR | 0.64 | 37.8 | D | TR | 0.61 | 35.3 | D | | |
| SB | LT | 0.10 | 26.0 | C | LT | 0.10 | 26.0 | C | LT | 0.10 | 24.7 | C | | |
| | R | 0.11 | 26.2 | C | R | 0.11 | 26.2 | C | R | 0.10 | 24.8 | C | | |
| | Intersection | | 47.8 | | D | Intersection | | 52.5 | | D | Intersection | | 47.9 | D |
| East 177th Street and Sheridan Expressway | | | | | | | | | | | | | | |
| EB | L | 0.42 | 38.4 | D | L | 0.43 | 38.6 | D | L | 0.44 | 39.7 | D | | |
| | LTR | 0.78 | 51.9 | D | LTR | 0.79 | 52.9 | D | LTR | 0.81 | 55.7 | E | | |
| WB | LT | 0.94 | 48.8 | D | LT | 0.94 | 48.8 | D | LT | 0.94 | 48.8 | D | | |
| | R | 0.52 | 30.5 | C | R | 0.54 | 31.1 | C | R | 0.54 | 31.1 | C | | |
| NB | LTR | <u>0.580.54</u> | <u>58.055.9</u> | E | LTR | <u>0.600.56</u> | <u>59.357.3</u> | F | LTR | <u>0.540.51</u> | <u>54.352.7</u> | D | | |
| SB | LT | <u>1.400.97</u> | <u>144.2101.8</u> | F | LT | <u>1.451.02</u> | <u>159.4113.8</u> | F + | LT | <u>1.400.97</u> | <u>139.898.1</u> | F | | |
| | R | 0.57 | 23.5 | C | R | 0.58 | 23.8 | C | R | 0.57 | 23.6 | C | | |
| | Intersection | | 49.146.2 | | D | Intersection | | 50.847.4 | | D | Intersection | | 49.646.5 | D |
| Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound | | | | | | | | | | | | | | |
| Bold and “+” denote a significant adverse traffic impact | | | | | | | | | | | | | | |

Table 21-T3C
2029 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday PM Peak Hour - Signalized Intersections

| Intersection | Weekday PM | | | | | | | | | | | |
|---|----------------|-----------------|-------------------|-----------|------------------|-----------------|-------------------|-------------|-----------------|-----------|-------------|-----|
| | 2029 No Action | | | | 2029 With Action | | | | 2029 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 |
| East 180th Street and Boston Road | | | | | | | | | | | | |
| EB | L | 0.02 | 18.0 | B | L | 0.03 | 18.2 | B | Unmitigated | | | |
| WB | TR | 0.64 | 29.6 | C | TR | 0.69 | 32.1 | C | | | | |
| | - | - | - | - | - | - | - | - | | | | |
| NB | LTR | 1.05 | 82.0 | F | LTR | 1.33 | 196.6 | F + | | | | |
| | - | - | - | - | - | - | - | - | | | | |
| SB | LTR | 0.46 | 25.0 | C | LTR | 0.63 | 30.5 | C | | | | |
| | LTR | 0.78 | 39.6 | D | LTR | 0.90 | 55.2 | E + | | | | |
| | Intersection | | 50.7 | D | Intersection | | 96.9 | F | | | | |
| East 178th Street and Boston Road | | | | | | | | | | | | |
| EB | - | - | - | - | - | - | - | - | Unmitigated | | | |
| NB | LR | 0.66 | 50.4 | D | LR | 0.90 | 82.3 | F + | | | | |
| | - | - | - | - | - | - | - | - | | | | |
| | T | 0.20 | 8.5 | A | T | 0.29 | 9.4 | A | | | | |
| SB | T | 0.26 | 9.0 | A | T | 0.30 | 9.4 | A | | | | |
| | Intersection | | 20.6 | C | Intersection | | 26.5 | C | | | | |
| East Tremont Avenue and Boston Road/West Farms Road | | | | | | | | | | | | |
| EB | LTR | 0.83 | 54.9 | D | LTR | 0.88 | 58.6 | E | Unmitigated | | | |
| WB | LTR | 1.33 | 204.0 | F | LTR | 1.60 | 320.3 | F + | | | | |
| NB (West Farms Road) | LTR | <u>1.370.20</u> | <u>240.141.4</u> | <u>FD</u> | LTR | <u>1.480.20</u> | <u>289.541.4</u> | <u>FD</u> + | | | | |
| NB (Boston Road) | R | <u>1.38</u> | <u>253.7</u> | <u>E</u> | R | <u>1.53</u> | <u>319.0</u> | <u>E</u> ± | | | | |
| | LTR | 1.16 | 151.3 | F | LTR | 1.17 | 154.8 | F + | | | | |
| SB | DefL | <u>1.341.26</u> | <u>227.7206.0</u> | <u>F</u> | DefL | <u>1.631.55</u> | <u>320.4330.2</u> | <u>F</u> + | | | | |
| | TR | 0.67 | 59.7 | E | TR | 0.71 | 62.7 | E | | | | |
| | Intersection | | <u>457.6152.7</u> | F | Intersection | | <u>248.2216.1</u> | F | | | | |
| East Tremont Avenue and Devoe Avenue/East 177th Street | | | | | | | | | | | | |
| EB | LT | 0.60 | 31.2 | C | LT | 0.61 | 31.4 | C | Unmitigated | | | |
| WB | L | 0.86 | 38.8 | D | L | 0.86 | 39.8 | D | | | | |
| | LTR | 0.85 | 34.5 | C | LTR | 0.88 | 37.8 | D | | | | |
| NB | L | 1.23 | 163.2 | F | L | 1.47 | 266.1 | F + | | | | |
| | TR | 0.65 | 38.5 | D | TR | 0.69 | 40.2 | D | | | | |
| SB | LT | 0.13 | 26.3 | C | LT | 0.14 | 26.5 | C | | | | |
| | R | 0.19 | 27.3 | C | R | 0.20 | 27.5 | C | | | | |
| | Intersection | | 57.3 | E | Intersection | | 82.2 | F | | | | |
| East 177th Street and Sheridan Expressway | | | | | | | | | | | | |
| EB | L | 0.53 | 41.7 | D | L | 0.58 | 43.3 | D | Unmitigated | | | |
| WB | LTR | 0.87 | 61.1 | E | LTR | 0.92 | 68.2 | E + | | | | |
| | LT | 1.01 | 63.9 | E | LT | 1.01 | 63.9 | E | | | | |
| NB | R | 0.44 | 28.5 | C | R | 0.53 | 30.7 | C | | | | |
| | LTR | <u>0.240.16</u> | <u>43.541.7</u> | <u>D</u> | LTR | <u>0.260.17</u> | <u>44.042.0</u> | <u>D</u> | | | | |
| SB | LT | <u>0.930.90</u> | <u>83.778.5</u> | <u>FE</u> | LT | <u>0.990.96</u> | <u>96.689.7</u> | <u>F</u> + | | | | |
| | R | 0.64 | 25.2 | C | R | 0.66 | 25.9 | C | | | | |
| | Intersection | | <u>53.052.6</u> | D | Intersection | | <u>55.054.5</u> | ED | | | | |
| Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound Bold and “+” denote a significant adverse traffic impact | | | | | | | | | | | | |

East 180th Street and Boston Road

The significant adverse impacts at the westbound and southbound approaches of this intersection during the weekday AM and PM peak hours could not be mitigated.

East 180th Street and Devoe Avenue

The significant adverse impact at the eastbound approach of this intersection during the weekday AM peak hour could be fully mitigated by shifting 2 seconds of green time from the northbound phase to the eastbound/westbound phase.

Lambert Houses

East 178th Street and Boston Road

The significant adverse impact at the eastbound approach of this intersection during the weekday AM peak hour could be fully mitigated by shifting 2 seconds of green time from the northbound/southbound phase to the eastbound phase.

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

East Tremont Avenue and Daly Avenue

The significant adverse impact at the southbound approach of this intersection during the weekday AM peak hour could be fully mitigated by shifting 1 second of green time from the eastbound/westbound phase to the southbound phase.

East Tremont Avenue and Boston Road/West Farms Road

The significant adverse impacts at the westbound approach, northbound (Boston Road) approach, and southbound defacto left-turn lane group of this intersection during the weekday AM peak hour could not be mitigated.

The significant adverse impacts at the westbound approach, northbound (West Farms Road) right-turn lane group, northbound (Boston Road) approach, and southbound ~~defacto left-turn lane group~~ approach of this intersection during the weekday midday peak hour could not be mitigated.

The significant adverse impacts at the westbound approach, northbound (West Farms Road) right-turn lane group, northbound (Boston Road) approach, and southbound defacto left-turn lane group of this intersection during the weekday PM peak hour could not be mitigated.

East Tremont Avenue and Devoe Avenue/East 177th Street

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

The significant adverse impact at the northbound left-turn lane group of this intersection during the weekday midday peak hour could be fully mitigated by shifting 2 seconds of green time from the westbound phase to the northbound/southbound phase.

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

East 177th Street and Sheridan Expressway

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

The significant adverse impacts at the southbound left-turn/through lane group of this intersection during the weekday midday peak hour could be fully mitigated by shifting 1 second of green time from the eastbound/southbound right-turn phase to the northbound/southbound phase.

The significant adverse impacts at the eastbound left-turn/through/right-turn and southbound left-turn/through lane groups of this intersection during the weekday PM peak hour could not be mitigated.

PEDESTRIANS

As discussed in Chapter 12, “Transportation,” pedestrian conditions were evaluated at 15 sidewalks, 8 corners, and 6 crosswalks for the weekday peak hours. In the 2029 With Action condition, the proposed project would result in significant adverse pedestrian impacts at two crosswalks during at least one weekday peak hour: 1 crosswalk during the weekday AM, midday, and PM peak hours. Both the northern and southern segments of this one of these crosswalks would be impacted during the weekday AM, midday, and PM peak hours, while the other crosswalk would only be impacted during the weekday AM and PM peak hours, as summarized in **Table 21-T4**.

Table 21-T4
Summary of Significant Adverse Pedestrian Impacts

| Intersection | Pedestrian Element | 2029 With Action | | |
|--|--------------------------------|----------------------|--------------------------|----------------------|
| | | Weekday AM Peak Hour | Weekday Midday Peak Hour | Weekday PM Peak Hour |
| <u>East Tremont Avenue and Boston Road/West Farms Road</u> | <u>North Crosswalk</u> | <u>X</u> | | <u>X</u> |
| | East Crosswalk (North Segment) | X | X | X |
| | East Crosswalk (South Segment) | X | X | X |
| Total Impacted Pedestrian Elements | | 23 | 2 | 23 |
| Notes: X = Impacted | | | | |

Recommended measures to mitigate these significant adverse impacts are described below, and the mitigated conditions are summarized in **Table 21-T5**. The recommended mitigation measures are subject to review and approval by NYCDOT.

Table 21-T5
2029 No Action, With Action, and Mitigation Conditions
Pedestrian Level of Service Analysis

| Location | Recommended Mitigation Measures | 2029 No Action | | 2029 With Action | | 2029 Mitigation | |
|--|---------------------------------|----------------|----------|------------------|----------|-----------------|----------|
| | | SFP | LOS | SFP | LOS | SFP | LOS |
| Weekday AM Peak Hour | | | | | | | |
| <u>North Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd</u> | <u>Widen by 1 foot</u> | <u>66.0</u> | <u>A</u> | <u>22.3</u> | <u>D</u> | <u>24.4</u> | <u>C</u> |
| East Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd (North Segment) | Widen by 7.5 feet | 6.5 | F | 4.3 | F | 8.5 | F |
| East Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd (South Segment) | Widen by 6.5 feet | 1.5 | F | 0.8 | F | 1.4 | F |
| Weekday Midday Peak Hour | | | | | | | |
| East Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd (North Segment) | Widen by 7.5 feet | 14.9 | E | 13.3 | E | 12.8 | E |
| East Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd (South Segment) | Widen by 6.5 feet | 9.5 | E | 8.0 | E | 12.8 | E |
| Weekday PM Peak Hour | | | | | | | |
| <u>North Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd</u> | <u>Widen by 1 foot</u> | <u>83.3</u> | <u>A</u> | <u>22.3</u> | <u>D</u> | <u>24.4</u> | <u>C</u> |
| East Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd (North Segment) | Widen by 7.5 feet | 13.7 | E | 6.9 | F | 12.7 | E |
| East Crosswalk of East Tremont Ave and Boston Rd/West Farms Rd (South Segment) | Widen by 6.5 feet | 7.3 | F | 4.7 | F | 7.7 | F |
| Note: SFP = square feet per pedestrian; LOS = Level of Service | | | | | | | |

East Tremont Avenue and Boston Road/West Farms Road

Crosswalks

- Significant adverse impacts were identified for the north crosswalk of this intersection during the weekday AM and PM peak hours. The existing striping of this crosswalk is 42 feet in length and 15 feet in width; after the implementation of the NYCDOT intersection improvements in the No Action condition, the north crosswalk would have a striping of approximately 42 feet in length and 12 feet in width. Widening the crosswalk by 1 foot for a total width of 13 feet would mitigate the weekday AM and PM peak hour impacts. This recommended mitigation accounts for the changes in the configuration of the north crosswalk subsequent to the publication of the DEIS.
- Significant adverse impacts were identified for the north segment of the east crosswalk of this intersection during the weekday AM, midday, and PM peak hours. The existing striping of this crosswalk is 32 feet in length and 15 feet in width; after the implementation of the NYCDOT intersection improvements in the No Action condition, the north segment of the east crosswalk would have a striping of approximately 29 feet in length and 12 feet in width. Widening the crosswalk by 7.5 feet for a total width of 19.5 feet would mitigate the projected weekday AM and PM peak hour impacts.
- Significant adverse impacts were identified for the south segment of the east crosswalk of this intersection during the weekday AM, midday, and PM peak hours. The existing striping of this crosswalk is 32 feet in length and 15 feet in width; after the implementation of the NYCDOT intersection improvements in the No Action condition, the south segment of the east crosswalk would have a striping of approximately 52 feet in length and 12 feet in width. Widening the crosswalk by 6.5 feet for a total width of 18.5 feet would mitigate the projected weekday AM, midday, and PM peak hour impacts.

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 changes to existing signal timings and lane utilizations. A review of the effects of these changes on pedestrian circulation and service levels at intersection corners and crosswalks showed that they would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts. *