# A. INTRODUCTION

The preceding chapters of this Environmental Impact Statement (EIS) discuss the potential for significant adverse environmental impacts resulting from the Proposed Actions. Such potential impacts were identified in the areas of community facilities, open space, shadows, traffic, transit, pedestrians, and construction-related traffic. Measures have been examined to minimize or eliminate these anticipated impacts. These mitigation measures are discussed below.

# B. COMMUNITY FACILITIES

The community facilities analysis in Chapter 5, "Community Facilities and Services," finds that the Proposed Actions would result in the following significant adverse impacts related to community facilities:

- Elementary school impact if the PS/IS school is not completed by the interim Future with the Proposed Actions condition (2017).
- Child care impacts in the interim Future with the Proposed Actions condition (2017) and in the full Future with the Proposed Actions condition (2019).

### ELEMENTARY SCHOOLS—SCENARIO WITHOUT THE PS/IS SCHOOL 2017

If the proposed PS/IS school were not completed by 2017, the Proposed Actions would result in a significant adverse impact to elementary schools in the study area in 2017. For this scenario, the Proposed Actions would result in an increase in elementary school utilization rate of five or more percentage points in the study area (from 169 to 182 percent) indicating a significant adverse impact. Mitigation for this impact would be to build and complete the PS/IS school by 2017. This possibility will be further explored between the Draft EIS and Final EIS. In the event that the school could not be completed by 2017, the Proposed Actions would result in a temporary unmitigated significant adverse impact to elementary schools in the study area.

### CHILD CARE

The introduction of child care eligible children associated with the Proposed Actions would cause a 24 and 33 percent increases in demand over the existing capacity of child care facilities in the study area in 2017 and 2019, respectively. Therefore, the Proposed Actions would result in a significant adverse impact on publicly funded child care facilities requiring consideration of mitigation. This expected increase in demand could be offset by a number of factors. Private child care facilities and child care centers outside of the study area are not included in this analysis. Some of the increased child care demand would likely be offset by parents who choose to take their children to child care centers outside of the study area (e.g., closer to work). Some of the Family Day Care Networks serve children residing in the study area and could potentially absorb some of the demand. This new demand may also be considered in future Request for

Proposal planning for contracted services. Finally, new capacity could potentially be developed as part of the New York City Administration for Children's Services' (ACS) public-private partnership initiatives. As partial mitigation for this impact, ACS will monitor the demand and need for additional capacity and implement change to the extent practicable.

## C. OPEN SPACE

### OVERVIEW

Chapter 6, "Open Space," identifies both direct and indirect impacts on open spaces. Specifically, the Proposed Actions would result in the following significant adverse impacts on open space:

- Direct shadow impacts from the Development Site on two open space resources, to be designed and built in the future. One on the Eastern Rail Yard open space during late spring and summer, and the March and September analysis periods. The open space to the east of the Tenth Avenue Additional Housing Site would experience direct shadow impacts during all seasons.
- Indirect significant adverse impacts on the total open space and active open space in the Development Site residential study area.

### MITIGATION FOR SHADOWS ON OPEN SPACE

The *CEQR Technical Manual* identifies several different measures that could mitigate significant adverse shadow impacts on open spaces. These measures include relocating facilities within an open space to avoid sunlight loss, relocating or replacing vegetation, undertaking additional maintenance to reduce the likelihood of species loss, or replacement facilities on another nearby site. CEQR guidelines also discuss alternatives that may reduce or eliminate shadow impacts, including reorientation of the building's bulk or reorientation of the site plan.

The Eastern Rail Yard development project, which will be developed in the Future without the Proposed Actions, is expected to include a large public square and two urban plazas. The largest area will be the central open space, which will be surrounded by buildings with ground-floor retail uses. The design of this open space is still in development; however as described in Chapter 7, "Shadows," the analysis conservatively assumed that this public square will be programmed as passive open space, although some space could potentially be programmed for active use. As partial mitigation, the design of this open space would take into consideration the shadows from the Proposed Actions. Such designs could include the use of shade tolerant vegetation for landscaping and the placement of features that may require sunlight in areas of the open space with greater direct sun. This requirement would be set forth in a restrictive declaration.

The open space that will be located directly east of the Tenth Avenue Additional Housing Site, which will be developed in the Future without the Proposed Actions, will be located above the New York City Department of Environmental Protection (DEP) Water Tunnel No. 3. The design of this open space is not known at this time; however as described in Chapter 7, "Shadows," the analysis conservatively assumed that the entire open space would be heavily programmed with passive open space features, such as benches and other sitting areas, although some space could potentially be programmed for active use. The New York City Department of Parks and

Recreation (DPR), in coordination with DEP, will identify the program and design for this future open space. If it assumed that the entire open space would be heavily programmed with passive open space features, such as benches and other sitting areas, then the shadows that would result from the Proposed Actions could cause a significant adverse impact. As partial mitigation, the design and layout for this future open space would take into consideration the shadows from the Proposed Actions. Such measures could include the programming of active recreation features, the placement of features requiring sunlight to be located in areas of the open space where shadows are cast for a short duration, and the use of shade tolerant vegetation for landscaping.

### INDIRECT EFFECTS MITIGATION

Potential mitigation measures for the Proposed Actions could include, among others: creating additional open space programming on the Development Site or within the study area; funding for improvements, renovation, or maintenance at existing local parks; adding amenities to existing parks to increase park usage year-round or at night; and opening schoolyards to the public outside of school hours.

These options will be further explored and evaluated in consultation with DPR between the DEIS and FEIS. If the proposed mitigation measures are determined to be infeasible, the significant adverse impacts would remain unmitigated.

## D. SHADOWS

The identified significant shadow impacts as a result of the Proposed Actions are on the Eastern Rail Yard open space to the east of the Development Site and the open space to the east of the Tenth Avenue Additional Housing Site, both future open spaces that will be developed in the Future without the Proposed Actions. Mitigation for this impact is discussed above, in "Open Space."

## E. TRAFFIC

The Proposed Actions would result in significant adverse peak hour traffic impacts at a number of study area locations during the peak construction year (2016), in the interim Future with the Proposed Actions condition (2017), and in the full Future with the Proposed Actions condition (2019), as described in Chapter 17, "Traffic and Parking," and Chapter 21, "Construction Impacts."

In the discussion that follows, mitigation measures, consisting primarily of signal timing changes, are identified that would mitigate, either in part or in whole, the significant adverse traffic impacts of the Proposed Actions in the 2019 Build Year and the 2017 Interim Year. These mitigation measures were developed on the basis of an analysis of No Build and Build traffic conditions for the 2019 Build Year and the 2017 interim year that, for the reasons discussed in Chapter 17, "Traffic and Parking," does not assume the implementation of any of the mitigation measures referred to in the *Hudson Yards FGEIS.* As discussed in Chapter 17, "Traffic and Parking," area-wide travel patterns and traffic operations in the vicinity of the Development Site have changed significantly since the *Hudson Yards FGEIS*, such that the specific mitigation measures proposed in the *Hudson Yards FGEIS* are no longer appropriate. Also, as discussed in Chapter 17, "Traffic and Parking," the City will carry out an ongoing traffic and pedestrian monitoring program throughout the Hudson Yards area, commencing when substantial new development begins to take place in that area. If the substantial development assumed in No

Build conditions occurs, the City, as part of that monitoring program, would implement measures prior to the 2017 Interim year and 2019 Build year to alleviate resultant traffic congestion at study area intersections. In the event the Proposed Actions are adopted, the City's monitoring program would be expanded to include traffic generated by the Proposed Actions, so that mitigation for the Proposed Actions could be adjusted, and area-wide measures expanded, as necessary, in order to minimize congestion in the study area.

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

- Modification of traffic signal phasing and/or timing;
- Elimination of on-street parking within 150 feet of intersections to add a limited travel lane, known as "daylighting";
- Enforcement of existing parking restrictions to ensure that traffic lanes are available to moving traffic;
- Channelization and lane designation changes to make more efficient use of available street widths; and
- Installation of traffic signals at unsignalized intersections if warranted.

The mitigated traffic operations described in this chapter reflect the implementation of proposed traffic improvements as well as proposed pedestrian mitigation measures described in Section F, "Transit and Pedestrians." The feasibility of these mitigation measures will be assessed between the DEIS and FEIS. Where measures are not practicable or feasible, alternative measures will be identified, or impacts from the Proposed Actions would not be mitigated. Implementation of the traffic engineering improvements described above would require the approval of various agencies, depending upon the jurisdiction and type of mitigation proposed. Approval and/or implementation by the following State and City agencies would be required for each proposed measure:

- Local routes (all locations not along Route 9A) mitigation measures, including signal phasing and/or timing changes, lane re-striping and lane designation changes, and modification of parking regulations: New York City Department of Transportation (NYCDOT) and/or NYPD; and
- Route 9A (i.e., Twelfth Avenue) mitigation measures, including signal phasing and/or timing changes, lane re-and striping and lane designation changes: NYCDOT and New York State Department of Transportation (NYSDOT);
- Enforcement Options: NYPD.

Coordination with each applicable agency would be undertaken in order to implement the proposed mitigation measures. Approval of each proposed mitigation measure would depend upon the applicable agency. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

As summarized in Tables 24-1, 24-2, and 24-3 (see Section H, "Traffic and Parking Tables"), implementation of the proposed mitigation measures would provide mitigation for nearly all of the anticipated traffic impacts in the full Build year in 2019 in the Future with the Proposed Actions, interim 2017 Future with the Proposed Actions, and the 2016 peak construction year.

Of the more than 360 intersection movements evaluated for the 2019 Future with the Proposed Actions condition, 14 intersection movements would have unmitigated significant adverse impacts during the weekday AM peak hour, 4 intersection movements would have unmitigated significant adverse impacts during the weekday midday peak hours, 17 intersection movements would have unmitigated significant adverse impacts during the weekday PM peak hour and 6 intersection movements would have unmitigated significant adverse impacts during the Saturday midday peak hours.

Of the more than 360 intersection movements evaluated for the 2017 Future with the Proposed Actions condition, 10 intersection movements would have unmitigated significant adverse impacts during the weekday AM peak hour, 1 intersection movement would have unmitigated significant adverse impacts during the weekday midday peak hours, 14 intersection movements would have unmitigated significant adverse impacts during the weekday PM peak hour and 3 intersection movements would have unmitigated significant adverse impacts during the Saturday midday peak hours.

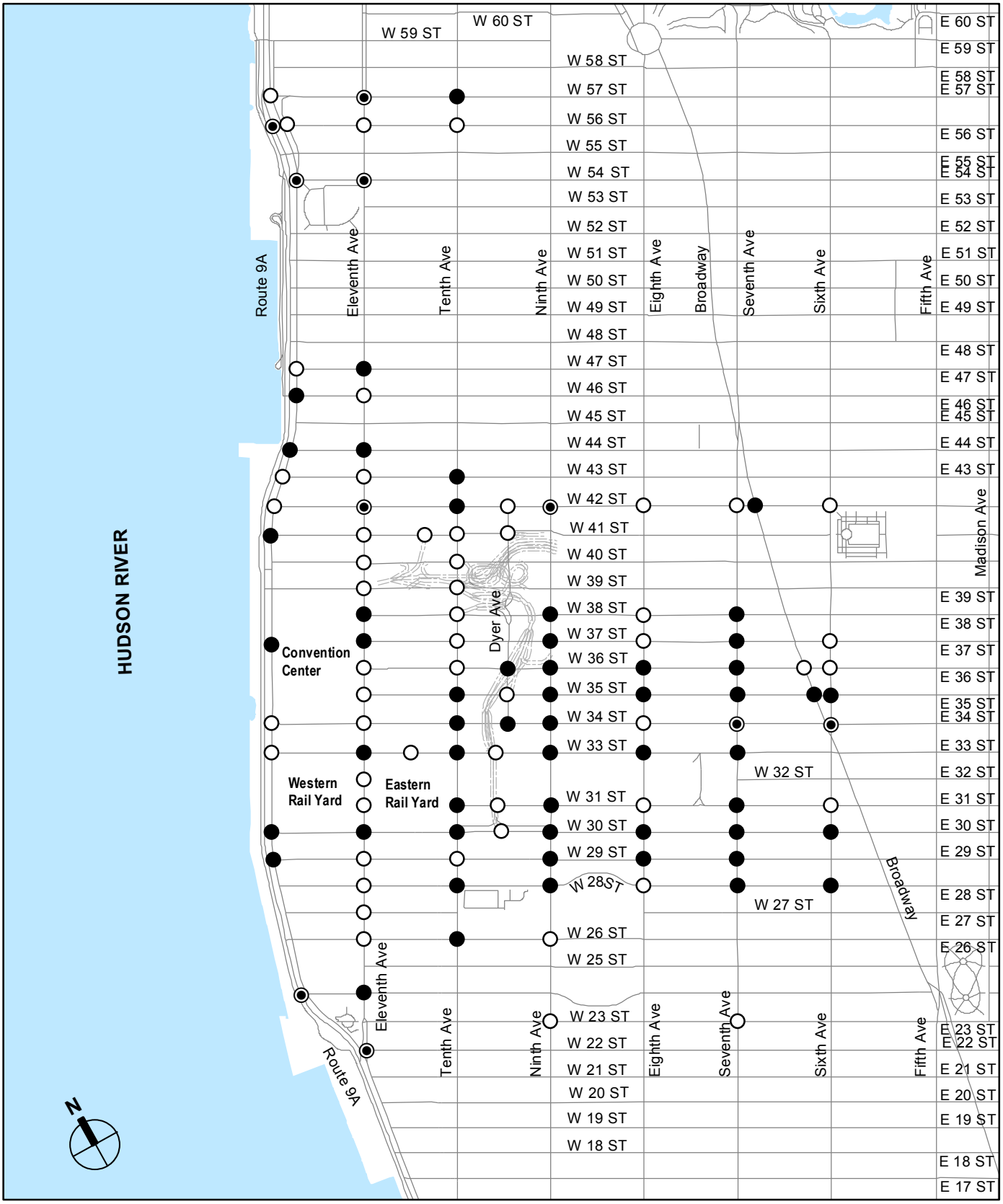
Of the approximately 70 intersection movements evaluated for the 2016 peak construction year 2016, 7 intersection movements would have unmitigated significant adverse impacts during the weekday AM peak hour, 6 intersection movements would have unmitigated significant adverse impacts during the weekday midday peak hours, and 7 intersection movements would have unmitigated significant adverse impacts during the weekday PM peak hour.

In Section H, "Traffic and Parking Tables, Tables 24-4A, 24-4B and 24-4C present approach movements with significant adverse impacts, with the mitigated v/c ratio, delay, LOS, and proposed mitigation measures to be applied for the weekday AM peak hour in 2019. Tables 24-5, 24-6, and 24-7 present the same data for the weekday midday, PM and Saturday midday, respectively, in 2019. Tables 24-8, 24-9, 24-10 and 24-11 present the same data for the weekday AM, midday, PM and Saturday midday, respectively, in 2017. Tables 24-12, 24-13, and 24-14 present the same data for the weekday AM, midday, and PM, respectively, for the 2016 construction year.

Figures 24-1 through 24-4 present the 2019 Future with the Proposed Actions condition with Mitigation for the weekday AM, weekday midday, weekday PM and Saturday midday peak periods, respectively. Figures 24-5 through 24-8 present the 2017 Future with the Proposed Actions condition with Mitigation for the weekday AM, weekday midday, weekday PM and Saturday midday peak periods, respectively. Figures 24-9 through 24-11 present 2016 Construction Conditions with Mitigation for the weekday AM, weekday midday, and weekday PM peak periods, respectively.

## F. TRANSIT AND PEDESTRIANS

In the discussion that follows, mitigation measures, consisting primarily of corner bulb outs, widening cross walks, and relocating plants, are identified that would mitigate, either in part or in whole, the significant adverse pedestrian impacts of the Proposed Actions in 2019 in the Future with the Proposed Action condition and in 2017 in the Future with the Proposed Action condition. These mitigation measures were developed on the basis of an analysis of No Build and Build traffic and pedestrian conditions for the 2019 Build Year and the 2017 Interim year and, for the reasons discussed in Chapter 18, "Transit and Pedestrians," do not assume the




○ *No Significant Impact*

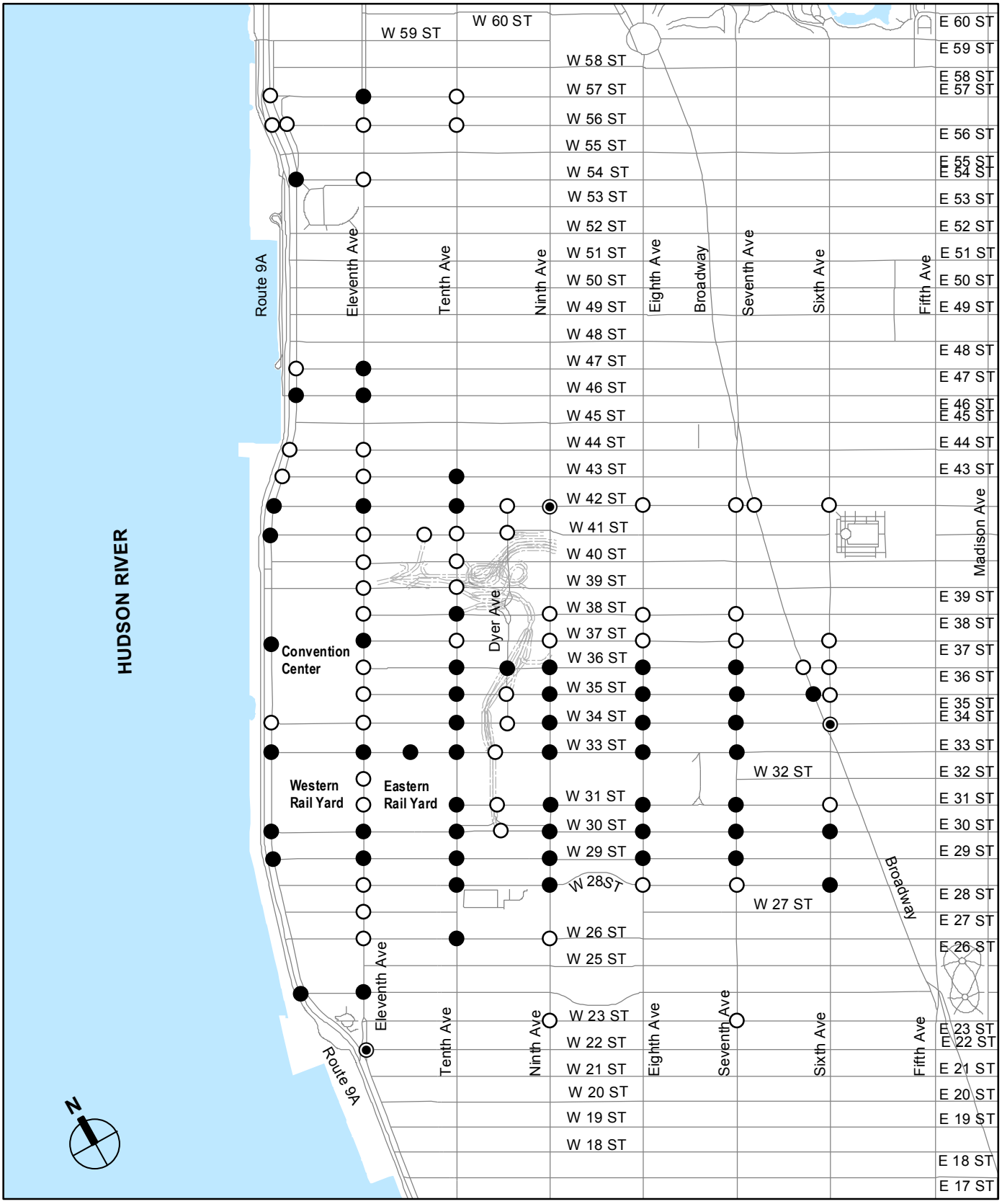
● *Mitigated Intersections*

◉ *Significant Impact*

## 2019 Build Conditions With Mitigation (Weekday AM Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-1**




○ *No Significant Impact*

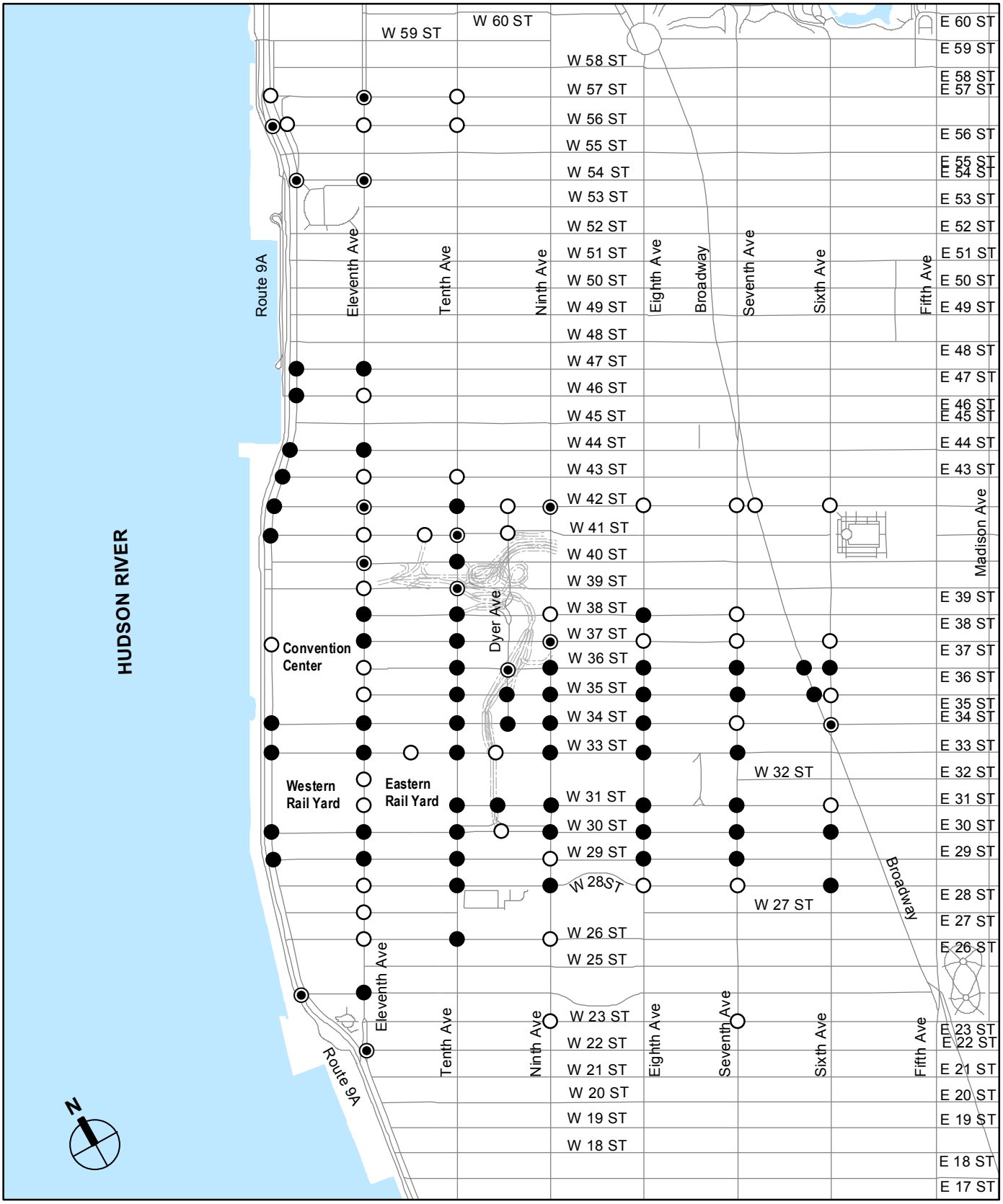
● *Mitigated Intersections*

◉ *Significant Impact*

## 2019 Build Conditions With Mitigation (Weekday Midday Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-2**

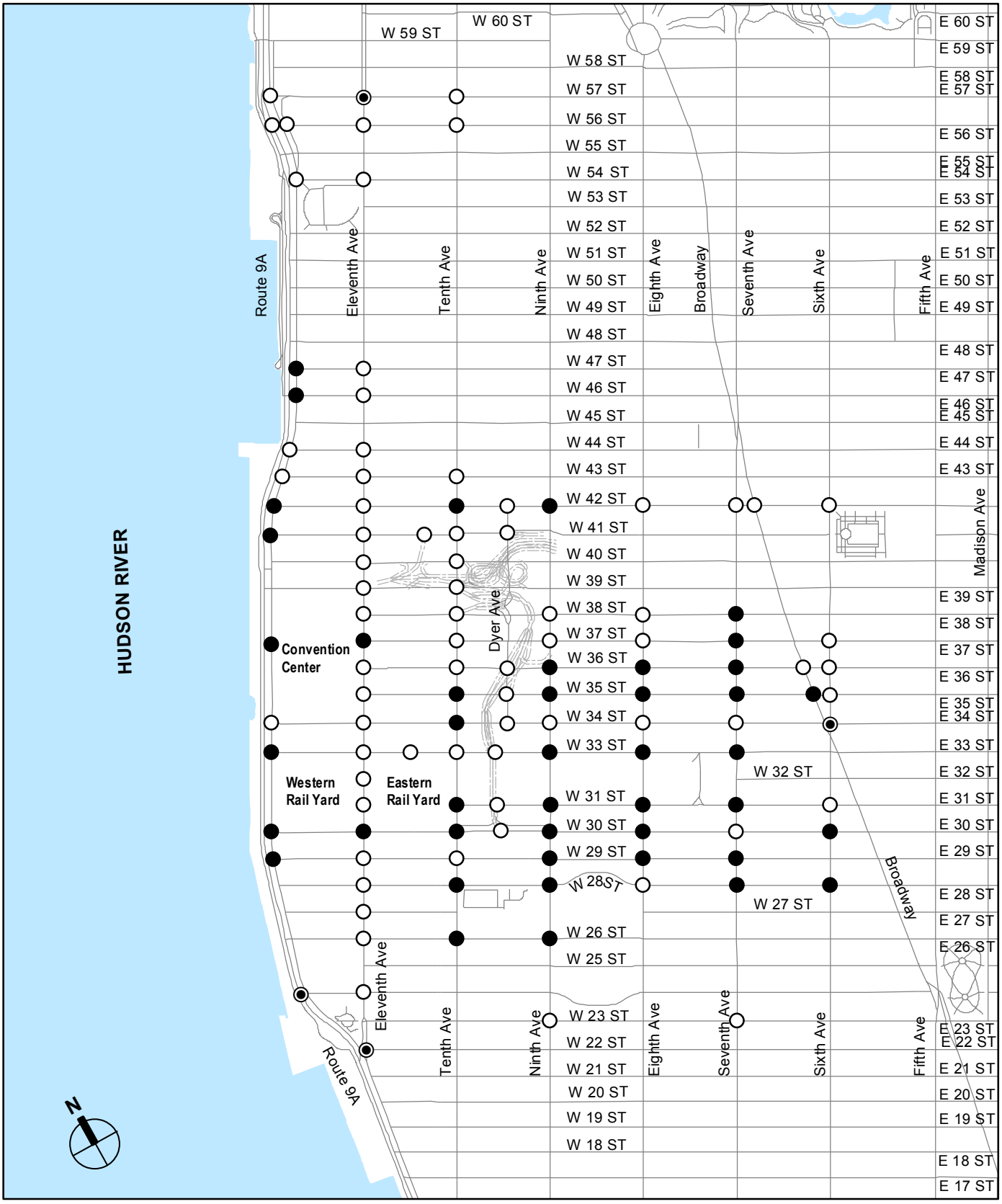



○ *No Significant Impact*
● *Mitigated Intersections*
◉ *Significant Impact*

## 2019 Build Conditions With Mitigation (Weekday PM Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-3**

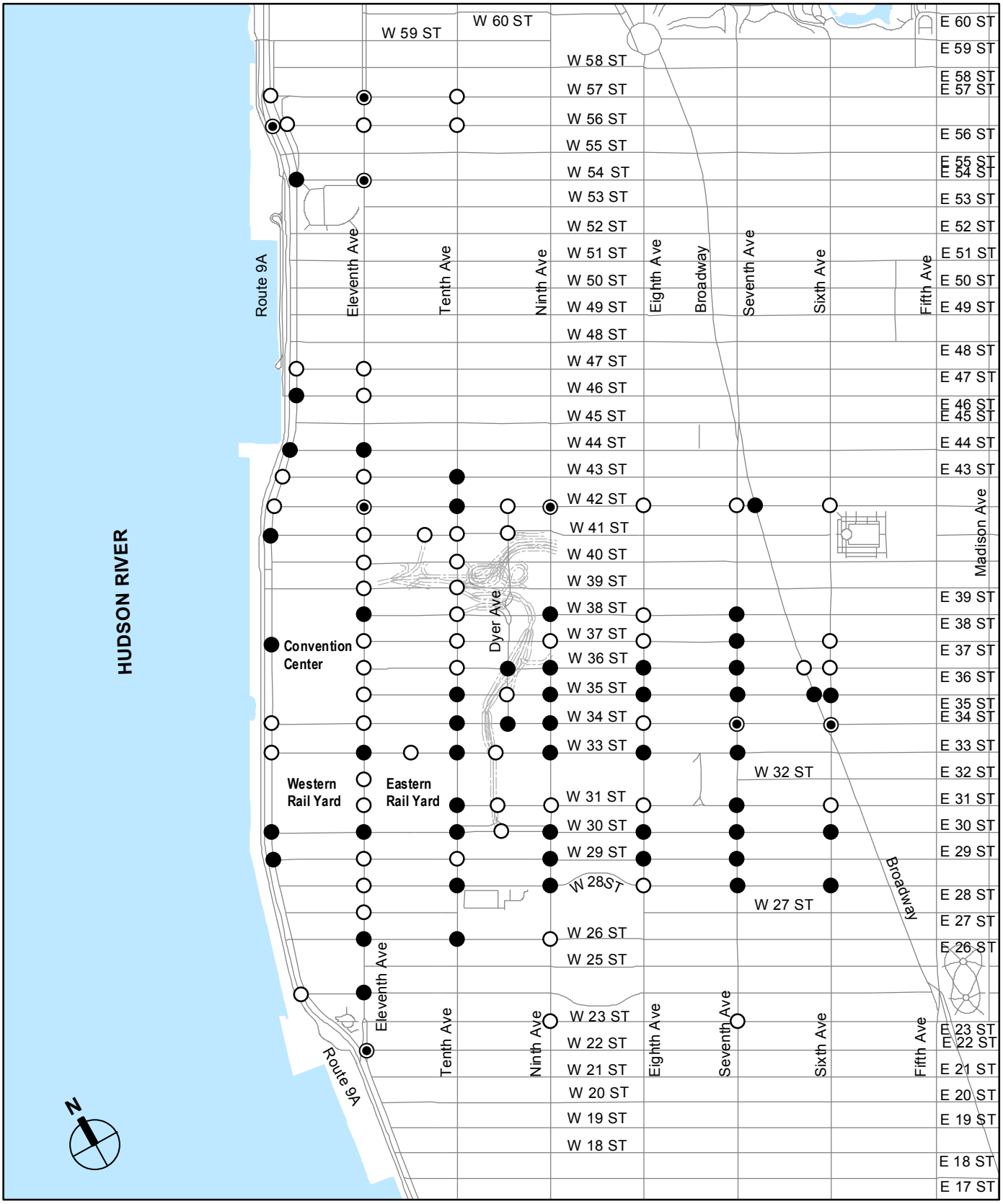



○ *No Significant Impact*
● *Mitigated Intersections*
◉ *Significant Impact*

## 2019 Build Conditions With Mitigation (Saturday Midday Peak Hour)

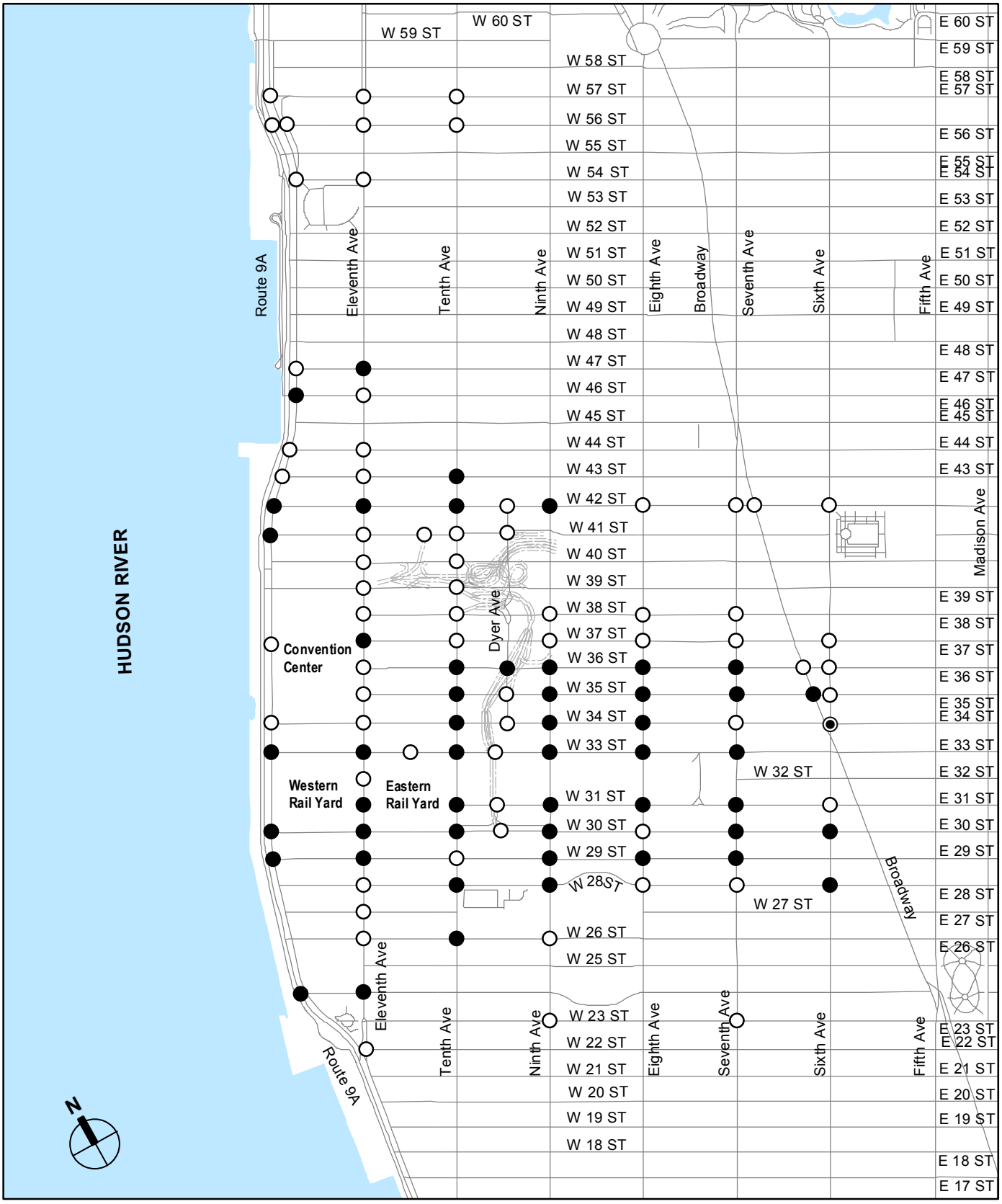
WESTERN **RAIL YARD**

**Figure 24-4**




- *No Significant Impact*
- *Mitigated Intersections*
- *Significant Impact*

## 2017 Build Conditions With Mitigation (Weekday AM Peak Hour)




○ *No Significant Impact*

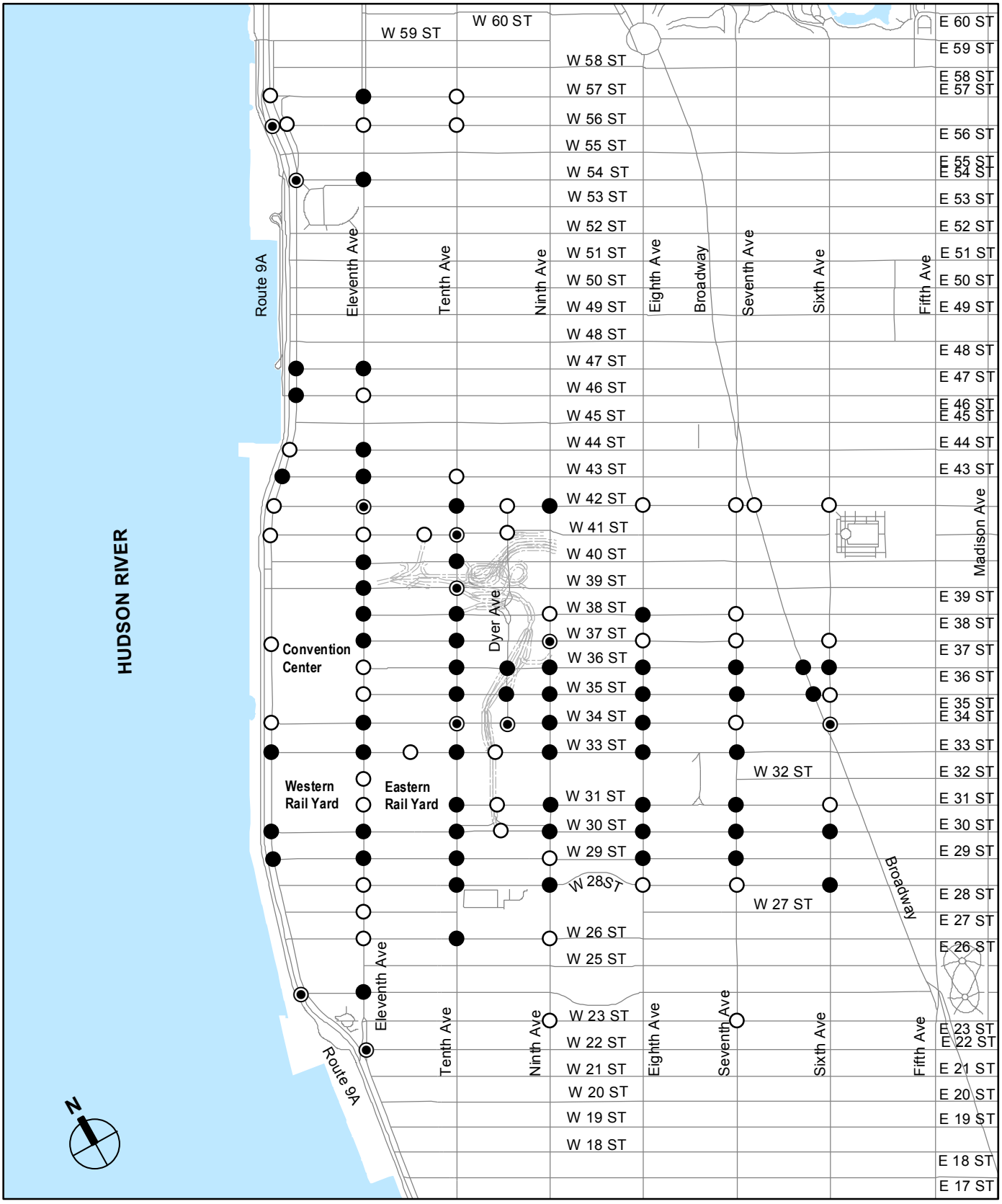
● *Mitigated Intersections*

◉ *Significant Impact*

## 2017 Build Conditions With Mitigation (Weekday Midday Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-6**

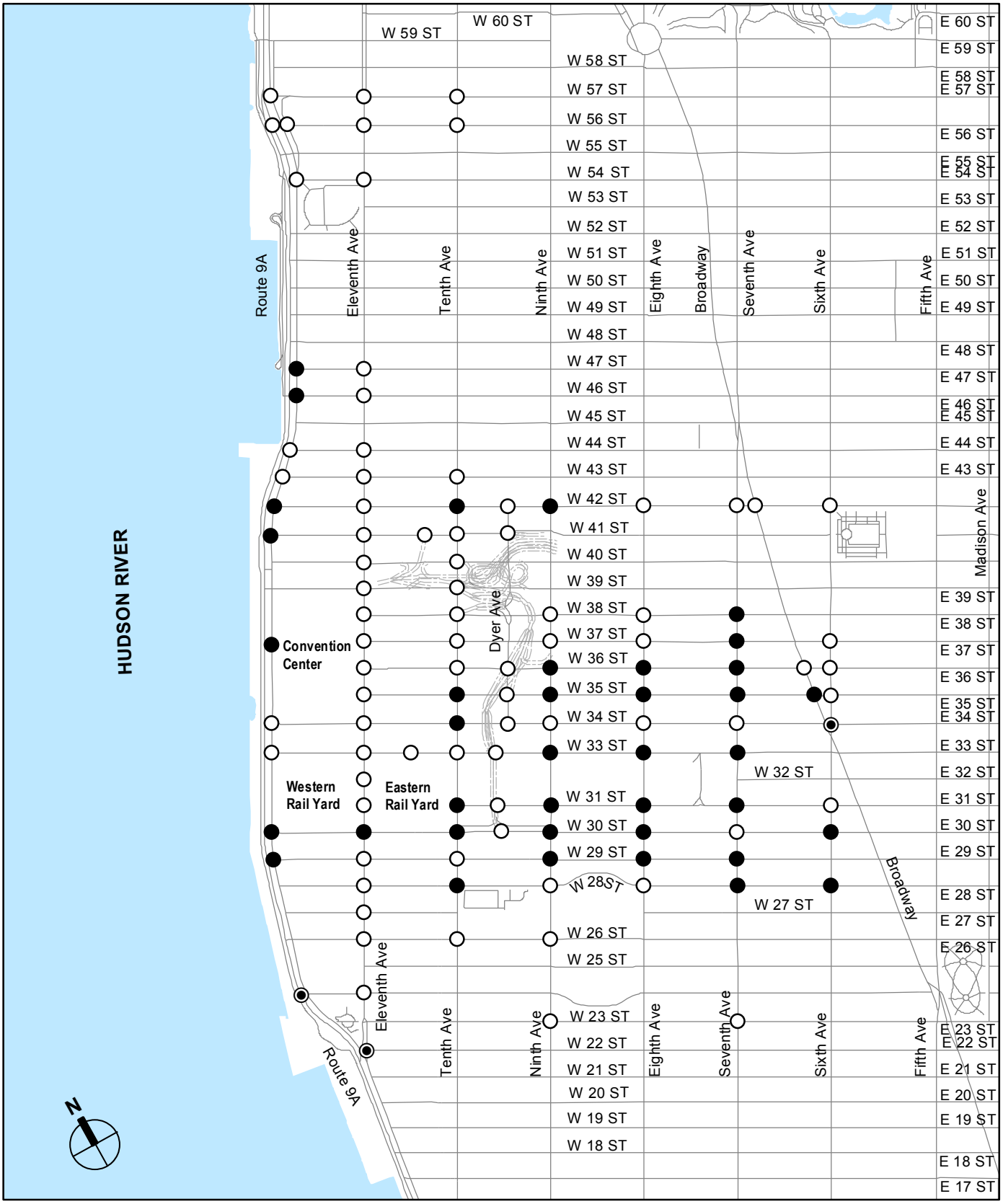



○ *No Significant Impact*

● *Mitigated Intersections*

◉ *Significant Impact*

## 2017 Build Conditions With Mitigation (Weekday PM Peak Hour)

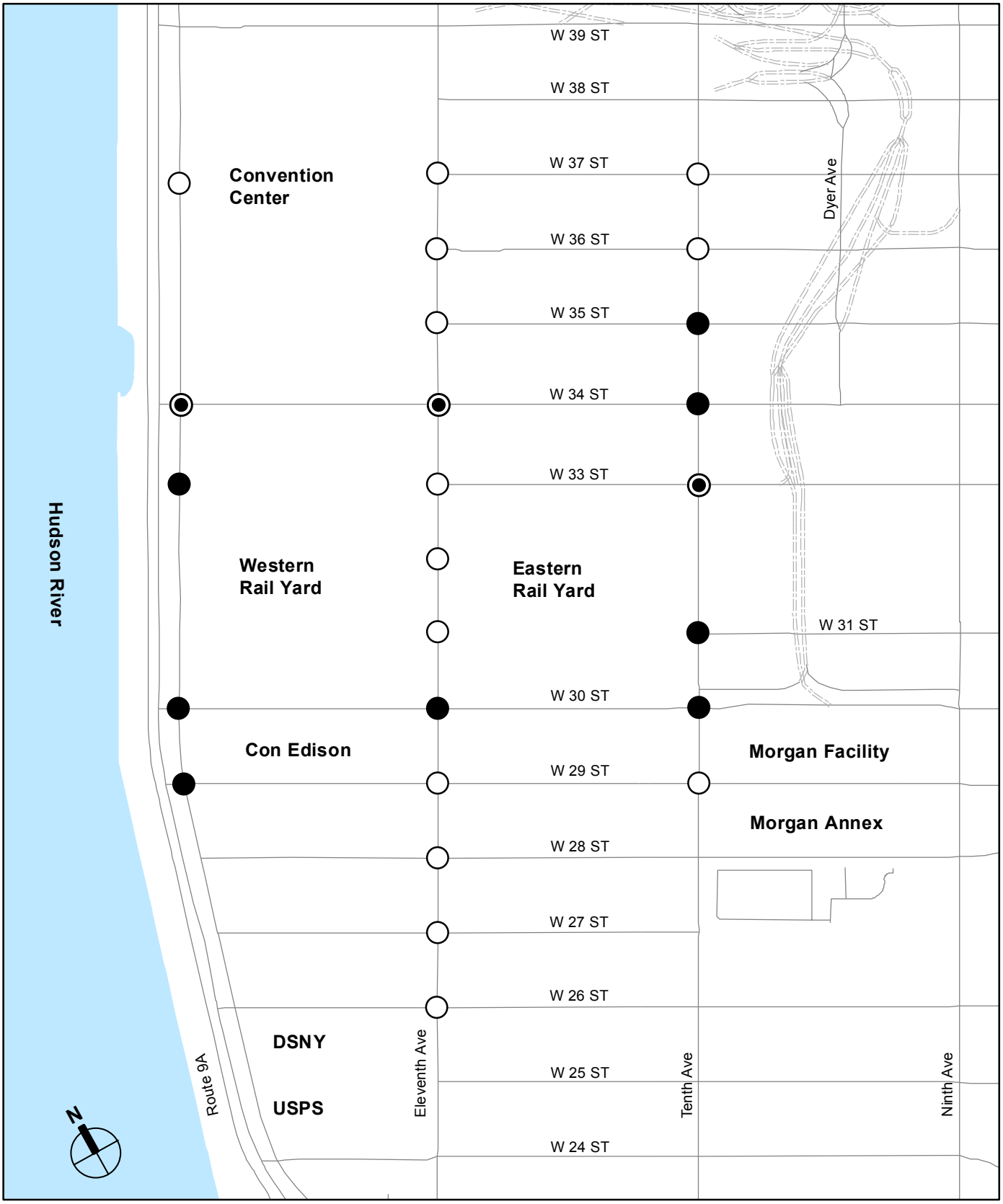



- *No Significant Impact*
- *Mitigated Intersections*
- *Significant Impact*

2017 Build Conditions With Mitigation
(Saturday Midday Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-8**

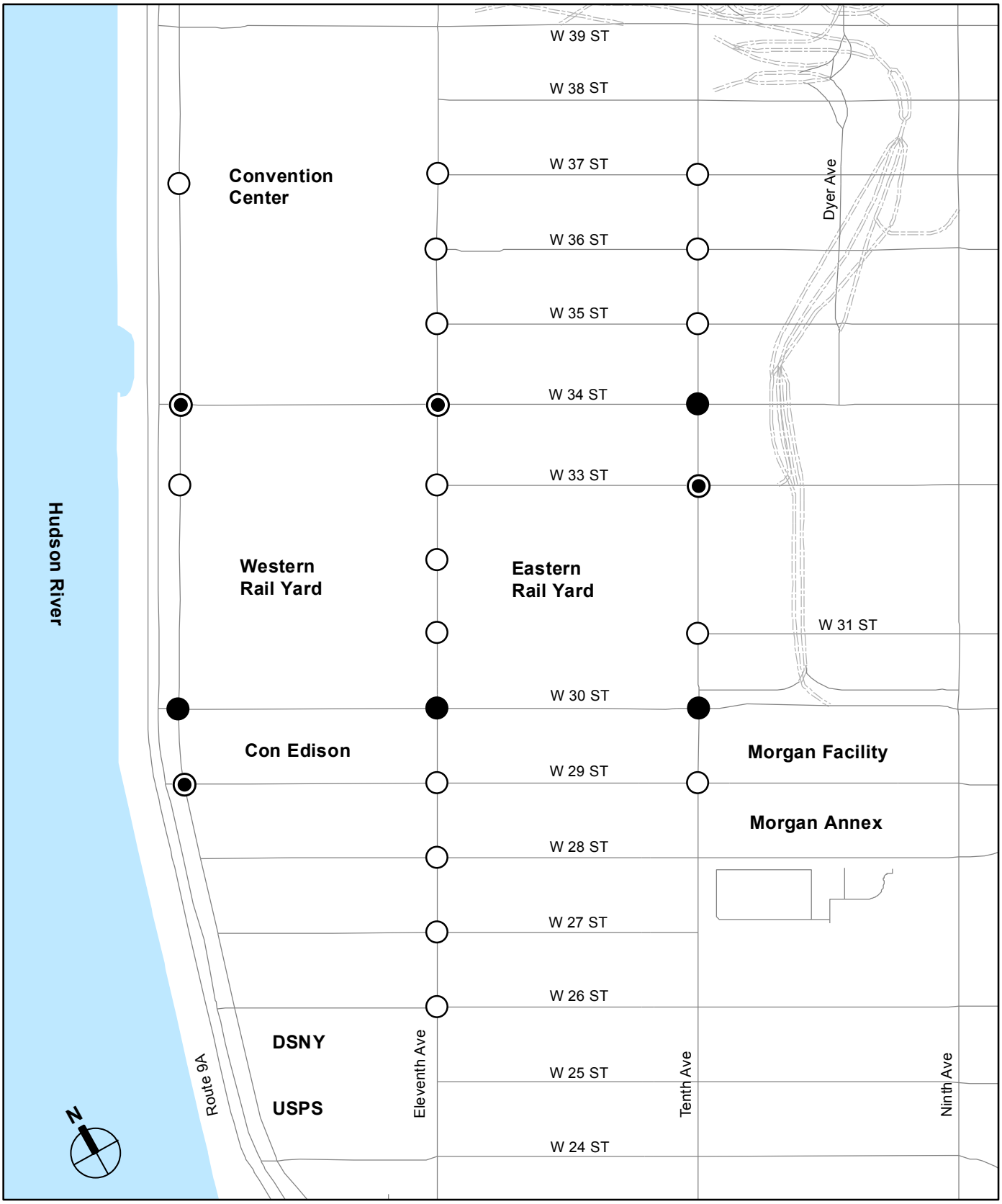



*No Significant Impact*
*Mitigation Intersections*
*Significant Impact*

## 2016 Construction Conditions With Mitigation (Weekday AM Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-9**




*No Significant Impact*

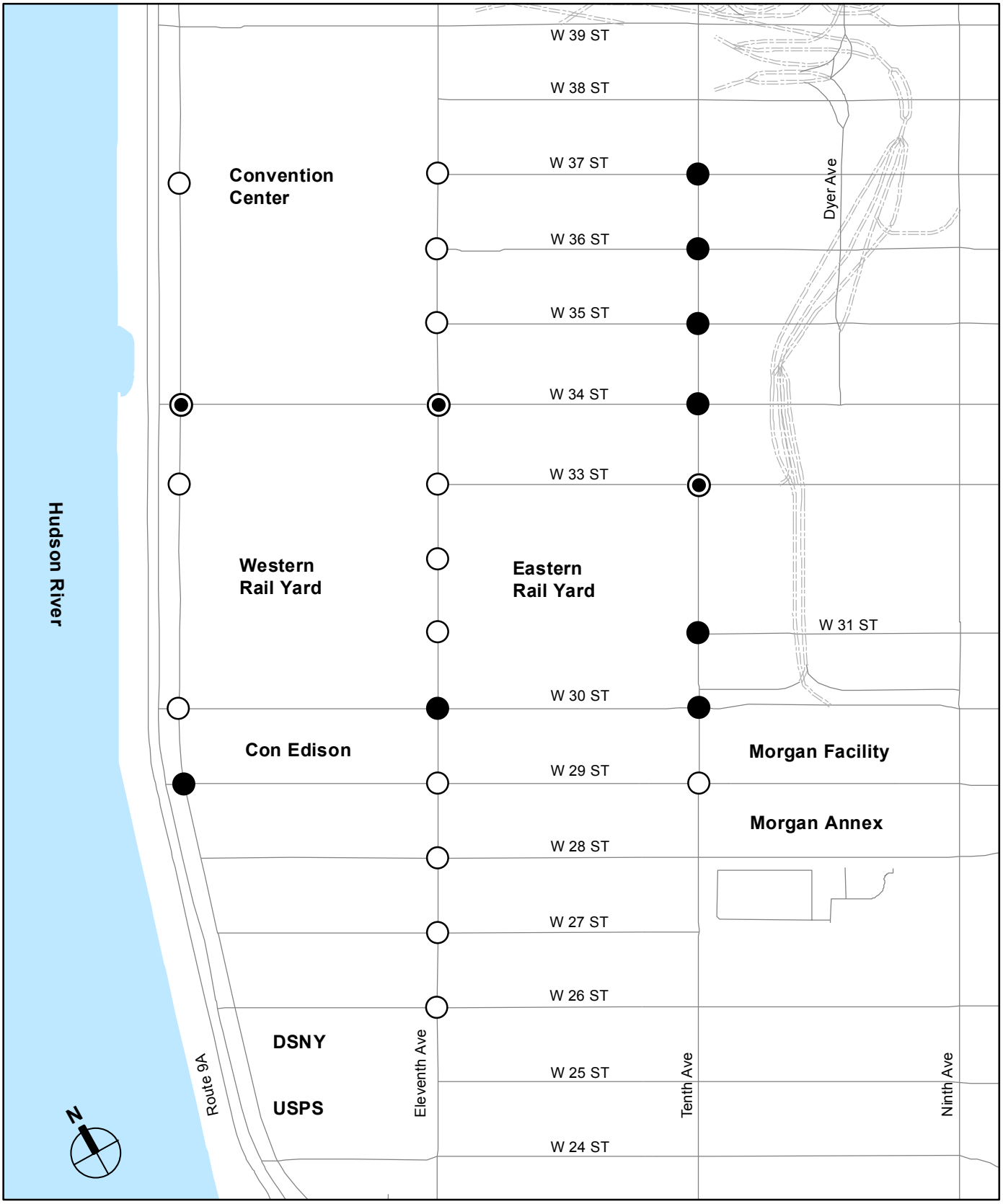
*Mitigation Intersections*

*Significant Impact*

## 2016 Construction Conditions With Mitigation (Weekday Midday Peak Hour)

WESTERN **RAIL YARD**

**Figure 24-10**




*No Significant Impact*
*Mitigation Intersections*
*Significant Impact*

2016 Construction Conditions With Mitigation
(Weekday PM Peak Hour)

implementation of any of the pedestrian mitigation measures referred to in the *Hudson Yards FGEIS.*

## THE FUTURE WITH THE PROPOSED ACTIONS—2019

*SUBWAY STATIONS*

The Proposed Actions would result in a significant adverse impact to one subway station stairway—M23/M24 at Control Area N67 in the 34th Street-Penn Station Eighth Avenue Station—during the weekday PM peak hour in 2019. For mitigation, the stairway would need to be widened by approximately seven inches.

*BUS ROUTES*

Based on development resulting from the Proposed Actions, demand for bus service in the 2019 Future with the Proposed Actions is projected to increase. Table 24-15 (see Section I, "Transit and Pedestrian Tables") presents the anticipated bus passenger demand generated by the Proposed Actions and indicates how many additional buses would be required on each route to meet the additional demand.

As shown in Table 24-15, the following routes would require additional service in meeting the projected demand in 2019 in the Future with the Proposed Actions condition.

- M10/M20 - Two additional regular or articulated buses would be needed to meet the projected demand during both peak hours.
- M11 - Three additional regular buses or two articulated buses would be needed to meet the projected demand during the AM peak hour. Four additional regular buses or three articulated buses would be needed during the PM peak hour.
- M34 - Thirteen additional regular buses or 10 articulated buses would be needed to meet the projected demand during the AM peak hour. A total of 15 additional regular buses or 11 articulated buses would be needed during the PM peak hour.

As mentioned in Chapter 18, "Transit and Pedestrians," New York City Transit's (NYCT) general policy is to provide additional bus service where demand warrants, taking into account financial and operational constraints. Based on NYCT's ongoing passenger monitoring program and as development is implemented throughout the study area, a comprehensive service plan would be generated to respond to specific, known needs with capital and/or operational improvements where fiscally feasible and operationally practicable. NYCT's capital program is developed on a five-year cycle; through this program, expansion of bus services would be provided as needs are determined, subject to operational and financial feasibility.

*PEDESTRIAN ELEMENTS*

The results of the analyses of pedestrian conditions show that demand from the Proposed Actions would significantly adversely impact a total of 2, 1, 5, and 1 sidewalks, 9, 7, 10, and 8 crosswalks, and 13, 7, 12, and 7 corners with completion of the Proposed Actions in 2019 during the weekday AM, midday, PM, and the Saturday peak hours, respectively.

A significant adverse pedestrian impact is considered mitigated if measures implemented return projected future conditions to what they would be if a proposed project were not in place, or to

acceptable levels. For a future without the proposed action condition LOS D, E or F, mitigation back to the future without the proposed action condition is required; for future without the proposed action condition LOS A, B, or C, mitigation to the LOS D/E threshold is required (15 square feet per pedestrian for corners and crosswalks, and 15 pedestrians per foot per minute for sidewalks and midblock locations).

Standard mitigation for projected significant adverse impacts to pedestrian conditions includes relocation or removal of obstacles on sidewalks, construction of wider sidewalks and corners and repainting crosswalks for additional width. Certain pedestrian adverse significant impacts cannot be mitigated without resulting in significant adverse impacts on traffic conditions beyond those identified in the traffic analysis.

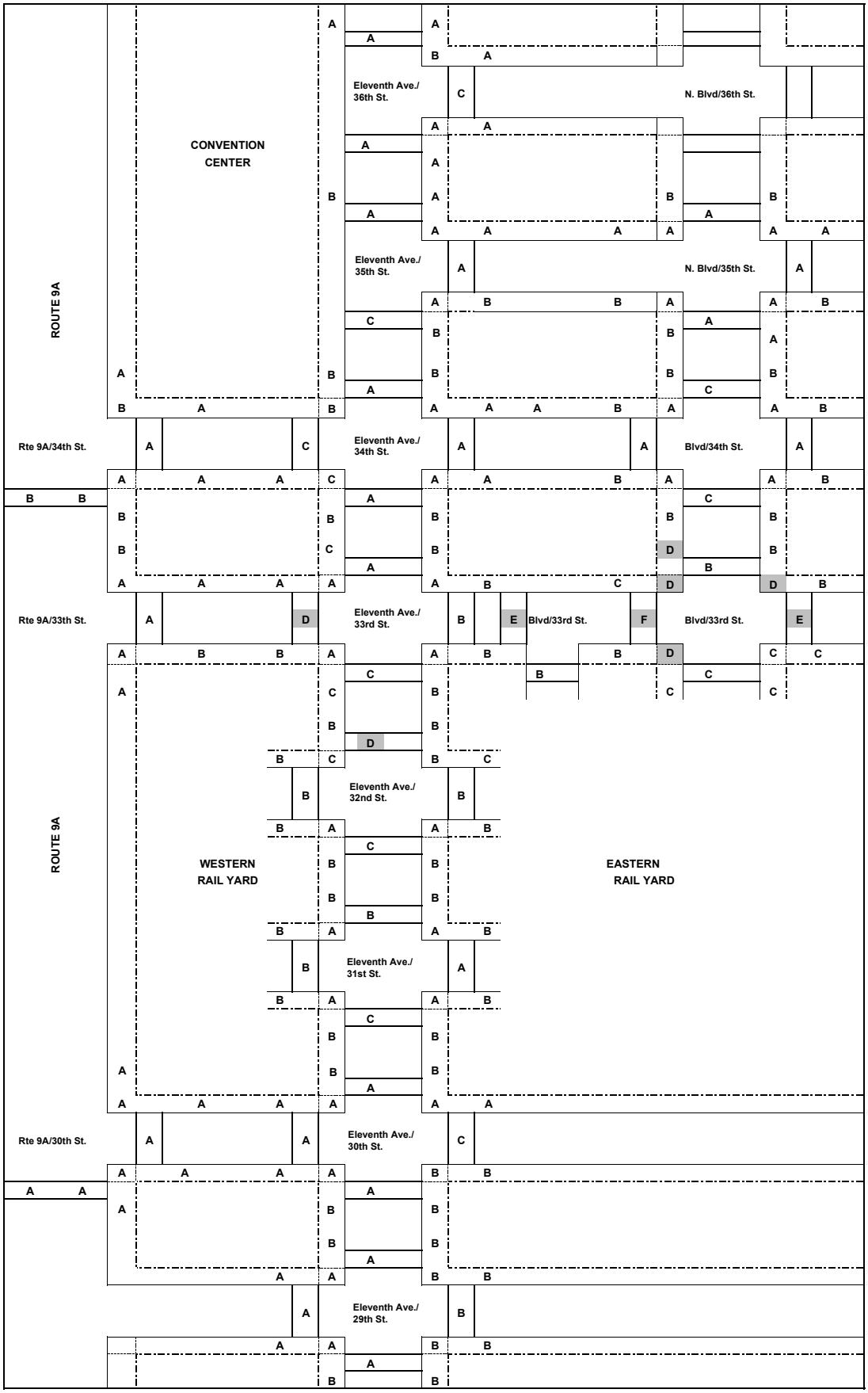
The sidewalk, corner, and crosswalk LOS results for the 2019 Future with the Proposed Actions condition with Mitigation are presented in Figures 24-12.1 through 24-15.2. Copies of the individual sidewalk, corner, crosswalk analysis tables, and proposed mitigation measures are provided in Appendix E, "Transportation Technical Memos and Analyses." The number of locations with significant adverse impacts for sidewalk, corner, and crosswalk in the 2019 Future with the Proposed Actions condition is summarized in Table 24-16 (see Section I, "Transit and Pedestrian Tables"). Also in Section I, Tables 24-17 through Table 24-19 present the sidewalk, crosswalk, and corner locations that would have significant adverse impacts in 2019 in the Future with the Proposed Actions, proposed mitigation measures, and the effectiveness of the proposed mitigation measure for each location. The following discusses potential mitigation measures for the pedestrian impacts identified in Chapter 18, "Transit and Pedestrians."

As demonstrated below, most of the significant adverse impacts could be mitigated through the following pedestrian improvements, including:

- Relocate planters or street vendors at two sidewalk locations on West 33rd Street;
- Create corner bulb outs on: the south side of West 33rd Street at all intersections located between Eighth and Eleventh Avenues; on the north side of West 33rd Street at the Tenth and Eleventh Avenue intersections; and at all four corners of the Ninth Avenue and West 31st Street intersection.
- Widen the crosswalks at 15 impacted crosswalk locations (primarily at intersections along West 31st and West 33rd Streets).

*Sidewalks*

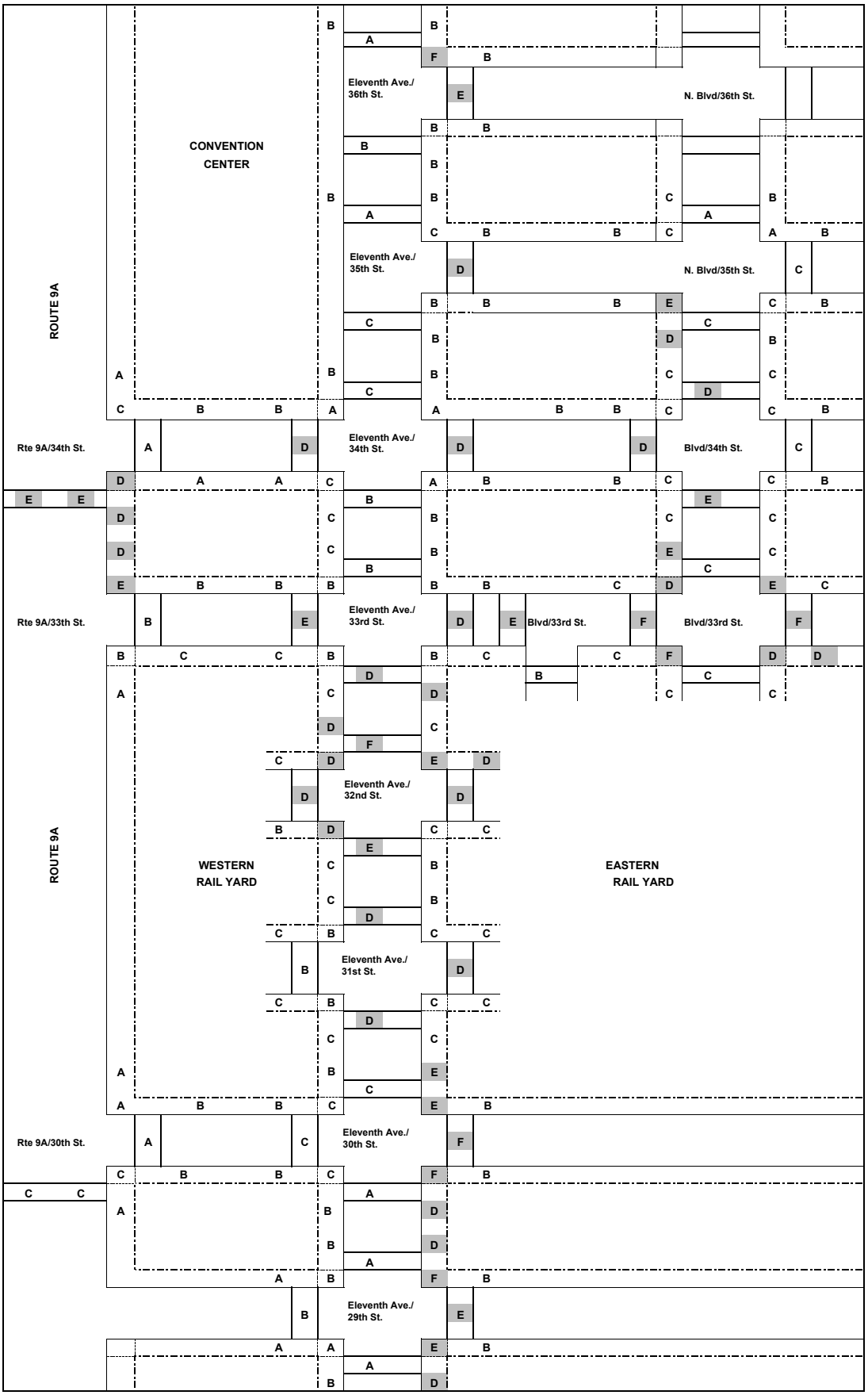
Of the 188 sidewalk locations at the 26 intersections analyzed for the weekday peak hours and 146 sidewalk locations at the 21 intersections analyzed for the Saturday peak hour, 2 significant adverse sidewalk impacts (at 2 intersections) are anticipated during the AM peak hour, 1 during the midday peak hour, 5 sidewalk locations (at three intersections) during the PM peak hour, and one during the Saturday peak hour. In Section I, Table 24-17 presents the sidewalk locations that are projected to have significant adverse impacts in 2019 in the Future with the Proposed Actions compared to the Future without the Proposed Actions, and the effectiveness of the proposed mitigation measure for each location. Upon incorporation of the mitigation measures, unmitigated adverse impacts would remain at 1 sidewalk location during the AM peak period, 1 sidewalk location during the midday period, 4 sidewalk locations at three intersections during the PM peak period, and one sidewalk location during the Saturday midday peak period.




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

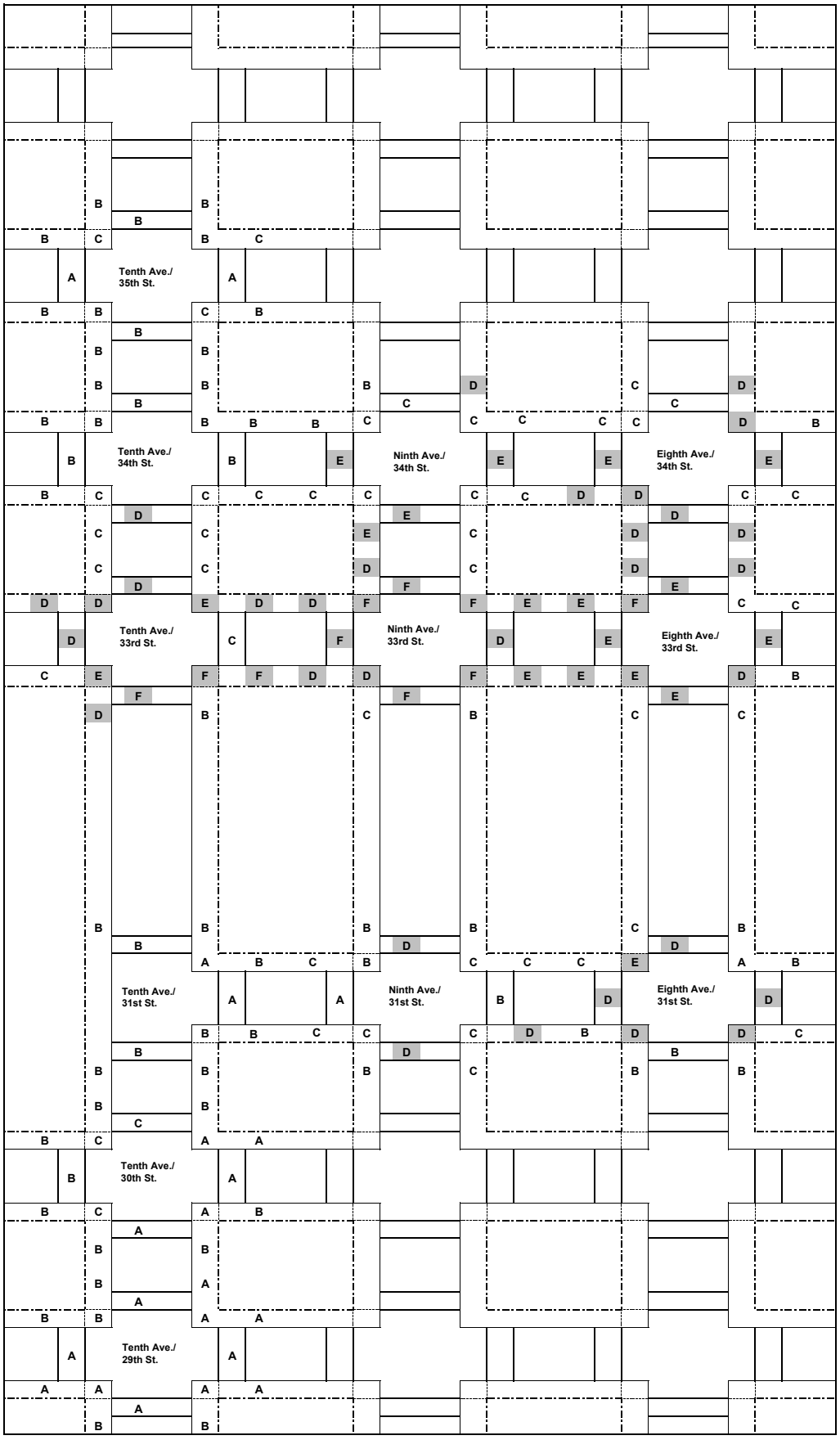
Pedestrian LOS
2019 Mitigation Condition - AM Peak
**Figure 24-12.1**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

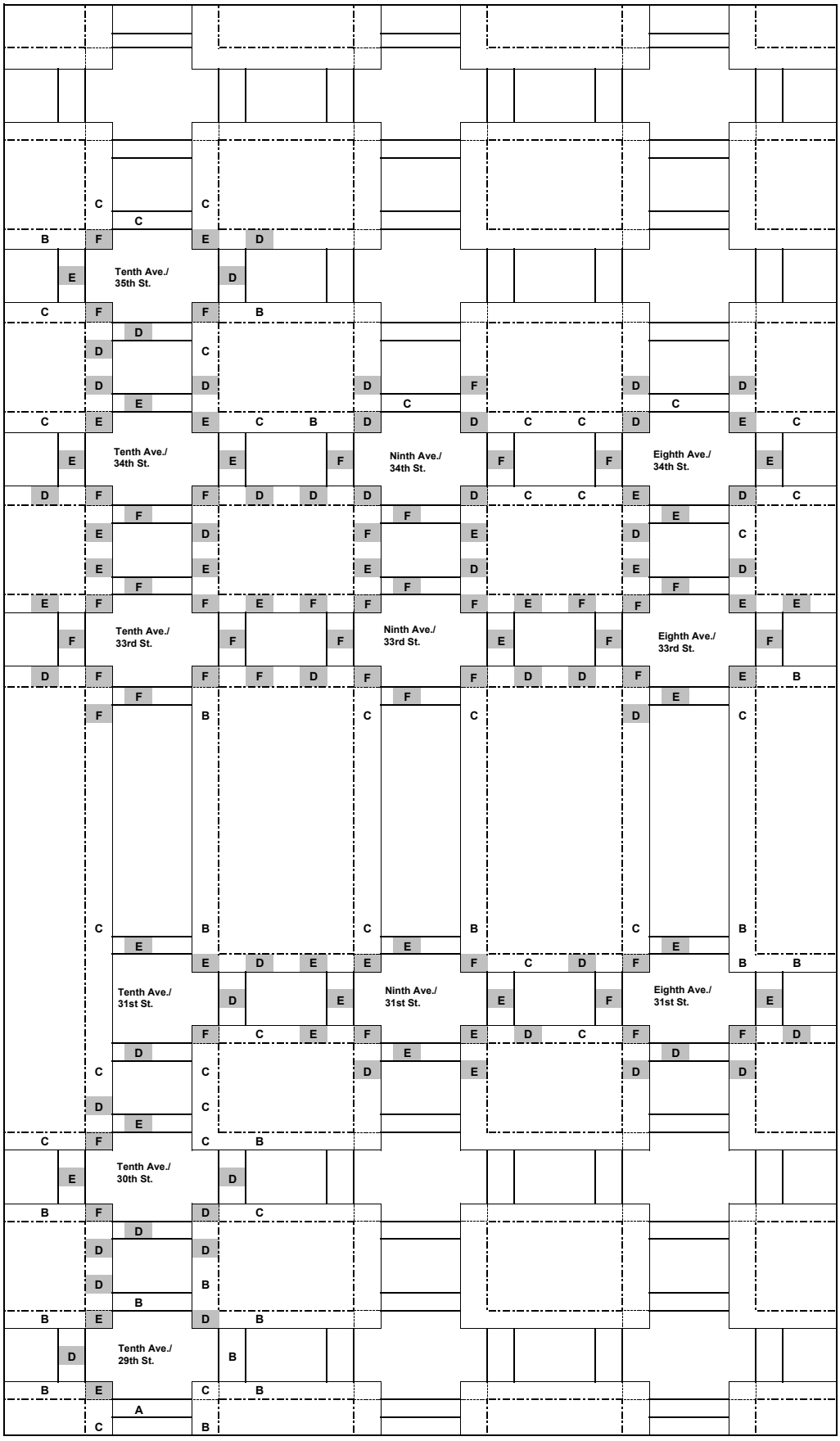
Pedestrian LOS
2019 Mitigation Condition - Midday Peak
**Figure 24-12.2**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

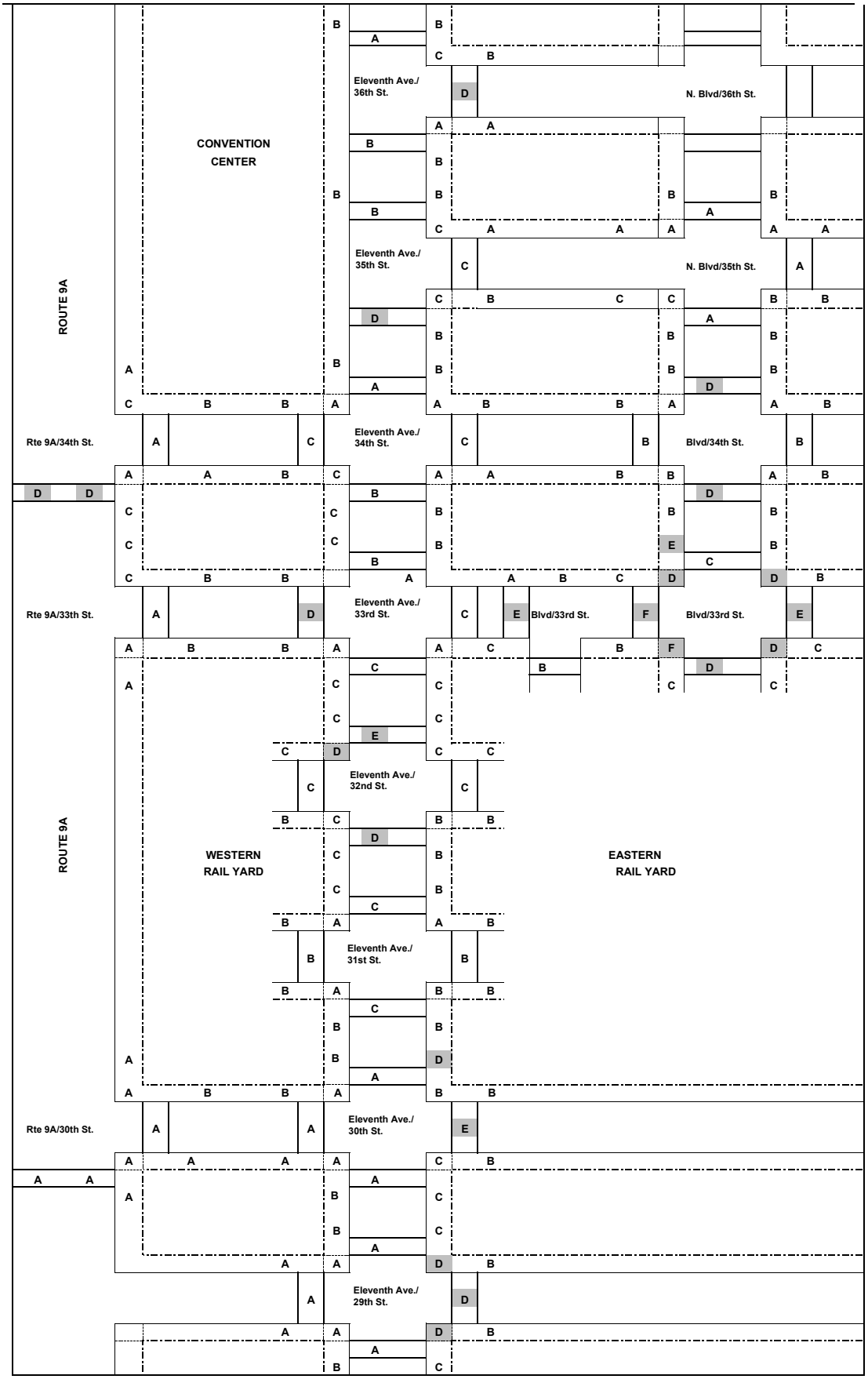
Pedestrian LOS
2019 Mitigation Condition - AM Peak
**Figure 24-13.1**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

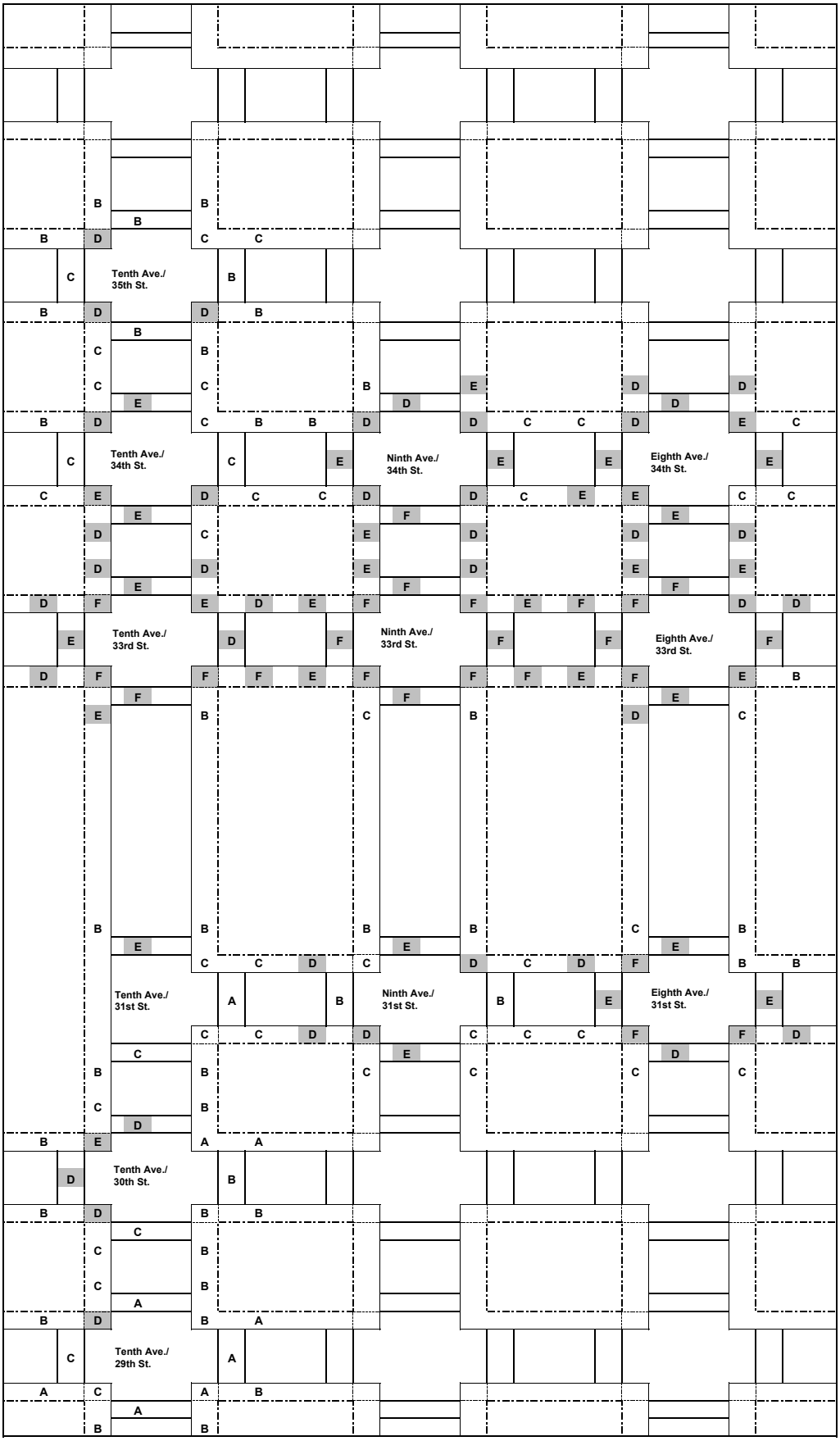
Pedestrian LOS
2019 Mitigation Condition - Midday Peak
**Figure 24-13.2**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

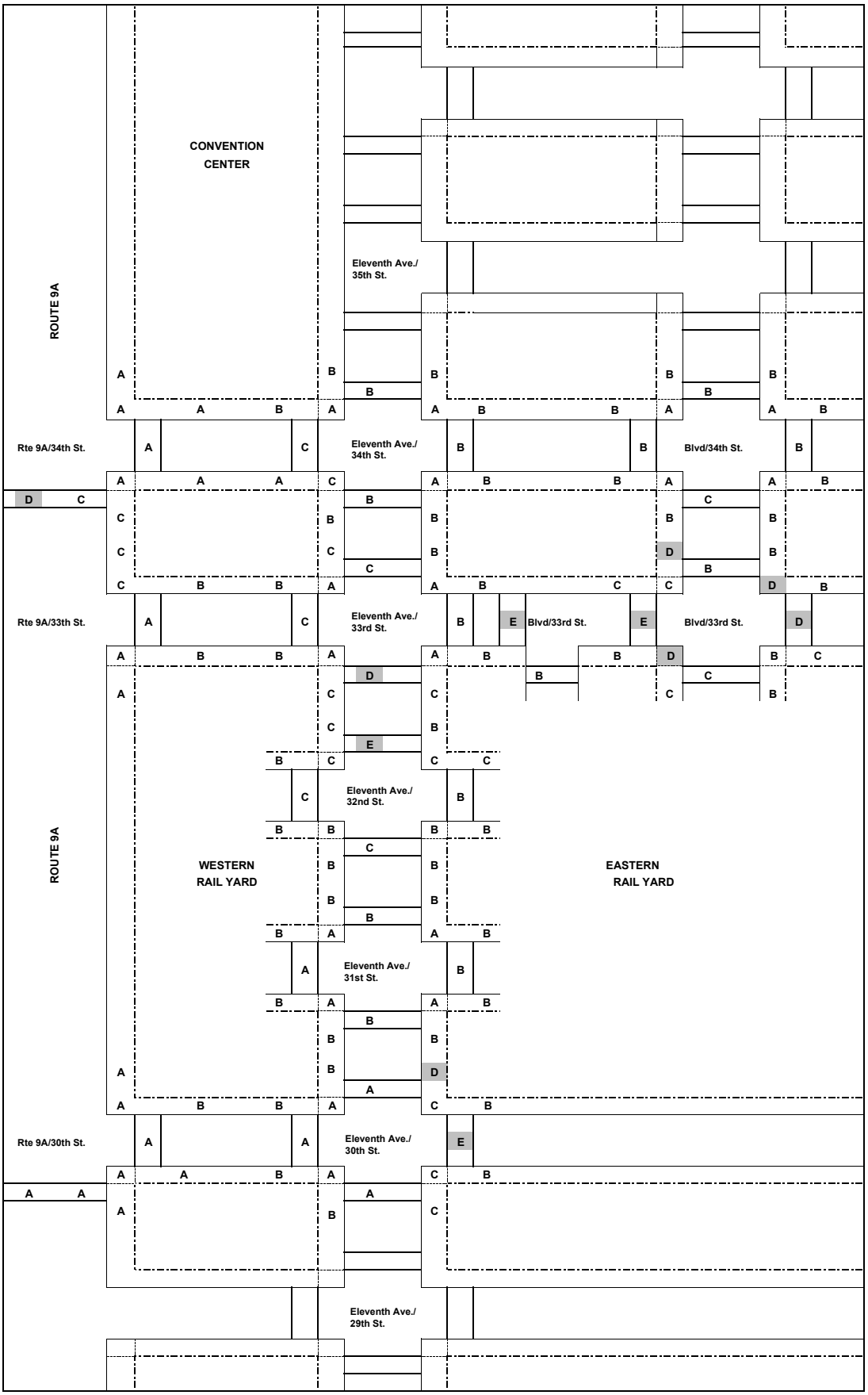
Pedestrian LOS
2019 Mitigation Condition - PM Peak
**Figure 24-14.1**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

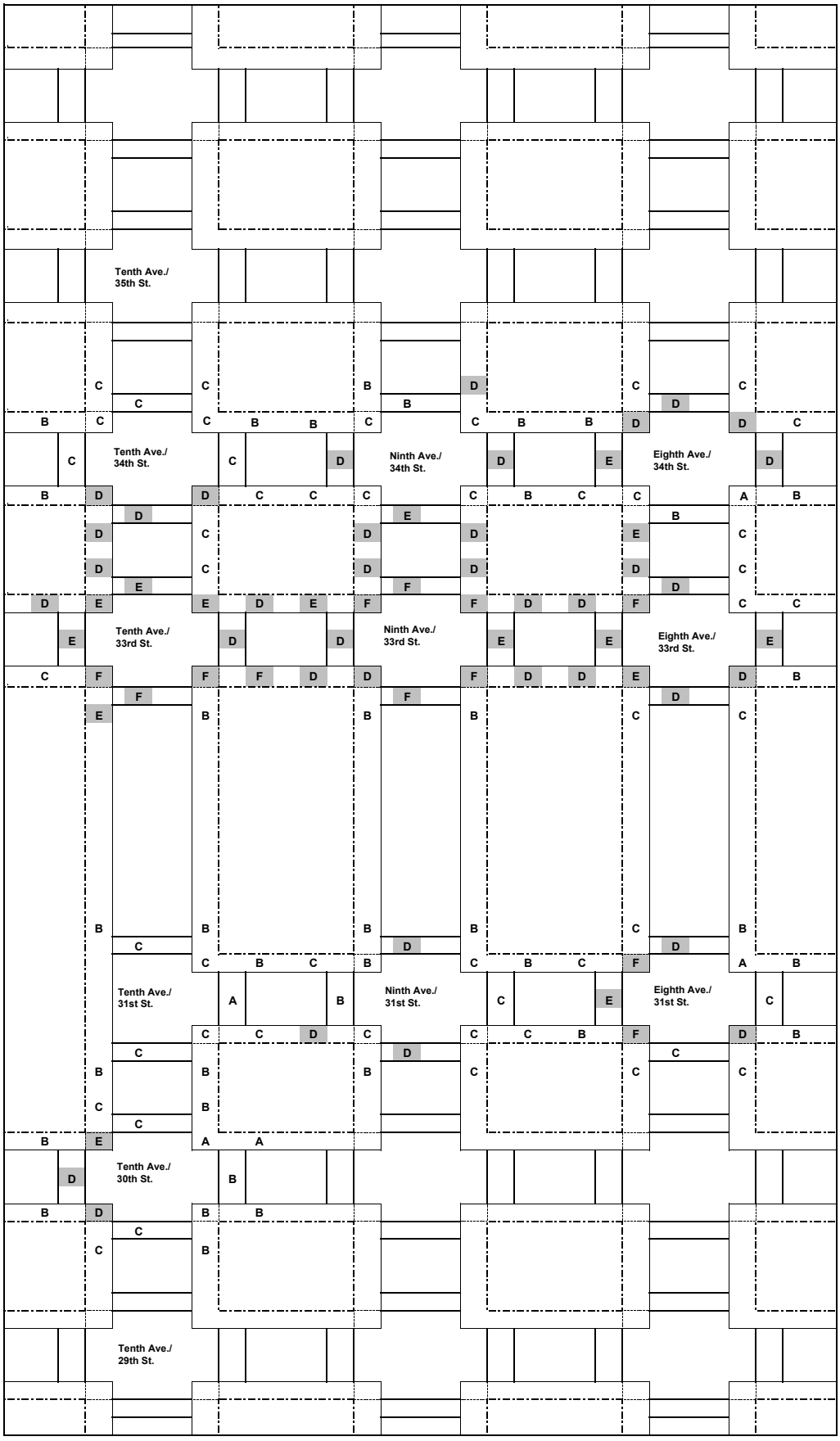
Pedestrian LOS
2019 Mitigation Condition - PM Peak
**Figure 24-14.2**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

Pedestrian LOS
2019 Mitigation Condition - Saturday Midday Peak
**Figure 24-15.1**




**Pedestrian Locations Operating at LOS "D" or Worse**

**Pedestrian Locations Operating at LOS "D" or Worse are highlighted in gray**

Pedestrian LOS
2019 Mitigation Condition - Saturday Midday Peak
**Figure 24-15.2**

Significant adverse impacts at intersection and sidewalk locations have been identified below including the effectiveness of the proposed mitigation measures.

- Tenth Avenue and West 33rd Street—significant adverse impacts would occur at the south sidewalk (location 4) on West 33rd Street between Ninth and Tenth Avenues during all four peak periods. These impacts would be unmitigated during all four peak periods.
- Ninth Avenue and West 33rd Street—significant adverse impacts would occur at both the north (AM and PM peak periods) and south (PM peak period) sidewalks on West 33rd Street between Eighth and Ninth Avenues (locations 3 and 4). The impacts at the north sidewalk (location 3) would be mitigated through relocation of planters or the street vendor during the AM and PM peak periods. The impact at the south sidewalk (location 4) would be unmitigated during the weekday PM peak period.
- Eighth Avenue and West 33rd Street—significant adverse impacts would occur at both the north and south sidewalks on West 33rd Street between Eighth and Ninth Avenues (locations 7 and 8) during the PM peak period. These impacts would be unmitigated during the weekday PM peak period.

*Crosswalks*

Of the 95 crosswalks at the 26 intersections analyzed for the weekday peak hours and 73 crosswalks at the 21 intersections analyzed for the Saturday peak hour, 9 significant adverse crosswalk impacts (at 6 intersections) are anticipated during the AM peak hour, 7 crosswalk locations (at 5 intersections) during the midday peak hour, 10 crosswalk locations (at 9 intersections) during the PM peak hour, and 8 crosswalk locations (at 6 intersections) during the Saturday peak hour. In Section I, "Transit and Pedestrian Tables," Table 24-18 presents the crosswalk locations that are projected to have significant adverse impacts in 2019 in the Future with the Proposed Actions, and the effectiveness of the proposed mitigation measure for each location.

Upon incorporation of the mitigation measures, unmitigated adverse impacts would remain at 2 crosswalk locations at 2 intersections during the AM peak period, 3 crosswalk locations at 2 intersections during the midday peak period, 3 crosswalk locations at 3 intersections during the PM peak period, and 1 crosswalk location at 1 intersection during the Saturday midday peak period. In addition, unmitigated significant adverse impacts would occur at 3 crosswalk locations at 2 intersections during the AM peak period and 5 crosswalk locations in 3 intersections during the midday peak period due to changes in signal timing as part of traffic mitigation measures.

Significant adverse impacts at intersection and crosswalk locations have been identified below including the effectiveness of the proposed mitigation measures.

- Route 9A and West 34th Street—significant adverse impacts would occur at the south (east) and south (west) crosswalks during the midday peak period. These impacts would be mitigated through crosswalk widenings.
- Eleventh Avenue and West 33rd Street—significant adverse impacts would occur at the south crosswalk during the AM, midday, and PM peak periods. These impacts would be mitigated through a crosswalk widening.

- Eleventh Avenue and West 30th Street—significant adverse impacts would occur at the east crosswalk during the weekday PM and Saturday peak periods. These impacts would be mitigated through a crosswalk widening.
- Tenth Avenue and West 33rd Street—significant adverse impacts would occur at the north (AM peak period), south (AM, PM, and Saturday peak periods), and west (PM and Saturday peak periods) crosswalks. The north and west crosswalk impacts would be mitigated through crosswalk widenings. The south crosswalk would remain unmitigated during the weekday AM peak period, although a crosswalk widening at this location is proposed. However, crosswalks widening at this location would mitigate the significant adverse impacts during other peak periods.
- Tenth Avenue and West 31st Street—significant adverse impacts would occur at the north (PM peak period) and south (midday peak period) crosswalks. These impacts would be mitigated through crosswalk widenings.
- Ninth Avenue and West 33rd Street—significant adverse impacts would occur at the south and west crosswalks during the Saturday peak period. These impacts would be mitigated through a crosswalk widening.
- Ninth Avenue and West 31st Street—significant adverse impacts would occur at the north (AM peak period) and south (AM and PM peak periods) crosswalks. These impacts would be mitigated through crosswalk widenings.
- Eighth Avenue and West 33rd Street—significant adverse impacts would occur at the east (AM peak period) and south (AM, PM, and Saturday peak periods) crosswalks. These impacts would be mitigated through crosswalk widenings.
- Boulevard and West 33rd Street—significant adverse impacts would occur at the west crosswalk during the AM, PM, and Saturday peak periods. These impacts would be mitigated through a crosswalk widening during the weekday AM and Saturday peak periods and would remain unmitigated in the PM peak period.
- Boulevard and West 33rd Street (West)—significant adverse impacts would occur at the west crosswalk during the AM, midday, and PM peak periods. These impacts would be unmitigated.
- Eleventh Avenue and West 32nd Street—significant adverse impacts would occur at the north (midday, PM, and Saturday peak periods) and south (midday peak period) crosswalks. These impacts would be unmitigated.

In addition, the following crosswalk locations would result in significant adverse impacts due to changes in traffic signal timing as part of the measures to mitigate traffic impacts. These impacts would be unmitigated.

- Tenth Avenue and West 34th Street—significant adverse impacts would occur at the east and west crosswalks during the midday peak period.
- Ninth Avenue and West 34th Street –significant adverse impacts would occur at the east and west crosswalks during the AM peak period.
- Ninth Avenue and West 31st Street—significant adverse impacts would occur at the east and west crosswalks during the midday peak period.

- Eighth Avenue and West 33rd Street—a significant adverse impact would occur at the north crosswalk during the AM peak period.
- Tenth Avenue and West 35th Street—a significant adverse impact would occur at the west crosswalk during the midday peak period.

*Corners*

Of the 90 corners at the 26 intersections analyzed for the weekday peak hours and 70 corners at the 21 intersections analyzed for the Saturday peak hour, 13 significant adverse corner impacts (at 5 intersections) are anticipated during the AM peak hour, 7 corner locations (at 4 intersections) during the midday peak hour, 12 corner locations (at 6 intersections) during the PM peak hour, and 7 corner locations (at 3 intersections) during the Saturday peak hour. In Section I, "Transit and Pedestrian Tables," Table 24-19 presents the corner locations that are projected to have significant adverse impacts in 2019 in the Future with the Proposed Actions, and the effectiveness of the proposed mitigation measure for each location. Upon incorporation of the mitigation measures, unmitigated adverse impacts would remain at 3 corner locations at 2 intersections during the AM peak period, 5 corner locations at 4 intersections during the midday peak period, three corner locations two intersections during the PM peak period, and no corner locations during the Saturday midday peak period. In addition, unmitigated significant adverse impacts would occur at 2 corner locations at 2 intersections during the midday peak period due to changes in signal timing as part of traffic mitigation measures.

Significant adverse impacts at intersection and corner locations have been identified below including the effectiveness of the proposed mitigation measures.

- Eleventh Avenue and West 33rd Street—significant adverse impacts would occur at the southeast, southwest, and northwest corners during all four peak periods. Bulb outs at all corners would mitigate most of the impacts except the northwest corner during the weekday midday peak period and the southwest and northwest corners during the weekday PM peak period.
- Eleventh Avenue and West 30th Street—a significant impact would occur at the northeast corner during the midday peak period. This impact would be unmitigated
- Tenth Avenue and West 33rd Street—significant adverse impacts would occur at the northeast (AM, PM, and Saturday peak periods), southeast (AM, PM, and Saturday peak periods), southwest (AM, PM, and Saturday peak periods), and northwest (AM peak period) corners. Bulb outs at all corners would mitigate most of the impacts except the southeast and southwest corners during the weekday AM peak period.
- Ninth Avenue and West 33rd Street—significant adverse impacts would occur at the northeast (AM peak period) , southeast (AM and Saturday peak periods), and southwest (AM and PM peak periods) corners. A bulb out would be added at all three corner locations. As a result of the bulb outs, the impacts at the southeast and southwest corners would be mitigated and the northeast corner would remain unmitigated during the weekday AM peak period.
- Ninth Avenue and West 31st Street—significant adverse impacts would occur at the northeast (AM peak period), southeast (PM peak period), southwest (AM, and PM peak periods), and northwest (PM peak period) corners. These impacts would be mitigated through the addition of bulb outs at all corners.

- Eighth Avenue and West 33rd Street—significant adverse impacts would occur at the southeast corner during the PM peak period and the southwest corner during the AM peak period. The southeast corner would be mitigated through relocation of planters closer to the building in the vicinity of this corner. The southwest corner would be mitigated through the addition of a bulb out.
- Boulevard and West 33rd Street—significant adverse impacts would occur at the northeast corner during the weekday midday peak period and at the southwest corner during the weekday midday and PM peak periods. These impacts would be unmitigated.
- Eleventh Avenue and West 32nd Street—a significant impact would occur at the northeast corner during the midday peak period. This impact would be unmitigated.

In addition, the following corner locations would result in significant adverse impacts due to changes in traffic signal timing as part of the measures to mitigate traffic impacts. These impacts would be unmitigated.

- Tenth Avenue and West 34th Street—a significant impact would occur at the northwest corner during the midday peak period.
- Tenth Avenue and West 35th Street—a significant impact would occur at the northwest corner during the midday peak period.

## THE FUTURE WITH THE PROPOSED ACTIONS—2017

### *SUBWAY STATIONS*

The Proposed Actions would result in a significant adverse impact to one subway station stairway—M23/M24 at Control Area N67 in the 34th Street-Penn Station Eighth Avenue Station—during the weekday PM peak hour in 2017. For mitigation, the stairway would need to be widened by approximately five inches.

### *BUS ROUTES*

As presented in Table 24-20 in Section I, "Transit and Pedestrian Tables," the additional bus service required to accommodate demand in 2017 in the Future with the Proposed Actions would be less than that required in 2019 in the Future with the Proposed Actions. During the AM peak period, the 2017 Future with the Proposed Actions condition would require the same number of regular or articulated bus than the 2019 Future with the Proposed Actions condition on northbound M10/M20, one fewer regular or articulated bus on the southbound M10/M20, one fewer regular bus or the same number of articulated bus on the northbound M11, the same number of regular or articulated bus on the southbound M11, two fewer regular buses or one fewer articulated on the eastbound M34/M16, and the same number of regular buses or one fewer articulated on the westbound M34/M16.

During the PM peak period, the 2017 Future with the Proposed Actions condition would require the same number of regular or articulated bus than the 2019 Future with the Proposed Actions condition on the northbound M10/M20, one fewer regular or articulated bus on the southbound M10/M20, the same number of regular or articulated buses on the northbound M11, one fewer regular bus or the same number of articulated bus on the southbound M11, and one fewer regular or articulated bus on the eastbound M34/M16, and two fewer regular or articulated bus on the

westbound M34/M16. Thus, bus service would need to increase under the 2017 Future with the Proposed Actions condition, but to a lesser degree than the 2017 Future with the Proposed Actions condition.

Buses on the M11 and M34/M16 routes would need to be converted to articulated service under both the 2017 Future with the Proposed Actions condition and the 2019 Future with the Proposed Actions condition to accommodate future passenger demand. It is NYCT policy to increase bus service to accommodate rider demand, and thus no significant adverse impacts to bus service would occur under the 2017 Future with the Proposed Actions condition or the 2019 Future with the Proposed Actions condition.

*PEDESTRIAN ELEMENTS*

The sidewalk, corner, and crosswalk LOS results in 2017 in the Future with the Proposed Actions condition with Mitigation are provided in Appendix E, "Transportation Technical Memos and Analyses." The projected number of unmitigated significant adverse impacts for the 2017 Future with the Proposed Actions condition were compared with the 2019 Future with the Proposed Actions condition and provided in Table 24-21 (see Section I, "Transit and Pedestrian Tables"). For all four peak periods analyzed, the 2017 Future with the Proposed Actions condition would have a total of 12 (three sidewalks, two crosswalks, and seven corners) fewer unmitigated significant adverse pedestrian impacts (37 for 2019 and 25 for 2017) compared to the 2019 Future with the Proposed Actions condition.

In Section I, "Transit and Pedestrian Tables," Tables 24-22 through Table 24-24 present the sidewalk, crosswalk, and corner locations that would have significant adverse impacts in the 2017 Future with the Proposed Actions, proposed mitigation measures, and the effectiveness of the proposed mitigation measure for each location. The 2017 Future with the Proposed Actions condition would have a total of 4 (1 for the AM peak hour, zero for the midday peak hour, 3 for the PM peak hour, and zero for the Saturday peak hour) sidewalk unmitigated significant adverse impacts, which would be 3 (same, 1, 1, and 1) fewer impacts than the 7 (1, 1, 4, and 1) impacts projected for the 2019 Future with the Proposed Actions condition during the weekday AM, midday, PM, and Saturday peak hours, respectively. The 2017 Future with the Proposed Actions condition is projected to have a total of 15 (5, 7, 2, and 1) crosswalk unmitigated significant adverse impacts, 2 (zero, 1, 1, and zero) fewer impacts as compared with the 17 (5, 8, 3, and 1) impacts projected for the 2019 Future with the Proposed Actions condition. The 2017 Future with the Proposed Actions condition is projected to have a total of 6 (1, 3, 2, and zero) corner unmitigated significant adverse impacts, 7 (2, 4, 1, and zero) fewer impacts as compared with the 13 (3, 7, 3, and zero) impacts projected for the 2019 Future with the Proposed Actions condition.

The following discusses potential mitigation measures for the pedestrian impacts identified for the 2017 Future with the Proposed Actions condition in Chapter 18, "Transit and Pedestrians."

*Sidewalks*

Significant adverse impacts at intersection and sidewalk locations have been identified below including the effectiveness of the proposed mitigation measures.

- Tenth Avenue and West 33rd Street—significant adverse impacts would occur at the south sidewalk (location 4) on West 33rd Street between Ninth and Tenth Avenues during the AM and PM peak periods. These impacts would be unmitigated.

- Ninth Avenue and West 33rd Street—significant adverse impacts would occur at both the north (AM and PM peak periods) and south (PM peak period) sidewalks on West 33rd Street between Eighth and Ninth Avenues (locations 3 and 4). The impacts at the north sidewalk (location 3) would be mitigated through relocation of planters or the street vendor. The impact at the south sidewalk (location 4) would remain unmitigated.
- Eighth Avenue and West 33rd Street—significant adverse impacts would occur at the south sidewalk on West 33rd Street between Eighth and Ninth Avenues (location 8) during the PM peak period. These impacts would be unmitigated.

*Crosswalks*

Significant adverse impacts at intersection and crosswalk locations have been identified below including the effectiveness of the proposed mitigation measures.

- Eleventh Avenue and West 33rd Street—significant adverse impacts would occur at the south crosswalk during the AM, midday, and PM peak periods. These impacts would be mitigated through a crosswalk widening.
- Tenth Avenue and West 34th Street—significant adverse impacts would occur at the north crosswalk during the PM peak period and the south crosswalk during the AM peak period. These impacts would be mitigated through a crosswalk widening.
- Tenth Avenue and West 33rd Street—significant adverse impacts would occur at the north (AM peak period) and south (AM and PM peak periods) crosswalks. The north crosswalk impact would be mitigated through crosswalk widening. The south crosswalk would remain unmitigated during the weekday AM peak period, although a crosswalk widening at this location is proposed. However, crosswalks widening at this location would mitigate the significant adverse impacts during the PM peak period.
- Tenth Avenue and West 31st Street—significant adverse impacts would occur at the north (PM peak period) and south (midday peak period) crosswalks. These impacts would be mitigated through crosswalk widenings.
- Eighth Avenue and West 33rd Street—significant adverse impacts would occur at the south crosswalk during the AM and PM peak periods. These impacts would be mitigated through crosswalk widening.
- Boulevard and West 33rd Street—significant adverse impacts would occur at the west crosswalk during the AM and PM peak periods. These impacts would be unmitigated.
- Boulevard and West 33rd Street—a significant adverse impact would occur at the west crosswalk during the AM peak period. This impact would be unmitigated.
- Eleventh Avenue and West 32nd Street—significant adverse impacts would occur at the north crosswalk during the midday, PM, and Saturday peak periods. These impacts would be unmitigated.

In addition, the following crosswalk locations would result in significant adverse impacts due to changes in traffic signal timing as part of the measures to mitigate traffic impacts. These impacts would be unmitigated.

- Tenth Avenue and West 34th Street—significant adverse impacts would occur at the east and west crosswalks during the midday peak period.

- Ninth Avenue and West 34th Street –significant adverse impacts would occur at the east and west crosswalks during the AM peak period.
- Ninth Avenue and West 31st Street—significant adverse impacts would occur at the east and west crosswalks during the midday peak period.
- Tenth Avenue and West 35th Street—a significant adverse impact would occur at the west crosswalk during the midday peak period.

*Corners*

Significant adverse impacts at intersection and corner locations have been identified below including the effectiveness of the proposed mitigation measures.

- Eleventh Avenue and West 33rd Street—significant adverse impacts would occur at the southeast, southwest, and northwest corners during the weekday AM, midday, and PM peak periods. Bulb outs at all corners would mitigate most of the impacts except the southwest corner during the weekday PM peak period.
- Eleventh Avenue and West 30th Street—a significant impact would occur at the northeast corner during the midday peak period. This impact would be unmitigated during the weekday midday peak period.
- Tenth Avenue and West 33rd Street—significant adverse impacts would occur at the northeast (AM and PM peak periods), southeast (AM, PM, and Saturday peak periods), southwest (AM and PM peak periods), and northwest (AM peak period) corners. These impacts would be mitigated through the addition of bulb outs at all corners at this intersection.
- Ninth Avenue and West 33rd Street—significant adverse impacts would occur at the northeast (AM peak period) , southeast (AM peak period), and southwest (AM and PM peak periods) corners. A bulb out would be added at all three corner locations. As a result of the bulb outs, the impacts at the southeast and southwest corners would be mitigated and the northeast corner would remain unmitigated.
- Ninth Avenue and West 31st Street—significant adverse impacts would occur at the northeast (AM peak period), southwest (AM, and PM peak periods), and northwest (PM peak period) corners. These impacts would be mitigated through the addition of bulb outs at all corners.
- Eighth Avenue and West 33rd Street—significant adverse impacts would occur at the southeast (PM peak period) and southwest (AM peak period) corners. The southeast corner would be mitigated through relocation of planters closer to the building in the vicinity of this corner. The southwest corner would be mitigated through the addition of a bulb out.
- Boulevard and West 33rd Street—significant adverse impacts would occur at the southwest corner during the weekday midday and PM peak periods. These impacts would be unmitigated.
- Eleventh Avenue and West 32nd Street—a significant impact would occur at the northeast corner during the midday peak period. This impact would be unmitigated.

## G. TRAFFIC AND PARKING TABLES

**Table 24-1**
**2019 Future with the Proposed Actions:**
**Summary of Movements/Intersections with Significant Adverse Impacts**

| | Movements/ Intersections Analyzed | Movements/ Intersections With No Significant Impacts | Movements/ Intersections With Significant Impacts | Mitigated Movements/ Intersections | Unmitigated Movements/ Intersections |
|---|---|---|---|---|---|
| Weekday AM | 367/118 | 286/54 | 81/64 | 67/53 | 14/11 |
| Weekday Midday | 366/118 | 291/59 | 75/59 | 71/56 | 4/3 |
| Weekday PM | 372/118 | 276/45 | 96/73 | 7958 | 17/15 |
| Saturday | 364/118 | 313/73 | 51/45 | 45/40 | 6/5 |

**Table 24-2**
**2017 Future with the Proposed Actions:**
**Summary of Movements/Intersections with Significant Adverse Impacts**

| | Movements/ Intersections Analyzed | Movements/ Intersections With No Significant Impacts | Movements/ Intersections With Significant Impacts | Mitigated Movements/ Intersections | Unmitigated Movements/ Intersections |
|---|---|---|---|---|---|
| Weekday AM | 367/118 | 297/59 | 70/59 | 60/50 | 10/9 |
| Weekday Midday | 366/118 | 302/68 | 64/50 | 63/49 | 1/1 |
| Weekday PM | 372/118 | 284/47 | 88/71 | 74/59 | 14/12 |
| Saturday | 364/118 | 322/77 | 42/41 | 39/38 | 3/3 |

**Table 24-3**
**2016 Construction Conditions:**
**Summary of Movements/Intersections with Significant Adverse Impacts**

| | Movements/ Intersections Analyzed | Movements/ Intersections With No Significant Impacts | Movements/ Intersections With Significant Impacts | Mitigated Movements/ Intersections | Unmitigated Movements/ Intersections |
|---|---|---|---|---|---|
| Weekday AM | 71/25 | 56/15 | 15/10 | 8/7 | 7/3 |
| Weekday Midday | 70/25 | 59/17 | 11/8 | 5/4 | 6/4 |
| Weekday PM | 70/25 | 53/14 | 17/11 | 10/8 | 7/3 |

## Table 24-4A
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Sixth Ave. @ 28th St. | EB | LT | 1.22 | 342.9 | F | EB | LT | 1.25 | 356.1 | F | EB | LT | 1.22 | 335.6 | F |
| | NB | TR | 0.87 | 35.9 | D | NB | TR | 0.88 | 37.0 | D | NB | TR | 0.90 | 43.0 | D |
| Sixth Ave. @ 30th St. | **EB** | **LT** | **1.41** | **380.2** | **F** | **EB** | **LT** | **1.49** | **414.8** | **F** | **EB** | **L** | **0.59** | **24.0** | **C** |
| | | | | | | | | | | | **EB** | **T** | **1.05** | **242.4** | **F** |
| | NB | TR | 1.01 | 86.3 | F | NB | TR | 1.02 | 108.8 | F | NB | TR | 0.89 | 24.4 | C |
| Sixth Ave. @ 34th St. | EB | T | 0.70 | 20.4 | C | EB | T | 0.73 | 21.7 | C | EB | T | 0.77 | 23.5 | C |
| | WB | TR | 0.62 | 16.4 | B | WB | TR | 0.63 | 16.7 | B | WB | TR | 0.65 | 17.1 | B |
| | NB | T | 1.44 | 329.0 | F | NB | T | 1.46 | 335.6 | F | NB | T | 1.46 | 335.6 | F |
| | SB | T | 1.64 | 505.2 | F | SB | T | 1.64 | 505.2 | F | SB | T | 1.64 | 505.2 | F |
| Sixth Ave. @ 35th St. | WB | TR | 0.96 | 52.0 | D | WB | TR | 1.01 | 100.5 | F | WB | TR | 0.91 | 41.9 | D |
| | NB | LT | 0.64 | 10.4 | B | NB | LT | 0.65 | 10.5 | B | NB | LT | 0.69 | 13.2 | B |
| Seventh Ave. @ 28th St. | EB | TR | 0.95 | 328.7 | F | EB | TR | 1.00 | 357.3 | F | EB | TR | 0.96 | 324.0 | F |
| | SB | LT | 0.72 | 12.4 | B | SB | LT | 0.72 | 12.4 | B | SB | LT | 0.74 | 13.5 | B |
| Seventh Ave. @ 29th St. | WB | LT | 1.29 | 385.6 | F | WB | LT | 1.35 | 409.7 | F | WB | LT | 1.28 | 365.3 | F |
| | SB | TR | 0.82 | 18.8 | B | SB | TR | 0.82 | 18.9 | B | SB | TR | 0.86 | 22.3 | C |
| Seventh Ave. @ 30th St. | EB | T | 1.35 | 427.0 | F | EB | T | 1.45 | 467.4 | F | EB | T | 1.37 | 421.1 | F |
| | EB | R | 0.85 | 44.6 | D | EB | R | 0.88 | 47.8 | D | EB | R | 0.82 | 38.7 | D |
| | SB | LT | 0.78 | 17.6 | B | SB | LT | 0.78 | 17.6 | B | SB | LT | 0.82 | 20.5 | C |
| Seventh Ave. @ 31st St. | **WB** | **LT** | **1.29** | **365.9** | **F** | **WB** | **LT** | **1.33** | **380.4** | **F** | **WB** | **L** | **0.21** | **17.4** | **B** |
| | | | | | | | | | | | **WB** | **T** | **1.18** | **324.3** | **F** |
| | SB | TR | 0.93 | 26.4 | C | SB | TR | 0.93 | 26.6 | C | SB | TR | 0.95 | 30.4 | C |
| Seventh Ave. @ 33rd St. | **WB** | **LT** | **1.21** | **581.9** | **F** | **WB** | **LT** | **1.22** | **580.4** | **F** | **WB** | **L** | **0.79** | **60.0** | **E** |
| | | | | | | | | | | | **WB** | **T** | **0.53** | **34.5** | **C** |
| | SB | TR | 1.12 | 112.1 | F | SB | TR | 1.15 | 124.6 | F | SB | TR | 0.84 | 9.2 | A |
| Seventh Ave. 34th St. | EB | T | 0.98 | 61.7 | E | EB | T | 1.03 | 184.5 | F | EB | T | 1.08 | 311.5 | F |
| | WB | LT | 0.82 | 32.4 | C | WB | LT | 0.85 | 35.0 | D | WB | LT | 0.89 | 38.9 | D |
| | SB | T | 0.96 | 27.4 | C | SB | T | 0.97 | 29.8 | C | SB | T | 0.97 | 30.0 | C |
| Seventh Ave. @ 35th St. | WB | L | 0.87 | 50.5 | D | WB | L | 0.88 | 52.2 | D | WB | L | 0.80 | 41.2 | D |
| | WB | LT | 1.26 | 421.9 | F | WB | LT | 1.37 | 470.5 | F | WB | T | 1.01 | 258.0 | F |
| | SB | TR | 0.89 | 20.1 | C | SB | TR | 0.91 | 21.1 | C | SB | TR | 0.91 | 21.2 | C |
| Seventh Ave. @ 36th St. | EB | TR | 1.26 | 436.5 | F | EB | TR | 1.28 | 447.1 | F | EB | TR | 1.07 | 311.5 | F |
| | SB | LT | 0.84 | 19.3 | B | SB | LT | 0.86 | 19.9 | B | SB | LT | 0.88 | 19.9 | B |
| Seventh Ave. @ 37th St. | WB | LT | 0.96 | 44.7 | D | WB | LT | 0.99 | 51.8 | D | WB | LT | 0.97 | 44.9 | D |
| | SB | TR | 0.82 | 22.1 | C | SB | TR | 0.84 | 22.8 | C | SB | TR | 0.86 | 24.7 | C |
| Seventh Ave. @ 38th St. | EB | TR | 1.16 | 389.5 | F | EB | TR | 1.18 | 394.2 | F | EB | TR | 1.14 | 371.7 | F |
| | SB | LT | 0.72 | 16.1 | B | SB | LT | 0.73 | 16.3 | B | SB | LT | 0.75 | 17.5 | B |
| Eighth Ave. @ 29th St. | WB | TR | 1.26 | 389.9 | F | WB | TR | 1.32 | 412.1 | F | WB | TR | 1.25 | 368.0 | F |
| | NB | LT | 0.72 | 15.9 | B | NB | LT | 0.73 | 16.1 | B | NB | LT | 0.76 | 18.5 | B |

## Table 24-4A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS |
| Eighth Ave. @ 30th St. | EB | LT | 1.27 | 389.5 | F | EB | LT | 1.35 | 420.4 | F | EB | LT | 1.28 | 377.1 | F |
| | NB | TR | 0.76 | 18.4 | B | NB | TR | 0.76 | 18.5 | B | NB | TR | 0.80 | 21.2 | C |
| Eighth Ave. @ 33rd St. | WB | TR | 0.38 | 14.0 | B | WB | TR | 0.41 | 14.3 | B | WB | TR | 0.42 | 15.0 | B |
| | NB | LT | 1.09 | 138.5 | F | NB | LT | 1.10 | 145.1 | F | NB | LT | 1.07 | 130.2 | F |
| Eighth Ave. @ 35th St. | WB | TR | 1.73 | 660.4 | F | WB | TR | 1.84 | 702.9 | F | WB | TR | 1.72 | 629.5 | F |
| | NB | LT | 0.71 | 12.0 | B | NB | LT | 0.71 | 12.1 | B | NB | LT | 0.75 | 14.3 | B |
| Eighth Ave. @ 36th St. | EB | LT | 0.96 | 278.7 | F | EB | LT | 1.00 | 300.8 | F | EB | LT | 0.91 | 224.7 | F |
| | NB | TR | 0.81 | 16.5 | B | NB | TR | 0.81 | 16.7 | B | NB | TR | 0.82 | 16.9 | B |
| Ninth Ave. @ 28th St. | **EB** | **TR** | **1.21** | **388.3** | **F** | **EB** | **TR** | **1.27** | **410.4** | **F** | **EB** | **T** | **1.03** | **328.9** | **F** |
| | | | | | | | | | | | **EB** | **R** | **0.27** | **21.8** | **C** |
| | SB | L | 0.56 | 17.8 | B | SB | L | 0.57 | 17.9 | B | SB | L | 0.52 | 13.6 | B |
| | SB | T | 0.96 | 30.6 | C | SB | T | 0.97 | 32.0 | C | SB | T | 0.89 | 28.8 | C |
| Ninth Ave. @ 29th St. | WB | LT | 0.57 | 23.9 | C | WB | LT | 0.62 | 24.9 | C | WB | LT | 0.64 | 26.0 | C |
| | SB | TR | 1.13 | 134.7 | F | SB | TR | 1.14 | 139.3 | F | SB | TR | 1.12 | 128.6 | F |
| Ninth Ave. @ 30th St. | EB | TR | 1.21 | 475.2 | F | EB | TR | 1.31 | 515.9 | F | EB | TR | 1.22 | 451.3 | F |
| | SB | L | 1.62 | 428.7 | F | SB | L | 1.62 | 428.7 | F | SB | L | 1.61 | 428.7 | F |
| | SB | T | 0.67 | 13.7 | B | SB | T | 0.68 | 13.7 | B | SB | T | 0.68 | 15.3 | B |
| Ninth Ave. @ 31st St. | WB | LTR | 0.90 | 42.4 | D | WB | LTR | 0.94 | 47.4 | D | WB | LTR | 0.91 | 42.2 | D |
| | SB | TR | 0.79 | 13.1 | B | SB | TR | 0.80 | 13.4 | B | SB | TR | 0.82 | 14.7 | B |
| Ninth Ave. @ 33rd St. | **WB** | **LT** | **1.03** | **193.7** | **F** | **WB** | **LT** | **1.13** | **396.4** | **F** | **WB** | **L** | **0.50** | **32.3** | **C** |
| | | | | | | | | | | | **WB** | **T** | **0.80** | **40.9** | **D** |
| | SB | TR | 0.91 | 18.2 | B | SB | TR | 0.94 | 20.4 | C | SB | TR | 0.94 | 20.6 | C |
| Ninth Ave. @ 34th St. | EB | T | 0.93 | 58.8 | E | EB | T | 0.98 | 69.0 | E | EB | T | 0.92 | 53.7 | D |
| | EB | R | 2.01 | 761.6 | F | EB | R | 2.04 | 776.4 | F | EB | R | 1.77 | 621.3 | F |
| | WB | DefL | 0.88 | 58.7 | E | WB | DefL | 0.91 | 65.8 | E | WB | DefL | 0.84 | 49.9 | D |
| | WB | T | 0.53 | 18.3 | B | WB | T | 0.56 | 19.1 | B | WB | T | 0.55 | 16.8 | B |
| | **SB** | **LTR** | **1.26** | **215.3** | **F** | **SB** | **LTR** | **1.28** | **225.2** | **F** | **SB** | **LT** | **1.30** | **241.6** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.51** | **29.8** | **C** |
| Ninth Ave. @ 35th St. | WB | LT | 1.54 | 575.9 | F | WB | LT | 1.65 | 618.6 | F | WB | LT | 1.55 | 551.6 | F |
| | SB | TR | 0.77 | 18.9 | B | SB | TR | 0.79 | 20.1 | C | SB | TR | 0.83 | 25.0 | C |
| Ninth Ave. @ 36th St. | EB | TR | 1.10 | 180.6 | F | EB | TR | 1.14 | 195.9 | F | EB | TR | 1.10 | 177.2 | F |
| | **SB** | **LT** | **1.10** | **113.1** | **F** | **SB** | **LT** | **1.13** | **123.5** | **F** | **SB** | **L** | **0.64** | **15.7** | **B** |
| | | | | | | | | | | | **SB** | **T** | **0.89** | **27.6** | **C** |
| Ninth Ave. @ 37th St. | WB | LT | 0.85 | 41.6 | D | WB | LT | 0.91 | 47.3 | D | WB | LT | 0.84 | 39.0 | D |
| | SB | TR | 0.69 | 21.6 | C | SB | TR | 0.71 | 22.1 | C | SB | TR | 0.75 | 25.8 | C |
| Ninth Ave. @ 38th St. | EB | TR | 1.20 | 482.7 | F | EB | TR | 1.21 | 485.4 | F | EB | TR | 1.17 | 456.5 | F |
| | SB | LT | 0.62 | 10.0 | A | SB | LT | 0.63 | 10.1 | B | SB | LT | 0.65 | 11.0 | B |
| Ninth Ave. @ 42nd St. | EB | TR | 0.87 | 41.1 | D | EB | TR | 0.88 | 42.0 | D | EB | TR | 0.88 | 42.0 | D |
| | WB | DefL | 1.12 | 566.4 | F | WB | DefL | 1.13 | 619.4 | F | WB | DefL | 1.13 | 619.4 | F |
| | WB | T | 0.44 | 20.7 | C | WB | T | 0.46 | 21.0 | C | WB | T | 0.46 | 21.0 | C |
| | **SB** | **LTR** | **1.09** | **138.9** | **F** | **SB** | **LTR** | **1.11** | **146.8** | **F** | **SB** | **LT** | **1.07** | **131.9** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.13** | **18.5** | **B** |
| Tenth Ave. @ 26th St. | EB | LT | 1.11 | 410.6 | F | EB | LT | 1.15 | 423.8 | F | EB | LT | 1.12 | 400.9 | F |
| | NB | TR | 0.58 | 10.9 | B | NB | TR | 0.59 | 11.0 | B | NB | TR | 0.61 | 11.8 | B |
| Tenth Ave. @ 28th St. | EB | LT | 1.40 | 534.0 | F | EB | LT | 1.46 | 557.2 | F | EB | LT | 1.41 | 525.1 | F |
| | NB | TR | 0.67 | 10.8 | B | NB | TR | 0.68 | 10.9 | B | NB | TR | 0.69 | 11.9 | B |
| Tenth Ave. @ 30th St. | EB | LT | 2.01 | 768.6 | F | EB | LT | 2.47 | 977.3 | F | EB | LT | 1.10 | 340.4 | F |
| | NB | T | 0.58 | 9.7 | A | NB | T | 0.60 | 9.8 | A | NB | T | 0.60 | 9.9 | A |
| | NB | R | 0.83 | 29.1 | C | NB | R | 0.98 | 58.5 | E | NB | R | 0.70 | 18.4 | B |
| Tenth Ave. @ 31st St. | WB | R | 1.26 | 348.8 | F | WB | R | 1.36 | 396.7 | F | WB | R | 1.26 | 340.5 | F |
| | NB | T | 0.68 | 10.9 | B | NB | T | 0.72 | 11.5 | B | NB | T | 0.75 | 13.6 | B |
| Tenth Ave. @ 33rd St. | **WB** | **TR** | **0.94** | **50.6** | **D** | **WB** | **TR** | **1.03** | **175.7** | **F** | **WB** | **TR** | **0.71** | **30.2** | **C** |
| | | | | | | | | | | | **WB** | **R** | **0.62** | **36.6** | **D** |
| | NB | LT | 0.75 | 13.2 | B | NB | LT | 0.79 | 14.2 | B | NB | LT | 1.00 | 33.3 | C |

## Table 24-4A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| Intersection | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS |
| Tenth Ave. @ 34th St. | EB | DefL | 0.73 | 50.3 | D | EB | DefL | 0.87 | 70.0 | E | EB | DefL | 0.74 | 46.5 | D |
| | EB | T | 0.46 | 26.7 | C | EB | T | 0.48 | 27.5 | C | EB | T | 0.45 | 23.9 | C |
| | WB | T | 0.56 | 27.4 | C | WB | T | 0.60 | 28.3 | C | WB | T | 0.55 | 24.3 | C |
| | WB | R | 0.69 | 41.0 | D | WB | R | 0.72 | 43.6 | D | WB | R | 0.62 | 32.9 | C |
| | **NB** | **LTR** | **0.91** | **17.7** | **B** | **NB** | **LTR** | **0.94** | **20.7** | **C** | **NB** | **LT** | **0.90** | **30.5** | **C** |
| | | | | | | | | | | | **NB** | **R** | **0.50** | **15.7** | **B** |
| Tenth Ave. @ 35th St. | WB | TR | 1.53 | 443.1 | F | WB | TR | 1.71 | 520.1 | F | WB | TR | 1.55 | 431.0 | F |
| | NB | LT | 0.87 | 15.8 | B | NB | LT | 0.90 | 17.4 | B | NB | LT | 0.97 | 26.3 | C |
| Tenth Ave. @ 42nd St. | EB | LT | 2.05 | 750.4 | F | EB | LT | 2.08 | 768.5 | F | EB | LT | 1.94 | 686.6 | F |
| | WB | TR | 1.06 | 296.4 | F | WB | TR | 1.06 | 298.2 | F | WB | TR | 1.03 | 178.5 | F |
| | NB | LTR | 0.71 | 20.2 | C | NB | LTR | 0.72 | 20.5 | C | NB | LTR | 0.73 | 22.1 | C |
| Tenth Ave. @ 43st St. | EB | L | 0.02 | 17.1 | B | EB | L | 0.02 | 17.1 | B | EB | L | 0.02 | 17.1 | B |
| | WB | TR | 0.39 | 21.2 | C | WB | TR | 0.40 | 21.3 | C | WB | TR | 0.40 | 21.3 | C |
| | NB | LT | 1.19 | 158.1 | F | NB | LT | 1.20 | 161.2 | F | NB | LT | 0.94 | 39.4 | D |
| Tenth Ave. @ 57st St. | EB | LT | 1.08 | 370.1 | F | EB | LT | 1.09 | 376.0 | F | EB | LT | 1.05 | 250.5 | F |
| | WB | TR | 0.74 | 26.5 | C | WB | TR | 0.74 | 26.5 | C | WB | TR | 0.72 | 25.1 | C |
| | NB | LTR | 0.70 | 16.7 | B | NB | LTR | 0.70 | 16.7 | B | NB | LTR | 0.72 | 17.8 | B |
| Eleventh Ave. @ 22nd St. | WB (22nd) | R | 0.02 | 10.7 | B | WB (22nd) | R | 0.02 | 10.7 | B | WB (22nd) | R | 0.02 | 10.7 | B |
| | NB (11th) | T | 0.07 | 39.3 | D | NB (11th) | T | 0.07 | 39.3 | D | NB (11th) | T | 0.07 | 39.3 | D |
| | WB (11th) | L | 0.57 | 54.2 | D | WB (11th) | L | 0.56 | 54.1 | D | WB (11th) | L | 0.56 | 54.1 | D |
| | WB (11th) | LR | 0.43 | 54.1 | D | WB (11th) | LR | 0.48 | 55.6 | E | WB (11th) | LR | 0.48 | 55.6 | E |
| | NB (9A) | T | 1.07 | 115.2 | F | NB (9A) | T | 1.09 | 120.6 | F | NB (9A) | T | 1.09 | 120.6 | F |
| | SB (9A) | T | 0.87 | 9.9 | A | SB (9A) | T | 0.87 | 10.0 | A | SB (9A) | T | 0.87 | 10.0 | A |
| Eleventh Ave. @ 24th St. | EB | R | 0.27 | 27.2 | C | EB | R | 0.27 | 27.2 | C | EB | R | 0.28 | 28.2 | C |
| | NB | L | 0.28 | 27.0 | C | NB | L | 0.28 | 27.0 | C | NB | L | 0.29 | 27.9 | C |
| | SB | L | 0.24 | 4.5 | A | SB | L | 0.26 | 4.6 | A | SB | L | 0.26 | 4.6 | A |
| | SB | TR | 1.25 | 217.9 | F | SB | TR | 1.29 | 236.0 | F | SB | TR | 1.24 | 213.1 | F |
| Eleventh Ave. @ 30th St. | EB | TR | 0.99 | 60.4 | E | EB | TR | 1.22 | 353.2 | F | EB | TR | 0.59 | 37.8 | D |
| | SB | LT | 1.05 | 124.2 | F | SB | LT | 1.19 | 177.9 | F | SB | LT | 1.06 | 118.1 | F |
| Eleventh Ave. @ 33rd St. | WB | L | 0.53 | 33.7 | C | WB | L | 0.97 | 86.3 | F | WB | L | 0.64 | 32.5 | C |
| | WB | LT | 0.63 | 32.9 | C | WB | LT | 0.97 | 62.3 | E | WB | LT | 0.68 | 28.0 | C |
| | SB | TR | 0.53 | 6.2 | A | SB | TR | 0.63 | 7.2 | A | SB | TR | 0.76 | 15.5 | B |
| Eleventh Ave. @ 37th St. | EB | LR | 0.10 | 27.2 | C | EB | LR | 0.10 | 27.2 | C | EB | LR | 0.09 | 25.5 | C |
| | WB | L | 0.75 | 54.0 | D | WB | L | 0.87 | 68.6 | E | WB | L | 0.78 | 53.4 | D |
| | WB | R | 0.58 | 42.7 | D | WB | R | 0.58 | 42.7 | D | WB | R | 0.52 | 37.5 | D |
| | NB | T | 0.08 | 6.0 | A | NB | T | 0.08 | 6.0 | A | NB | T | 0.08 | 6.8 | A |
| | SB | T | 0.60 | 5.2 | A | SB | T | 0.63 | 5.6 | A | SB | T | 0.66 | 7.0 | A |
| Eleventh Ave. @ 38th St. | NB | TR | 0.17 | 8.2 | A | NB | TR | 0.17 | 8.2 | A | NB | TR | 0.16 | 7.4 | A |
| | SB | LT | 1.08 | 112.7 | F | SB | LT | 1.13 | 132.1 | F | SB | LT | 1.09 | 112.1 | F |
| Eleventh Ave. @ 42nd St. | EB | TR | 0.89 | 41.9 | D | EB | TR | 0.90 | 43.4 | D | EB | TR | 0.93 | 47.1 | D |
| | WB | L | 0.37 | 17.8 | B | WB | L | 0.37 | 18.0 | B | WB | L | 0.38 | 18.2 | B |
| | WB | LT | 0.33 | 14.4 | B | WB | LT | 0.36 | 14.8 | B | WB | LT | 0.36 | 14.8 | B |
| | SB | LT | 1.00 | 45.0 | D | SB | LT | 1.03 | 115.5 | F | SB | LT | 1.03 | 115.5 | F |
| | SB | R | 0.34 | 23.0 | C | SB | R | 0.34 | 23.0 | C | SB | R | 0.34 | 23.0 | C |
| Eleventh Ave. @ 44th St. | EB | LTR | 1.26 | 593.6 | F | EB | LTR | 1.27 | 597.9 | F | EB | LTR | 1.04 | 434.1 | F |
| | SB | L | 0.18 | 3.3 | A | SB | L | 0.18 | 3.3 | A | SB | L | 0.18 | 3.3 | A |
| | SB | T | 0.67 | 8.9 | A | SB | T | 0.69 | 9.3 | A | SB | T | 0.69 | 9.3 | A |
| Eleventh Ave. @ 47th St. | WB | LTR | 0.98 | 71.2 | E | WB | LTR | 1.00 | 77.1 | E | WB | LTR | 0.95 | 63.6 | E |
| | NB | L | 0.16 | 9.2 | A | NB | L | 0.18 | 9.9 | A | NB | L | 0.17 | 10.1 | B |
| | NB | T | 0.18 | 6.6 | A | NB | T | 0.18 | 6.6 | A | NB | T | 0.18 | 7.0 | A |
| | **SB** | **TR** | **0.95** | **36.6** | **D** | **SB** | **TR** | **0.98** | **54.2** | **D** | **SB** | **T** | **0.90** | **30.9** | **C** |
| | | | | | | | | | | | **SB** | **R** | **0.07** | **6.5** | **A** |

## Table 24-4A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Eleventh Ave. @ 54th St. | EB | LTR | 1.22 | 370.2 | F | EB | LTR | 1.23 | 376.7 | F | EB | LTR | 1.23 | 376.7 | F |
| | NB | L | 0.84 | 57.0 | E | NB | L | 0.86 | 63.1 | E | NB | L | 0.86 | 63.1 | E |
| | NB | TR | 0.54 | 9.9 | A | NB | TR | 0.54 | 9.9 | A | NB | TR | 0.54 | 9.9 | A |
| | SB | L | 0.55 | 12.8 | B | SB | L | 0.56 | 13.2 | B | SB | L | 0.56 | 13.2 | B |
| | SB | TR | 0.88 | 12.2 | B | SB | TR | 0.89 | 12.9 | B | SB | TR | 0.89 | 12.9 | B |
| Eleventh Ave. @ 57th St. | **EB** | **L** | **1.14** | **631.9** | **F** | **EB** | **L** | **1.14** | **631.9** | **F** | **EB** | **L** | **1.14** | **503.9** | **F** |
| | **EB** | **TR** | **1.20** | **384.8** | **F** | **EB** | **TR** | **1.21** | **387.4** | **F** | **EB** | **T** | **1.12** | **352.0** | **F** |
| | | | | | | | | | | | **EB** | **R** | **0.09** | **23.3** | **C** |
| | WB | L | 1.03 | 204.8 | F | WB | L | 1.03 | 204.7 | F | WB | L | 1.04 | 170.6 | F |
| | WB | TR | 0.84 | 40.1 | D | WB | TR | 0.84 | 40.1 | D | WB | TR | 0.84 | 40.1 | D |
| | NB | L | 0.47 | 36.5 | D | NB | L | 0.47 | 36.5 | D | NB | L | 0.47 | 36.5 | D |
| | NB | TR | 0.48 | 18.6 | B | NB | TR | 0.48 | 18.6 | B | NB | TR | 0.48 | 18.6 | B |
| | SB | L | 1.30 | 369.4 | F | SB | L | 1.32 | 378.0 | F | SB | L | 1.32 | 378.0 | F |
| | SB | TR | 0.84 | 23.8 | C | SB | TR | 0.85 | 24.3 | C | SB | TR | 0.85 | 24.3 | C |
| Twelfth Ave. @ 24th St. | WB | L | 0.56 | 70.3 | E | WB | L | 0.52 | 68.2 | E | WB | L | 0.52 | 68.2 | E |
| | WB | LTR | 0.49 | 67.7 | E | WB | LTR | 0.52 | 68.5 | E | WB | LTR | 0.52 | 68.5 | E |
| | WB | R | 0.49 | 68.4 | E | WB | R | 0.53 | 70.0 | E | WB | R | 0.53 | 70.0 | E |
| | NB | TR | 1.01 | 82.1 | F | NB | TR | 1.02 | 93.7 | F | NB | TR | 1.02 | 93.7 | F |
| | SB | L | 0.97 | 134.1 | F | SB | L | 0.97 | 134.1 | F | SB | L | 0.97 | 134.1 | F |
| | SB | T | 0.89 | 17.4 | B | SB | T | 0.90 | 17.5 | B | SB | T | 0.90 | 17.5 | B |
| Twelfth Ave. @ 29th St. | WB | LR | 1.68 | 883.6 | F | WB | LR | 1.97 | 1007.0 | F | WB | LR | 1.73 | 839.0 | F |
| | NB | T | 0.61 | 9.2 | A | NB | T | 0.62 | 9.3 | A | NB | T | 0.64 | 10.8 | B |
| | SB | T | 0.74 | 3.8 | A | SB | T | 0.74 | 3.8 | A | SB | T | 0.76 | 4.2 | A |
| Twelfth Ave. @ 30th St. | EB | LTR | | 64.4 | E | EB | LTR | | 64.4 | E | EB | LTR | | 64.4 | E |
| | NB | TR | 0.75 | 14.7 | B | NB | TR | 0.77 | 15.4 | B | NB | TR | 0.79 | 16.9 | B |
| | SB | L | 1.25 | 377.3 | F | SB | L | 1.35 | 418.7 | F | SB | L | 1.21 | 344.2 | F |
| | SB | TR | 0.86 | 6.7 | A | SB | TR | 0.87 | 6.8 | A | SB | TR | 0.88 | 8.6 | A |
| Twelfth Ave. @ 37th St. | EB | LR | 0.13 | 52.8 | D | EB | LR | 0.13 | 52.6 | D | EB | LR | 0.15 | 54.7 | D |
| | EB | R | 0.12 | 52.9 | D | EB | R | 0.13 | 53.2 | D | EB | R | 0.13 | 54.9 | D |
| | NB | L | 0.10 | 63.7 | E | NB | L | 0.10 | 63.7 | E | NB | L | 0.10 | 63.7 | E |
| | NB | T | 0.95 | 37.1 | D | NB | T | 0.97 | 40.9 | D | NB | T | 0.98 | 41.8 | D |
| | SB | TR | 1.14 | 141.7 | F | SB | TR | 1.16 | 149.1 | F | SB | TR | 1.13 | 136.7 | F |
| Twelfth Ave. @ 41st St. | EB | LR | | 38.2 | D | EB | LR | | 38.2 | D | EB | LR | | 39.6 | D |
| | WB | L | 0.09 | 50.8 | D | WB | L | 0.09 | 50.8 | D | WB | L | 0.09 | 50.8 | D |
| | WB | R | 0.41 | 56.8 | E | WB | R | 0.41 | 56.8 | E | WB | R | 0.41 | 56.8 | E |
| | NB | T | 1.15 | 157.1 | F | NB | T | 1.17 | 167.3 | F | NB | T | 1.15 | 153.6 | F |
| | SB | T | 1.16 | 126.2 | F | SB | T | 1.18 | 134.2 | F | SB | T | 1.16 | 122.2 | F |
| Twelfth Ave. @ 44th St. | NB | TR | 0.82 | 19.7 | B | NB | TR | 0.84 | 20.3 | C | NB | TR | 0.85 | 21.2 | C |
| | SB | L | 1.09 | 291.7 | F | SB | L | 1.11 | 297.1 | F | SB | L | 1.08 | 282.3 | F |
| | SB | T | 0.82 | 7.9 | A | SB | T | 0.84 | 8.2 | A | SB | T | 0.85 | 9.1 | A |
| Twelfth Ave.@ 46th St. | EB | LTR | 0.28 | 56.6 | E | EB | LTR | 0.28 | 56.6 | E | EB | LTR | 0.29 | 57.7 | E |
| | NB | TR | 0.97 | 108.8 | F | NB | TR | 0.98 | 118.8 | F | NB | TR | 0.96 | 102.4 | F |
| | SB | L | 0.53 | 69.9 | E | SB | L | 0.54 | 70.1 | E | SB | L | 0.57 | 72.7 | E |
| | SB | T | 0.86 | 5.6 | A | SB | T | 0.88 | 6.0 | A | SB | T | 0.87 | 5.8 | A |
| Twelfth Ave. @ 54th St. | EB | R | | 5.6 | A | EB | R | | 5.6 | A | EB | R | | 5.6 | A |
| | WB | R | 0.53 | 61.5 | E | WB | R | 0.53 | 61.5 | E | WB | R | 0.53 | 61.5 | E |
| | NB | TR | 1.02 | 105.4 | F | NB | TR | 1.03 | 109.0 | F | NB | TR | 1.03 | 109.0 | F |
| | SB | L | 0.72 | 69.3 | E | SB | L | 0.72 | 69.8 | E | SB | L | 0.72 | 69.8 | E |
| | SB | T | 1.19 | 133.4 | F | SB | T | 1.20 | 139.6 | F | SB | T | 1.20 | 139.6 | F |
| Twelfth Ave. @ 56th St. | NB | T | 1.17 | 169.7 | F | NB | T | 1.18 | 175.9 | F | NB | T | 1.16 | 167.2 | F |
| | SB | L | 1.00 | 56.9 | E | SB | L | 1.00 | 56.9 | E | SB | L | 1.00 | 56.9 | E |
| | SB | T | 0.95 | 5.8 | A | SB | T | 0.96 | 6.8 | A | SB | T | 0.96 | 6.8 | A |

## Table 24-4A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Broadway @ 35th St. | WB | L | 0.12 | 20.9 | C | WB | L | 0.12 | 20.9 | C | WB | L | 0.10 | 18.8 | B |
| | WB | T | 1.59 | 320.5 | F | WB | T | 1.71 | 373.9 | F | WB | T | 1.55 | 302.9 | F |
| | SB | T | 0.35 | 8.6 | A | SB | T | 0.35 | 8.6 | A | SB | T | 0.37 | 10.7 | B |
| | SB | R | 0.51 | 14.5 | B | SB | R | 0.52 | 14.8 | B | SB | R | 0.57 | 18.9 | B |
| Broadway @ 42nd St. | EB | T | 0.48 | 21.6 | C | EB | T | 0.49 | 21.8 | C | EB | T | 0.48 | 20.9 | C |
| | WB | DefL | 1.36 | 654.9 | F | WB | DefL | 1.39 | 674.9 | F | WB | DefL | 1.33 | 628.4 | F |
| | WB | T | 0.71 | 29.6 | C | WB | T | 0.73 | 30.4 | C | WB | T | 0.71 | 28.7 | C |
| | SB | L | 0.55 | 17.8 | B | SB | L | 0.55 | 17.8 | B | SB | L | 0.57 | 19.2 | B |
| | SB | T | 0.67 | 16.0 | B | SB | T | 0.67 | 16.0 | B | SB | T | 0.68 | 17.1 | B |
| Dyer Ave @ 34th St. | EB | T | 0.28 | 12.0 | B | EB | T | 0.30 | 12.2 | B | EB | T | 0.32 | 13.6 | B |
| | WB | T | 0.27 | 12.0 | B | WB | T | 0.29 | 12.2 | B | WB | T | 0.32 | 13.5 | B |
| | WB | R | 0.15 | 8.8 | A | WB | R | 0.15 | 8.8 | A | WB | R | 0.14 | 7.9 | A |
| | SB | L | 0.98 | 93.1 | F | SB | L | 1.10 | 127.8 | F | SB | L | 0.97 | 86.1 | F |
| | SB | LR | 0.99 | 96.1 | F | SB | LR | 1.10 | 128.7 | F | SB | LR | 0.95 | 81.3 | F |
| | SB | R | 0.99 | 100.3 | F | SB | R | 0.83 | 139.5 | F | SB | R | 0.76 | 56.2 | E |
| Dyer Ave @ 36th St. | EB | TR | 0.75 | 89.4 | F | EB | TR | 0.79 | 99.4 | F | EB | TR | 0.76 | 85.9 | F |
| | NB | TR | 0.20 | 26.1 | C | NB | TR | 0.20 | 26.1 | C | NB | TR | 0.20 | 26.9 | C |
| | SB | L | 0.61 | 34.6 | C | SB | L | 0.65 | 36.2 | D | SB | L | 0.65 | 36.0 | D |
| | SB | LT | 0.76 | 34.8 | C | SB | LT | 0.77 | 35.0 | C | SB | LT | 0.77 | 35.1 | D |
| | SB | R | 0.41 | 6.9 | A | SB | R | 0.41 | 7.0 | A | SB | R | 0.42 | 7.6 | A |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-4B:
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Unsignalized Intersections

| | 2019 Future Without the Proposed Actions | | | 2019 Future With the Proposed Actions | | | 2019 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **App** | **Delay Sec/Veh** | **LOS** | **App** | **Delay Sec/Veh** | **LOS** | **App** | **Delay Sec/Veh** | **LOS** |
| Twelfth Ave. @ 33rd St. | WB | 19.9 | C | WB | 38.7 | C | WB | 32.5 | C |
| | NB | -- | -- | NB | -- | -- | NB | 36.2 | D |
| Twelfth Ave. @ 47th St. | WB | 25.4 | D | | 25.4 | D | WB | 44.6 | D |
| | NB | -- | -- | NB | -- | -- | NB | 33.1 | C |

## Table 24-4C:
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| | EB: G=44<br>NB: G=36 | EB: G=39<br>NB: G=41 |
| Sixth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Sixth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Seventh Ave. @ 28th St. | EB: G=31<br>SB: G=49 | EB: G=32<br>SB: G=48 |
| Seventh Ave. @ 29th St. | WB: G=36<br>SB: G=44 | WB: G=38<br>SB: G=42 |
| Seventh Ave. @ 30th St. | EB: G=36<br>SB: G=44 | EB: G=38<br>SB: G=42 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St.* | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| Seventh Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15') – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13') – Restriping by prohibiting parking on the south side of 36th St. |
| Seventh Ave. @ 37th St. | WB: G=40<br>SB: G=40 | WB: G=41<br>SB: G=39 |
| Seventh Ave. @ 38th St. | WB: G=36<br>SB: G=44 | EB: G=37<br>SB: G=43 |
| Eighth Ave. @ 29th St. | WB: G=36<br>NB: G=44 | WB: G=38<br>NB: G=42 |
| Eighth Ave. @ 30th St. | EB: G=38<br>NB: G=42 | EB: G=40<br>NB: G=40 |

## Table 24-4C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eighth Ave. @ 31st St.* | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe |
| | WB: G=40<br>NB: G=40 | WB: G=42<br>NB: G=38 |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 35th St. | NB: G=49<br>WB: G=31 | NB: G=47<br>WB: G=33 |
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| | EB: G=37<br>SB: G=43 | EB: G=33<br>SB: G=47 |
| Ninth Ave. @ 29th St. | WB: G=35<br>SB: G=45 | WB: G=34<br>SB: G=46 |
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=29<br>SBT: G=25<br>SB: G=19 |
| Ninth Ave. @ 31st St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=10<br>EB/WB: G=30<br>SB: G=35 | WB: G=10<br>EB/WB: G=33<br>SB: G=32 |
| | Impacts cannot be fully mitigated | |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=32<br>SB: G=48 |
| Ninth Ave. @ 36th St. | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: G=31<br>SB: G=49 |
| Ninth Ave. @ 37th St. | Ped EB/WB: G=8<br>WB: G=29<br>SB: G=43 | Ped EB/WB: G=8<br>WB: G=31<br>SB: G=41 |

## Table 24-4C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Ninth Ave. @ 38th St. | EB: G=30<br>SB: G=50 | EB: G=31<br>SB: G=49 |
| Ninth Ave. @ 42nd St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 33rd St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Tenth Ave. @ 34th St.* | NB (4 Lanes): LT, T, T, TR | NB (5 Lanes): LT, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=34<br>NB: G=46 |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Tenth Ave. @ 36th St.* | NB (4 Lanes): T, T, T, TR | NB (5 Lanes): T, T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| Tenth Ave. @ 40th St.* | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach (10' each) |
| Tenth Ave. @ 42nd St. | Ped EB/WB: G=7<br>EB/WB: G=28<br>NB: G=45 | Ped EB/WB: G=7<br>EB/WB: G=29<br>NB: G=44 |
| Tenth Ave. @ 43rd St. | NB (4 lanes): LT, T, T, T | NB (5 Lanes): LT, T, T, T, T – An additional lane from prohibiting parking on the west side of Tenth Ave. |
| Tenth Ave. @ 57th St. | EB/WB: G=38<br>NB: G=42 | EB/WB: G=39<br>NB: G=41 |
| Eleventh/Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 24th St. | SBL&NBL&EBR: G=24<br>SB: G=27 | SBL&NBL&EBR: G=23<br>SB: G=28 |

## Table 24-4C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| | EB: G=40<br>SB: G=40 | EB: G=39<br>SB: G=41 |
| Eleventh Ave. @ 33rd St. | WB: G=25<br>SB: G=55 | WB: G=34<br>SB: G=46 |
| Eleventh Ave. @ 37th St. | EB/WB: G=22<br>NB/SB: G=58 | EB/WB: G=24<br>NB/SB: G=56 |
| Eleventh Ave. @ 38th St. | Ped EB/WB: G=26<br>NB/SB: G=54 | Ped EB/WB: G=24<br>NB/SB: G=56 |
| Eleventh Ave. @ 42nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 44th St. | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 47th St. | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| | WB: G=22<br>NB/SB: G=58 | WB: G=23<br>NB/SB: G=57 |
| Eleventh Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 57th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 24th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=26<br>NB/SB: G=113 | WB: G=29<br>NB/SB: G=110 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB Through: G=107<br>SB Left: G= 16 | EB: G=11<br>NB/SB Through: G=105<br>SB Left: G= 18 |
| Twelfth Ave. @ 33rd St.* | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | Signalized<br>WB: G=60<br>NB: G=80 |
| Twelfth Ave. @ 37th St. | EB: G=27.<br>SB T and R: G=22<br>SB and NB: G=67<br>NB T and L: G=14 | EB: G=25.<br>SB T and R: G=24<br>SB and NB: G=67<br>NB T and L: G=14 |

## Table 24-4C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Twelfth Ave. @ 41st St. | EB/WB: G=28<br>EB only: G=9<br>NB/SB: G=71<br>SB only: G=21 | EB/WB: G=28<br>EB only: G=7<br>NB/SB: G=73<br>SB only: G=21 |
| Twelfth Ave. @ 44th St. | NB/SB w/o SBL: G=102<br>SBL: G=37 | NB/SB w/o SBL: G=101<br>SBL: G=38 |
| Twelfth Ave. @ 46th St. | EB: G=18<br>NB/SBT w/ NBR: G=86<br>SB: G=20 | EB: G=17<br>NB/SBT w/ NBR: G=88<br>SB: G=19 |
| Twelfth Ave. @ 47th St.* | Unsignalized | Signalized<br>WB: G=52<br>NB: G=88 |
| Twelfth Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 56th St. | All red after SBT/SBL = 5<br>NBT/SBT: G=68 | All red after SBT/SBL = 4<br>NBT/SBT: G= 69 |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=34<br>SB: G=46 |
| Broadway @ 42nd St. | EB/WB: G=36<br>SB: G=44 | EB/WB: G=37<br>SB: G=43 |
| Dyer Ave. @ 31st St.* | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |
| Dyer Ave. @ 34th St. | EB/WB w/o WBR: G=27<br>SB & WBR: G=15 | EB/WB w/o WBR: G=25<br>SB & WBR: G=17 |
| Dyer Ave. @ 36th St. | EB: G= 26<br>SB: G= 25<br>NB/SBR: G= 24 | EB: G= 27<br>SB: G= 25<br>NB/SBR: G= 23 |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-5A
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Sixth Ave. @ 28th St. | EB | LT | 1.20 | 335.5 | F | EB | LT | 1.23 | 345.4 | F | EB | LT | 1.19 | 325.4 | F |
| | NB | TR | 0.85 | 20.8 | C | NB | TR | 0.86 | 21.1 | C | NB | TR | 0.88 | 23.1 | C |
| Sixth Ave. @ 30th St. | **EB** | **LT** | **1.33** | **346.2** | **F** | **EB** | **LT** | **1.41** | **381.6** | **F** | **EB** | **L** | **0.55** | **19.4** | **B** |
| | | | | | | | | | | | **EB** | **T** | **0.82** | **101.4** | **F** |
| | NB | TR | 0.92 | 53.9 | D | NB | TR | 0.92 | 55.4 | E | NB | TR | 0.92 | 55.4 | E |
| Sixth Ave. @ 34th St. | EB | T | 0.72 | 22.5 | C | EB | T | 0.76 | 24.1 | C | EB | T | 0.76 | 24.1 | C |
| | WB | TR | 0.56 | 15.1 | B | WB | TR | 0.57 | 15.3 | B | WB | TR | 0.57 | 15.3 | B |
| | NB | T | 1.18 | 124.0 | F | NB | T | 1.20 | 214.3 | F | NB | T | 1.20 | 214.3 | F |
| | SB | T | 1.54 | 461.4 | F | SB | T | 1.54 | 461.4 | F | SB | T | 1.54 | 461.4 | F |
| Seventh Ave. @ 29th St. | WB | LT | 1.46 | 451.8 | F | WB | LT | 1.50 | 468.5 | F | WB | LT | 1.45 | 443.4 | F |
| | SB | TR | 0.67 | 20.9 | C | SB | TR | 0.67 | 20.8 | C | SB | TR | 0.68 | 22.3 | C |
| Seventh Ave. @ 30th St. | EB | T | 1.32 | 414.3 | F | EB | T | 1.43 | 458.0 | F | EB | T | 1.35 | 412.3 | F |
| | EB | R | 0.51 | 24.5 | C | EB | R | 0.53 | 25.2 | C | EB | R | 0.50 | 22.9 | C |
| | SB | LT | 0.66 | 20.1 | C | SB | LT | 0.66 | 20.2 | C | SB | LT | 0.69 | 23.2 | C |
| Seventh Ave. @ 31st St. | **WB** | **LT** | **1.37** | **410.7** | **F** | **WB** | **LT** | **1.41** | **426.2** | **F** | **WB** | **L** | **0.37** | **19.9** | **B** |
| | | | | | | | | | | | **WB** | **T** | **1.09** | **296.6** | **F** |
| | SB | TR | 0.85 | 33.9 | C | SB | TR | 0.85 | 34.0 | C | SB | TR | 0.85 | 34.0 | C |
| Seventh Ave. @ 33rd St. | **WB** | **LT** | **1.48** | **671.2** | **F** | **WB** | **LT** | **1.49** | **675.8** | **F** | **WB** | **L** | **0.90** | **76.2** | **E** |
| | | | | | | | | | | | **WB** | **T** | **0.74** | **44.0** | **D** |
| | SB | TR | 1.02 | 75.7 | E | SB | TR | 1.05 | 84.6 | F | SB | TR | 0.76 | 7.6 | A |
| Seventh Ave. @ 34th St. | EB | T | 0.89 | 46.2 | D | EB | T | 0.93 | 52.3 | D | EB | T | 0.88 | 42.9 | D |
| | WB | LT | 0.84 | 33.9 | C | WB | LT | 0.87 | 36.5 | D | WB | LT | 0.80 | 30.3 | C |
| | SB | T | 0.88 | 21.1 | C | SB | T | 0.90 | 22.0 | C | SB | T | 0.94 | 27.4 | C |
| Seventh Ave. @ 35th St. | WB | L | 0.66 | 33.1 | C | WB | L | 0.66 | 33.1 | C | WB | L | 0.60 | 29.6 | C |
| | WB | LT | 1.05 | 266.7 | F | WB | LT | 1.12 | 372.9 | F | WB | T | 0.83 | 155.3 | F |
| | SB | TR | 0.86 | 27.7 | C | SB | TR | 0.87 | 29.4 | C | SB | TR | 0.87 | 29.4 | C |
| Seventh Ave. @ 36th St. | EB | TR | 1.06 | 285.2 | F | EB | TR | 1.09 | 330.5 | F | EB | TR | 0.90 | 201.0 | F |
| | SB | LT | 0.90 | 26.2 | C | SB | LT | 0.92 | 27.4 | C | SB | LT | 0.92 | 27.4 | C |
| Eighth Ave. @ 29th St. | WB | TR | 1.49 | 465.7 | F | WB | TR | 1.53 | 481.6 | F | WB | TR | 1.49 | 457.6 | F |
| | NB | LT | 0.75 | 20.0 | B | NB | LT | 0.77 | 20.3 | C | NB | LT | 0.79 | 21.7 | C |
| Eighth Ave. @ 30th St. | EB | LT | 1.21 | 365.8 | F | EB | LT | 1.26 | 377.0 | F | EB | LT | 1.23 | 357.1 | F |
| | NB | TR | 0.80 | 21.1 | C | NB | TR | 0.80 | 21.2 | C | NB | TR | 0.82 | 22.7 | C |
| Eighth Ave. @ 31st St. | **WB** | **TR** | **1.10** | **367.0** | **F** | **WB** | **TR** | **1.12** | **371.3** | **F** | **WB** | **T** | **0.50** | **69.2** | **E** |
| | | | | | | | | | | | **WB** | **R** | **1.29** | **178.7** | **F** |
| | NB | LT | 0.95 | 30.6 | C | NB | LT | 0.96 | 31.8 | C | NB | LT | 0.96 | 31.8 | C |
| Eighth Ave. @ 33rd St. | WB | TR | 0.49 | 15.4 | B | WB | TR | 0.52 | 15.8 | B | WB | TR | 0.53 | 16.6 | B |
| | NB | LT | 1.18 | 177.5 | F | NB | LT | 1.19 | 183.3 | F | NB | LT | 1.16 | 165.5 | F |
| Eighth Ave. @ 34th St. | EB | T | 0.70 | 26.9 | C | EB | T | 0.74 | 28.4 | C | EB | T | 0.75 | 30.2 | C |
| | WB | T | 0.46 | 18.8 | B | WB | T | 0.48 | 19.1 | B | WB | T | 0.50 | 19.9 | B |
| | WB | R | 0.70 | 33.5 | C | WB | R | 0.70 | 33.5 | C | WB | R | 0.73 | 36.4 | D |
| | NB | LTR | 1.13 | 153.7 | F | NB | LTR | 1.13 | 155.8 | F | NB | LTR | 1.10 | 139.5 | F |
| Eighth Ave. @ 35th St. | WB | TR | 1.23 | 383.4 | F | WB | TR | 1.28 | 399.8 | F | WB | TR | 1.25 | 379.3 | F |
| | NB | LT | 0.94 | 29.4 | C | NB | LT | 0.95 | 30.0 | C | NB | LT | 0.97 | 34.7 | C |
| Eighth Ave. @ 36th St. | EB | LT | 0.78 | 149.6 | F | EB | LT | 0.81 | 162.7 | F | EB | LT | 0.74 | 111.3 | F |
| | NB | TR | 1.04 | 102.0 | F | NB | TR | 1.04 | 103.3 | F | NB | TR | 1.04 | 103.3 | F |
| Ninth Ave. @ 28th St. | EB | TR | 1.07 | 323.7 | F | EB | TR | 1.12 | 340.6 | F | EB | TR | 1.09 | 322.1 | F |
| | SB | L | 0.75 | 25.8 | C | SB | L | 0.76 | 26.2 | C | SB | L | 0.78 | 28.9 | C |
| | SB | T | 0.95 | 29.8 | C | SB | T | 0.96 | 30.7 | C | SB | T | 0.98 | 35.9 | D |
| Ninth Ave. @ 29th St. | WB | LT | 0.72 | 27.9 | C | WB | LT | 0.77 | 29.5 | C | WB | LT | 0.79 | 31.3 | C |
| | SB | TR | 1.13 | 133.8 | F | SB | TR | 1.14 | 137.6 | F | SB | TR | 1.12 | 125.7 | F |
| Ninth Ave. @ 30th St. | EB | TR | 1.15 | 492.2 | F | EB | TR | 1.23 | 515.6 | F | EB | TR | 1.18 | 480.0 | F |
| | SB | L | 2.10 | 655.6 | F | SB | L | 2.10 | 655.6 | F | SB | L | 2.10 | 655.6 | F |
| | SB | T | 0.92 | 23.7 | C | SB | T | 0.92 | 23.8 | C | SB | T | 0.67 | 14.3 | B |

## Table 24-5A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Ninth Ave. @ 31st St. | WB | LTR | 1.01 | 97.3 | F | WB | LTR | 1.03 | 176.2 | F | WB | LTR | 0.90 | 39.5 | D |
| | SB | TR | 0.82 | 13.9 | B | SB | TR | 0.83 | 14.2 | B | SB | TR | 0.91 | 21.1 | C |
| Ninth Ave. @ 33rd St. | **WB** | **LT** | **1.50** | **546.3** | **F** | **WB** | **LT** | **1.60** | **589.5** | **F** | **WB** | **L** | **0.72** | **44.9** | **D** |
| | | | | | | | | | | | **WB** | **T** | **1.11** | **359.0** | **F** |
| | SB | TR | 0.88 | 16.4 | B | SB | TR | 0.90 | 17.5 | B | SB | TR | 0.90 | 17.5 | B |
| Ninth Ave. @ 34th St. | EB | T | 0.84 | 46.3 | D | EB | T | 0.88 | 51.4 | D | EB | T | 0.83 | 42.8 | D |
| | EB | R | 1.44 | 533.9 | F | EB | R | 1.48 | 548.6 | F | EB | R | 1.35 | 469.1 | F |
| | WB | LT | 0.84 | 29.5 | C | WB | LT | 0.87 | 32.0 | C | WB | LT | 0.83 | 27.0 | C |
| | **SB** | **LTR** | **1.18** | **178.9** | **F** | **SB** | **LTR** | **1.20** | **185.5** | **F** | **SB** | **LT** | **1.14** | **164.4** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.54** | **29.7** | **C** |
| Ninth Ave. @ 35th St. | WB | LT | 1.28 | 463.1 | F | WB | LT | 1.36 | 489.8 | F | WB | LT | 1.31 | 460.3 | F |
| | SB | TR | 0.74 | 12.0 | B | SB | TR | 0.76 | 12.3 | B | SB | TR | 0.77 | 13.4 | B |
| Ninth Ave. @ 36th St. | EB | TR | 0.89 | 79.4 | E | EB | TR | 0.93 | 99.0 | F | EB | TR | 0.90 | 78.2 | E |
| | **SB** | **LT** | **1.05** | **94.0** | **F** | **SB** | **LT** | **1.07** | **99.2** | **F** | **SB** | **L** | **0.39** | **10.3** | **B** |
| | | | | | | | | | | | **SB** | **T** | **0.90** | **19.6** | **B** |
| Ninth Ave. @ 42nd St. | EB | TR | 0.62 | 158.3 | F | EB | TR | 0.63 | 160.9 | F | EB | TR | 0.61 | 144.3 | F |
| | WB | DefL | 1.15 | 689.8 | F | WB | DefL | 1.17 | 763.6 | F | WB | DefL | 1.14 | 729.5 | F |
| | WB | T | 0.36 | 18.5 | B | WB | T | 0.36 | 18.6 | B | WB | T | 0.35 | 17.9 | B |
| | **SB** | **LTR** | **1.19** | **181.2** | **F** | **SB** | **LTR** | **1.21** | **187.4** | **F** | **SB** | **LTR** | **1.18** | **175.2** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.21** | **20.7** | **C** |
| Tenth Ave. @ 26th St. | EB | LT | 1.16 | 409.7 | F | EB | LT | 1.20 | 424.0 | F | EB | LT | 1.16 | 398.0 | F |
| | NB | TR | 0.86 | 16.7 | B | NB | TR | 0.87 | 16.9 | B | NB | TR | 0.88 | 18.6 | B |
| Tenth Ave. @ 28th St. | EB | LT | 1.29 | 465.1 | F | EB | LT | 1.35 | 487.9 | F | EB | LT | 1.30 | 458.3 | F |
| | NB | TR | 0.70 | 11.2 | B | NB | TR | 0.71 | 11.3 | B | NB | TR | 0.72 | 12.3 | B |
| Tenth Ave. @ 29th St. | WB | TR | 0.97 | 58.6 | E | WB | TR | 1.01 | 103.6 | F | WB | TR | 0.92 | 44.6 | D |
| | NB | LT | 0.72 | 11.6 | B | NB | LT | 0.73 | 11.8 | B | NB | LT | 0.78 | 15.0 | B |
| Tenth Ave. @ 30th St. | EB | LT | 2.87 | 1169.0 | F | EB | LT | 3.36 | 1392.0 | F | EB | LT | 1.50 | 522.4 | F |
| | NB | T | 0.66 | 10.6 | B | NB | T | 0.67 | 10.8 | B | NB | T | 0.67 | 10.8 | B |
| | NB | R | 1.55 | 442.6 | F | NB | R | 1.55 | 442.6 | F | NB | R | 0.79 | 26.3 | C |
| Tenth Ave. @ 31st St. | WB | R | 2.24 | 867.2 | F | WB | R | 2.31 | 902.2 | F | WB | R | 2.22 | 845.9 | F |
| | NB | T | 0.79 | 12.9 | B | NB | T | 0.83 | 13.9 | B | NB | T | 0.84 | 15.2 | B |
| Tenth Ave. @ 33rd St. | **WB** | **TR** | **0.97** | **55.7** | **E** | **WB** | **TR** | **1.04** | **217.4** | **F** | **WB** | **TR** | **0.78** | **34.3** | **C** |
| | | | | | | | | | | | **WB** | **R** | **0.68** | **42.6** | **D** |
| | NB | LT | 1.07 | 153.7 | F | NB | LT | 1.12 | 175.1 | F | NB | LT | 1.07 | 151.4 | F |
| Tenth Ave. @ 34th St. | EB | DefL | 0.85 | 67.9 | E | EB | DefL | 0.94 | 85.8 | F | EB | DefL | 0.85 | 65.5 | E |
| | | T | 0.49 | 27.7 | C | | T | 0.52 | 28.4 | C | EB | T | 0.49 | 26.1 | C |
| | WB | T | 0.48 | 25.7 | C | WB | T | 0.51 | 26.2 | C | WB | T | 0.48 | 24.2 | C |
| | | R | 1.27 | 483.7 | F | | R | 1.29 | 485.4 | F | WB | R | 1.17 | 412.5 | F |
| | **NB** | **LTR** | **1.07** | **101.0** | **F** | **NB** | **LTR** | **1.10** | **113.9** | **F** | **NB** | **LT** | **1.00** | **31.5** | **C** |
| | | | | | | | | | | | **NB** | **R** | **0.59** | **16.9** | **B** |
| Tenth Ave. @ 35th St. | WB | TR | 1.32 | 360.7 | F | WB | TR | 1.43 | 400.4 | F | WB | TR | 1.33 | 345.8 | F |
| | NB | LT | 0.99 | 28.8 | C | NB | LT | 1.02 | 82.4 | F | NB | LT | 0.85 | 15.6 | B |
| Tenth Ave. @ 36th St. | EB | LT | 0.41 | 131.2 | F | EB | LT | 0.43 | 133.7 | F | EB | LT | 0.42 | 123.2 | F |
| | **NB** | **TR** | **1.05** | **91.0** | **F** | **NB** | **TR** | **1.08** | **103.0** | **F** | **NB** | **T** | **0.89** | **17.1** | **B** |
| | | | | | | | | | | | **NB** | **R** | **0.85** | **28.6** | **C** |
| Tenth Ave. @ 38th St. | EB | LT | 0.52 | 26.8 | C | EB | LT | 0.53 | 26.9 | C | EB | LT | 0.64 | 33.5 | C |
| | NB | TR | 0.99 | 27.5 | C | NB | TR | 1.01 | 76.0 | E | NB | TR | 0.92 | 14.0 | B |
| Tenth Ave. @ 42nd St. | EB | LT | 2.24 | 930.9 | F | EB | LT | 2.28 | 949.2 | F | EB | LT | 2.05 | 814.4 | F |
| | WB | TR | 1.40 | 400.8 | F | WB | TR | 1.40 | 403.8 | F | WB | TR | 1.36 | 377.5 | F |
| | NB | LTR | 0.89 | 19.8 | B | NB | LTR | 0.90 | 20.5 | C | NB | LTR | 0.92 | 22.9 | C |
| Tenth Ave. @ 43st St. | EB | L | 0.03 | 17.2 | B | EB | L | 0.03 | 17.3 | B | EB | L | 0.03 | 17.3 | B |
| | WB | TR | 0.56 | 116.5 | F | WB | TR | 0.57 | 117.6 | F | WB | TR | 0.57 | 117.6 | F |
| | NB | LT | 1.22 | 172.8 | F | NB | LT | 1.23 | 178.4 | F | NB | LT | 0.97 | 54.4 | D |

## Table 24-5A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| Intersection | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS |
| Eleventh Avenue @ 22nd St. | WB (22nd) | R | 0.08 | 13.0 | B | WB (22nd) | R | 0.08 | 13.0 | B | WB (22nd) | R | 0.08 | 13.0 | B |
| | NB (11th) | T | 0.08 | 26.3 | C | NB (11th) | T | 0.08 | 26.3 | C | NB (11th) | T | 0.08 | 26.3 | C |
| | WB (11th) | L | 0.52 | 38.7 | D | WB (11th) | L | 0.53 | 38.9 | D | WB (11th) | L | 0.53 | 38.9 | D |
| | WB (11th) | LR | 0.40 | 38.5 | D | WB (11th) | LR | 0.38 | 38.2 | D | WB (11th) | LR | 0.38 | 38.2 | D |
| | NB (9A) | T | 1.05 | 111.8 | F | NB (9A) | T | 1.07 | 119.1 | F | NB (9A) | T | 1.07 | 119.1 | F |
| | SB (9A) | T | 0.87 | 22.6 | C | SB (9A) | T | 0.87 | 22.7 | C | SB (9A) | T | 0.87 | 22.7 | C |
| Eleventh Ave. @ 24th St. | EB | R | 0.19 | 26.3 | C | EB | R | 0.19 | 26.3 | C | EB | R | 0.20 | 27.2 | C |
| | NB | L | 0.29 | 27.2 | C | NB | L | 0.29 | 27.2 | C | NB | L | 0.30 | 28.1 | C |
| | SB | L | 0.27 | 4.7 | A | SB | L | 0.28 | 4.8 | A | SB | L | 0.28 | 4.8 | A |
| | SB | TR | 1.40 | 283.7 | F | SB | TR | 1.45 | 307.4 | F | SB | TR | 1.39 | 280.7 | F |
| Eleventh Ave. @ 29th St. | WB | LT | 0.90 | 43.7 | D | WB | LT | 0.99 | 60.7 | E | WB | LT | 0.92 | 43.6 | D |
| | SB | TR | 0.54 | 16.2 | B | SB | TR | 0.59 | 16.8 | B | SB | TR | 0.64 | 19.9 | B |
| Eleventh Ave. @ 30th St. | EB | TR | 1.15 | 321.3 | F | EB | TR | 1.30 | 384.6 | F | EB | TR | 0.61 | 21.5 | C |
| | SB | LT | 1.14 | 159.4 | F | SB | LT | 1.29 | 224.4 | F | SB | LT | 1.13 | 149.7 | F |
| Eleventh Ave. @ 33rd St. | WB | L | 0.87 | 67.9 | E | WB | L | 1.16 | 287.8 | F | WB | L | 0.77 | 42.0 | D |
| | WB | LT | 0.91 | 52.5 | D | WB | LT | 1.09 | 188.2 | F | WB | LT | 0.75 | 30.3 | C |
| | SB | TR | 0.49 | 5.8 | A | SB | TR | 0.56 | 6.4 | A | SB | TR | 0.69 | 14.6 | B |
| Eleventh Ave. @ 37th St. | EB | LR | 0.16 | 28.2 | C | EB | LR | 0.16 | 28.2 | C | EB | LR | 0.15 | 26.3 | C |
| | WB | L | 0.81 | 61.4 | E | WB | L | 0.89 | 72.1 | E | WB | L | 0.79 | 53.9 | D |
| | WB | R | 0.44 | 36.5 | D | WB | R | 0.44 | 36.5 | D | WB | R | 0.40 | 33.1 | C |
| | NB | T | 0.07 | 6.0 | A | NB | T | 0.07 | 6.0 | A | NB | T | 0.07 | 6.8 | A |
| | SB | T | 0.54 | 9.5 | A | SB | T | 0.56 | 9.8 | A | SB | T | 0.58 | 11.1 | B |
| Eleventh Ave. @ 42nd St. | EB | TR | 0.72 | 31.2 | C | EB | TR | 0.73 | 31.4 | C | EB | TR | 0.75 | 33.6 | C |
| | WB | L | 0.47 | 19.2 | B | WB | L | 0.51 | 20.2 | C | WB | L | 0.53 | 21.5 | C |
| | WB | LT | 0.41 | 15.2 | B | WB | LT | 0.41 | 15.2 | B | WB | LT | 0.43 | 16.0 | B |
| | SB | LT | 1.01 | 110.8 | F | SB | LT | 1.04 | 120.1 | F | SB | LT | 1.02 | 108.7 | F |
| | SB | R | 0.74 | 46.7 | D | SB | R | 0.74 | 47.4 | D | SB | R | 0.67 | 38.1 | D |
| Eleventh Ave. @ 46th St. | EB | LTR | 0.55 | 33.3 | C | EB | LTR | 0.56 | 33.5 | C | EB | LTR | 0.63 | 37.1 | D |
| | NB | TR | 0.06 | 6.0 | A | NB | TR | 0.06 | 6.0 | A | NB | TR | 0.06 | 5.3 | A |
| | SB | L | 0.17 | 7.1 | A | SB | L | 0.18 | 7.1 | A | SB | L | 0.17 | 6.2 | A |
| | SB | T | 0.94 | 34.8 | C | SB | T | 0.97 | 45.3 | D | SB | T | 0.93 | 31.3 | C |
| Eleventh Ave. @ 47th St. | WB | LTR | 0.98 | 68.6 | E | WB | LTR | 1.00 | 74.2 | E | WB | LTR | 0.95 | 60.9 | E |
| | NB | L | 0.23 | 12.8 | B | NB | L | 0.24 | 13.6 | B | NB | L | 0.24 | 14.0 | B |
| | NB | T | 0.08 | 6.1 | A | NB | T | 0.08 | 6.1 | A | NB | T | 0.08 | 6.5 | A |
| | **SB** | **TR** | **0.95** | **38.8** | **D** | **SB** | **TR** | **0.97** | **49.3** | **D** | **SB** | **T** | **0.90** | **27.5** | **C** |
| | | | | | | | | | | | **SB** | **R** | **0.06** | **6.4** | **A** |
| Eleventh Ave. @ 57th St. | **EB** | **L** | **0.66** | **31.1** | **C** | **EB** | **L** | **0.66** | **31.1** | **C** | **EB** | **L** | **0.68** | **33.7** | **C** |
| | **EB** | **TR** | **0.94** | **63.4** | **E** | **EB** | **TR** | **0.95** | **66.6** | **E** | **EB** | **T** | **0.73** | **39.0** | **D** |
| | | | | | | | | | | | **EB** | **R** | **0.13** | **24.6** | **C** |
| | WB | L | 1.21 | 599.3 | F | WB | L | 1.21 | 602.9 | F | WB | L | 1.17 | 575.1 | F |
| | WB | TR | 0.77 | 35.8 | D | WB | TR | 0.77 | 35.8 | D | WB | TR | 0.81 | 38.4 | D |
| | NB | L | 0.65 | 45.3 | D | NB | L | 0.67 | 47.8 | D | NB | L | 0.64 | 43.1 | D |
| | NB | TR | 0.39 | 17.5 | B | NB | TR | 0.40 | 17.5 | B | NB | TR | 0.39 | 16.8 | B |
| | SB | L | 0.97 | 78.2 | E | SB | L | 0.98 | 80.8 | F | SB | L | 0.94 | 71.6 | E |
| | SB | TR | 0.69 | 22.2 | C | SB | TR | 0.69 | 22.4 | C | SB | TR | 0.68 | 21.4 | C |
| Twelfth Ave. @ 24th St. | WB | L | 0.51 | 47.4 | D | WB | L | 0.49 | 46.9 | D | WB | L | 0.53 | 50.2 | D |
| | WB | LTR | 0.49 | 47.4 | D | WB | LTR | 0.49 | 47.4 | D | WB | LTR | 0.54 | 50.8 | D |
| | WB | R | 0.49 | 47.9 | D | WB | R | 0.51 | 48.7 | D | WB | R | 0.55 | 52.3 | D |
| | NB | TR | 1.02 | 102.9 | F | NB | TR | 1.04 | 109.4 | F | NB | TR | 1.01 | 97.4 | F |
| | SB | L | 0.67 | 74.9 | E | SB | L | 0.67 | 74.9 | E | SB | L | 0.67 | 74.9 | E |
| | SB | T | 1.02 | 124.8 | F | SB | T | 1.02 | 125.4 | F | SB | T | 0.99 | 43.4 | D |
| Twelfth Ave. @ 29th St. | WB | LR | 1.40 | 691.6 | F | WB | LR | 1.66 | 797.9 | F | WB | LR | 1.46 | 658.4 | F |
| | NB | T | 0.61 | 10.6 | B | NB | T | 0.62 | 10.7 | B | NB | T | 0.64 | 12.5 | B |
| | SB | T | 0.73 | 12.9 | B | SB | T | 0.73 | 12.9 | B | SB | T | 0.75 | 15.1 | B |

## Table 24-5A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Twelfth Ave. @ 30th St. | EB | LTR | | 49.5 | D | EB | LTR | | 49.5 | D | EB | LTR | | 49.5 | D |
| | NB | TR | 0.80 | 17.0 | B | NB | TR | 0.80 | 16.8 | B | NB | TR | 0.81 | 17.7 | B |
| | SB | L | 1.37 | 388.4 | F | SB | L | 1.47 | 429.7 | F | SB | L | 1.38 | 382.1 | F |
| | SB | TR | 0.86 | 19.7 | B | SB | TR | 0.86 | 19.7 | B | SB | TR | 0.87 | 20.9 | C |
| Twelfth Ave. @ 37th St. | EB | LR | 0.15 | 43.3 | D | EB | LR | 0.14 | 43.1 | D | EB | LR | 0.14 | 44.1 | D |
| | EB | R | 0.13 | 43.4 | D | EB | R | 0.14 | 43.6 | D | EB | R | 0.15 | 44.7 | D |
| | NB | L | 0.20 | 50.4 | D | NB | L | 0.20 | 50.4 | D | NB | L | 0.20 | 50.4 | D |
| | NB | T | 0.81 | 21.1 | C | NB | T | 0.83 | 21.8 | C | NB | T | 0.83 | 21.8 | C |
| | SB | TR | 1.09 | 120.3 | F | SB | TR | 1.10 | 124.0 | F | SB | TR | 1.08 | 116.4 | F |
| Twelfth Ave. @ 41st St. | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 24.9 | C |
| | WB | L | 0.09 | 37.8 | D | WB | L | 0.09 | 37.8 | D | WB | L | 0.09 | 37.8 | D |
| | WB | R | 0.46 | 44.3 | D | WB | R | 0.46 | 44.3 | D | WB | R | 0.46 | 44.3 | D |
| | NB | T | 1.10 | 138.4 | F | NB | T | 1.12 | 147.4 | F | NB | T | 1.10 | 136.7 | F |
| | SB | T | 1.02 | 75.7 | E | SB | T | 1.03 | 78.5 | E | SB | T | 1.03 | 78.5 | E |
| Twelfth Ave. @ 42nd St. | EB | LTR | 0.08 | 32.4 | C | EB | LTR | 0.08 | 32.4 | C | EB | LTR | 0.08 | 32.4 | C |
| | WB | L | 0.60 | 45.7 | D | WB | L | 0.61 | 45.8 | D | WB | L | 0.61 | 45.8 | D |
| | WB | R | 0.62 | 22.7 | C | WB | R | 0.62 | 22.7 | C | WB | R | 0.63 | 23.6 | C |
| | NB | T | 1.12 | 141.5 | F | NB | T | 1.14 | 150.2 | F | NB | T | 1.12 | 138.4 | F |
| | NB | R | 0.50 | 33.0 | C | NB | R | 0.51 | 33.4 | C | NB | R | 0.50 | 32.3 | C |
| | SB | L | 0.41 | 42.2 | D | SB | L | 0.41 | 42.2 | D | SB | L | 0.43 | 43.3 | D |
| | SB | T | 0.84 | 20.2 | C | SB | T | 0.85 | 20.5 | C | SB | T | 0.85 | 20.5 | C |
| Twelfth Ave.@ 46th St. | EB | LTR | 0.13 | 36.0 | D | EB | LTR | 0.13 | 36.0 | D | EB | LTR | 0.13 | 36.8 | D |
| | NB | TR | 1.13 | 177.9 | F | NB | TR | 1.15 | 185.6 | F | NB | TR | 1.13 | 176.2 | F |
| | SB | L | 0.60 | 71.2 | E | SB | L | 0.60 | 71.2 | E | SB | L | 0.60 | 71.2 | E |
| | SB | T | 0.73 | 17.4 | B | SB | T | 0.73 | 17.6 | B | SB | T | 0.73 | 16.7 | B |
| Twelfth Ave. @ 54th St. | EB | R | | 6.7 | A | EB | R | | 6.7 | A | EB | R | 0.00 | 6.3 | A |
| | WB | R | 0.34 | 40.6 | D | WB | R | 0.34 | 40.6 | D | WB | R | 0.35 | 41.7 | D |
| | NB | TR | 1.05 | 118.1 | F | NB | TR | 1.06 | 121.7 | F | NB | TR | 1.05 | 115.4 | F |
| | SB | L | 0.47 | 43.0 | D | SB | L | 0.47 | 43.2 | D | SB | L | 0.49 | 44.5 | D |
| | SB | T | 0.74 | 14.5 | B | SB | T | 0.75 | 14.6 | B | SB | T | 0.74 | 13.9 | B |
| Olympic Blvd NB @ 33rd St. | WB | TR | 0.88 | 23.9 | C | WB | TR | 1.00 | 45.9 | D | WB | TR | 0.99 | 40.9 | D |
| | NB | LT | 0.29 | 39.0 | D | NB | LT | 0.32 | 42.6 | D | NB | LT | 0.33 | 43.9 | D |
| Broadway @ 35th St. | WB | L | 0.09 | 20.6 | C | WB | L | 0.09 | 20.6 | C | WB | L | 0.08 | 19.1 | B |
| | WB | T | 1.29 | 193.9 | F | WB | T | 1.37 | 225.6 | F | WB | T | 1.28 | 187.7 | F |
| | SB | T | 0.33 | 10.4 | B | SB | T | 0.33 | 10.4 | B | SB | T | 0.35 | 11.9 | B |
| | SB | R | 0.35 | 10.9 | B | SB | R | 0.35 | 10.9 | B | SB | R | 0.37 | 12.7 | B |
| Dyer Ave @ 36th St. | EB | TR | 0.72 | 81.6 | F | EB | TR | 0.77 | 91.8 | F | EB | TR | 0.74 | 80.4 | F |
| | NB | TR | 0.27 | 31.3 | C | NB | TR | 0.27 | 31.3 | C | NB | TR | 0.27 | 31.3 | C |
| | SB | L | 0.36 | 28.3 | C | SB | L | 0.39 | 28.9 | C | SB | L | 0.41 | 30.0 | C |
| | SB | LT | 0.47 | 28.3 | C | SB | LT | 0.47 | 28.3 | C | SB | LT | 0.49 | 29.3 | C |
| | SB | R | 0.33 | 10.0 | A | SB | R | 0.33 | 10.0 | A | SB | R | 0.33 | 10.5 | B |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-5B
## 2019 Future with the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour) Unsignalized Intersections

| Intersection | 2019 Future Without the Proposed Actions | | | 2019 Future With the Proposed Actions | | | 2019 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS |
| | WB | 27.9 | D | WB | 897.2 | F | WB | 25.8 | C |
| Twelfth Ave. @ 33rd St. | NB | -- | -- | NB | -- | -- | NB | 36.7 | D |
| | WB | 31.5 | D | WB | 35.0 | D | WB | 32.8 | C |
| Twelfth Ave. @ 47th St. | NB | -- | -- | NB | -- | -- | NB | 43.4 | D |

## Table 24-5C
## 2019 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| Sixth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Seventh Ave. @ 29th St. | WB: G=36<br>SB: G=44 | WB: G=37<br>SB: G=43 |
| Seventh Ave. @ 30th St. | WB: G=36<br>SB: G=44 | WB: G=38<br>SB: G=42 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St. | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| Seventh Ave. @ 34th St. | EB/WB: G=35<br>SB: G=44 | EB/WB: G=37<br>SB: G=42 |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15') – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13') – Restriping by prohibiting parking on the south side of 36th St. |
| Eighth Ave. @ 29th St. | WB: G=40<br>NB: G=40 | WB: G= 41<br>NB: G=39 |
| Eighth Ave. @ 30th St. | EB: G=40<br>NB: G=40 | EB: G=41<br>NB: G=39 |
| Eighth Ave. @ 31st St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 34th St. | EB/WB: G=40<br>NB: G= 33 | EB/WB: G=39<br>NB: G=34 |
| Eighth Ave. @ 35th St. | WB: G=40<br>NB: G=40 | WB: G=41<br>NB: G=39 |
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| Ninth Ave. @ 29th St. | WB: G=35<br>SB: G=45 | WB: G=34<br>SB: G=46 |
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=28<br>SBT: G=28<br>SB: G=17 |

## Table 24-5C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Ninth Ave. @ 31st St. | WB: G=30<br>SB: G=50 | WB: G=34<br>SB: G=46 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | EB/WB: G=30<br>SB: G=35 | EB/WB: G=32<br>SB: G=33 |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 36th St. | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: G=31<br>SB: G=49 |
| Ninth Ave. @ 42nd St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 29th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 33rd St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| | WB: G=32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Tenth Ave. @ 34th St. | NB (4 Lanes): LT, T, T, TR | NB (5 Lanes): LT, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 35th St. | NB (4 Lanes): LT, T, T, T | NB (5 Lanes): LT, T, T, T, T – An additional lane from daylighting the east side of Tenth Ave. |
| | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |

## Table 24-5C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 36th St. | NB (4 Lanes): T, T, T, TR | NB (5 Lanes): T, T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 38th St. | EB: G=30<br>NB: G=50 | EB: G=25<br>NB: G=55 |
| Tenth Ave. @ 40th St.* | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach. (10' each) |
| Tenth Ave. @ 42nd St. | EB/WB: G=28<br>NB: G=45 | EB/WB: G=29<br>NB: G=44 |
| Tenth Ave. @ 43rd St. | NB (4 lanes): LT, T, T, T | NB (5 Lanes): LT, T, T, T, T – An additional lane from prohibiting parking on the west side of Tenth Ave. |
| Olympic Boulevard @ 33rd Street | WB: G= 60<br>NB: G=20. | WB: G=61<br>NB: G=19 |
| Eleventh/Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 24th St. | SBL&NBL&EBR: G=24<br>SB: G=27 | SBL&NBL&EBR: G=23<br>SB: G=28 |
| Eleventh Ave. @ 29th St. | WB: G=40<br>SB: G=40 | WB: G=43<br>SB: G=37 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 33rd St. | WB: G=25<br>SB: G=55 | WB: G=35<br>SB: G=45 |
| Eleventh Ave. @ 37th St. | EB/WB: G=22<br>NB/SB: G=58 | EB/WB: G=24<br>NB/SB: G=56 |
| Eleventh Ave. @ 42nd St. | EB/WB: G=33<br>SB: G=35 | EB/WB: G=32<br>SB: G=36 |
| Eleventh Ave. @ 44th St.* | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 46th St. | EB: G=22<br>NB/SB: G=58 | WB: G=20<br>NB/SB: G=60 |
| Eleventh Ave. @ 47th St. | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| | WB: G=22<br>SB/NB: G=58 | WB: G=23<br>SB/NB: G=57 |
| Eleventh Ave. @ 57th St. | EB: (2 Lanes) L, TR | EB: (3 Lanes) L, T, R – An additional lane from prohibiting parking on the south side of 57th St., and restripe |
| | EB/WB: G=27<br>NB/SB: G=40 | EB/WB: G=26<br>NB/SB: G=41 |

## Table 24-5C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Twelfth Ave. @ 24th St. | WB: G=26<br>NB/SB: G=62<br>NB T&R: G=2<br>SBL: G=10 | WB: G=24<br>NB/SB: G=64<br>NB T&R: G=2<br>SBL: G=10 |
| Twelfth Ave. @ 29th St. | WB: G=26<br>NB/SB: G=83 | WB: G=29<br>NB/SB: G=80 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB Through: G=79<br>SB Left: 14 | EB: G=11<br>NB/SB Through: G=78<br>SB Left: 15 |
| Twelfth Ave. @ 33rd St. | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | Signalized<br>WB: G=50<br>NB: G=60 |
| Twelfth Ave. @ 37th St. | EB: G= 21<br>NB T & L only: G=14<br>NB & SB: G=52<br>SB TR: G=13 | EB: G= 20<br>NB T & L only: G=14<br>NB & SB: G=52<br>SB TR: G=14 |
| Twelfth Ave. @ 41st St. | EB/WB: G=26<br>EB only: G=11<br>NB/SB: G=50<br>SB only: G= 12 | EB/WB: G=26<br>EB only: G=11<br>NB/SB: G=51<br>SB only: G= 11 |
| Twelfth Ave. @ 42nd St. | EB/WB: G=33<br>NB/SBT: G=45<br>SB/WBR: G=26 | EB/WB: G=33<br>NB/SBT: G=46<br>SB/WBR: G=25 |
| Twelfth Ave. @ 46th St. | EB: G=19<br>N/S: G=65 | EB: G=18<br>N/S: G=66 |
| Twelfth Ave. @ 47th St.* | Unsignalized | Signalized<br>WB: G=45<br>NB: G=65 |
| Twelfth Ave. @ 54th St. | SB left and WB right: G=29<br>SB T, NB TR, EB R: G=80 | SB left and WB right: G=28<br>SB T, NB TR, EB R: G=81 |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=33<br>SB: G=47 |
| Dyer Ave. @ 31st St.* | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |
| Dyer Ave @ 36th St. | EB: G= 26<br>SB: G=25<br>NB: G=24 | EB: G=27<br>SB: G=24<br>NB: G=24 |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-6A
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS |
| Sixth Ave. @ 28th St. | EB | LT | 1.31 | 381.6 | F | EB | LT | 1.36 | 400.9 | F | EB | LT | 1.33 | 378.9 | F |
| | NB | TR | 0.84 | 20.0 | C | NB | TR | 0.85 | 20.3 | C | NB | TR | 0.87 | 22.1 | C |
| Sixth Ave. @ 30th St. | **EB** | **LT** | **1.28** | **318.7** | **F** | **EB** | **LT** | **1.39** | **365.6** | **F** | **EB** | **L** | **0.46** | **17.5** | **B** |
| | | | | | | | | | | | **EB** | **T** | **0.89** | **128.5** | **F** |
| | NB | TR | 0.93 | 31.4 | C | NB | TR | 0.93 | 31.9 | C | NB | TR | 0.93 | 31.9 | C |
| Sixth Ave. @ 34th St. | EB | T | 0.52 | 15.3 | B | EB | T | 0.54 | 15.8 | B | EB | T | 0.58 | 16.7 | B |
| | WB | TR | 0.60 | 15.6 | B | WB | TR | 0.61 | 15.9 | B | WB | TR | 0.63 | 16.3 | B |
| | NB | T | 1.28 | 251.1 | F | NB | T | 1.30 | 258.4 | F | NB | T | 1.30 | 258.4 | F |
| | SB | T | 1.81 | 579.6 | F | SB | T | 1.81 | 579.6 | F | SB | T | 1.81 | 579.6 | F |
| Sixth Ave. @ 36th St. | EB | L | 1.01 | 128.0 | F | EB | L | 1.03 | 169.6 | F | EB | L | 0.93 | 104.4 | F |
| | EB | T | 0.64 | 22.0 | C | EB | T | 0.69 | 23.2 | C | EB | T | 0.65 | 21.1 | C |
| | NB | TR | 0.61 | 17.0 | B | NB | TR | 0.62 | 17.1 | B | NB | TR | 0.65 | 19.2 | B |
| Seventh Ave. @ 29th St. | WB | LT | 1.51 | 479.9 | F | WB | LT | 1.56 | 503.6 | F | WB | LT | 1.52 | 476.7 | F |
| | SB | TR | 0.70 | 15.6 | B | SB | TR | 0.71 | 15.8 | B | SB | TR | 0.72 | 16.9 | B |
| Seventh Ave. @ 30th St. | EB | T | 1.25 | 372.4 | F | EB | T | 1.39 | 429.4 | F | EB | T | 1.28 | 364.3 | F |
| | EB | R | 0.75 | 206.4 | F | EB | R | 0.79 | 228.8 | F | EB | R | 0.71 | 159.0 | F |
| | SB | LT | 0.65 | 14.8 | B | SB | LT | 0.65 | 14.8 | B | SB | LT | 0.70 | 18.1 | B |
| Seventh Ave. @ 31st St. | **WB** | **LT** | **1.21** | **332.1** | **F** | **WB** | **LT** | **1.25** | **348.4** | **F** | **WB** | **L** | **0.37** | **20.0** | **B** |
| | | | | | | | | | | | **WB** | **T** | **0.92** | **203.7** | **F** |
| | SB | TR | 0.83 | 20.7 | C | SB | TR | 0.83 | 20.7 | C | SB | TR | 0.83 | 20.8 | C |
| Seventh Ave. @ 33rd St. | **WB** | **LT** | **1.14** | **522.1** | **F** | **WB** | **LT** | **1.16** | **526.3** | **F** | **WB** | **L** | **0.70** | **50.9** | **D** |
| | | | | | | | | | | | **WB** | **T** | **0.61** | **181.7** | **F** |
| | SB | TR | 1.08 | 95.3 | F | SB | TR | 1.11 | 107.4 | F | SB | TR | 0.81 | 11.8 | B |
| Seventh Ave. @ 35th St. | WB | L | 0.59 | 30.6 | C | WB | L | 0.59 | 30.6 | C | WB | L | 0.53 | 28.0 | C |
| | WB | LT | 1.38 | 474.4 | F | WB | LT | 1.47 | 514.9 | F | WB | T | 1.08 | 281.6 | F |
| | SB | TR | 0.85 | 17.9 | B | SB | TR | 0.86 | 18.4 | B | SB | TR | 0.86 | 18.1 | B |
| Seventh Ave. @ 36th St. | EB | TR | 1.26 | 415.8 | F | EB | TR | 1.32 | 436.8 | F | EB | TR | 1.09 | 300.3 | F |
| | SB | LT | 0.83 | 18.9 | B | SB | LT | 0.85 | 19.5 | B | SB | LT | 0.85 | 19.5 | B |
| Eighth Ave. @ 29th St. | WB | TR | 1.80 | 625.3 | F | WB | TR | 1.85 | 642.9 | F | WB | TR | 1.80 | 614.0 | F |
| | NB | LT | 0.77 | 17.0 | B | NB | LT | 0.78 | 17.4 | B | NB | LT | 0.80 | 18.7 | B |
| Eighth Ave. @ 30th St. | EB | LT | 1.31 | 399.6 | F | EB | LT | 1.37 | 415.8 | F | EB | LT | 1.33 | 393.6 | F |
| | NB | TR | 0.84 | 20.7 | C | NB | TR | 0.84 | 20.8 | C | NB | TR | 0.88 | 24.6 | C |
| Eighth Ave. @ 31st St. | **WB** | **TR** | **1.09** | **324.7** | **F** | **WB** | **TR** | **1.11** | **330.9** | **F** | **WB** | **T** | **0.64** | **86.4** | **F** |
| | | | | | | | | | | | **WB** | **R** | **1.06** | **94.3** | **F** |
| | NB | LT | 1.09 | 120.7 | F | NB | LT | 1.10 | 121.8 | F | NB | LT | 1.07 | 109.2 | F |
| Eighth Ave. @ 33rd St. | WB | TR | 0.54 | 16.1 | B | WB | TR | 0.57 | 16.7 | B | WB | TR | 0.59 | 17.5 | B |
| | NB | LT | 1.26 | 212.8 | F | NB | LT | 1.28 | 219.5 | F | NB | LT | 1.24 | 200.4 | F |
| Eighth Ave. @ 34th St. | EB | T | 0.63 | 24.0 | C | EB | T | 0.67 | 25.2 | C | EB | T | 0.73 | 28.6 | C |
| | WB | T | 0.48 | 18.9 | B | WB | T | 0.49 | 19.1 | B | WB | T | 0.51 | 20.1 | C |
| | WB | R | 0.71 | 33.9 | C | WB | R | 0.71 | 33.9 | C | WB | R | 0.80 | 42.0 | D |
| | NB | LTR | 1.12 | 147.9 | F | NB | LTR | 1.12 | 150.7 | F | NB | LTR | 1.09 | 135.2 | F |
| Eighth Ave. @ 35th St. | WB | TR | 1.69 | 639.1 | F | WB | TR | 1.77 | 673.7 | F | WB | TR | 1.71 | 636.9 | F |
| | NB | LT | 0.76 | 13.0 | B | NB | LT | 0.77 | 13.1 | B | NB | LT | 0.79 | 14.4 | B |
| 8th Ave @ 36th St. | EB | LT | 1.31 | 432.7 | F | EB | LT | 1.40 | 470.7 | F | EB | LT | 1.27 | 393.5 | F |
| | NB | TR | 0.89 | 19.9 | B | NB | TR | 0.90 | 20.3 | C | NB | TR | 0.90 | 20.7 | C |
| Eighth Ave. @ 38th St. | EB | LT | 0.56 | 21.9 | C | EB | LT | 0.59 | 22.5 | C | EB | LT | 0.63 | 24.7 | C |
| | NB | TR | 1.01 | 81.6 | F | NB | TR | 1.03 | 97.7 | F | NB | TR | 0.99 | 78.1 | E |
| Ninth Ave. @ 28th St. | EB | TR | 0.94 | 53.6 | D | EB | TR | 1.02 | 143.4 | F | EB | T | 0.72 | 39.5 | D |
| | | | | | | | | | | | EB | R | 0.21 | 18.0 | B |
| | SB | L | 0.80 | 31.0 | C | SB | L | 0.80 | 31.4 | C | SB | L | 0.80 | 31.4 | C |
| | SB | T | 0.60 | 14.7 | B | SB | T | 0.61 | 14.9 | B | SB | T | 0.62 | 14.9 | B |
| Ninth Ave. @ 30th St. | EB | TR | 1.00 | 395.1 | F | EB | TR | 1.11 | 429.8 | F | EB | TR | 1.03 | 376.3 | F |
| | SB | L | 2.35 | 756.6 | F | SB | L | 2.37 | 767.4 | F | SB | L | 2.24 | 704.2 | F |
| | SB | T | 0.87 | 19.9 | B | SB | T | 0.88 | 20.4 | C | SB | T | 0.66 | 14.8 | B |

## Table 24-6A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS |
| Ninth Ave. @ 31st St. | WB | LTR | 1.47 | 509.3 | F | WB | LTR | 1.49 | 519.3 | F | WB | LTR | 1.44 | 487.2 | F |
| | SB | TR | 0.81 | 13.4 | B | SB | TR | 0.81 | 13.4 | B | SB | TR | 0.83 | 14.8 | B |
| Ninth Ave. @ 33rd St. | **WB** | **LT** | **1.75** | **633.6** | **F** | **WB** | **LT** | **1.83** | **665.2** | **F** | **WB** | **L** | **1.11** | **121.5** | **F** |
| | | | | | | | | | | | **WB** | **T** | **1.19** | **366.4** | **F** |
| | SB | TR | 0.71 | 11.2 | B | SB | TR | 0.73 | 11.4 | B | SB | TR | 0.92 | 18.7 | B |
| Ninth Ave. @ 34th St. | EB | T | 0.64 | 32.3 | C | EB | T | 0.68 | 34.0 | C | EB | T | 0.67 | 31.9 | C |
| | EB | R | 1.97 | 727.2 | F | EB | R | 2.04 | 753.1 | F | EB | R | 1.86 | 649.5 | F |
| | WB | LT | 1.08 | 330.0 | F | WB | LT | 1.11 | 343.1 | F | WB | LT | 1.08 | 319.3 | F |
| | **SB** | **LTR** | **1.36** | **262.4** | **F** | **SB** | **LTR** | **1.38** | **271.3** | **F** | **SB** | **LT** | **1.09** | **144.3** | **F** |
| | | | | | | | | | | | **SB** | **R** | **1.81** | **409.5** | **F** |
| Ninth Ave. @ 35th St. | WB | LT | 1.59 | 604.5 | F | WB | LT | 1.67 | 632.3 | F | WB | LT | 1.61 | 596.3 | F |
| | SB | TR | 0.74 | 17.7 | B | SB | TR | 0.76 | 18.2 | B | SB | TR | 0.78 | 20.3 | C |
| Ninth Ave. @ 36th St. | EB | TR | 1.17 | 200.2 | F | EB | TR | 1.26 | 238.3 | F | EB | TR | 1.18 | 197.0 | F |
| | **SB** | **LT** | **1.01** | **79.8** | **E** | **SB** | **LT** | **1.02** | **82.9** | **F** | **SB** | **L** | **0.39** | **11.1** | **B** |
| | | | | | | | | | | | **SB** | **T** | **0.90** | **29.5** | **C** |
| Ninth Ave. @ 37th St. | WB | LT | 1.17 | 463.9 | F | WB | LT | 1.19 | 470.1 | F | WB | LT | 1.15 | 440.3 | F |
| | SB | T | 0.87 | 22.6 | C | SB | T | 0.88 | 23.4 | C | SB | T | 0.92 | 27.0 | C |
| | SB | TR (LnT) | 1.21 | 253.4 | F | SB | TR (LnT) | 1.21 | 253.4 | F | SB | TR (LnT) | 1.28 | 289.4 | F |
| Ninth Ave. @ 42nd St. | EB | TR | 0.79 | 35.0 | C | EB | TR | 0.80 | 35.8 | D | EB | TR | 0.78 | 33.6 | C |
| | WB | DefL | 1.38 | 802.7 | F | WB | DefL | 1.42 | 833.3 | F | WB | DefL | 1.36 | 784.8 | F |
| | WB | T | 0.47 | 21.2 | C | WB | T | 0.48 | 21.3 | C | WB | T | 0.47 | 20.4 | C |
| | **SB** | **LTR** | **1.17** | **168.9** | **F** | **SB** | **LTR** | **1.18** | **173.9** | **F** | **SB** | **LT** | **1.16** | **164.0** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.24** | **21.0** | **C** |
| Tenth Ave. @ 26th St. | EB | LT | 1.20 | 433.6 | F | EB | LT | 1.25 | 448.7 | F | EB | LT | 1.21 | 422.7 | F |
| | NB | TR | 0.50 | 10.0 | A | NB | TR | 0.50 | 10.0 | B | NB | TR | 0.51 | 10.8 | B |
| Tenth Ave. @ 28th St. | EB | LT | 1.04 | 225.7 | F | EB | LT | 1.13 | 394.8 | F | EB | LT | 0.88 | 211.0 | F |
| | NB | TR | 0.59 | 9.7 | A | NB | TR | 0.59 | 9.8 | A | NB | TR | 0.71 | 17.4 | B |
| Tenth Ave. @ 29th St. | WB | TR | 1.17 | 435.8 | F | WB | TR | 1.24 | 455.3 | F | WB | TR | 1.19 | 426.9 | F |
| | NB | LT | 0.44 | 8.3 | A | NB | LT | 0.45 | 8.3 | A | NB | LT | 0.46 | 9.0 | A |
| Tenth Ave. @ 30th St. | EB | LT | 2.90 | 1149.0 | F | EB | LT | 3.45 | 1399.0 | F | EB | LT | 1.54 | 395.1 | F |
| | NB | T | 0.41 | 8.0 | A | NB | T | 0.42 | 8.1 | A | NB | T | 0.42 | 8.1 | A |
| | NB | R | 1.31 | 271.8 | F | NB | R | 1.34 | 285.9 | F | NB | R | 0.89 | 57.5 | E |
| Tenth Ave. @ 31st St. | WB | R | 2.39 | 857.9 | F | WB | R | 2.59 | 958.3 | F | WB | R | 2.38 | 843.9 | F |
| | NB | T | 0.90 | 18.1 | B | NB | T | 0.95 | 23.0 | C | NB | T | 0.99 | 32.8 | C |
| Tenth Ave. @ 33rd St. | **WB** | **TR** | **0.91** | **44.4** | **D** | **WB** | **TR** | **0.98** | **56.4** | **E** | **WB** | **TR** | **0.73** | **32.0** | **C** |
| | | | | | | | | | | | **WB** | **R** | **0.65** | **39.9** | **D** |
| | NB | LT | 1.06 | 150.3 | F | NB | LT | 1.12 | 170.7 | F | NB | LT | 1.07 | 148.4 | F |
| Tenth Ave. @ 34th St. | EB | DefL | 1.00 | 101.2 | F | EB | DefL | 1.25 | 934.2 | F | EB | DefL | 1.22 | 902.0 | F |
| | EB | T | 0.43 | 26.1 | C | EB | T | 0.46 | 26.7 | C | EB | T | 0.48 | 26.3 | C |
| | WB | T | 0.64 | 29.1 | C | WB | T | 0.67 | 29.9 | C | WB | T | 0.67 | 29.1 | C |
| | WB | R | 2.30 | 874.8 | F | WB | R | 2.34 | 897.4 | F | WB | R | 2.25 | 842.3 | F |
| | **NB** | **LTR** | **1.35** | **219.2** | **F** | **NB** | **LTR** | **1.40** | **241.9** | **F** | **NB** | **LT** | **1.27** | **185.0** | **F** |
| | | | | | | | | | | | **NB** | **R** | **0.42** | **11.2** | **B** |
| Tenth Ave. @ 35th St. | WB | TR | 1.04 | 227.2 | F | WB | TR | 1.16 | 274.7 | F | WB | TR | 1.06 | 219.4 | F |
| | NB | LT | 0.88 | 14.8 | B | NB | LT | 0.91 | 16.5 | B | NB | LT | 0.97 | 25.2 | C |
| Tenth Ave. @ 36th St. | EB | LT | 0.40 | 24.5 | C | EB | LT | 0.43 | 24.9 | C | EB | LT | 0.43 | 24.9 | C |
| | NB | TR | 1.76 | 411.2 | F | NB | TR | 1.86 | 456.1 | F | NB | T | 1.49 | 287.5 | F |
| | | | | | | | | | | | NB | R | 0.91 | 33.1 | C |
| Tenth Ave. @ 37th St. | WB | TR | 0.69 | 30.7 | C | WB | TR | 0.71 | 31.3 | C | WB | TR | 0.77 | 35.5 | D |
| | NB | LT | 1.67 | 374.5 | F | NB | LT | 1.72 | 397.8 | F | NB | LT | 1.64 | 359.1 | F |
| Tenth Ave. @ 38th St. | EB | LT | 0.45 | 25.4 | C | EB | LT | 0.47 | 25.8 | C | EB | LT | 0.51 | 27.9 | C |
| | NB | TR | 1.72 | 395.9 | F | NB | TR | 1.77 | 419.9 | F | NB | TR | 1.70 | 381.3 | F |
| Tenth Ave. @ 39th St. | WB | T | 2.00 | 1497.0 | F | WB | T | 2.14 | 1560.0 | F | WB | T | 2.14 | 1560.0 | F |
| | WB | R | 1.82 | 1059.0 | F | WB | R | 1.83 | 1064.0 | F | WB | R | 1.83 | 1064.0 | F |
| | NB | LT | 1.65 | 400.2 | F | NB | LT | 1.69 | 420.3 | F | NB | LT | 1.69 | 420.3 | F |

## Table 24-6A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Tenth Ave. @ 40th St. | **EB** | **LT** | **0.57** | **118.0** | **F** | **EB** | **LT** | **0.58** | **119.0** | **F** | **EB** | **L** | **0.41** | **24.1** | **C** |
| | | | | | | | | | | | **EB** | **T** | **0.40** | **85.1** | **F** |
| | NB | TR | 1.65 | 393.8 | F | NB | TR | 1.69 | 412.8 | F | NB | TR | 1.57 | 355.1 | F |
| Tenth Ave. @ 41st St. | WB | T | 1.25 | 510.0 | F | WB | T | 1.25 | 510.0 | F | WB | T | 1.25 | 510.0 | F |
| | WB | R | 0.28 | 13.8 | B | WB | R | 0.28 | 13.8 | B | WB | R | 0.28 | 13.8 | B |
| | NB | L | 1.55 | 469.6 | F | NB | L | 1.55 | 469.6 | F | NB | L | 1.55 | 469.6 | F |
| | NB | T | 1.04 | 106.2 | F | NB | T | 1.07 | 115.6 | F | NB | T | 1.07 | 115.6 | F |
| Tenth Ave. @ 42nd St. | EB | LT | 1.88 | 647.7 | F | EB | LT | 1.89 | 650.8 | F | EB | LT | 1.77 | 582.1 | F |
| | WB | TR | 0.73 | 34.7 | C | WB | TR | 0.73 | 34.9 | C | WB | TR | 0.71 | 33.0 | C |
| | WB | T (LnT) | 1.29 | 804.6 | F | WB | T (LnT) | 1.28 | 793.6 | F | WB | T (LnT) | 1.09 | 639.8 | F |
| | NB | LTR | 0.80 | 16.1 | B | NB | LTR | 0.82 | 16.5 | B | NB | LTR | 0.84 | 17.9 | B |
| Eleventh Ave. @ 22nd St. | WB (22nd) | R | 0.06 | 12.7 | B | WB (22nd) | R | 0.06 | 12.7 | B | WB (22nd) | R | 0.06 | 12.7 | B |
| | NB (11th) | T | 0.06 | 26.0 | C | NB (11th) | T | 0.06 | 26.0 | C | NB (11th) | T | 0.06 | 26.0 | C |
| | WB (11th) | L | 0.78 | 62.3 | E | WB (11th) | L | 0.79 | 62.6 | E | WB (11th) | L | 0.79 | 62.6 | E |
| | WB (11th) | LR | 0.65 | 63.4 | E | WB (11th) | LR | 0.70 | 66.1 | E | WB (11th) | LR | 0.70 | 66.1 | E |
| | NB (9A) | T | 1.16 | 149.4 | F | NB (9A) | T | 1.18 | 154.4 | F | NB (9A) | T | 1.18 | 154.4 | F |
| | SB (9A) | T | 0.80 | 18.4 | B | SB (9A) | T | 0.81 | 18.6 | B | SB (9A) | T | 0.81 | 18.6 | B |
| Eleventh Ave. @ 24th St. | EB | R | 0.27 | 27.2 | C | EB | R | 0.27 | 27.2 | C | EB | R | 0.28 | 28.2 | C |
| | NB | L | 0.35 | 28.0 | C | NB | L | 0.35 | 28.0 | C | NB | L | 0.37 | 29.0 | C |
| | SB | L | 0.25 | 4.5 | A | SB | L | 0.27 | 4.7 | A | SB | L | 0.27 | 4.7 | A |
| | SB | TR | 1.33 | 251.0 | F | SB | TR | 1.39 | 276.2 | F | SB | TR | 1.33 | 250.4 | F |
| Eleventh Ave. @ 29th St. | WB | LT | 1.02 | 138.4 | F | WB | LT | 1.11 | 299.5 | F | WB | LT | 0.87 | 131.4 | F |
| | SB | TR | 0.48 | 15.4 | B | SB | TR | 0.54 | 16.1 | B | SB | TR | 0.75 | 28.8 | C |
| Eleventh Ave. @ 30th St. | EB | TR | 0.93 | 46.6 | D | EB | TR | 1.08 | 287.0 | F | EB | TR | 0.52 | 32.8 | C |
| | SB | LT | 1.05 | 117.8 | F | SB | LT | 1.23 | 194.2 | F | SB | LT | 1.05 | 110.3 | F |
| Eleventh Ave. @ 33rd St. | WB | L | 0.63 | 38.7 | D | WB | L | 0.92 | 115.2 | F | WB | L | 0.70 | 36.7 | D |
| | WB | LT | 0.73 | 35.9 | D | WB | LT | 1.06 | 122.2 | F | WB | LT | 0.70 | 35.8 | D |
| | SB | TR | 0.48 | 5.7 | A | SB | TR | 0.57 | 6.4 | A | SB | TR | 0.68 | 13.7 | B |
| Eleventh Ave. @ 34th St. | EB | L | 0.40 | 20.7 | C | EB | L | 0.57 | 26.2 | C | EB | L | 0.55 | 23.8 | C |
| | EB | TR | 0.37 | 27.0 | C | EB | TR | 0.59 | 31.6 | C | EB | TR | 0.56 | 29.3 | C |
| | WB | L | 0.58 | 27.2 | C | WB | L | 0.72 | 37.7 | D | WB | L | 0.69 | 33.7 | C |
| | WB | TR | 0.92 | 53.2 | D | WB | TR | 0.98 | 66.2 | E | WB | TR | 0.93 | 52.8 | D |
| | SB | LT | 0.81 | 25.6 | C | SB | LT | 0.89 | 29.9 | C | SB | LT | 0.94 | 35.9 | D |
| | SB | R | 0.36 | 18.9 | B | SB | R | 0.47 | 22.2 | C | SB | R | 0.50 | 24.6 | C |
| Eleventh Ave. @ 37th St. | EB | LR | 0.11 | 27.3 | C | EB | LR | 0.11 | 27.3 | C | EB | LR | 0.10 | 25.6 | C |
| | WB | L | 0.77 | 54.8 | D | WB | L | 0.88 | 68.3 | E | WB | L | 0.78 | 51.6 | D |
| | WB | R | 0.29 | 31.6 | C | WB | R | 0.29 | 31.6 | C | WB | R | 0.27 | 29.2 | C |
| | NB | T | 0.11 | 2.9 | A | NB | T | 0.12 | 2.9 | A | NB | T | 0.12 | 3.7 | A |
| | SB | T | 0.54 | 9.4 | A | SB | T | 0.57 | 9.8 | A | SB | T | 0.59 | 11.1 | B |
| Eleventh Ave. @ 38th St. | NB | TR | 1.21 | 477.4 | F | NB | TR | 1.33 | 530.9 | F | NB | TR | 1.18 | 431.1 | F |
| | SB | LT | 0.88 | 21.5 | C | SB | LT | 0.93 | 25.6 | C | SB | LT | 0.91 | 23.2 | C |
| Eleventh Ave. @ 40th St. | EB | TR | 0.94 | 75.5 | E | EB | TR | 1.01 | 131.9 | F | EB | TR | 1.01 | 131.9 | F |
| | NB | R | 1.07 | 255.8 | F | NB | R | 1.09 | 260.0 | F | NB | R | 1.09 | 260.0 | F |
| | SB | L | 1.00 | 130.0 | F | SB | L | 1.00 | 130.5 | F | SB | L | 1.00 | 130.5 | F |
| | SB | TR | 0.54 | 4.7 | A | SB | TR | 0.56 | 4.9 | A | SB | TR | 0.56 | 4.9 | A |
| Eleventh Ave. @ 42nd St. | EB | TR | 0.76 | 32.2 | C | EB | TR | 0.77 | 32.4 | C | EB | TR | 0.80 | 34.2 | C |
| | WB | L | 0.43 | 235.2 | F | WB | L | 0.41 | 227.7 | F | WB | L | 0.41 | 235.3 | F |
| | WB | LT | 0.51 | 103.7 | F | WB | LT | 0.53 | 109.7 | F | WB | LT | 0.53 | 111.5 | F |
| | SB | T | 0.79 | 26.1 | C | SB | T | 0.83 | 27.9 | C | SB | T | 0.83 | 27.9 | C |
| | SB | R | 0.92 | 78.7 | E | SB | R | 0.92 | 78.7 | E | SB | R | 0.92 | 78.7 | E |
| | SB | LT (LnT) | 1.31 | 271.1 | F | SB | LT (LnT) | 1.31 | 271.1 | F | SB | LT (LnT) | 1.31 | 271.1 | F |
| Eleventh Ave. @ 44th St. | EB | LTR | 1.13 | 503.4 | F | EB | LTR | 1.15 | 508.8 | F | EB | LTR | 1.10 | 470.5 | F |
| | SB | L | 0.14 | 6.5 | A | SB | L | 0.14 | 6.5 | A | SB | L | 0.13 | 5.4 | A |
| | SB | T | 1.26 | 170.0 | F | SB | T | 1.32 | 194.7 | F | SB | T | 1.25 | 163.2 | F |
| | SB | T (LnT) | 1.26 | 260.4 | F | SB | T (LnT) | 1.26 | 260.4 | F | SB | T (LnT) | 1.08 | 175.0 | F |

## Table 24-6A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS | Approach | Movement | V/C Ratio | Delay Sec/Veh | LOS |
| Eleventh Ave. @ 47th St. | WB | LTR | 0.93 | 55.8 | E | WB | LTR | 0.96 | 61.1 | E | WB | LTR | 0.91 | 52.0 | D |
| | NB | L | 0.26 | 10.9 | B | NB | L | 0.26 | 10.9 | B | NB | L | 0.26 | 11.4 | B |
| | NB | T | 0.12 | 2.9 | A | NB | T | 0.12 | 2.9 | A | NB | T | 0.12 | 3.3 | A |
| | **SB** | **TR** | **1.04** | **82.0** | **F** | **SB** | **TR** | **1.07** | **89.5** | **F** | **SB** | **T** | **0.99** | **59.9** | **E** |
| | | | | | | | | | | | **SB** | **R** | **0.07** | **6.5** | **A** |
| Eleventh Ave. @ 54th St. | EB | LTR | 0.72 | 42.9 | D | EB | LTR | 0.75 | 44.3 | D | EB | LTR | 0.75 | 44.3 | D |
| | NB | L | 1.50 | 549.8 | F | NB | L | 1.54 | 576.2 | F | NB | L | 1.54 | 576.2 | F |
| | NB | TR | 0.39 | 4.1 | A | NB | TR | 0.40 | 4.1 | A | NB | TR | 0.40 | 4.1 | A |
| | SB | L | 0.34 | 10.0 | A | SB | L | 0.36 | 10.2 | B | SB | L | 0.36 | 10.2 | B |
| | SB | TR | 0.84 | 17.3 | B | SB | TR | 0.85 | 17.7 | B | SB | TR | 0.85 | 17.7 | B |
| Eleventh Ave. @ 57th St. | EB | L | 0.54 | 35.3 | D | EB | L | 0.54 | 35.3 | D | EB | L | 0.57 | 38.5 | D |
| | EB | **TR** | **1.24** | **492.3** | **F** | **EB** | **TR** | **1.26** | **499.2** | **F** | **EB** | **T** | **0.64** | **144.6** | **F** |
| | EB | | | | | **EB** | | | | | **EB** | **R** | **0.59** | **37.2** | **D** |
| | WB | L | 0.72 | 44.9 | D | WB | L | 0.73 | 45.8 | D | WB | L | 0.62 | 34.0 | C |
| | WB | TR | 0.83 | 38.6 | D | WB | TR | 0.83 | 38.6 | D | WB | TR | 0.90 | 47.1 | D |
| | NB | L | 1.05 | 297.5 | F | NB | L | 1.07 | 393.5 | F | NB | L | 0.96 | 311.3 | F |
| | NB | TR | 0.44 | 15.4 | B | NB | TR | 0.45 | 15.5 | B | NB | TR | 0.43 | 13.8 | B |
| | SB | L | 1.50 | 423.5 | F | SB | L | 1.53 | 440.5 | F | SB | L | 1.43 | 386.8 | F |
| | SB | TR | 0.76 | 24.3 | C | SB | TR | 0.77 | 24.6 | C | SB | TR | 0.74 | 22.2 | C |
| Twelfth Ave. @ 24th St. | WB | L | 0.67 | 71.0 | E | WB | L | 0.68 | 71.8 | E | WB | L | 0.68 | 71.8 | E |
| | WB | LTR | 0.66 | 71.0 | E | WB | LTR | 0.67 | 71.6 | E | WB | LTR | 0.67 | 71.6 | E |
| | WB | R | 0.69 | 72.9 | E | WB | R | 0.69 | 72.9 | E | WB | R | 0.69 | 72.9 | E |
| | NB | TR | 1.13 | 134.2 | F | NB | TR | 1.14 | 139.0 | F | NB | TR | 1.14 | 139.0 | F |
| | SB | L | 0.65 | 87.7 | F | SB | L | 0.65 | 87.7 | F | SB | L | 0.65 | 87.7 | F |
| | SB | T | 0.87 | 28.7 | C | SB | T | 0.87 | 28.9 | C | SB | T | 0.87 | 28.9 | C |
| Twelfth Ave. @ 29th St. | WB | LR | 1.96 | 992.9 | F | WB | LR | 2.35 | 1168.0 | F | WB | LR | 2.07 | 978.5 | F |
| | NB | T | 0.77 | 3.9 | A | NB | T | 0.78 | 4.0 | A | NB | T | 0.80 | 4.5 | A |
| | SB | T | 0.70 | 10.2 | B | SB | T | 0.70 | 10.2 | B | SB | T | 0.71 | 12.0 | B |
| Twelfth Ave. @ 30th St. | EB | LTR | | 64.4 | E | EB | LTR | | 64.4 | E | EB | LTR | | 64.4 | E |
| | NB | TR | 0.94 | 9.9 | A | NB | TR | 0.97 | 13.3 | B | NB | TR | 1.00 | 21.2 | C |
| | SB | L | 1.39 | 446.8 | F | SB | L | 1.67 | 566.4 | F | SB | L | 1.41 | 421.9 | F |
| | SB | TR | 0.83 | 17.9 | B | SB | TR | 0.83 | 17.9 | B | SB | TR | 0.86 | 20.7 | C |
| Twelfth Ave. @ 34th St. | WB | L | 0.47 | 59.3 | E | WB | L | 0.47 | 59.3 | E | WB | L | 0.47 | 59.3 | E |
| | WB | LR | 0.46 | 59.2 | E | WB | LR | 0.51 | 60.9 | E | WB | LR | 0.53 | 61.6 | E |
| | WB | R | 0.61 | 50.6 | D | WB | R | 0.62 | 51.1 | D | WB | R | 0.63 | 49.7 | D |
| | NB | T | 0.96 | 23.6 | C | NB | T | 1.00 | 31.4 | C | NB | T | 1.02 | 39.2 | D |
| | NB | R | 0.13 | 6.9 | A | NB | R | 0.33 | 8.7 | A | NB | R | 0.33 | 9.8 | A |
| | SB | L | 1.12 | 595.8 | F | SB | L | 1.15 | 714.1 | F | SB | L | 1.00 | 588.0 | F |
| | SB | T | 0.76 | 13.5 | B | SB | T | 0.76 | 13.7 | B | SB | T | 0.76 | 13.7 | B |
| Twelfth Ave. @ 41st St. | EB | LR | 0.06 | 47.3 | D | EB | LR | 0.06 | 47.3 | D | EB | LR | 0.06 | 47.3 | D |
| | WB | L | 0.08 | 60.0 | E | WB | L | 0.08 | 60.0 | E | WB | L | 0.08 | 60.0 | E |
| | WB | R | 0.47 | 67.8 | E | WB | R | 0.47 | 67.8 | E | WB | R | 0.47 | 67.8 | E |
| | NB | T | 1.02 | 81.2 | F | NB | T | 1.06 | 92.3 | F | NB | T | 1.03 | 79.9 | E |
| | SB | T | 0.99 | 33.5 | C | SB | T | 1.00 | 36.6 | D | SB | T | 1.00 | 36.6 | D |
| Twelfth Ave. @ 42nd St. | EB | LTR | 0.08 | 46.7 | D | EB | LTR | 0.08 | 46.7 | D | EB | LTR | 0.08 | 46.7 | D |
| | WB | L | 0.66 | 65.3 | E | WB | L | 0.66 | 65.6 | E | WB | L | 0.66 | 65.6 | E |
| | WB | R | 0.85 | 66.0 | E | WB | R | 0.86 | 67.4 | E | WB | R | 0.86 | 67.4 | E |
| | NB | T | 0.98 | 30.7 | C | NB | T | 1.01 | 77.1 | E | NB | T | 1.01 | 77.1 | E |
| | NB | R | 0.30 | 11.5 | B | NB | R | 0.30 | 11.6 | B | NB | R | 0.33 | 11.9 | B |
| | SB | L | 1.20 | 358.7 | F | SB | L | 1.20 | 358.7 | F | SB | L | 1.20 | 358.7 | F |
| | SB | T | 0.84 | 18.2 | B | SB | T | 0.85 | 18.7 | B | SB | T | 0.85 | 18.7 | B |

## Table 24-6A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2019 Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Twelfth Ave. @ 43th St. | WB | LTR | 1.00 | 108.4 | F | WB | LTR | 1.01 | 149.5 | F | WB | LTR | 0.94 | 103.9 | F |
| | NB | L | 0.16 | 68.0 | E | NB | L | 0.16 | 68.0 | E | NB | L | 0.16 | 68.0 | E |
| | NB | T | 0.88 | 6.2 | A | NB | T | 0.91 | 7.2 | A | NB | T | 0.92 | 8.2 | A |
| | SB | T | 0.79 | 22.3 | C | SB | T | 0.80 | 22.6 | C | SB | T | 0.81 | 24.3 | C |
| | SB | R | 0.02 | 10.6 | B | SB | R | 0.02 | 10.6 | B | SB | R | 0.02 | 11.4 | B |
| Twelfth Ave. @ 44th St. | NB | TR | 0.97 | 12.3 | B | NB | TR | 0.99 | 17.1 | B | NB | TR | 1.01 | 22.9 | C |
| | SB | L | 1.02 | 189.3 | F | SB | L | 1.03 | 227.0 | F | SB | L | 0.96 | 185.2 | F |
| | SB | T | 0.76 | 13.3 | B | SB | T | 0.77 | 13.5 | B | SB | T | 0.78 | 14.9 | B |
| Twelfth Ave.@ 46th St. | EB | LTR | 0.17 | 51.9 | D | EB | LTR | 0.17 | 51.9 | D | EB | LTR | 0.18 | 53.8 | D |
| | NB | TR | 1.14 | 166.6 | F | NB | TR | 1.16 | 179.3 | F | NB | TR | 1.14 | 166.0 | F |
| | SB | L | 0.63 | 84.3 | F | SB | L | 0.63 | 84.3 | F | SB | L | 0.63 | 84.3 | F |
| | SB | T | 0.80 | 14.0 | B | SB | T | 0.81 | 14.3 | B | SB | T | 0.79 | 12.9 | B |
| Twelfth Ave. @ 54th St. | EB | R | | 5.3 | A | EB | R | | 5.3 | A | EB | R | | 5.3 | A |
| | WB | R | 0.81 | 82.0 | F | WB | R | 0.81 | 82.0 | F | WB | R | 0.81 | 82.0 | F |
| | NB | TR | 1.24 | 192.7 | F | NB | TR | 1.26 | 202.4 | F | NB | TR | 1.26 | 202.4 | F |
| | SB | L | 0.47 | 58.2 | E | SB | L | 0.47 | 58.5 | E | SB | L | 0.47 | 58.5 | E |
| | SB | T | 0.75 | 13.0 | B | SB | T | 0.76 | 13.2 | B | SB | T | 0.76 | 13.2 | B |
| Twelfth Ave. @ 56th St. | NB | T | 1.24 | 165.7 | F | NB | T | 1.26 | 174.5 | F | NB | T | 1.26 | 174.5 | F |
| | SB | L | 1.12 | 391.4 | F | SB | L | 1.12 | 391.4 | F | SB | L | 1.12 | 391.4 | F |
| | SB | T | 0.60 | 0.8 | A | SB | T | 0.60 | 0.8 | A | SB | T | 0.60 | 0.8 | A |
| Broadway @ 35th St. | WB | L | 0.11 | 20.9 | C | WB | L | 0.11 | 20.9 | C | WB | L | 0.10 | 19.5 | B |
| | WB | T | 1.51 | 286.1 | F | WB | T | 1.59 | 321.5 | F | WB | T | 1.49 | 276.2 | F |
| | SB | T | 0.39 | 8.9 | A | SB | T | 0.39 | 8.9 | A | SB | T | 0.40 | 10.3 | B |
| | SB | R | 0.44 | 12.9 | B | SB | R | 0.44 | 12.9 | B | SB | R | 0.47 | 15.2 | B |
| Broadway @ 36th St. | EB | TR | 0.95 | 42.1 | D | EB | TR | 0.99 | 51.4 | D | EB | TR | 0.94 | 39.9 | D |
| | SB | L | 0.58 | 42.8 | D | SB | L | 0.58 | 42.8 | D | SB | L | 0.58 | 42.8 | D |
| | SB | T | 0.48 | 15.4 | B | SB | T | 0.48 | 15.4 | B | SB | T | 0.51 | 17.3 | B |
| Dyer Ave @ 31st St. | WB | LTR | 0.86 | 52.5 | D | WB | LTR | 0.88 | 59.0 | E | WB | LTR | 0.76 | 30.8 | C |
| | NB | LT | 0.82 | 44.3 | D | NB | LT | 0.83 | 45.4 | D | NB | LT | 0.83 | 45.4 | D |
| | SB | TR | 0.91 | 50.1 | D | SB | TR | 0.91 | 50.1 | D | SB | TR | 0.91 | 50.1 | D |
| Dyer Ave @ 34th St. | EB | T | 0.26 | 11.8 | B | EB | T | 0.29 | 12.1 | B | EB | T | 0.30 | 12.2 | B |
| | WB | T | 0.60 | 16.3 | B | WB | T | 0.61 | 16.5 | B | WB | T | 0.62 | 16.7 | B |
| | WB | R | 2.76 | 1350.0 | F | WB | R | 2.78 | 1359.0 | F | WB | R | 2.78 | 1359.0 | F |
| | SB | L | 0.79 | 59.2 | E | SB | L | 0.81 | 61.6 | E | SB | L | 0.81 | 61.6 | E |
| | SB | LR | 0.80 | 61.0 | E | SB | LR | 0.82 | 63.7 | E | SB | LR | 0.82 | 63.7 | E |
| | SB | R | 0.80 | 63.6 | E | SB | R | 0.81 | 64.8 | E | SB | R | 0.81 | 64.8 | E |
| Dyer Ave @ 35th St. | WB | LTR | 0.76 | 196.7 | F | WB | LTR | 0.82 | 216.1 | F | WB | LTR | 0.78 | 188.5 | F |
| | NB | LT | 0.32 | 26.6 | C | NB | LT | 0.33 | 26.8 | C | NB | LT | 0.33 | 26.8 | C |
| | SB | TR | 0.69 | 33.0 | C | SB | TR | 0.71 | 33.7 | C | SB | TR | 0.71 | 33.7 | C |
| Dyer Ave @ 36th St. | EB | TR | 0.72 | 76.4 | E | EB | TR | 0.84 | 113.1 | F | EB | TR | 0.75 | 71.6 | E |
| | NB | TR | 1.68 | 559.7 | F | NB | TR | 1.69 | 562.7 | F | NB | TR | 1.51 | 462.6 | F |
| | SB | L | 0.51 | 31.6 | C | SB | L | 0.56 | 32.9 | C | SB | L | 0.66 | 40.5 | D |
| | SB | LT | 0.65 | 31.5 | C | SB | LT | 0.65 | 31.5 | C | SB | LT | 0.78 | 38.3 | D |
| | SB | R | 0.46 | 11.7 | B | SB | R | 0.46 | 11.7 | B | SB | R | 0.48 | 13.7 | B |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-6B
## 2019 Future with the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday PM Peak Hour) Unsignalized Intersections

| Intersection | 2019 Future Without the Proposed Actions | | | 2019 Future With the Proposed Actions | | | 2019 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS |
| Twelfth Ave. @ 33rd St. | WB | 57.1 | F | WB | 448.8 | F | WB | 54.5 | D |
| | NB | -- | -- | NB | -- | -- | NB | 20.4 | C |
| Twelfth Ave. @ 47th St. | WB | 456.6 | F | WB | 559.5 | F | WB | 53.0 | D |
| | NB | -- | -- | NB | -- | -- | NB | 37.5 | D |

## Table 24-6C
## 2019 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday PM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| Sixth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Sixth Ave. @ 36th St. | EBT: G=24<br>EBTL: G=16<br>NB: G=40 | EBT: G=24<br>EBTL: G=18<br>NB: G=38 |
| Seventh Ave. @ 29th St. | WB: G= 36<br>SB: G=44 | WB: G=37<br>SB: G=43 |
| Seventh Ave. @ 30th St. | EB: G=36<br>SB: G=44 | EB: G=39<br>SB: G=41 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St. | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| | WB: G= 23<br>SB: G= 52 | WB: G=23<br>SB G=57 |
| Seventh Ave. @ 34th St. | EB/WB: G=35<br>SB: G=44 | EB/WB: G=36<br>SB: G=43 |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15' each) – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13' each) – Restriping by prohibiting parking on the south side of 36th St. |
| Eighth Ave. @ 29th St. | WB: G=36<br>NB: G=44 | WB: G=37<br>NB: G=43 |
| Eighth Ave. @ 30th St. | EB: G=38<br>NB: G=42 | EB: G=40<br>NB: G=40 |
| Eighth Ave. @ 31st St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe. |
| | NB: G=40<br>WB: G=40 | NB: G=41<br>WB: G=39 |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 34th St. | EB/WB: G=40<br>All Ped: G=7<br>NB: G=33 | EB/WB: G=39<br>All Ped: G=7<br>NB: G=34 |

## Table 24-6C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eighth Ave. @ 35th St. | WB: G=31<br>NB: G=49 | WB: G=32<br>NB: G=48 |
| Eighth Ave. @ 36th ST. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Eighth Ave. @ 38th St. | EB: G=38<br>NB: G=42 | EB: G=36<br>NB: G=44 |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=29<br>SBT: G=26<br>SB: G=18 |
| Ninth Ave. @ 31st St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=10<br>EB/WB: G=30<br>SB: G=35 | WB: G=10<br>EB/WB: G=32<br>SB: G=33 |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 36th St.* | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: 32<br>SB: 48 |
| Ninth Ave. @ 37th St. | Impacts cannot be fully mitigated | |
| Ninth Ave. @ 42nd St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=4<br>EB/WB: G=29<br>Ped N-S: G=7<br>NB/SB: G=35 | WB: G=4<br>EB/WB: G=30<br>Ped N-S: G=7<br>NB/SB: G=34 |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=38<br>NB: G=42 |

## Table 24-6C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 29th St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 33rd St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| | WB: G=32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Tenth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Tenth Ave. @ 36th St. | NB (3 Lanes): T, T, TR | NB (4 Lanes): T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| Tenth Ave. @ 37th St. | WB: G= 32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Tenth Ave. @ 38th St. | EB: G=30<br>NB: G=50 | EB: G=28<br>NB: G=52 |
| Tenth Ave. @ 39th St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 40th St. | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach. (10' each) |
| | EB: G=36<br>NB: G=44 | EB: G=34<br>NB: G=46 |
| Tenth Ave. @ 41st St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 42nd St. | EB/WB: G=28<br>NB: G=45 | EB/WB: G=29<br>NB: G=44 |
| Eleventh/Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 24th St. | SBL&NBL&EBR: G=24<br>SB: G=27 | SBL&NBL&EBR: G=23<br>SB: G=28 |
| Eleventh Ave. @ 29th St. | WB: G=40<br>SB: G=40 | WB: G=51<br>SB: G=29 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 33rd St. | WB: G=25<br>SB: G=55 | WB: G=34<br>SB: G=46 |

## Table 24-6C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eleventh Ave. @ 34th St. | EB/WB: G=26<br>SB: G=40 | EB/WB: G=28<br>SB: G=38 |
| Eleventh Ave. @ 37th St. | EB/WB: G=22<br>NB/SB: G=58 | EB/WB: G=24<br>NB/SB: G=56 |
| Eleventh Ave. @ 38th St. | ALL PED: G=26<br>NB/SB: G=54 | ALL PED: G=25<br>NB/SB: G=55 |
| Eleventh Ave. @ 40th St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 42nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 44th St. | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 47th St. | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| | WB: G=22<br>SB/NB: G=58 | WB: G=23<br>SB/NB: G=57 |
| Eleventh Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 57th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 24th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=25<br>NB/SB: G=114 | WB: G=28<br>NB/SB: G=111 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB Through: G=107<br>SB Left: G=16 | EB: G=11<br>NB/SB Through: G=104<br>SB Left: G=19 |
| Twelfth Ave. @ 33rd St.* | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | Signalized<br>WB: G=48<br>NB: G=92 |
| Twelfth Ave. @ 34th St. | WB: G=29<br>NB/SB: G=92<br>SB/SBL/WBR: G=13 | WB: G=29<br>NB/SB: G=90<br>SB/SBL/WBR: G=15 |
| Twelfth Ave. @ 41st St. | EB/WB: G=17<br>EB only: G=9<br>NB/SB: G=96<br>SB only: G=7 | EB/WB: G=17<br>EB only: G=9<br>NB/SB: G=99<br>SB only: G=4 |
| Twelfth Ave. @ 42nd St. | Impacts cannot be fully mitigated | |

## Table 24-6C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Twelfth Ave. @ 43rd St. | WB: G=29<br>NB: G=11<br>NB/SB: G=94 | WB: G=31<br>NB: G=11<br>NB/SB: G=92 |
| Twelfth Ave. @ 44th St. | NB/SB: G=110<br>SBL: G=29 | NB/SB: G=108<br>SBL: G=31 |
| Twelfth Ave. @ 46th St. | EB: G=5<br>EB: G=18<br>NB/SB: G=93<br>SB/SBL: G=13 | EB: G=5<br>EB: G=16<br>NB/SB: G=95<br>SB/SBL: G=13 |
| Twelfth Ave. @ 47th St. | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from daylighting on the north side of 33rd St. |
| | Unsignalized | Proposed Signal Timing:<br>WB: G=38<br>NB: G=102 |
| Twelfth Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 56th St. | Impacts cannot be fully mitigated | |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=33<br>SB: G=47 |
| Broadway @ 36th St. | EB: G=39<br>SBT: G=25<br>SBTL: G=16 | EB: G=41<br>SBT: G=23<br>SBTL: G=16 |
| Dyer Ave. @ 31st St. | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |
| Dyer Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Dyer Ave. @ 35th St. | WB: G=27<br>NB: G=28<br>NB/SB: G=25 | WB: G=28<br>NB: G=27<br>NB/SB: G=25 |
| Dyer Ave. @ 36th St. | EB: G=26<br>SB: G=25<br>NB/SBR: G=24 | EB: G=29<br>SB: G=21<br>NB/SBR: G=25 |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-7A
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Saturday Midday Peak Hour)
## Signalized Intersections

| | 2019Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Sixth Ave. @ 28th St. | EB | LT | 1.07 | 281.3 | F | EB | LT | 1.09 | 288.7 | F | EB | LT | 1.06 | 272.7 | F |
| | NB | TR | 0.88 | 22.0 | C | NB | TR | 0.89 | 22.5 | C | NB | TR | 0.91 | 24.8 | C |
| Sixth Ave. @ 30th St. | **EB** | **LT** | **0.65** | **63.0** | **E** | **EB** | **LT** | **0.72** | **76.3** | **E** | **EB** | **L** | **0.33** | **15.3** | **B** |
| | | | | | | | | | | | **EB** | **T** | **0.37** | **35.1** | **D** |
| | NB | TR | 1.01 | 84.2 | F | NB | TR | 1.01 | 85.5 | F | NB | TR | 1.01 | 85.5 | F |
| Sixth Ave. @ 34th St. | EB | T | 0.60 | 49.8 | D | EB | T | 0.62 | 53.5 | D | EB | T | 0.62 | 53.5 | D |
| | WB | TR | 0.47 | 13.6 | B | WB | TR | 0.49 | 13.8 | B | WB | TR | 0.49 | 13.8 | B |
| | NB | T | 1.29 | 251.1 | F | NB | T | 1.30 | 257.6 | F | NB | T | 1.30 | 257.6 | F |
| | SB | T | 1.36 | 384.1 | F | SB | T | 1.36 | 384.1 | F | SB | T | 1.36 | 384.1 | F |
| Seventh Ave. @ 28th St. | EB | TR | 0.86 | 298.8 | F | EB | TR | 0.90 | 316.4 | F | EB | TR | 0.86 | 286.6 | F |
| | SB | LT | 0.59 | 14.1 | B | SB | LT | 0.60 | 14.2 | B | SB | LT | 0.61 | 15.2 | B |
| Seventh Ave. @ 29th St. | WB | LT | 1.04 | 219.9 | F | WB | LT | 1.09 | 299.0 | F | WB | LT | 0.96 | 212.6 | F |
| | SB | TR | 0.70 | 15.7 | B | SB | TR | 0.71 | 15.9 | B | SB | TR | 0.80 | 22.2 | C |
| Seventh Ave. @ 31st St. | **WB** | **LT** | **1.33** | **373.4** | **F** | **WB** | **LT** | **1.37** | **388.2** | **F** | **WB** | **L** | **0.25** | **17.8** | **B** |
| | | | | | | | | | | | **WB** | **T** | **1.18** | **313.8** | **F** |
| | SB | TR | 0.71 | 17.5 | B | SB | TR | 0.71 | 17.5 | B | SB | TR | 0.71 | 17.5 | B |
| Seventh Ave. @ 33rd St. | **WB** | **LT** | **1.13** | **459.6** | **F** | **WB** | **LT** | **1.15** | **465.8** | **F** | **WB** | **L** | **0.43** | **33.2** | **C** |
| | | | | | | | | | | | **WB** | **T** | **0.76** | **245.7** | **F** |
| | SB | TR | 0.88 | 12.1 | B | SB | TR | 0.91 | 13.7 | B | SB | TR | 0.66 | 6.2 | A |
| Seventh Ave. @ 35th St. | WB | L | 0.81 | 44.8 | D | WB | L | 0.81 | 44.8 | D | WB | L | 0.74 | 37.3 | D |
| | WB | LT | 0.89 | 47.8 | D | WB | LT | 0.96 | 61.1 | E | WB | LT | 0.71 | 30.4 | C |
| | SB | TR | 0.73 | 14.7 | B | SB | TR | 0.74 | 14.9 | B | SB | TR | 0.74 | 14.9 | B |
| Seventh Ave. @ 36th St. | EB | TR | 1.18 | 407.1 | F | EB | TR | 1.21 | 418.0 | F | EB | TR | 1.01 | 294.2 | F |
| | SB | LT | 0.67 | 15.2 | B | SB | LT | 0.69 | 15.4 | B | SB | LT | 0.69 | 15.4 | B |
| Seventh Ave. @ 37th St. | WB | LT | 0.87 | 183.4 | F | WB | LT | 0.89 | 194.7 | F | WB | LT | 0.87 | 176.2 | F |
| | SB | TR | 0.68 | 18.5 | B | SB | TR | 0.70 | 18.7 | B | SB | TR | 0.72 | 19.9 | B |
| Seventh Ave. @ 38th St. | EB | TR | 0.95 | 269.4 | F | EB | TR | 0.97 | 282.2 | F | EB | TR | 0.95 | 256.9 | F |
| | SB | LT | 0.54 | 13.3 | B | SB | LT | 0.55 | 13.5 | B | SB | LT | 0.57 | 14.4 | B |
| Eighth Ave. @ 29th St. | WB | TR | 1.21 | 349.9 | F | WB | TR | 1.26 | 370.8 | F | WB | TR | 1.23 | 349.0 | F |
| | NB | LT | 0.70 | 19.7 | B | NB | LT | 0.71 | 20.1 | C | NB | LT | 0.73 | 21.6 | C |
| Eighth Ave. @ 30th St. | EB | LT | 1.02 | 131.5 | F | EB | LT | 1.08 | 303.0 | F | EB | LT | 1.08 | 303.0 | F |
| | NB | TR | 0.69 | 22.0 | C | NB | TR | 0.69 | 22.1 | C | NB | TR | 0.69 | 22.1 | C |
| Eighth Ave. @ 31st St. | **WB** | **TR** | **1.08** | **340.9** | **F** | **WB** | **TR** | **1.10** | **344.9** | **F** | **WB** | **T** | **0.50** | **64.3** | **E** |
| | | | | | | | | | | | **WB** | **R** | **1.23** | **155.1** | **F** |
| | NB | LT | 0.89 | 38.1 | D | NB | LT | 0.90 | 40.0 | D | NB | LT | 0.90 | 40.0 | D |
| Eighth Ave. @ 33rd St. | WB | TR | 0.47 | 15.0 | B | WB | TR | 0.50 | 15.4 | B | WB | TR | 0.51 | 16.2 | B |
| | NB | LT | 1.06 | 124.3 | F | NB | LT | 1.07 | 130.2 | F | NB | LT | 1.04 | 116.3 | F |
| Eighth Ave. @ 35th St. | WB | TR | 1.44 | 549.5 | F | WB | TR | 1.51 | 572.8 | F | WB | TR | 1.45 | 538.1 | F |
| | NB | LT | 0.71 | 12.1 | B | NB | LT | 0.72 | 12.1 | B | NB | LT | 0.72 | 13.1 | B |
| Eighth Ave. @ 36th St. | EB | LT | 1.00 | 316.1 | F | EB | LT | 1.04 | 325.5 | F | EB | LT | 0.95 | 256.9 | F |
| | NB | TR | 0.82 | 16.9 | B | NB | TR | 0.83 | 17.0 | B | NB | TR | 0.83 | 17.0 | B |
| Ninth Ave. @ 26th St. | EB | TR | 0.65 | 24.8 | C | EB | TR | 0.68 | 25.7 | D | EB | TR | 0.74 | 30.5 | C |
| | SB | L | 0.49 | 19.4 | B | SB | L | 0.49 | 19.4 | B | SB | L | 0.44 | 15.7 | B |
| | SB | T | 1.00 | 42.5 | D | SB | T | 1.01 | 84.7 | F | SB | T | 0.94 | 42.2 | D |
| Ninth Ave. @ 28th St. | **EB** | **TR** | **0.90** | **47.5** | **D** | **EB** | **TR** | **0.96** | **57.4** | **E** | **EB** | **T** | **0.71** | **29.3** | **C** |
| | | | | | | | | | | | **EB** | **R** | **0.22** | **18.5** | **B** |
| | SB | L | 0.53 | 18.0 | B | SB | L | 0.53 | 18.0 | B | SB | L | 0.53 | 18.0 | B |
| | SB | T | 0.98 | 34.7 | C | SB | T | 0.99 | 36.3 | D | SB | T | 0.99 | 36.3 | D |
| Ninth Ave. @ 29th St. | WB | LT | 0.71 | 27.2 | C | WB | LT | 0.76 | 28.9 | C | WB | LT | 0.80 | 32.5 | C |
| | SB | TR | 1.01 | 82.7 | F | SB | TR | 1.02 | 90.8 | F | SB | TR | 0.98 | 68.5 | E |

## Table 24-7A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Saturday Midday Peak Hour)
## Signalized Intersections

| | 2019Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| Ninth Ave. @ 30th St. | EB | TR | 0.88 | 41.2 | D | EB | TR | 0.95 | 50.4 | D | EB | TR | 0.89 | 39.7 | D |
| | SB | L | 1.86 | 538.2 | F | SB | L | 1.87 | 543.4 | F | SB | L | 1.77 | 490.7 | F |
| | SB | T | 0.82 | 17.5 | B | SB | T | 0.82 | 17.6 | B | SB | T | 0.61 | 14.1 | B |
| Ninth Ave. @ 31st St. | WB | LTR | 1.03 | 175.9 | F | WB | LTR | 1.05 | 256.2 | F | WB | LTR | 0.92 | 166.5 | F |
| | SB | TR | 0.73 | 11.6 | B | SB | TR | 0.73 | 11.6 | B | SB | TR | 0.79 | 16.0 | B |
| Ninth Ave. @ 33rd St. | **WB** | **LT** | **1.52** | **604.6** | **F** | **WB** | **LT** | **1.65** | **651.8** | **F** | **WB** | **L** | **0.74** | **45.7** | **D** |
| | | | | | | | | | | | **WB** | **T** | **0.91** | **262.8** | **F** |
| | SB | TR | 0.76 | 12.3 | B | SB | TR | 0.78 | 12.7 | B | SB | TR | 0.78 | 12.7 | B |
| Ninth Ave. @ 35th St. | WB | LT | 1.01 | 113.8 | F | WB | LT | 1.08 | 347.8 | F | WB | LT | 0.76 | 102.4 | F |
| | SB | TR | 0.59 | 9.7 | A | SB | TR | 0.60 | 9.9 | A | SB | TR | 0.80 | 22.6 | C |
| Ninth Ave. @ 36th St. | EB | TR | 1.06 | 165.0 | F | EB | TR | 1.09 | 174.7 | F | EB | TR | 1.05 | 158.0 | F |
| | **SB** | **LT** | **0.83** | **20.7** | **C** | **SB** | **LT** | **0.85** | **22.0** | **C** | **SB** | **L** | **0.38** | **9.6** | **A** |
| | | | | | | | | | | | **SB** | **T** | **0.69** | **15.0** | **B** |
| Ninth Ave. @ 42nd St. | EB | TR | 0.59 | 27.6 | C | EB | TR | 0.60 | 27.8 | C | EB | TR | 0.58 | 25.7 | C |
| | WB | DefL | 1.05 | 294.7 | F | WB | DefL | 1.06 | 319.8 | F | WB | DefL | 1.03 | 282.9 | F |
| | WB | T | 0.23 | 17.1 | B | WB | T | 0.24 | 17.1 | B | WB | T | 0.23 | 15.8 | B |
| | **SB** | **LTR** | **0.94** | **33.2** | **C** | **SB** | **LTR** | **0.94** | **34.4** | **C** | **SB** | **LT** | **0.91** | **35.1** | **D** |
| | | | | | | | | | | | **SB** | **R** | **0.21** | **21.1** | **C** |
| Tenth Ave. @ 26th St. | EB | LT | 0.89 | 50.6 | D | EB | LT | 0.93 | 57.6 | E | EB | LT | 0.87 | 46.6 | D |
| | NB | TR | 0.61 | 11.3 | B | NB | TR | 0.61 | 11.3 | B | NB | TR | 0.64 | 13.1 | B |
| Tenth Ave. @ 28th St. | EB | LT | 1.43 | 534.8 | F | EB | LT | 1.50 | 562.1 | F | EB | LT | 1.44 | 526.3 | F |
| | NB | TR | 0.53 | 11.8 | B | NB | TR | 0.54 | 11.9 | B | NB | TR | 0.55 | 12.8 | B |
| Tenth Ave. @ 30th St. | EB | LT | 1.70 | 608.4 | F | EB | LT | 2.17 | 822.4 | F | EB | LT | 0.97 | 152.5 | F |
| | NB | T | 0.51 | 11.5 | B | NB | T | 0.52 | 11.6 | B | NB | T | 0.52 | 11.6 | B |
| | NB | R | 1.25 | 245.1 | F | NB | R | 1.24 | 241.3 | F | NB | R | 0.84 | 42.9 | D |
| Tenth Ave. @ 31st St. | WB | R | 1.28 | 369.6 | F | WB | R | 1.36 | 403.5 | F | WB | R | 1.30 | 369.4 | F |
| | NB | T | 0.57 | 9.5 | A | NB | T | 0.60 | 9.8 | A | NB | T | 0.61 | 10.6 | B |
| Tenth Ave. @ 34th St. | EB | DefL | 0.77 | 50.8 | D | EB | DefL | 0.85 | 61.9 | E | EB | DefL | 0.78 | 49.9 | D |
| | EB | T | 0.28 | 22.7 | C | EB | T | 0.29 | 22.9 | C | EB | T | 0.27 | 21.3 | C |
| | WB | TR | 0.56 | 27.8 | C | WB | TR | 0.59 | 28.5 | C | WB | TR | 0.55 | 26.1 | C |
| | **NB** | **LTR** | **0.81** | **13.6** | **B** | **NB** | **LTR** | **0.84** | **14.3** | **B** | **NB** | **LT** | **0.79** | **14.4** | **B** |
| | | | | | | | | | | | **NB** | **R** | **0.29** | **9.9** | **A** |
| Tenth Ave. @ 35th St. | WB | TR | 1.05 | 253.9 | F | WB | TR | 1.16 | 287.7 | F | WB | TR | 1.08 | 241.9 | F |
| | NB | LT | 0.78 | 12.5 | B | NB | LT | 0.80 | 13.2 | B | NB | LT | 0.67 | 11.9 | B |
| Tenth Ave. @ 42nd St. | EB | LT | 2.04 | 797.7 | F | EB | LT | 2.07 | 812.9 | F | EB | LT | 1.86 | 693.8 | F |
| | WB | TR | 1.47 | 458.5 | F | WB | TR | 1.48 | 460.0 | F | WB | TR | 1.43 | 430.0 | F |
| | NB | LTR | 0.78 | 22.6 | C | NB | LTR | 0.79 | 23.3 | C | NB | LTR | 0.81 | 25.5 | C |
| Eleventh Ave. @ 22nd St. | WB (22nd) | R | 0.09 | 13.1 | B | WB (22nd) | R | 0.09 | 13.1 | B | WB (22nd) | R | 0.09 | 13.1 | B |
| | NB (11th) | T | 0.16 | 27.4 | C | NB (11th) | T | 0.16 | 27.4 | C | NB (11th) | T | 0.16 | 27.4 | C |
| | WB (11th) | L | 0.30 | 35.1 | D | WB (11th) | L | 0.33 | 35.4 | D | WB (11th) | L | 0.33 | 35.4 | D |
| | WB (11th) | LR | 0.23 | 35.0 | D | WB (11th) | LR | 0.18 | 34.2 | C | WB (11th) | LR | 0.18 | 34.2 | C |
| | NB (9A) | T | 1.13 | 141.5 | F | NB (9A) | T | 1.14 | 145.3 | F | NB (9A) | T | 1.14 | 145.3 | F |
| | SB (9A) | T | 0.76 | 18.5 | B | SB (9A) | T | 0.76 | 18.5 | B | SB (9A) | T | 0.76 | 18.5 | B |
| Eleventh Ave. @ 30th St. | EB | TR | 0.87 | 39.2 | D | EB | TR | 1.05 | 258.0 | F | EB | TR | 0.50 | 28.7 | C |
| | SB | LT | 0.74 | 19.9 | B | SB | LT | 0.88 | 25.1 | C | SB | LT | 0.79 | 21.1 | C |
| Eleventh Ave. @ 37th St. | EB | LR | | 25.7 | C | EB | LR | | 25.7 | C | EB | LR | | 24.2 | C |
| | WB | L | 0.59 | 40.6 | D | WB | L | 0.69 | 46.4 | D | WB | L | 0.61 | 39.2 | D |
| | WB | R | 0.55 | 39.8 | D | WB | R | 0.55 | 39.8 | D | WB | R | 0.49 | 35.0 | C |
| | NB | T | 0.07 | 6.0 | A | NB | T | 0.08 | 6.0 | A | NB | T | 0.08 | 6.8 | A |
| | SB | T | 0.42 | 8.3 | A | SB | T | 0.45 | 8.5 | A | SB | T | 0.46 | 9.6 | A |

## Table 24-7A (cont'd)
## 2019 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Saturday Midday Peak Hour)
## Signalized Intersections

| | 2019Future Without the Proposed Actions | | | | | 2019 Future With the Proposed Actions | | | | | 2019 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** | **Approach** | **Movement** | **V/C Ratio** | **Delay Sec/Veh** | **LOS** |
| | **EB** | **L** | **0.64** | **34.1** | **C** | **EB** | **L** | **0.64** | **34.1** | **C** | **EB** | **L** | **0.64** | **34.1** | **C** |
| | **EB** | **TR** | **0.90** | **58.4** | **E** | **EB** | **TR** | **0.91** | **58.9** | **E** | **EB** | **T** | **0.47** | **28.9** | **C** |
| | | | | | | | | | | | **EB** | **R** | **0.34** | **27.6** | **C** |
| Eleventh Ave. @ 57th St. | WB | L | 1.22 | 569.2 | F | WB | L | 1.22 | 572.5 | F | WB | L | 1.02 | 429.8 | F |
| | WB | TR | 1.69 | 662.0 | F | WB | TR | 1.69 | 662.0 | F | WB | TR | 1.69 | 662.0 | F |
| | NB | L | 0.94 | 88.8 | F | NB | L | 0.96 | 95.6 | F | NB | L | 0.96 | 95.6 | F |
| | NB | TR | 0.38 | 17.4 | B | NB | TR | 0.39 | 17.4 | B | NB | TR | 0.39 | 17.4 | B |
| | SB | L | 0.82 | 48.8 | D | SB | L | 0.83 | 50.6 | D | SB | L | 0.83 | 50.6 | D |
| | SB | TR | 0.65 | 21.4 | C | SB | TR | 0.66 | 21.6 | C | SB | TR | 0.66 | 21.6 | C |
| Twelfth Ave. @ 24th St. | WB | L | 0.50 | 46.8 | D | WB | L | 0.53 | 47.8 | D | WB | L | 0.53 | 47.8 | D |
| | WB | LTR | 0.53 | 48.0 | D | WB | LTR | 0.51 | 47.3 | D | WB | LTR | 0.51 | 47.3 | D |
| | WB | R | 0.50 | 47.9 | D | WB | R | 0.50 | 47.9 | D | WB | R | 0.50 | 47.9 | D |
| | NB | TR | 1.11 | 129.5 | F | NB | TR | 1.12 | 133.1 | F | NB | TR | 1.12 | 133.1 | F |
| | SB | L | 1.10 | 523.8 | F | SB | L | 1.10 | 523.8 | F | SB | L | 1.10 | 523.8 | F |
| | SB | T | 0.84 | 28.3 | C | SB | T | 0.84 | 28.3 | C | SB | T | 0.84 | 28.3 | C |
| Twelfth Ave. @ 29th St. | WB | LR | 1.26 | 596.0 | F | WB | LR | 1.56 | 721.1 | F | WB | LR | 1.38 | 590.6 | F |
| | NB | T | 0.71 | 12.3 | B | NB | T | 0.71 | 12.4 | B | NB | T | 0.74 | 14.5 | B |
| | SB | T | 0.78 | 14.4 | B | SB | T | 0.78 | 14.4 | B | SB | T | 0.81 | 16.9 | B |
| Twelfth Ave. @ 30th St. | EB | LTR | | 49.5 | D | EB | LTR | | 49.5 | D | EB | LTR | 0.00 | 49.5 | D |
| | NB | TR | 0.81 | 17.0 | B | NB | TR | 0.83 | 17.8 | B | NB | TR | 0.85 | 19.8 | B |
| | SB | L | 1.20 | 342.7 | F | SB | L | 1.38 | 414.2 | F | SB | L | 1.21 | 321.0 | F |
| | SB | TR | 0.88 | 20.6 | C | SB | TR | 0.88 | 20.6 | C | SB | TR | 0.90 | 23.3 | C |
| Twelfth Ave. @ 37th St. | EB | LR | 0.16 | 43.3 | D | EB | LR | 0.17 | 43.4 | D | EB | LR | 0.18 | 44.5 | D |
| | EB | R | 0.10 | 42.8 | D | EB | R | 0.09 | 42.6 | D | EB | R | 0.10 | 43.6 | D |
| | NB | L | 0.26 | 51.6 | D | NB | L | 0.26 | 51.6 | D | NB | L | 0.26 | 51.6 | D |
| | NB | T | 0.86 | 22.6 | C | NB | T | 0.87 | 23.5 | C | NB | T | 0.87 | 23.5 | C |
| | SB | TR | 1.17 | 153.5 | F | SB | TR | 1.18 | 158.5 | F | SB | TR | 1.17 | 149.9 | F |
| Twelfth Ave. @ 41st St. | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 25.5 | C |
| | WB | L | 0.07 | 37.6 | D | WB | L | 0.07 | 37.6 | D | WB | L | 0.07 | 37.6 | D |
| | WB | R | 0.45 | 43.5 | D | WB | R | 0.45 | 43.5 | D | WB | R | 0.45 | 43.5 | D |
| | NB | T | 1.06 | 120.3 | F | NB | T | 1.08 | 127.9 | F | NB | T | 1.06 | 118.4 | F |
| | SB | T | 1.14 | 117.9 | F | SB | T | 1.15 | 122.2 | F | SB | T | 1.13 | 113.9 | F |
| Twelfth Ave. @ 42nd St. | EB | LTR | 0.09 | 32.6 | C | EB | LTR | 0.09 | 32.6 | C | EB | LTR | 0.10 | 33.4 | C |
| | WB | L | 0.50 | 41.9 | D | WB | L | 0.51 | 42.0 | D | WB | L | 0.53 | 43.5 | D |
| | WB | R | 0.63 | 24.7 | C | WB | R | 0.63 | 24.7 | C | WB | R | 0.65 | 26.0 | C |
| | NB | T | 1.19 | 167.8 | F | NB | T | 1.21 | 176.4 | F | NB | T | 1.18 | 163.5 | F |
| | NB | R | 0.22 | 26.7 | C | NB | R | 0.23 | 26.9 | C | NB | R | 0.22 | 26.1 | C |
| | SB | L | 0.69 | 48.6 | D | SB | L | 0.69 | 48.6 | D | SB | L | 0.69 | 48.6 | D |
| | SB | T | 0.89 | 22.9 | C | SB | T | 0.90 | 23.5 | C | SB | T | 0.89 | 22.1 | C |
| Twelfth Ave.@ 46th St. | EB | LTR | 0.18 | 36.6 | D | EB | LTR | 0.18 | 36.6 | D | EB | LTR | 0.19 | 37.4 | D |
| | NB | TR | 1.11 | 166.2 | F | NB | TR | 1.13 | 172.1 | F | NB | TR | 1.11 | 163.0 | F |
| | SB | L | 0.84 | 97.2 | F | SB | L | 0.84 | 97.2 | F | SB | L | 0.84 | 97.2 | F |
| | SB | T | 0.91 | 21.3 | C | SB | T | 0.92 | 21.9 | C | SB | T | 0.91 | 20.4 | C |
| Broadway @ 35th St. | WB | L | 0.22 | 22.6 | C | WB | L | 0.22 | 22.6 | C | WB | L | 0.20 | 20.9 | C |
| | WB | T | 1.15 | 134.5 | F | WB | T | 1.22 | 164.7 | F | WB | T | 1.15 | 132.7 | F |
| | SB | T | 0.27 | 8.0 | A | SB | T | 0.27 | 8.0 | A | SB | T | 0.28 | 9.2 | A |
| | SB | R | 0.47 | 13.9 | B | SB | R | 0.47 | 13.9 | B | SB | R | 0.50 | 16.4 | B |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movments denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-7B
## 2019 Future with the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Saturday Midday Peak Hour) Unsignalized Intersections

| Intersection | 2019 Future Without the Proposed Actions | | | 2019 Future With the Proposed Actions | | | 2019 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS |
| Twelfth Ave. @ 33rd St. | WB | 17.9 | C | WB | 112.4 | F | WB | 24.3 | C |
| | NB | -- | -- | NB | -- | -- | NB | 40.3 | D |
| Twelfth Ave. @ 47th St. | WB | 104.5 | F | WB | 121.0 | F | WB | 35.7 | D |
| | NB | -- | -- | NB | -- | -- | NB | 43.7 | D |

## Table 24-7C
## 2019 Future with the Proposed Actions: Proposed Mitigation Measures (Saturday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave.@ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave.@ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| Sixth Ave.@ 34th St. | Impacts cannot be fully mitigated | |
| Broadway@ 35th St. | WB: G=31<br>SB: G=49 | WB: G=33<br>SB: G=47 |
| Seventh Ave.@ 28th St. | EB: G=31<br>SB: G=49 | EB: G=32<br>SB: G=48 |
| Seventh Ave.@ 29th St. | WB: G=36<br>SB: G=44 | WB: G=41<br>SB: G=39 |
| Seventh Ave.@ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave.@ 33rd St. | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| Seventh Ave.@ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15' each) – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave.@ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13' each) – Restriping by prohibiting parking on the south side of 36th St. |
| Seventh Ave.@ 37th St. | WB: G=40<br>SB: G=40 | WB: G=41<br>SB: G=39 |
| Seventh Ave.@ 38th St. | EB: G=36<br>SB: G=44 | EB: G=37<br>SB: G=43 |
| Eighth Ave. @ 29th St. | WB: G=36<br>NB: G=44 | WB: G=37<br>NB: G=43 |
| Eighth Ave. @ 30th St. | Impacts cannot be fully mitigated | |
| Eighth Ave. @ 31st St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 35th St. | WB: G=31<br>NB: G=49 | WB: G=32<br>NB: G=48 |
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Ninth Ave. @ 26th St. | EB: G=40<br>SB: G=40 | EB: G=37<br>SB: G=43 |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| Ninth Ave. @ 29th St. | SB: G=45<br>WB: G=35 | SB: G=47<br>WB: G=33 |

## Table 24-7C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Saturday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=29<br>SBT: G=26<br>SB: G=18 |
| Ninth Ave. @ 31st St. | SB: G=50<br>WB: G=30 | SB: G=46<br>WB: G=34 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St.* | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=42<br>SB: G=38 |
| Ninth Ave. @ 36th St.* | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: 31<br>SB: 49 |
| Ninth Ave. @ 42nd St.* | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=4<br>EB/WB: G=29<br>Ped N-S: G=7<br>NB/SB: G=35 | WB: G=4<br>EB/WB: G=31<br>Ped N-S: G=7<br>NB/SB: G=33 |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 33rd St.* | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Tenth Ave. @ 34th St.* | NB (4 Lanes): LT, T, T, TR | NB (5 Lanes): LT, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 36th St.* | NB (4 Lanes): T, T, T, TR | NB (5 Lanes): T, T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |

## Table 24-7C (cont'd)
## 2019 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Saturday Midday Peak Hour)

| INTERSECTION | 2019 Future With the Proposed Actions | 2019 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 40th St.* | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach. (10' each) |
| Tenth Ave. @ 42nd St. | EB/WB: G=28<br>NB: G=45 | EB/WB: G=29<br>NB: G=44 |
| Eleventh/Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 37th St. | EB/WB: G=22<br>NB/SB: G=58 | EB/WB: G=23<br>NB/SB: G=57 |
| Eleventh Ave. @ 44th St. | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 47th St.* | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| Eleventh Ave. @ 57th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. and 24th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. and 29th St. | WB: G=26<br>NB/SB: G=83 | WB: G=29<br>NB/SB: G=80 |
| Twelfth Ave. and 30th St. | EB: G=11<br>NB/SB: G=79<br>SB Left: G=14 | EB: G=11<br>NB/SB: G=77<br>SB Left: G=16 |
| Twelfth Ave. and 33rd St. | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | WB: G=50<br>NB: G=60 |
| Twelfth Ave. @ 37th St. | EB: G=21<br>NB T and L: G=14<br>NB T and SB T: G=52<br>SB T and R: G=13 | EB: G=20<br>NB T and L: G=14<br>NB T and SB T: G=52<br>SB T and R: G=14 |
| Twelfth Ave. @ 41st St. | EB/WB: G=26<br>EB: G=11<br>NB/SB: G=50<br>SB: G=12 | EB/WB: G=26<br>EB: G=10<br>NB/SB: G=51<br>SB: G=12 |
| Twelfth Ave. @ 42nd St. | EB/WB: G=33<br>NB/SBT: G=45<br>SB/WBR: G=26 | EB/WB: G=32<br>NB/SBT: G=46<br>SB/WBR: G=26 |
| Twelfth Ave. @ 46th St. | EB: G=19<br>EB: G=5<br>NB/SB: G=65<br>SB/SBL: G=10 | EB: G=18<br>EB: G=5<br>NB/SB: G=66<br>SB/SBL: G=10 |
| Twelfth Ave. @ 47th St. | Unsignalized | Signalized<br>WB: G=39<br>NB: G=71 |
| Dyer Ave. @ 31st St.* | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-8A
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| Intersection | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Sixth Ave. @ 28th Street | EB | LT | 1.21 | 340.7 | F | EB | LT | 1.23 | 345.9 | F | EB | LT | 1.19 | 325.9 | F |
| | NB | TR | 0.87 | 35.4 | D | NB | TR | 0.87 | 35.9 | D | NB | TR | 0.90 | 41.3 | D |
| Sixth Ave. @ 30th Street | **EB** | **LT** | **1.40** | **377.7** | **F** | **EB** | **LT** | **1.44** | **395.1** | **F** | **EB** | **L** | **0.58** | **23.6** | **C** |
| | | | | | | | | | | | **EB** | **T** | **1.01** | **99.6** | **F** |
| | NB | TR | 1.01 | 85.1 | F | NB | TR | 1.01 | 86.3 | F | NB | TR | 0.89 | 24.2 | C |
| Sixth Ave. @ 34th Street | EB | **T** | **0.69** | **20.3** | **C** | **EB** | **T** | **0.71** | **21.1** | **C** | **EB** | **T** | **0.75** | **22.7** | **C** |
| | WB | **TR** | **0.62** | **16.4** | **B** | **WB** | **TR** | **0.62** | **16.5** | **B** | **WB** | **TR** | **0.64** | **16.9** | **B** |
| | NB | **T** | **1.44** | **326.1** | **F** | **NB** | **T** | **1.45** | **331.1** | **F** | **NB** | **T** | **1.45** | **331.1** | **F** |
| | SB | **T** | **1.63** | **501.4** | **F** | **SB** | **T** | **1.63** | **501.4** | **F** | **SB** | **T** | **1.63** | **501.4** | **F** |
| Sixth Ave. @ 35th Street | WB | TR | 0.95 | 50.7 | D | WB | TR | 0.99 | 57.7 | E | WB | TR | 0.89 | 39.7 | D |
| | NB | LT | 0.64 | 10.3 | B | NB | LT | 0.65 | 10.4 | B | NB | LT | 0.69 | 13.1 | B |
| Seventh Ave. @ 28th Street | EB | TR | 0.95 | 326.3 | F | EB | TR | 0.97 | 341.7 | F | EB | TR | 0.94 | 310.2 | F |
| | SB | LT | 0.72 | 12.3 | B | SB | LT | 0.72 | 12.4 | B | SB | LT | 0.73 | 13.4 | B |
| Seventh Ave. @ 29th Street | WB | LT | 1.28 | 381.7 | F | WB | LT | 1.30 | 391.4 | F | WB | LT | 1.23 | 348.3 | F |
| | SB | TR | 0.82 | 18.7 | B | SB | TR | 0.82 | 18.8 | B | SB | TR | 0.86 | 22.1 | C |
| Seventh Ave. @ 30th Street | EB | T | 1.34 | 424.5 | F | EB | T | 1.38 | 437.6 | F | EB | T | 1.31 | 393.2 | F |
| | EB | R | 0.85 | 44.3 | D | EB | R | 0.86 | 45.8 | D | EB | R | 0.80 | 37.5 | D |
| | SB | LT | 0.78 | 17.5 | B | SB | LT | 0.78 | 17.6 | B | SB | LT | 0.82 | 20.4 | C |
| Seventh Ave. @ 31st Street | **WB** | **LT** | **1.29** | **365.2** | **F** | **WB** | **LT** | **1.31** | **373.9** | **F** | **WB** | **L** | **0.21** | **17.4** | **B** |
| | | | | | | | | | | | **WB** | **T** | **1.15** | **317.2** | **F** |
| | SB | TR | 0.91 | 25.5 | C | SB | TR | 0.92 | 25.8 | C | SB | TR | 0.92 | 25.9 | C |
| Seventh Ave. @ 33rd Street | **WB** | **LT** | **1.21** | **577.2** | **F** | **WB** | **LT** | **1.21** | **577.5** | **F** | **WB** | **L** | **0.78** | **58.7** | **E** |
| | | | | | | | | | | | **WB** | **T** | **0.53** | **34.4** | **C** |
| | SB | TR | 1.11 | 108.4 | F | SB | TR | 1.13 | 116.0 | F | SB | TR | 0.82 | 8.8 | A |
| Seventh Ave. @ 34th Street | EB | T | 0.98 | 60.8 | E | EB | T | 1.01 | 102.6 | F | EB | T | 1.06 | 297.7 | F |
| | WB | LT | 0.81 | 31.9 | C | WB | LT | 0.83 | 33.4 | C | WB | LT | 0.87 | 36.7 | D |
| | SB | T | 0.95 | 26.5 | C | SB | T | 0.96 | 27.9 | C | SB | T | 0.96 | 28.0 | C |
| Seventh Ave. @ 35th Street | WB | L | 0.87 | 50.1 | D | WB | L | 0.88 | 51.7 | D | WB | L | 0.80 | 41.0 | D |
| | WB | LT | 1.25 | 419.1 | F | WB | LT | 1.36 | 464.7 | F | WB | LT | 1.00 | 254.1 | F |
| | SB | TR | 0.88 | 19.7 | B | SB | TR | 0.90 | 20.3 | C | SB | TR | 0.90 | 20.4 | C |
| Seventh Ave. @ 36th Street | EB | TR | 1.24 | 430.7 | F | EB | TR | 1.26 | 437.1 | F | EB | TR | 1.05 | 304.4 | F |
| | SB | LT | 0.83 | 19.1 | B | SB | LT | 0.84 | 19.5 | B | SB | LT | 0.85 | 19.5 | B |
| Seventh Ave. @ 37th Street | WB | LT | 0.96 | 43.9 | D | WB | LT | 0.98 | 49.2 | D | WB | LT | 0.96 | 42.9 | D |
| | SB | TR | 0.82 | 22.0 | C | SB | TR | 0.83 | 22.4 | C | SB | TR | 0.85 | 24.2 | C |
| Seventh Ave. @ 38th Street | EB | TR | 1.15 | 386.1 | F | EB | TR | 1.16 | 390.0 | F | EB | TR | 1.13 | 368.5 | F |
| | SB | LT | 0.72 | 16.0 | B | SB | LT | 0.72 | 16.1 | B | SB | LT | 0.74 | 17.3 | B |
| Eighth Ave. @ 29th Street | WB | TR | 1.25 | 385.8 | F | WB | TR | 1.28 | 396.0 | F | WB | TR | 1.21 | 353.1 | F |
| | NB | LT | 0.71 | 15.8 | B | NB | LT | 0.72 | 16.0 | B | NB | LT | 0.76 | 18.3 | B |
| Eighth Ave. @ 30th Street | EB | LT | 1.26 | 385.2 | F | EB | LT | 1.30 | 399.5 | F | EB | LT | 1.23 | 357.5 | F |
| | NB | TR | 0.75 | 18.3 | B | NB | TR | 0.76 | 18.4 | B | NB | TR | 0.80 | 21.1 | C |
| Eighth Ave. @ 33rd Street | WB | TR | 0.38 | 13.9 | B | WB | TR | 0.40 | 14.1 | B | WB | TR | 0.41 | 14.8 | B |
| | NB | LT | 1.08 | 134.4 | F | NB | LT | 1.09 | 140.6 | F | NB | LT | 1.06 | 125.7 | F |
| Eighth Ave. @ 35th Street | WB | TR | 1.72 | 652.1 | F | WB | TR | 1.82 | 696.3 | F | WB | TR | 1.70 | 623.3 | F |
| | NB | LT | 0.70 | 12.0 | B | NB | LT | 0.71 | 12.0 | B | NB | LT | 0.74 | 14.2 | B |
| Eighth Ave.@ 36th Street | EB | LT | 0.95 | 273.0 | F | EB | LT | 0.97 | 284.8 | F | EB | LT | 0.89 | 212.8 | F |
| | NB | TR | 0.80 | 16.4 | B | NB | TR | 0.81 | 16.5 | B | NB | TR | 0.81 | 16.7 | B |
| Ninth Ave. @ 28th Street | **EB** | **TR** | **1.21** | **386.6** | **F** | **EB** | **TR** | **1.24** | **399.6** | **F** | **EB** | **T** | **1.00** | **71.0** | **E** |
| | | | | | | | | | | | **EB** | **R** | **0.27** | **21.7** | **C** |
| | SB | L | 0.56 | 17.7 | B | SB | L | 0.56 | 17.8 | B | SB | L | 0.51 | 13.4 | B |
| | SB | T | 0.95 | 30.0 | C | SB | T | 0.96 | 31.2 | C | SB | T | 0.88 | 19.7 | B |
| Ninth Ave. @ 29th Street | WB | LT | 0.57 | 23.8 | C | WB | LT | 0.59 | 24.2 | C | WB | LT | 0.61 | 25.3 | C |
| | SB | TR | 1.13 | 132.7 | F | SB | TR | 1.13 | 135.7 | F | SB | TR | 1.11 | 125.3 | F |

## Table 24-8A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Ninth Ave. @ 30th Street | EB | TR | 1.21 | 472.4 | F | EB | TR | 1.26 | 498.8 | F | EB | TR | 1.17 | 435.5 | F |
| | SB | L | 1.62 | 428.7 | F | SB | L | 1.62 | 428.7 | F | SB | L | 1.61 | 424.6 | F |
| | SB | T | 0.67 | 13.7 | B | SB | T | 0.67 | 13.7 | B | SB | T | 0.68 | 15.2 | B |
| Ninth Ave. @ 33rd Street | **WB** | **LT** | **1.02** | **154.6** | **F** | **WB** | **LT** | **1.09** | **388.6** | **F** | **WB** | **L** | **0.50** | **32.5** | **C** |
| | | | | | | | | | | | **WB** | **T** | **0.75** | **37.9** | **D** |
| | SB | TR | 0.91 | 18.1 | B | SB | TR | 0.92 | 19.3 | B | SB | TR | 0.93 | 19.5 | B |
| Ninth Ave. @ 34th Street | EB | T | 0.92 | 56.6 | E | EB | T | 0.95 | 63.1 | E | EB | T | 0.92 | 54.5 | D |
| | EB | R | 2.00 | 759.2 | F | EB | R | 2.02 | 769.0 | F | EB | R | 1.82 | 651.5 | F |
| | WB | DefL | 0.87 | 57.2 | E | WB | DefL | 0.89 | 61.2 | E | WB | DefL | 0.85 | 53.5 | D |
| | WB | T | 0.53 | 18.3 | B | WB | T | 0.55 | 18.7 | B | WB | T | 0.55 | 17.7 | B |
| | **SB** | **LTR** | **1.25** | **213.2** | **F** | **SB** | **LTR** | **1.28** | **223.8** | **F** | **SB** | **LT** | **1.24** | **211.8** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.50** | **28.4** | **C** |
| Ninth Ave. @ 35th Street | WB | LT | 1.54 | 573.7 | F | WB | LT | 1.65 | 620.4 | F | WB | LT | 1.55 | 553.0 | F |
| | SB | TR | 0.77 | 18.8 | B | SB | TR | 0.79 | 20.4 | C | SB | TR | 0.84 | 25.4 | C |
| Ninth Ave. @ 36th Street | EB | TR | 1.09 | 177.2 | F | EB | TR | 1.13 | 190.3 | F | EB | TR | 1.09 | 172.7 | F |
| | **SB** | **LT** | **1.10** | **111.7** | **F** | **SB** | **LT** | **1.13** | **123.5** | **F** | **SB** | **L** | **0.64** | **15.7** | **B** |
| | | | | | | | | | | | **SB** | **T** | **0.89** | **27.6** | **C** |
| Ninth Ave. @ 38th Street | EB | TR | 1.18 | 476.5 | F | EB | TR | 1.19 | 478.7 | F | EB | TR | 1.16 | 451.4 | F |
| | SB | LT | 0.62 | 9.9 | A | SB | LT | 0.63 | 10.0 | B | SB | LT | 0.65 | 11.0 | B |
| Ninth Ave. @ 42nd Street | EB | TR | 0.87 | 40.6 | D | EB | TR | 0.88 | 42.1 | D | EB | TR | 0.88 | 42.1 | D |
| | WB | DefL | 1.11 | 535.4 | F | WB | DefL | 1.12 | 564.2 | F | WB | DefL | 1.12 | 564.2 | F |
| | WB | T | 0.43 | 20.5 | C | WB | T | 0.44 | 20.7 | C | WB | T | 0.44 | 20.7 | C |
| | **SB** | **LTR** | **1.08** | **135.1** | **F** | **SB** | **LTR** | **1.10** | **143.9** | **F** | **SB** | **LT** | **1.07** | **129.5** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.12** | **16.8** | **B** |
| Tenth Ave. @ 26th Street | EB | LT | 1.10 | 407.0 | F | EB | LT | 1.13 | 414.3 | F | EB | LT | 1.09 | 390.5 | F |
| | NB | TR | 0.58 | 10.9 | B | NB | TR | 0.59 | 10.9 | B | NB | TR | 0.60 | 11.8 | B |
| Tenth Ave. @ 28th Street | EB | LT | 1.40 | 534.2 | F | EB | LT | 1.44 | 551.0 | F | EB | LT | 1.39 | 519.0 | F |
| | NB | TR | 0.67 | 10.7 | B | NB | TR | 0.67 | 10.9 | B | NB | TR | 0.69 | 11.8 | B |
| Tenth Ave. @ 30th Street | EB | LT | 1.99 | 762.9 | F | EB | LT | 2.21 | 861.0 | F | EB | LT | 0.99 | 56.9 | E |
| | NB | T | 0.58 | 9.6 | A | NB | T | 0.59 | 9.7 | A | NB | T | 0.59 | 9.8 | A |
| | NB | R | 0.82 | 28.8 | C | NB | R | 0.96 | 51.7 | D | NB | R | 0.69 | 18.0 | B |
| Tenth Ave. @ 31st Street | WB | R | 1.25 | 344.0 | F | WB | R | 1.29 | 367.4 | F | WB | R | 1.20 | 314.6 | F |
| | NB | T | 0.68 | 10.9 | B | NB | T | 0.69 | 11.1 | B | NB | T | 0.73 | 13.1 | B |
| Tenth Ave. @ 33rd Street | WB | TR | 0.93 | 48.9 | D | WB | TR | 0.99 | 60.6 | E | WB | TR | 0.67 | 28.9 | C |
| | **NB** | **LT** | **0.74** | **13.1** | **B** | **NB** | **LT** | **0.76** | **13.4** | **B** | **NB** | **R** | **0.62** | **36.4** | **D** |
| | | | | | | | | | | | **NB** | **LT** | **0.96** | **24.9** | **C** |
| Tenth Ave. @ 34th Street | EB | DefL | 0.73 | 50.3 | D | EB | DefL | 0.93 | 83.6 | F | EB | DefL | 0.76 | 47.8 | D |
| | EB | T | 0.45 | 26.7 | C | EB | T | 0.48 | 27.4 | C | EB | T | 0.44 | 22.8 | C |
| | WB | T | 0.56 | 27.3 | C | WB | T | 0.61 | 28.3 | C | WB | T | 0.53 | 23.3 | C |
| | WB | R | 0.68 | 40.7 | D | WB | R | 0.73 | 44.3 | D | WB | R | 0.61 | 31.4 | C |
| | **NB** | **LTR** | **0.90** | **17.4** | **B** | **NB** | **LTR** | **0.92** | **18.6** | **B** | **NB** | **LT** | **0.92** | **22.9** | **C** |
| | | | | | | | | | | | **NB** | **R** | **0.41** | **13.9** | **B** |
| Tenth Ave. @ 35th Street | WB | TR | 1.50 | 428.7 | F | WB | TR | 1.69 | 515.0 | F | WB | TR | 1.53 | 426.6 | F |
| | NB | LT | 0.87 | 15.6 | B | NB | LT | 0.90 | 16.9 | B | NB | LT | 0.96 | 24.8 | C |
| Tenth Ave. @ 42nd Street | EB | LT | 1.99 | 718.4 | F | EB | LT | 2.01 | 730.3 | F | EB | LT | 1.88 | 653.2 | F |
| | WB | TR | 1.03 | 180.6 | F | WB | TR | 1.03 | 180.5 | F | WB | TR | 1.00 | 61.8 | E |
| | NB | LTR | 0.70 | 20.0 | C | NB | LTR | 0.71 | 20.2 | C | NB | LTR | 0.73 | 21.8 | C |
| Tenth Ave. @ 43st Street | EB | L | 0.02 | 17.1 | B | EB | L | 0.02 | 17.1 | B | EB | L | 0.02 | 17.1 | B |
| | WB | TR | 0.39 | 21.2 | C | WB | TR | 0.39 | 21.2 | C | WB | TR | 0.39 | 21.2 | C |
| | NB | LT | 1.17 | 151.6 | F | NB | LT | 1.18 | 154.0 | F | NB | LT | 0.93 | 35.4 | D |

## Table 24-8A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| Intersection | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Eleventh Ave./Twelfth Ave. @ 22nd Street | WB (22nd) | R | 0.02 | 10.7 | B | WB (22nd) | R | 0.02 | 10.7 | B | WB (22nd) | R | 0.02 | 10.7 | B |
| | NB (11th) | T | 0.07 | 39.3 | D | NB (11th) | T | 0.07 | 39.3 | D | NB (11th) | T | 0.07 | 39.3 | D |
| | WB (11th) | L | 0.55 | 53.8 | D | WB (11th) | L | 0.57 | 54.2 | D | WB (11th) | L | 0.55 | 53.9 | D |
| | WB (11th) | LR | 0.47 | 55.2 | E | WB (11th) | LR | 0.43 | 54.1 | E | WB (11th) | LR | 0.48 | 55.4 | E |
| | NB (9A) | T | 1.06 | 108.9 | F | NB (9A) | T | 1.07 | 112.3 | F | NB (9A) | T | 1.07 | 112.3 | F |
| | SB (9A) | T | 0.85 | 9.3 | A | SB (9A) | T | 0.86 | 9.3 | A | SB (9A) | T | 0.86 | 9.3 | A |
| Eleventh Ave. @ 24th Street | EB | R | 0.27 | 27.3 | C | EB | R | 0.27 | 27.3 | C | EB | R | 0.28 | 28.2 | C |
| | NB | L | 0.27 | 27.0 | C | NB | L | 0.27 | 27.0 | C | NB | L | 0.29 | 27.9 | C |
| | SB | L | 0.24 | 4.5 | A | SB | L | 0.27 | 4.7 | A | SB | L | 0.27 | 4.7 | A |
| | SB | TR | 1.24 | 214.7 | F | SB | TR | 1.26 | 225.5 | F | SB | TR | 1.22 | 203.2 | F |
| Eleventh Ave. @ 26th Street | EB | TR | 1.08 | 399.8 | F | EB | TR | 1.09 | 414.6 | F | EB | TR | 1.04 | 383.3 | F |
| | SB | LT | 0.54 | 4.8 | A | SB | LT | 0.55 | 4.9 | A | SB | LT | 0.56 | 5.5 | A |
| Eleventh Ave. @ 30th Street | EB | TR | 0.98 | 58.6 | E | EB | TR | 1.13 | 319.3 | F | EB | TR | 0.55 | 20.9 | C |
| | SB | LT | 1.06 | 126.2 | F | SB | LT | 1.13 | 155.2 | F | SB | LT | 1.01 | 82.3 | F |
| Eleventh Ave. @ 33rd Street | WB | L | 0.53 | 33.2 | C | WB | L | 0.98 | 94.1 | F | WB | L | 0.73 | 40.5 | D |
| | WB | LT | 0.55 | 30.8 | C | WB | LT | 0.95 | 61.6 | E | WB | LT | 0.66 | 27.8 | C |
| | SB | TR | 0.53 | 6.2 | A | SB | TR | 0.56 | 6.5 | A | SB | TR | 0.67 | 13.8 | B |
| Eleventh Ave. @ 38th Street | NB | TR | 0.16 | 8.2 | A | NB | TR | 0.17 | 8.2 | A | NB | TR | 0.16 | 7.3 | A |
| | SB | LT | 1.07 | 106.9 | F | SB | LT | 1.12 | 125.8 | F | SB | LT | 1.08 | 106.5 | F |
| Eleventh Ave. @ 42nd Street | EB | TR | 0.89 | 41.8 | D | EB | TR | 0.90 | 43.9 | D | EB | TR | 0.93 | 48.0 | D |
| | WB | L | 0.35 | 17.4 | B | WB | L | 0.51 | 19.0 | C | WB | L | 0.37 | 17.9 | B |
| | WB | LT | 0.35 | 14.7 | B | WB | LT | 0.29 | 14.1 | B | WB | LT | 0.35 | 14.7 | B |
| | SB | LT | 0.98 | 41.2 | D | SB | LT | 1.01 | 85.9 | F | SB | LT | 1.01 | 85.9 | F |
| | SB | R | 0.34 | 23.0 | C | SB | R | 0.34 | 23.0 | C | SB | R | 0.34 | 23.0 | C |
| Eleventh Ave. @ 44th Street | EB | LTR | 1.26 | 597.3 | F | EB | LTR | 1.29 | 604.4 | F | EB | LTR | 1.06 | 308.4 | F |
| | SB | L | 0.18 | 3.3 | A | SB | L | 0.18 | 3.3 | A | SB | L | 0.18 | 3.3 | A |
| | SB | T | 0.66 | 8.7 | A | SB | T | 0.67 | 9.0 | A | SB | T | 0.67 | 9.0 | A |
| Eleventh Ave. @ 54th Street | EB | LTR | 1.19 | 357.7 | F | EB | LTR | 1.22 | 371.1 | F | EB | LTR | 1.22 | 371.1 | F |
| | NB | L | 0.71 | 35.5 | D | NB | L | 0.74 | 39.8 | D | NB | L | 0.74 | 39.8 | D |
| | NB | TR | 0.52 | 9.7 | A | NB | TR | 0.52 | 9.7 | A | NB | TR | 0.52 | 9.7 | A |
| | SB | L | 0.48 | 10.3 | B | SB | L | 0.49 | 10.6 | B | SB | L | 0.49 | 10.6 | B |
| | SB | TR | 0.82 | 9.8 | A | SB | TR | 0.83 | 10.3 | B | SB | TR | 0.83 | 10.3 | B |
| Eleventh Ave. @ 57th Street | EB | L | 1.09 | 443.4 | F | EB | L | 1.09 | 443.4 | F | EB | L | 1.09 | 443.4 | F |
| | **EB** | **TR** | **1.19** | **381.3** | **F** | **EB** | **TR** | **1.19** | **383.1** | **F** | **EB** | **T** | **1.12** | **348.9** | **F** |
| | | | | | | | | | | | **EB** | **R** | **0.09** | **23.3** | **C** |
| | WB | L | 1.03 | 203.4 | F | WB | L | 1.03 | 203.4 | F | WB | L | 1.04 | 241.4 | F |
| | WB | TR | 0.80 | 37.2 | D | WB | TR | 0.80 | 37.2 | D | WB | TR | 0.80 | 37.2 | D |
| | NB | L | 0.38 | 27.4 | C | NB | L | 0.39 | 28.4 | C | NB | L | 0.39 | 28.4 | C |
| | NB | TR | 0.45 | 18.2 | B | NB | TR | 0.45 | 18.2 | B | NB | TR | 0.45 | 18.2 | B |
| | SB | L | 1.03 | 201.1 | F | SB | L | 1.04 | 243.7 | F | SB | L | 1.04 | 243.7 | F |
| | SB | TR | 0.76 | 20.8 | C | SB | TR | 0.77 | 21.2 | C | SB | TR | 0.77 | 21.2 | C |
| Twelfth Ave. @ 29th Street | WB | LR | 1.66 | 874.1 | F | WB | LR | 1.81 | 932.6 | F | WB | LR | 1.61 | 788.5 | F |
| | NB | T | 0.60 | 9.0 | A | NB | T | 0.61 | 9.1 | A | NB | T | 0.62 | 10.6 | B |
| | SB | T | 0.72 | 3.6 | A | SB | T | 0.72 | 3.6 | A | SB | T | 0.74 | 4.0 | A |
| Twelfth Ave. @ 30th Street | EB | LTR | 0.00 | 64.4 | E | EB | LTR | 0.00 | 64.4 | E | EB | LTR | 0.00 | 64.4 | E |
| | NB | TR | 0.74 | 14.3 | B | NB | TR | 0.76 | 14.8 | B | NB | TR | 0.77 | 16.2 | B |
| | SB | L | 1.21 | 364.6 | F | SB | L | 1.26 | 383.8 | F | SB | L | 1.15 | 322.0 | F |
| | SB | TR | 0.85 | 6.2 | A | SB | TR | 0.85 | 6.2 | A | SB | TR | 0.86 | 7.9 | A |
| Twelfth Ave. @ 37th Street | EB | LR | 0.13 | 52.6 | D | EB | LR | 0.11 | 52.3 | D | EB | LR | 0.15 | 54.7 | D |
| | EB | R | 0.13 | 53.2 | D | EB | R | 0.14 | 53.5 | D | EB | R | 0.13 | 54.9 | D |
| | NB | L | 0.10 | 63.7 | E | NB | L | 0.10 | 63.7 | E | NB | L | 0.10 | 63.7 | E |
| | NB | T | 0.93 | 35.1 | D | NB | T | 0.94 | 36.4 | D | NB | T | 0.95 | 37.0 | D |
| | SB | TR | 1.12 | 131.6 | F | SB | TR | 1.12 | 133.3 | F | SB | TR | 1.10 | 121.6 | F |

## Table 24-8A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday AM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Twelfth Ave. @ 41st Street | EB | LR | 0.00 | 38.2 | D | EB | LR | 0.00 | 38.2 | D | EB | LR | 0.00 | 39.6 | D |
| | WB | L | 0.09 | 50.8 | D | WB | L | 0.09 | 50.8 | D | WB | L | 0.09 | 50.8 | D |
| | WB | R | 0.41 | 56.8 | E | WB | R | 0.41 | 56.8 | E | WB | R | 0.41 | 56.8 | E |
| | NB | T | 1.13 | 148.1 | F | NB | T | 1.14 | 153.3 | F | NB | T | 1.11 | 140.3 | F |
| | SB | T | 1.14 | 115.7 | F | SB | T | 1.14 | 117.6 | F | SB | T | 1.12 | 106.1 | F |
| Twelfth Ave. @ 44th Street | NB | TR | 0.81 | 19.1 | B | NB | TR | 0.82 | 19.4 | B | NB | TR | 0.83 | 20.3 | C |
| | SB | L | 1.09 | 291.7 | F | SB | L | 1.13 | 303.6 | F | SB | L | 1.10 | 288.3 | F |
| | SB | T | 0.81 | 7.6 | A | SB | T | 0.81 | 7.7 | A | SB | T | 0.82 | 8.5 | A |
| Twelfth Ave.@ 46th Street | EB | LTR | 0.28 | 56.5 | E | EB | LTR | 0.28 | 56.5 | E | EB | LTR | 0.29 | 57.7 | E |
| | NB | TR | 0.95 | 99.6 | F | NB | TR | 0.96 | 104.0 | F | NB | TR | 0.94 | 96.3 | F |
| | SB | L | 0.53 | 69.9 | E | SB | L | 0.57 | 71.4 | E | SB | L | 0.60 | 71.4 | E |
| | SB | T | 0.85 | 5.3 | A | SB | T | 0.86 | 5.4 | A | SB | T | 0.85 | 5.2 | A |
| Twelfth Ave. @ 54th Street | EB | R | 0.00 | 5.6 | A | EB | R | 0.00 | 5.6 | A | EB | R | 0.00 | 5.6 | A |
| | WB | R | 0.52 | 61.4 | E | WB | R | 0.52 | 61.4 | E | WB | R | 0.52 | 61.4 | E |
| | NB | TR | 1.01 | 72.2 | E | NB | TR | 1.01 | 73.7 | E | NB | TR | 1.01 | 73.7 | E |
| | SB | L | 0.70 | 68.0 | E | SB | L | 0.72 | 69.8 | E | SB | L | 0.72 | 69.8 | E |
| | SB | T | 1.18 | 129.9 | F | SB | T | 1.19 | 134.2 | F | SB | T | 1.19 | 134.2 | F |
| Twelfth Ave. @ 56th Street | NB | T | 1.15 | 164.0 | F | NB | T | 1.16 | 166.7 | F | NB | T | 1.16 | 166.7 | F |
| | SB | L | 0.99 | 55.5 | E | SB | L | 0.99 | 55.8 | E | SB | L | 0.99 | 55.8 | E |
| | SB | T | 0.94 | 5.4 | A | SB | T | 0.95 | 6.0 | A | SB | T | 0.95 | 6.0 | A |
| Broadway @ 35th Street | WB | L | 0.12 | 20.9 | C | WB | L | 0.12 | 20.9 | C | WB | L | 0.10 | 18.8 | B |
| | WB | T | 1.58 | 316.4 | F | WB | T | 1.68 | 360.5 | F | WB | T | 1.53 | 290.8 | F |
| | SB | T | 0.35 | 8.6 | A | SB | T | 0.35 | 8.6 | A | SB | T | 0.37 | 10.7 | B |
| | SB | R | 0.51 | 14.4 | B | SB | R | 0.54 | 15.2 | B | SB | R | 0.58 | 19.4 | B |
| Broadway @ 42nd Street | EB | T | 0.47 | 21.5 | C | EB | T | 0.48 | 21.6 | C | EB | T | 0.47 | 20.8 | C |
| | WB | DefL | 1.34 | 647.7 | F | WB | DefL | 1.39 | 663.2 | F | WB | DefL | 1.33 | 623.0 | F |
| | WB | T | 0.70 | 29.0 | C | WB | T | 0.71 | 29.5 | C | WB | T | 0.68 | 27.6 | C |
| | SB | L | 0.55 | 17.8 | B | SB | L | 0.55 | 17.8 | B | SB | L | 0.57 | 19.2 | B |
| | SB | T | 0.66 | 15.9 | B | SB | T | 0.66 | 15.9 | B | SB | T | 0.68 | 17.0 | B |
| Dyer Ave @ 34th Street | EB | T | 0.28 | 12.0 | B | EB | T | 0.29 | 12.1 | B | EB | T | 0.31 | 13.5 | B |
| | WB | T | 0.27 | 12.0 | B | WB | T | 0.29 | 12.1 | B | WB | T | 0.31 | 13.4 | B |
| | WB | R | 0.15 | 8.8 | A | WB | R | 0.15 | 8.8 | A | WB | R | 0.14 | 7.9 | A |
| | SB | L | 0.98 | 93.1 | F | SB | L | 1.10 | 127.8 | F | SB | L | 0.97 | 86.1 | F |
| | SB | LR | 0.99 | 94.9 | F | SB | LR | 0.95 | 98.5 | F | SB | LR | 0.97 | 85.9 | F |
| | SB | R | 0.99 | 99.0 | F | SB | R | 1.05 | 260.4 | F | SB | R | 0.80 | 59.4 | E |
| Dyer Ave @ 36th Street | EB | TR | 0.74 | 86.7 | F | EB | TR | 0.77 | 92.6 | F | EB | TR | 0.74 | 80.7 | F |
| | NB | TR | 0.19 | 26.0 | C | NB | TR | 0.19 | 26.0 | C | NB | TR | 0.20 | 26.9 | C |
| | SB | L | 0.68 | 37.2 | D | SB | L | 0.72 | 36.0 | D | SB | L | 0.65 | 36.0 | D |
| | SB | LT | 0.73 | 33.6 | C | SB | LT | 0.73 | 34.7 | C | SB | LT | 0.76 | 34.7 | C |
| | SB | R | 0.41 | 6.9 | A | SB | R | 0.41 | 7.0 | A | SB | R | 0.42 | 7.6 | A |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-8B
## 2017 Future with the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday AM Peak Hour) Unsignalized Intersections

| Intersection | 2017 Interim Future Without the Proposed Actions | | | 2017 Interim Future With the Proposed Actions | | | 2017 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS |
| Twelfth Ave. @ 33rd St. | WB | 19.5 | C | WB | 27.6 | D | WB | 31.5 | C |
| | NB | -- | -- | NB | -- | -- | NB | 34.0 | C |
| Twelfth Ave. @ 47th St. | WB | 25.3 | D | WB | 25.3 | D | WB | 42.5 | D |
| | NB | -- | -- | NB | -- | -- | NB | 31.8 | C |

## Table 24-8C
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday AM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| | EB: G=44<br>NB: G=36 | EB: G=39<br>NB: G=41 |
| Sixth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Sixth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Seventh Ave. @ 28th St. | EB: G=31<br>SB: G=49 | EB: G=32<br>SB: G=48 |
| Seventh Ave. @ 29th St. | WB: G=36<br>SB: G=44 | WB: G=38<br>SB: G=42 |
| Seventh Ave. @ 30th St. | EB: G=36<br>SB: G=44 | EB: G=38<br>SB: G=42 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St.* | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| Seventh Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15') – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13') – Restriping by prohibiting parking on the south side of 36th St. |
| Seventh Ave. @ 37th St. | WB: G=40<br>SB: G=40 | WB: G=41<br>SB: G=39 |
| Seventh Ave. @ 38th St. | WB: G=36<br>SB: G=44 | EB: G=37<br>SB: G=43 |
| Eighth Ave. @ 29th St. | WB: G=36<br>NB: G=44 | WB: G=38<br>NB: G=42 |

## Table 24-8C (cont'd)
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday AM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eighth Ave. @ 30th St. | EB: G=38<br>NB: G=42 | EB: G=40<br>NB: G=40 |
| Eighth Ave. @ 31st St.* | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 35th St. | NB: G=49<br>WB: G=31 | NB: G=47<br>WB: G=33 |
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| | EB: G=37<br>SB: G=43 | EB: G=33<br>SB: G=47 |
| Ninth Ave. @ 29th St. | WB: G=35<br>SB: G=45 | WB: G=34<br>SB: G=46 |
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=29<br>SBT: G=25<br>SB: G=19 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=10<br>EB/WB: G=30<br>SB: G=35 | WB: G=10<br>EB/WB: G=33<br>SB: G=32 |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=32<br>SB: G=48 |
| Ninth Ave. @ 36th St. | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: G=31<br>SB: G=49 |
| Ninth Ave. @ 38th St. | EB: G=30<br>SB: G=50 | EB: G=31<br>SB: G=49 |
| Ninth Ave. @ 42nd St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |

## Table 24-8C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 33rd St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Tenth Ave. @ 34th St.* | NB (4 Lanes): LT, T, T, TR | NB (5 Lanes): LT, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=35<br>NB: G=45 |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Tenth Ave. @ 36th St.* | NB (4 Lanes): T, T, T, TR | NB (5 Lanes): T, T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| Tenth Ave. @ 40th St.* | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach (10' each) |
| Tenth Ave. @ 42nd St. | Ped EB/WB: G=7<br>EB/WB: G=28<br>NB: G=45 | Ped EB/WB: G=7<br>EB/WB: G=29<br>NB: G=44 |
| Tenth Ave. @ 43rd St. | NB (4 lanes): LT, T, T, T | NB (5 Lanes): LT, T, T, T, T – An additional lane from prohibiting parking on the west side of Tenth Ave. |
| Eleventh /Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 24th St. | SBL&NBL&EBR: G=24<br>SB: G=27 | SBL&NBL&EBR: G=23<br>SB: G=28 |
| Eleventh Ave @ 26th St. | EB: G=22<br>SB: G=58 | EB: G=23<br>SB: G=57 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| | EB: G=40<br>SB: G=40 | EB: G=39<br>SB: G=41 |
| Eleventh Ave. @ 33rd St. | WB: G=25<br>SB: G=55 | WB: G=34<br>SB: G=46 |
| Eleventh Ave. @ 38th St. | Ped EB/WB: G=26<br>NB/SB: G=54 | Ped EB/WB: G=24<br>NB/SB: G=56 |
| Eleventh Ave. @ 42nd St. | Impacts cannot be fully mitigated | |

## Table 24-8C (cont'd)
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday AM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eleventh Ave. @ 44th St. | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 57th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=26<br>NB/SB: G=113 | WB: G=29<br>NB/SB: G=110 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB Through: G=107<br>SB Left: G= 16 | EB: G=11<br>NB/SB Through: G=105<br>SB Left: G= 18 |
| Twelfth Ave. @ 33rd St.* | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | Signalized<br>WB: G=60<br>NB: G=80 |
| Twelfth Ave. @ 37th St. | EB: G=27.<br>SB T and R: G=22<br>SB and NB: G=67<br>NB T and L: G=14 | EB: G=25.<br>SB T and R: G=24<br>SB and NB: G=67<br>NB T and L: G=14 |
| Twelfth Ave. @ 41st St. | EB/WB: G=28<br>EB only: G=9<br>NB/SB: G=71<br>SB only: G=21 | EB/WB: G=28<br>EB only: G=7<br>NB/SB: G=73<br>SB only: G=21 |
| Twelfth Ave. @ 44th St. | NB/SB w/o SBL: G=102<br>SBL: G=37 | NB/SB w/o SBL: G=101<br>SBL: G=38 |
| Twelfth Ave. @ 46th St. | EB: G=18<br>NB/SBT w/ NBR: G=86<br>SB: G=20 | EB: G=17<br>NB/SBT w/ NBR: G=87<br>SB: G=20 |
| Twelfth Ave. @ 47th St.* | Unsignalized | Signalized<br>WB: G=52<br>NB: G=88 |
| Twelfth Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 56th St. | All red after SBT/SBL = 5<br>NBT/SBT: G=68 | All red after SBT/SBL = 4<br>NBT/SBT: G= 69 |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=34<br>SB: G=46 |
| Broadway @ 42nd St. | EB/WB: G=36<br>SB: G=44 | EB/WB: G=37<br>SB: G=43 |
| Dyer Ave. @ 31st St.* | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |
| Dyer Ave. @ 34th St. | EB/WB w/o WBR: G=27<br>SB & WBR: G=15 | EB/WB w/o WBR: G=25<br>SB & WBR: G=17 |
| Dyer Ave. @ 36th St. | EB: G= 26<br>SB: G= 25<br>NB/SBR: G= 24 | EB: G= 27<br>SB: G= 25<br>NB/SBR: G= 23 |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-9A
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Sixth Ave. @ 28th Street | EB | LT | 1.19 | 333.4 | F | EB | LT | 1.22 | 341.6 | F | EB | LT | 1.18 | 321.8 | F |
| | NB | TR | 0.85 | 20.7 | C | NB | TR | 0.86 | 20.9 | C | NB | TR | 0.88 | 22.7 | C |
| Sixth Ave. @ 30th Street | **EB** | **LT** | **1.32** | **345.6** | **F** | **EB** | **LT** | **1.38** | **367.9** | **F** | **EB** | **L** | **0.55** | **19.4** | **B** |
| | | | | | | | | | | | **EB** | **T** | **0.79** | **89.6** | **F** |
| | NB | TR | 0.91 | 52.3 | D | NB | TR | 0.92 | 53.6 | D | NB | TR | 0.92 | 53.6 | D |
| Sixth Ave. @ 34th Street | EB | T | 0.72 | 22.4 | C | EB | T | 0.75 | 23.6 | C | EB | T | 0.75 | 23.6 | C |
| | WB | TR | 0.56 | 15.1 | B | WB | TR | 0.57 | 15.2 | B | WB | TR | 0.57 | 15.2 | B |
| | NB | T | 1.18 | 204.6 | F | NB | T | 1.19 | 211.0 | F | NB | T | 1.19 | 211.0 | F |
| | SB | T | 1.54 | 460.2 | F | SB | T | 1.54 | 460.2 | F | SB | T | 1.54 | 460.2 | F |
| Seventh Ave. @ 29th Street | WB | LT | 1.44 | 446.2 | F | WB | LT | 1.46 | 455.0 | F | WB | LT | 1.42 | 430.3 | F |
| | SB | TR | 0.66 | 20.8 | C | SB | TR | 0.66 | 20.6 | C | SB | TR | 0.72 | 23.5 | C |
| Seventh Ave. @ 30th Street | EB | T | 1.32 | 414.3 | F | EB | T | 1.38 | 435.9 | F | EB | T | 1.30 | 391.6 | F |
| | EB | R | 0.51 | 24.5 | C | EB | R | 0.52 | 24.9 | C | EB | R | 0.49 | 22.6 | C |
| | SB | LT | 0.65 | 20.0 | C | SB | LT | 0.65 | 20.1 | C | SB | LT | 0.73 | 24.6 | C |
| Seventh Ave. @ 31st Street | **WB** | **LT** | **1.36** | **406.2** | **F** | **WB** | **LT** | **1.39** | **416.3** | **F** | **WB** | **L** | **0.36** | **19.7** | **B** |
| | | | | | | | | | | | **WB** | **T** | **1.08** | **292.4** | **F** |
| | SB | TR | 0.84 | 31.8 | C | SB | TR | 0.83 | 31.1 | C | SB | TR | 0.87 | 35.7 | D |
| Seventh Ave. @ 33rd Street | **WB** | **LT** | **1.47** | **666.0** | **F** | **WB** | **LT** | **1.48** | **668.3** | **F** | **WB** | **L** | **0.89** | **74.1** | **E** |
| | | | | | | | | | | | **WB** | **T** | **0.73** | **43.1** | **D** |
| | SB | TR | 1.01 | 72.7 | E | SB | TR | 1.04 | 82.3 | F | SB | TR | 0.69 | 6.6 | A |
| Seventh Ave. @ 35th Street | WB | L | 0.66 | 32.9 | C | WB | L | 0.66 | 32.9 | C | WB | L | 0.60 | 29.5 | C |
| | WB | LT | 1.03 | 187.9 | F | WB | LT | 1.09 | 360.9 | F | WB | LT | 0.80 | 35.8 | D |
| | SB | TR | 0.85 | 26.8 | C | SB | TR | 0.86 | 27.9 | C | SB | TR | 0.77 | 21.7 | C |
| Seventh Ave. @ 36th Street | EB | TR | 1.04 | 209.5 | F | EB | TR | 1.07 | 322.3 | F | EB | TR | 0.89 | 33.4 | C |
| | SB | LT | 0.90 | 25.7 | C | SB | LT | 0.91 | 27.2 | C | SB | LT | 0.81 | 21.8 | C |
| Eighth Ave. @ 29th Street | WB | TR | 1.48 | 461.7 | F | WB | TR | 1.50 | 468.9 | F | WB | TR | 1.46 | 445.1 | F |
| | NB | LT | 0.75 | 19.9 | B | NB | LT | 0.76 | 20.1 | C | NB | LT | 0.78 | 21.5 | C |
| Eighth Ave. @ 31st Street | **WB** | **TR** | **1.08** | **357.1** | **F** | **WB** | **TR** | **1.09** | **362.3** | **F** | **WB** | **T** | **0.48** | **19.1** | **B** |
| | | | | | | | | | | | **WB** | **R** | **1.27** | **562.3** | **F** |
| | NB | LT | 0.94 | 29.8 | C | NB | LT | 0.95 | 31.2 | C | NB | LT | 0.95 | 31.2 | C |
| Eighth Ave. @ 33rd Street | WB | TR | 0.49 | 15.4 | B | WB | TR | 0.51 | 15.7 | B | WB | TR | 0.52 | 16.4 | B |
| | NB | LT | 1.17 | 171.9 | F | NB | LT | 1.19 | 180.0 | F | NB | LT | 1.15 | 162.3 | F |
| Eighth Ave. @ 34th Street | EB | T | 0.70 | 26.8 | C | EB | T | 0.73 | 28.0 | C | EB | T | 0.74 | 29.7 | C |
| | WB | T | 0.46 | 18.8 | B | WB | T | 0.48 | 19.1 | B | WB | T | 0.49 | 19.9 | B |
| | WB | R | 0.70 | 33.3 | C | WB | R | 0.70 | 33.3 | C | WB | R | 0.72 | 36.1 | D |
| | NB | LTR | 1.12 | 150.5 | F | NB | LTR | 1.12 | 152.6 | F | NB | LTR | 1.09 | 136.6 | F |
| Eighth Ave. @ 35th Street | WB | TR | 1.21 | 375.4 | F | WB | TR | 1.25 | 387.2 | F | WB | TR | 1.22 | 367.3 | F |
| | NB | LT | 0.93 | 28.7 | C | NB | LT | 0.94 | 29.1 | C | NB | LT | 0.96 | 33.4 | C |
| 8th Ave @ 36th Street | EB | LT | 0.77 | 145.9 | F | EB | LT | 0.80 | 157.1 | F | EB | LT | 0.73 | 108.1 | F |
| | NB | TR | 1.03 | 99.1 | F | NB | TR | 1.04 | 100.4 | F | NB | TR | 1.04 | 100.4 | F |
| Ninth Ave. @ 28th Street | **EB** | **TR** | **1.06** | **300.2** | **F** | **EB** | **TR** | **1.10** | **332.7** | **F** | **EB** | **T** | **0.71** | **29.5** | **C** |
| | | | | | | | | | | | **EB** | **R** | **0.29** | **19.3** | **B** |
| | SB | L | 0.74 | 25.5 | C | SB | L | 0.75 | 26.0 | C | SB | L | 0.75 | 26.0 | C |
| | SB | T | 0.95 | 29.2 | C | SB | T | 0.96 | 30.2 | C | SB | T | 0.96 | 30.2 | C |
| Ninth Ave. @ 29th Street | WB | LT | 0.72 | 27.7 | C | WB | LT | 0.74 | 28.3 | C | WB | LT | 0.76 | 29.9 | C |
| | SB | TR | 1.13 | 131.8 | F | SB | TR | 1.14 | 135.4 | F | SB | TR | 1.11 | 123.7 | F |

## Table 24-9A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Ninth Ave. @ 30th Street | EB | TR | 1.14 | 489.2 | F | EB | TR | 1.19 | 503.5 | F | EB | TR | 1.14 | 468.6 | F |
| | SB | L | 2.10 | 653.6 | F | SB | L | 2.10 | 655.6 | F | SB | L | 2.10 | 594.5 | F |
| | SB | T | 0.92 | 23.4 | C | SB | T | 0.92 | 23.7 | C | SB | T | 0.67 | 14.3 | B |
| Ninth Ave. @ 31st Street | WB | LTR | 1.00 | 62.2 | E | WB | LTR | 1.01 | 98.1 | F | WB | LTR | 0.88 | 37.9 | D |
| | SB | TR | 0.82 | 13.9 | B | SB | TR | 0.83 | 14.0 | B | SB | TR | 0.90 | 20.5 | C |
| Ninth Ave. @ 33rd Street | **WB** | **LT** | **1.48** | **542.6** | **F** | **WB** | **LT** | **1.57** | **576.0** | **F** | **WB** | **L** | **0.72** | **44.5** | **D** |
| | | | | | | | | | | | **WB** | **T** | **1.08** | **348.4** | **F** |
| | SB | TR | 0.87 | 15.9 | B | SB | TR | 0.89 | 16.7 | B | SB | TR | 0.89 | 16.7 | B |
| Ninth Ave. @ 34th Street | EB | T | 0.83 | 46.0 | D | EB | T | 0.87 | 49.4 | D | EB | T | 0.81 | 41.6 | D |
| | EB | R | 1.44 | 533.9 | F | EB | R | 1.48 | 551.1 | F | EB | R | 1.35 | 471.2 | F |
| | WB | LT | 0.84 | 29.2 | C | WB | LT | 0.86 | 31.1 | C | WB | LT | 0.82 | 26.3 | C |
| | **SB** | **LTR** | **1.18** | **176.7** | **F** | **SB** | **LTR** | **1.19** | **182.5** | **F** | **SB** | **LT** | **1.14** | **162.0** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.54** | **29.5** | **C** |
| Ninth Ave. @ 35th Street | WB | LT | 1.28 | 462.0 | F | WB | LT | 1.34 | 486.9 | F | WB | LT | 1.30 | 457.3 | F |
| | SB | TR | 0.74 | 12.0 | B | SB | TR | 0.75 | 12.2 | B | SB | TR | 0.77 | 13.3 | B |
| Ninth Ave. @ 36th Street | EB | TR | 0.87 | 73.9 | E | EB | TR | 0.92 | 94.1 | F | EB | TR | 0.86 | 63.1 | E |
| | **SB** | **LT** | **1.05** | **92.8** | **F** | **SB** | **LT** | **1.06** | **98.1** | **F** | **SB** | **L** | **0.40** | **11.1** | **B** |
| | | | | | | | | | | | **SB** | **T** | **0.92** | **21.8** | **C** |
| Ninth Ave. @ 42nd Street | EB | TR | 0.62 | 156.1 | F | EB | TR | 0.63 | 158.9 | F | EB | TR | 0.61 | 142.7 | F |
| | WB | DefL | 1.15 | 684.5 | F | WB | DefL | 1.16 | 720.3 | F | WB | DefL | 1.13 | 611.6 | F |
| | WB | T | 0.35 | 18.4 | B | WB | T | 0.36 | 18.5 | B | WB | T | 0.35 | 17.8 | B |
| | **SB** | **LTR** | **1.18** | **176.0** | **F** | **SB** | **LTR** | **1.19** | **180.3** | **F** | **SB** | **LT** | **1.16** | **169.2** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.20** | **18.9** | **B** |
| Tenth Ave. @ 26th Street | EB | LT | 1.15 | 405.1 | F | EB | LT | 1.17 | 413.5 | F | EB | LT | 1.13 | 388.2 | F |
| | NB | TR | 0.86 | 16.5 | B | NB | TR | 0.86 | 16.8 | B | NB | TR | 0.88 | 18.5 | B |
| Tenth Ave. @ 28th Street | EB | LT | 1.29 | 464.0 | F | EB | LT | 1.33 | 479.6 | F | EB | LT | 1.28 | 449.3 | F |
| | NB | TR | 0.70 | 11.2 | B | NB | TR | 0.70 | 11.3 | B | NB | TR | 0.72 | 12.2 | B |
| Tenth Ave. @ 30th Street | EB | LT | 2.85 | 1164.0 | F | EB | LT | 3.12 | 1284.0 | F | EB | LT | 1.39 | 475.7 | F |
| | NB | T | 0.66 | 10.6 | B | NB | T | 0.66 | 10.7 | B | NB | T | 0.66 | 10.7 | B |
| | NB | R | 1.55 | 442.6 | F | NB | R | 1.55 | 442.6 | F | NB | R | 0.79 | 26.1 | C |
| Tenth Ave. @ 31st Street | WB | R | 2.20 | 853.5 | F | WB | R | 2.26 | 877.8 | F | WB | R | 2.16 | 822.6 | F |
| | NB | T | 0.79 | 12.9 | B | NB | T | 0.81 | 13.4 | B | NB | T | 0.83 | 14.6 | B |
| Tenth Ave. @ 33rd Street | WB | TR | 0.96 | 54.6 | D | WB | TR | 1.02 | 139.1 | F | WB | TR | 0.76 | 33.4 | C |
| | **NB** | **LT** | **1.06** | **151.8** | **F** | **NB** | **LT** | **1.09** | **163.3** | **F** | **NB** | **R** | **0.68** | **42.6** | **D** |
| | | | | | | | | | | | **NB** | **LT** | **1.05** | **141.2** | **F** |
| Tenth Ave. @ 34th Street | EB | DefL | 0.85 | 67.9 | E | EB | DefL | 0.95 | 88.7 | F | EB | DefL | 0.87 | 67.5 | E |
| | EB | T | 0.49 | 27.6 | C | EB | T | 0.53 | 28.6 | C | EB | T | 0.49 | 26.3 | C |
| | WB | T | 0.48 | 25.7 | C | WB | T | 0.51 | 26.1 | C | WB | T | 0.48 | 24.2 | C |
| | WB | R | 1.26 | 473.4 | F | WB | R | 1.28 | 483.3 | F | WB | R | 1.17 | 410.9 | F |
| | **NB** | **LTR** | **1.06** | **99.1** | **F** | **NB** | **LTR** | **1.08** | **106.0** | **F** | **NB** | **LT** | **0.98** | **28.4** | **C** |
| | | | | | | | | | | | **NB** | **R** | **0.56** | **16.0** | **B** |
| Tenth Ave. @ 35th Street | WB | TR | 1.30 | 350.2 | F | WB | TR | 1.38 | 381.8 | F | WB | TR | 1.29 | 328.7 | F |
| | NB | LT | 0.99 | 27.7 | C | NB | LT | 1.01 | 75.3 | E | NB | LT | 0.84 | 15.3 | B |
| Tenth Ave. @ 36th Street | EB | LT | 0.40 | 129.7 | F | EB | LT | 0.42 | 131.4 | F | EB | LT | 0.41 | 121.6 | F |
| | **NB** | **TR** | **1.04** | **88.6** | **F** | **NB** | **TR** | **1.07** | **98.0** | **F** | **NB** | **T** | **0.88** | **16.7** | **B** |
| | | | | | | | | | | | **NB** | **R** | **0.83** | **26.8** | **C** |
| Tenth Ave. @ 42nd Street | EB | LT | 2.17 | 892.4 | F | EB | LT | 2.20 | 907.0 | F | EB | LT | 1.99 | 779.6 | F |
| | WB | TR | 1.35 | 382.1 | F | WB | TR | 1.36 | 383.6 | F | WB | TR | 1.31 | 357.1 | F |
| | NB | LTR | 0.88 | 19.4 | B | NB | LTR | 0.90 | 20.2 | C | NB | LTR | 0.92 | 22.4 | C |

## Table 24-9A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Tenth Ave. @ 43st Street | EB | L | 0.03 | 17.2 | B | EB | L | 0.03 | 17.2 | B | EB | L | 0.03 | 17.2 | B |
| | WB | TR | 0.56 | 115.8 | F | WB | TR | 0.56 | 116.2 | F | WB | TR | 0.56 | 116.2 | F |
| | NB | LT | 1.21 | 169.3 | F | NB | LT | 1.21 | 170.5 | F | NB | LT | 0.95 | 45.7 | D |
| Eleventh Ave. @ 24th Street | EB | R | 0.19 | 26.3 | C | EB | R | 0.19 | 26.3 | C | EB | R | 0.20 | 27.1 | C |
| | NB | L | 0.29 | 27.2 | C | NB | L | 0.29 | 27.2 | C | NB | L | 0.30 | 28.1 | C |
| | SB | L | 0.27 | 4.7 | A | SB | L | 0.29 | 4.8 | A | SB | L | 0.29 | 4.8 | A |
| | SB | TR | 1.39 | 280.3 | F | SB | TR | 1.43 | 297.5 | F | SB | TR | 1.37 | 271.2 | F |
| Eleventh Ave. @ 29th Street | WB | LT | 0.90 | 43.5 | D | WB | LT | 0.96 | 54.4 | D | WB | LT | 0.89 | 39.9 | D |
| | SB | TR | 0.54 | 16.2 | B | SB | TR | 0.58 | 16.6 | B | SB | TR | 0.62 | 19.6 | B |
| Eleventh Ave. @ 30th Street | EB | TR | 1.17 | 330.9 | F | EB | TR | 1.26 | 373.0 | F | EB | TR | 0.60 | 21.2 | C |
| | SB | LT | 1.13 | 155.5 | F | SB | LT | 1.22 | 194.7 | F | SB | LT | 1.08 | 128.3 | F |
| Eleventh Ave. @ 33rd Street | WB | L | 0.73 | 46.5 | D | WB | L | 1.33 | 352.6 | F | WB | L | 0.71 | 36.9 | D |
| | WB | LT | 0.78 | 39.4 | D | WB | LT | 0.93 | 114.7 | F | WB | LT | 0.71 | 28.3 | C |
| | SB | TR | 0.49 | 5.8 | A | SB | TR | 0.53 | 6.2 | A | SB | TR | 0.65 | 14.0 | B |
| Eleventh Ave. @ 37th Street | EB | LR | 0.16 | 28.2 | C | EB | LR | 0.16 | 28.2 | C | EB | LR | 0.14 | 26.3 | C |
| | WB | L | 0.81 | 60.1 | E | WB | L | 0.85 | 65.6 | E | WB | L | 0.75 | 50.4 | D |
| | WB | R | 0.43 | 36.2 | D | WB | R | 0.43 | 36.4 | D | WB | R | 0.39 | 32.8 | C |
| | NB | T | 0.07 | 6.0 | A | NB | T | 0.07 | 6.0 | A | NB | T | 0.08 | 6.8 | A |
| | SB | T | 0.53 | 9.4 | A | SB | T | 0.55 | 9.7 | A | SB | T | 0.57 | 10.9 | B |
| Eleventh Ave. @ 42nd Street | EB | TR | 0.72 | 31.0 | C | EB | TR | 0.72 | 31.3 | C | EB | TR | 0.75 | 33.4 | C |
| | WB | L | 0.44 | 18.4 | B | WB | L | 0.48 | 19.4 | C | WB | L | 0.51 | 21.0 | C |
| | WB | LT | 0.45 | 15.7 | B | WB | LT | 0.43 | 15.4 | B | WB | LT | 0.42 | 15.9 | B |
| | SB | LT | 0.99 | 102.6 | F | SB | LT | 1.01 | 111.3 | F | SB | LT | 0.99 | 95.9 | F |
| | SB | R | 0.74 | 46.7 | D | SB | R | 0.74 | 46.7 | D | SB | R | 0.67 | 37.6 | D |
| Eleventh Ave. @ 47th Street | WB | LTR | 0.96 | 63.7 | E | WB | LTR | 0.98 | 68.6 | E | WB | LTR | 0.93 | 57.0 | E |
| | NB | L | 0.20 | 11.2 | B | NB | L | 0.20 | 11.7 | B | NB | L | 0.20 | 11.9 | B |
| | NB | T | 0.07 | 6.1 | A | NB | T | 0.08 | 6.1 | A | NB | T | 0.08 | 6.4 | A |
| | SB | TR | 0.92 | 32.2 | C | SB | TR | 0.94 | 35.6 | D | SB | T | 0.87 | 24.1 | C |
| | | | | | | | | | | | SB | R | 0.06 | 6.4 | A |
| Twelfth Ave. @ 24th Street | WB | L | 0.49 | 46.9 | D | WB | L | 0.51 | 46.7 | D | WB | L | 0.53 | 50.0 | D |
| | WB | LTR | 0.50 | 47.7 | D | WB | LTR | 0.49 | 48.0 | D | WB | LTR | 0.53 | 50.7 | D |
| | WB | R | 0.49 | 47.8 | D | WB | R | 0.49 | 47.8 | D | WB | R | 0.55 | 52.3 | D |
| | NB | TR | 1.00 | 44.8 | D | NB | TR | 1.01 | 84.3 | F | NB | TR | 0.98 | 39.7 | D |
| | SB | L | 0.67 | 74.9 | E | SB | L | 0.67 | 74.9 | E | SB | L | 0.67 | 74.9 | E |
| | SB | T | 1.00 | 46.3 | D | SB | T | 1.00 | 46.6 | D | SB | T | 0.97 | 38.5 | D |
| Twelfth Ave. @ 29th Street | WB | LR | 1.38 | 679.2 | F | WB | LR | 1.53 | 741.8 | F | WB | LR | 1.35 | 610.1 | F |
| | NB | T | 0.60 | 10.4 | B | NB | T | 0.60 | 10.5 | B | NB | T | 0.62 | 12.2 | B |
| | SB | T | 0.71 | 12.5 | B | SB | T | 0.71 | 12.5 | B | SB | T | 0.74 | 14.6 | B |
| Twelfth Ave. @ 30th Street | EB | LTR | 0.00 | 49.5 | D | EB | LTR | 0.00 | 49.5 | D | EB | LTR | 0.00 | 49.5 | D |
| | NB | TR | 0.78 | 16.4 | B | NB | TR | 0.83 | 18.2 | B | NB | TR | 0.84 | 19.3 | B |
| | SB | L | 1.32 | 370.3 | F | SB | L | 1.40 | 400.7 | F | SB | L | 1.31 | 355.5 | F |
| | SB | TR | 0.84 | 18.7 | B | SB | TR | 0.84 | 18.7 | B | SB | TR | 0.85 | 19.7 | B |
| Twelfth Ave. @ 41st Street | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 24.9 | C |
| | WB | L | 0.08 | 37.8 | D | WB | L | 0.08 | 37.8 | D | WB | L | 0.08 | 37.8 | D |
| | WB | R | 0.46 | 44.2 | D | WB | R | 0.46 | 44.2 | D | WB | R | 0.46 | 44.2 | D |
| | NB | T | 1.07 | 126.6 | F | NB | T | 1.08 | 131.7 | F | NB | T | 1.06 | 122.0 | F |
| | SB | T | 1.00 | 44.0 | D | SB | T | 1.00 | 45.1 | D | SB | T | 1.00 | 45.1 | D |
| Twelfth Ave. @ 42nd Street | EB | LTR | 0.08 | 32.4 | C | EB | LTR | 0.08 | 32.4 | C | EB | LTR | 0.08 | 32.4 | C |
| | WB | L | 0.60 | 45.6 | D | WB | L | 0.60 | 45.6 | D | WB | L | 0.60 | 45.6 | D |
| | WB | R | 0.61 | 22.6 | C | WB | R | 0.61 | 22.6 | C | WB | R | 0.62 | 23.5 | C |
| | NB | T | 1.09 | 129.7 | F | NB | T | 1.10 | 134.5 | F | NB | T | 1.08 | 123.5 | F |
| | NB | R | 0.49 | 32.9 | C | NB | R | 0.50 | 33.2 | C | NB | R | 0.49 | 32.1 | C |
| | SB | L | 0.41 | 42.2 | D | SB | L | 0.41 | 42.2 | D | SB | L | 0.43 | 43.2 | D |
| | SB | T | 0.82 | 19.2 | B | SB | T | 0.82 | 19.3 | B | SB | T | 0.82 | 19.3 | B |

## Table 24-9A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Twelfth Ave.@ 46th Street | EB | LTR | 0.12 | 35.9 | D | EB | LTR | 0.12 | 35.9 | D | EB | LTR | 0.13 | 36.8 | D |
| | NB | TR | 1.10 | 168.1 | F | NB | TR | 1.11 | 171.6 | F | NB | TR | 1.10 | 162.7 | F |
| | SB | L | 0.59 | 70.7 | E | SB | L | 0.59 | 70.7 | E | SB | L | 0.59 | 70.7 | E |
| | SB | T | 0.71 | 16.9 | B | SB | T | 0.71 | 17.0 | B | SB | T | 0.70 | 16.1 | B |
| Broadway @ 35th Street | WB | L | 0.09 | 20.5 | C | WB | L | 0.09 | 20.5 | C | WB | L | 0.08 | 19.1 | B |
| | WB | T | 1.28 | 188.1 | F | WB | T | 1.33 | 209.9 | F | WB | T | 1.25 | 173.4 | F |
| | SB | T | 0.33 | 10.4 | B | SB | T | 0.33 | 10.4 | B | SB | T | 0.35 | 11.9 | B |
| | SB | R | 0.35 | 10.8 | B | SB | R | 0.35 | 10.9 | B | SB | R | 0.37 | 12.6 | B |
| Dyer Ave @ 36th Street | EB | TR | 0.70 | 78.7 | E | EB | TR | 0.75 | 86.5 | F | EB | TR | 0.72 | 76.5 | E |
| | NB | TR | 0.27 | 31.3 | C | NB | TR | 0.27 | 31.3 | C | NB | TR | 0.27 | 31.3 | C |
| | SB | L | 0.43 | 29.7 | C | SB | L | 0.35 | 28.2 | C | SB | L | 0.41 | 30.0 | C |
| | SB | LT | 0.44 | 27.9 | C | SB | LT | 0.47 | 28.4 | C | SB | LT | 0.48 | 29.2 | C |
| | SB | R | 0.32 | 10.0 | A | SB | R | 0.32 | 10.0 | A | SB | R | 0.33 | 10.5 | B |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-9B
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday Midday Peak Hour) Unsignalized Intersections

| | 2017 Interim Future Without the Proposed Actions | | | 2017 Interim Future With the Proposed Actions | | | 2017 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **App** | **Delay Sec/Veh** | **LOS** | **App** | **Delay Sec/Veh** | **LOS** | **App** | **Delay Sec/Veh** | **LOS** |
| Twelfth Ave. @ 33rd St. | WB | 26.8 | D | WB | 411.6 | F | WB | 25.1 | C |
| | NB | -- | -- | NB | -- | -- | NB | 32.9 | C |
| Twelfth Ave. @ 47th St. | WB | 25.7 | D | WB | 27.6 | D | WB | 30.8 | C |
| | NB | -- | -- | NB | -- | -- | NB | 38.8 | F |

## Table 24-9C
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| 6th Ave @ 34th St. | Impacts cannot be fully mitigated | |
| Seventh Ave. @ 29th St. | WB: G=36<br>SB: G=44 | WB: G=37<br>SB: G=43 |
| Seventh Ave. @ 30th St. | EB: G=36<br>SB: G=44 | EB: G=38<br>SB: G=42 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St. | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15') – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13') – Restriping by prohibiting parking on the south side of 36th St. |
| Eighth Ave. @ 29th St. | WB: G=40<br>NB: G=40 | WB: G= 41<br>NB: G=39 |
| Eighth Ave. @ 31st St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 34th St. | EB/WB: G=40<br>NB: G= 33 | EB/WB: G=39<br>NB: G=34 |
| Eighth Ave. @ 35th St. | WB: G=40<br>NB: G=40 | WB: G=41<br>NB: G=39 |
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| Ninth Ave. @ 29th St. | WB: G=35<br>SB: G=45 | WB: G=34<br>SB: G=46 |
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=28<br>SBT: G=27<br>SB: G=18 |

## Table 24-9C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Ninth Ave. @ 31st St. | WB: G=30<br>SB: G=50 | WB: G=34<br>SB: G=46 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | EB/WB: G=30<br>SB: G=35 | EB/WB: G=32<br>SB: G=33 |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 36th St. | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: G=32<br>SB: G=48 |
| Ninth Ave. @ 42nd St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=4<br>EB/WB: G=29<br>Ped N-S: G=7<br>NB/SB: G=35 | WB: G=4<br>EB/WB: G=30<br>Ped N-S: G=7<br>NB/SB: G=34 |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 33rd St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| | WB: G=32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Tenth Ave. @ 34th St. | NB (4 Lanes): LT, T, T, TR | NB (5 Lanes): LT, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=32<br>NB: G=48 |

## Table 24-9C (cont'd)
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 35th St. | NB (4 Lanes): LT, T, T, T | NB (5 Lanes): LT, T, T, T, T – An additional lane from daylighting the east side of Tenth Ave. |
| | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 36th St. | NB (4 Lanes): T, T, T, TR | NB (5 Lanes): T, T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 40th St.* | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach. (10' each) |
| Tenth Ave. @ 42nd St. | EB/WB: G=28<br>NB: G=45 | EB/WB: G=29<br>NB: G=44 |
| Tenth Ave. @ 43rd St. | NB (4 lanes): LT, T, T, T | NB (5 Lanes): LT, T, T, T, T – An additional lane from prohibiting parking on the west side of Tenth Ave. |
| Eleventh Ave. @ 24th St. | SBL&NBL&EBR: G=24<br>SB: G=27 | SBL&NBL&EBR: G=23<br>SB: G=28 |
| Eleventh Ave. @ 29th St. | WB: G=40<br>SB: G=40 | WB: G=43<br>SB: G=37 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 33rd St. | WB: G=25<br>SB: G=55 | WB: G=35<br>SB: G=45 |
| Eleventh Ave. @ 37th St. | EB/WB: G=22<br>NB/SB: G=58 | EB/WB: G=24<br>NB/SB: G=56 |
| Eleventh Ave. @ 42nd St. | EB/WB: G=33<br>SB: G=35 | EB/WB: G=32<br>SB: G=36 |
| Eleventh Ave. @ 44th St.* | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 47th St. | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| | WB: G=22<br>SB/NB: G=58 | WB: G=23<br>SB/NB: G=57 |
| Twelfth Ave. @ 24th St. | WB: G=26<br>NB/SB: G=62<br>NB T&R: G=2<br>SBL: G=10 | WB: G=24<br>NB/SB: G=64<br>NB T&R: G=2<br>SBL: G=10 |
| Twelfth Ave. @ 29th St. | WB: G=26<br>NB/SB: G=83 | WB: G=29<br>NB/SB: G=80 |

## Table 24-9C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB Through: G=79<br>SB Left: 14 | EB: G=11<br>NB/SB Through: G=78<br>SB Left: 15 |
| Twelfth Ave. @ 33rd St. | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | Signalized<br>WB: G=50<br>NB: G=60 |
| Twelfth Ave. @ 41st St. | EB/WB: G=26<br>EB only: G=11<br>NB/SB: G=50<br>SB only: G= 12 | EB/WB: G=26<br>EB only: G=11<br>NB/SB: G=51<br>SB only: G= 11 |
| Twelfth Ave. @ 42nd St. | EB/WB: G=33<br>NB/SBT: G=45<br>SB/WBR: G=26 | EB/WB: G=33<br>NB/SBT: G=46<br>SB/WBR: G=25 |
| Twelfth Ave. @ 46th St. | EB: G=19<br>N/S: G=65 | EB: G=18<br>N/S: G=66 |
| Twelfth Ave. @ 47th St.* | Unsignalized | Signalized<br>WB: G=45<br>NB: G=65 |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=33<br>SB: G=47 |
| Dyer Ave. @ 31st St.* | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |
| Dyer Ave @ 36th St. | EB: G= 26<br>SB: G=25<br>NB/SBR: G=24 | EB: G=27<br>SB: G=24<br>NB/SBR: G=24 |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-10A
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Sixth Ave. @ 28th Street | EB | LT | 1.31 | 380.1 | F | EB | LT | 1.34 | 391.0 | F | EB | LT | 1.30 | 369.3 | F |
| | NB | TR | 0.83 | 19.8 | B | NB | TR | 0.84 | 19.9 | B | NB | TR | 0.86 | 21.6 | C |
| Sixth Ave. @ 30th Street | **EB** | **LT** | **1.28** | **317.0** | **F** | **EB** | **LT** | **1.33** | **338.3** | **F** | **EB** | **L** | **0.45** | **17.3** | **B** |
| | | | | | | | | | | | **EB** | **T** | **0.84** | **104.3** | **F** |
| | NB | TR | 0.92 | 31.0 | C | NB | TR | 0.92 | 31.2 | C | NB | TR | 0.92 | 31.2 | C |
| Sixth Ave. @ 34th Street | EB | T | 0.51 | 15.3 | B | EB | T | 0.53 | 15.6 | B | EB | T | 0.57 | 16.3 | B |
| | WB | TR | 0.59 | 15.6 | B | WB | TR | 0.60 | 15.7 | B | WB | TR | 0.62 | 16.1 | B |
| | NB | T | 1.27 | 248.5 | F | NB | T | 1.29 | 253.3 | F | NB | T | 1.29 | 253.3 | F |
| | SB | T | 1.80 | 574.5 | F | SB | T | 1.80 | 577.1 | F | SB | T | 1.80 | 577.1 | F |
| Sixth Ave. @ 36th Street | EB | L | 1.01 | 127.1 | F | EB | L | 1.03 | 171.5 | F | EB | L | 0.93 | 70.1 | E |
| | EB | T | 0.63 | 21.9 | C | EB | T | 0.67 | 22.9 | C | EB | T | 0.64 | 20.8 | C |
| | NB | TR | 0.61 | 17.0 | B | NB | TR | 0.61 | 17.0 | B | NB | TR | 0.64 | 19.1 | B |
| Seventh Ave. @ 29th Street | WB | LT | 1.50 | 477.4 | F | WB | LT | 1.52 | 486.4 | F | WB | LT | 1.48 | 461.6 | F |
| | SB | TR | 0.69 | 15.6 | B | SB | TR | 0.70 | 15.8 | B | SB | TR | 0.72 | 16.9 | B |
| Seventh Ave. @ 30th Street | EB | T | 1.25 | 370.8 | F | EB | T | 1.32 | 400.9 | F | EB | T | 1.22 | 339.6 | F |
| | EB | R | 0.75 | 204.7 | F | EB | R | 0.78 | 223.3 | F | EB | R | 0.71 | 155.9 | F |
| | SB | LT | 0.65 | 14.8 | B | SB | LT | 0.65 | 14.8 | B | SB | LT | 0.70 | 18.0 | B |
| Seventh Ave. @ 31st Street | **WB** | **LT** | **1.20** | **329.5** | **F** | **WB** | **LT** | **1.23** | **340.0** | **F** | **WB** | **L** | **0.37** | **19.9** | **B** |
| | | | | | | | | | | | **WB** | **T** | **0.90** | **43.2** | **D** |
| | SB | TR | 0.81 | 20.2 | C | SB | TR | 0.82 | 20.3 | C | SB | TR | 0.82 | 20.3 | C |
| Seventh Ave. @ 33rd Street | **WB** | **LT** | **1.14** | **520.9** | **F** | **WB** | **LT** | **1.15** | **523.0** | **F** | **WB** | **L** | **0.70** | **50.9** | **D** |
| | | | | | | | | | | | **WB** | **T** | **0.59** | **36.4** | **D** |
| | SB | TR | 1.07 | 91.2 | F | SB | TR | 1.10 | 105.0 | F | SB | TR | 0.80 | 8.4 | A |
| Seventh Ave. @ 35th Street | WB | L | 0.58 | 30.5 | C | WB | L | 0.58 | 30.5 | C | WB | L | 0.53 | 27.8 | C |
| | WB | LT | 1.37 | 476.5 | F | WB | LT | 1.43 | 496.1 | F | WB | LT | 1.05 | 259.3 | F |
| | SB | TR | 0.84 | 17.5 | B | SB | TR | 0.85 | 18.0 | B | SB | TR | 0.85 | 18.0 | B |
| Seventh Ave. @ 36th Street | EB | TR | 1.24 | 408.6 | F | EB | TR | 1.30 | 429.0 | F | EB | TR | 1.08 | 294.9 | F |
| | SB | LT | 0.83 | 18.8 | B | SB | LT | 0.84 | 19.1 | B | SB | LT | 0.84 | 19.1 | B |
| Eighth Ave. @ 29th Street | WB | TR | 1.79 | 620.9 | F | WB | TR | 1.82 | 633.9 | F | WB | TR | 1.77 | 604.9 | F |
| | NB | LT | 0.76 | 16.9 | B | NB | LT | 0.77 | 17.1 | B | NB | LT | 0.79 | 18.4 | B |
| Eighth Ave. @ 30th Street | EB | LT | 1.30 | 394.6 | F | EB | LT | 1.34 | 410.6 | F | EB | LT | 1.31 | 388.6 | F |
| | NB | TR | 0.83 | 20.5 | C | NB | TR | 0.84 | 20.8 | C | NB | TR | 0.86 | 22.6 | C |
| Eighth Ave. @ 31st Street | **WB** | **TR** | **1.08** | **319.2** | **F** | **WB** | **TR** | **1.09** | **322.3** | **F** | **WB** | **T** | **0.62** | **22.3** | **C** |
| | | | | | | | | | | | **WB** | **R** | **1.05** | **270.9** | **F** |
| | NB | LT | 1.09 | 118.0 | F | NB | LT | 1.09 | 119.7 | F | NB | LT | 1.06 | 107.3 | F |
| Eighth Ave. @ 33rd Street | WB | TR | 0.54 | 16.1 | B | WB | TR | 0.56 | 16.5 | B | WB | TR | 0.57 | 17.3 | B |
| | NB | LT | 1.25 | 207.0 | F | NB | LT | 1.27 | 216.6 | F | NB | LT | 1.23 | 197.6 | F |
| Eighth Ave. @ 34th Street | EB | T | 0.63 | 23.9 | C | EB | T | 0.65 | 24.6 | C | EB | T | 0.71 | 27.7 | C |
| | WB | T | 0.47 | 18.8 | B | WB | T | 0.48 | 19.0 | B | WB | T | 0.50 | 20.0 | B |
| | WB | R | 0.71 | 33.4 | C | WB | R | 0.71 | 33.4 | C | WB | R | 0.78 | 40.6 | D |
| | NB | LTR | 1.11 | 144.4 | F | NB | LTR | 1.12 | 147.5 | F | NB | LTR | 1.08 | 132.2 | F |
| Eighth Ave. @ 35th Street | WB | TR | 1.66 | 626.1 | F | WB | TR | 1.72 | 651.7 | F | WB | TR | 1.67 | 615.7 | F |
| | NB | LT | 0.76 | 12.9 | B | NB | LT | 0.76 | 13.0 | B | NB | LT | 0.79 | 14.3 | B |
| Eighth Ave. @ 36th Street | EB | LT | 1.30 | 427.8 | F | EB | LT | 1.41 | 477.1 | F | EB | LT | 1.28 | 399.7 | F |
| | NB | TR | 0.88 | 19.5 | B | NB | TR | 0.89 | 19.9 | B | NB | TR | 0.89 | 20.2 | C |
| Eighth Ave. @ 38th Street | EB | LT | 0.55 | 21.7 | C | EB | LT | 0.57 | 22.0 | C | EB | LT | 0.60 | 24.0 | C |
| | NB | TR | 1.00 | 39.0 | D | NB | TR | 1.03 | 97.2 | F | NB | TR | 0.99 | 32.4 | C |

## Table 24-10A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Ninth Ave. @ 28th Street | **EB** | **TR** | **0.94** | **53.3** | **D** | **EB** | **TR** | **0.98** | **61.3** | **E** | **EB** | **T** | **0.68** | **28.4** | **C** |
| | | | | | | | | | | | **EB** | **R** | **0.21** | **18.0** | **B** |
| | SB | L | 0.79 | 30.2 | C | SB | L | 0.79 | 30.4 | C | SB | L | 0.79 | 30.4 | C |
| | SB | T | 0.60 | 14.7 | B | SB | T | 0.61 | 14.8 | B | SB | T | 0.61 | 14.9 | B |
| Ninth Ave. @ 30th Street | EB | TR | 0.99 | 388.5 | F | EB | TR | 1.05 | 406.0 | F | EB | TR | 0.97 | 347.9 | F |
| | SB | L | 2.33 | 751.2 | F | SB | L | 2.36 | 763.8 | F | SB | L | 2.24 | 700.8 | F |
| | SB | T | 0.87 | 19.8 | B | SB | T | 0.88 | 20.3 | C | SB | T | 0.66 | 14.8 | B |
| Ninth Ave. @ 31st Street | WB | LTR | 1.46 | 504.8 | F | WB | LTR | 1.48 | 515.0 | F | WB | LTR | 1.43 | 482.9 | F |
| | SB | TR | 0.80 | 13.2 | B | SB | TR | 0.81 | 13.4 | B | SB | TR | 0.83 | 14.7 | B |
| Ninth Ave. @ 33rd Street | **WB** | **LT** | **1.73** | **623.7** | **F** | **WB** | **LT** | **1.80** | **652.4** | **F** | **WB** | **L** | **1.10** | **488.1** | **F** |
| | | | | | | | | | | | **WB** | **T** | **1.16** | **353.0** | **F** |
| | SB | TR | 0.71 | 11.1 | B | SB | TR | 0.72 | 11.3 | B | SB | TR | 0.91 | 18.0 | B |
| Ninth Ave. @ 34th Street | EB | T | 0.63 | 32.1 | C | EB | T | 0.66 | 33.3 | C | EB | T | 0.65 | 31.2 | C |
| | EB | R | 1.96 | 719.1 | F | EB | R | 2.02 | 744.1 | F | EB | R | 1.84 | 641.2 | F |
| | WB | LT | 1.08 | 327.8 | F | WB | LT | 1.09 | 335.6 | F | WB | LT | 1.06 | 286.1 | F |
| | **SB** | **LTR** | **1.36** | **260.5** | **F** | **SB** | **LTR** | **1.39** | **274.4** | **F** | **SB** | **LT** | **1.08** | **141.7** | **F** |
| | | | | | | | | | | | **SB** | **R** | **1.86** | **560.3** | **F** |
| Ninth Ave. @ 35th Street | WB | LT | 1.59 | 602.2 | F | WB | LT | 1.64 | 621.8 | F | WB | LT | 1.58 | 586.1 | F |
| | SB | TR | 0.74 | 17.6 | B | SB | TR | 0.75 | 18.0 | B | SB | TR | 0.78 | 20.0 | B |
| Ninth Ave. @ 36th Street | EB | TR | 1.16 | 194.1 | F | EB | TR | 1.27 | 240.7 | F | EB | TR | 1.15 | 180.8 | F |
| | **SB** | **LT** | **1.01** | **78.7** | **E** | **SB** | **LT** | **1.02** | **81.0** | **F** | **SB** | **L** | **0.41** | **12.0** | **B** |
| | | | | | | | | | | | **SB** | **T** | **0.91** | **32.5** | **C** |
| Ninth Ave. @ 37th Street | WB | LT | 1.16 | 459.1 | F | WB | LT | 1.17 | 460.6 | F | WB | LT | 1.13 | 432.7 | F |
| | SB | T | 0.87 | 22.5 | C | SB | T | 0.88 | 22.9 | C | SB | T | 0.91 | 26.3 | C |
| | SB | TR (LnT) | 1.18 | 244.1 | F | SB | TR (LnT) | 1.18 | 244.1 | F | SB | TR (LnT) | 1.26 | 281.6 | F |
| Ninth Ave. @ 42nd Street | EB | TR | 0.78 | 34.8 | C | EB | TR | 0.80 | 35.7 | D | EB | TR | 0.77 | 33.5 | C |
| | WB | DefL | 1.37 | 798.4 | F | WB | DefL | 1.40 | 822.7 | F | WB | DefL | 1.35 | 775.0 | F |
| | WB | T | 0.46 | 21.0 | C | WB | T | 0.46 | 21.0 | C | WB | T | 0.45 | 20.1 | C |
| | **SB** | **LTR** | **1.15** | **161.5** | **F** | **SB** | **LTR** | **1.16** | **164.3** | **F** | **SB** | **LT** | **1.14** | **154.8** | **F** |
| | | | | | | | | | | | **SB** | **R** | **0.23** | **19.3** | **B** |
| Tenth Ave. @ 26th Street | EB | LT | 1.18 | 424.8 | F | EB | LT | 1.21 | 433.6 | F | EB | LT | 1.17 | 408.5 | F |
| | NB | TR | 0.49 | 9.9 | A | NB | TR | 0.50 | 10.0 | B | NB | TR | 0.52 | 10.8 | B |
| Tenth Ave. @ 28th Street | EB | LT | 1.04 | 225.7 | F | EB | LT | 1.08 | 376.3 | F | EB | LT | 0.84 | 38.4 | D |
| | NB | TR | 0.59 | 9.7 | A | NB | TR | 0.60 | 9.8 | A | NB | TR | 0.71 | 17.4 | B |
| Tenth Ave. @ 29th Street | WB | TR | 1.17 | 433.1 | F | WB | TR | 1.19 | 436.5 | F | WB | TR | 1.15 | 409.2 | F |
| | NB | LT | 0.44 | 8.3 | A | NB | LT | 0.45 | 8.3 | A | NB | LT | 0.46 | 9.0 | A |
| Tenth Ave. @ 30th Street | EB | LT | 2.88 | 1140.0 | F | EB | LT | 3.16 | 1270.0 | F | EB | LT | 1.41 | 455.1 | F |
| | NB | T | 0.41 | 8.0 | A | NB | T | 0.41 | 8.1 | A | NB | T | 0.41 | 8.1 | A |
| | NB | R | 1.30 | 269.2 | F | NB | R | 1.33 | 280.5 | F | NB | R | 0.89 | 33.6 | C |
| Tenth Ave. @ 31st Street | WB | R | 2.37 | 849.1 | F | WB | R | 2.47 | 897.1 | F | WB | R | 2.27 | 791.1 | F |
| | NB | T | 0.89 | 17.8 | B | NB | T | 0.92 | 20.2 | C | NB | T | 0.97 | 27.5 | C |
| Tenth Ave. @ 33rd Street | WB | TR | 0.90 | 43.9 | D | WB | TR | 0.95 | 51.4 | D | WB | TR | 0.71 | 31.1 | C |
| | **NB** | **LT** | **1.06** | **148.0** | **F** | **NB** | **LT** | **1.09** | **158.3** | **F** | **NB** | **R** | **0.65** | **39.9** | **D** |
| | | | | | | | | | | | NB | LT | 1.04 | 137.7 | F |
| Tenth Ave. @ 34th Street | EB | DefL | 0.99 | 99.2 | F | EB | DefL | 1.23 | 915.7 | F | EB | DefL | 1.19 | 854.7 | F |
| | EB | T | 0.43 | 26.0 | C | EB | T | 0.46 | 26.6 | C | EB | T | 0.47 | 26.2 | C |
| | WB | T | 0.64 | 29.1 | C | WB | T | 0.66 | 29.8 | C | WB | T | 0.66 | 28.9 | C |
| | WB | R | 2.28 | 867.1 | F | WB | R | 2.36 | 905.1 | F | WB | R | 2.26 | 849.8 | F |
| | **NB** | **LTR** | **1.34** | **215.7** | **F** | **NB** | **LTR** | **1.37** | **230.9** | **F** | **NB** | **LT** | **1.26** | **177.9** | **F** |
| | | | | | | | | | | | **NB** | **R** | **0.39** | **10.7** | **B** |

## Table 24-10A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Tenth Ave. @ 35th Street | WB | TR | 1.02 | 155.9 | F | WB | TR | 1.11 | 257.3 | F | WB | TR | 1.00 | 71.3 | E |
| | NB | LT | 0.87 | 14.6 | B | NB | LT | 0.91 | 16.1 | B | NB | LT | 0.97 | 24.2 | C |
| Tenth Ave. @ 36th Street | EB | LT | 0.38 | 24.3 | C | EB | LT | 0.43 | 24.9 | C | EB | LT | 0.43 | 24.9 | C |
| | **NB** | **TR** | **1.75** | **406.1** | **F** | **NB** | **TR** | **1.86** | **454.9** | **F** | **NB** | **T** | **1.48** | **285.5** | **F** |
| | | | | | | | | | | | **NB** | **R** | **0.91** | **33.0** | **C** |
| Tenth Ave. @ 37th Street | WB | TR | 0.68 | 30.3 | C | WB | TR | 0.72 | 31.5 | C | WB | TR | 0.77 | 35.8 | D |
| | NB | LT | 1.66 | 369.2 | F | NB | LT | 1.71 | 394.9 | F | NB | LT | 1.63 | 356.5 | F |
| Tenth Ave. @ 38th Street | EB | LT | 0.43 | 25.2 | C | EB | LT | 0.46 | 25.6 | C | EB | LT | 0.49 | 27.6 | C |
| | NB | TR | 1.71 | 389.3 | F | NB | TR | 1.77 | 417.5 | F | NB | TR | 1.69 | 379.1 | F |
| Tenth Ave. @ 39th Street | WB | T | 1.99 | 1493.0 | F | WB | T | 2.09 | 1537.0 | F | WB | T | 2.09 | 1537.0 | F |
| | WB | R | 1.73 | 1002.0 | F | WB | R | 1.73 | 1002.0 | F | WB | R | 1.73 | 1002.0 | F |
| | NB | LT | 1.63 | 394.8 | F | NB | LT | 1.70 | 422.8 | F | NB | LT | 1.70 | 424.8 | F |
| Tenth Ave. @ 40th Street | EB | LT | 0.57 | 117.0 | F | EB | LT | 0.59 | 124.1 | F | EB | L | 0.44 | 24.9 | C |
| | | | | | | | | | | | EB | T | 0.40 | 84.9 | F |
| | NB | TR | 1.63 | 387.8 | F | NB | TR | 1.68 | 410.6 | F | NB | TR | 1.57 | 352.4 | F |
| Tenth Ave. @ 41st Street | WB | T | 1.25 | 508.4 | F | WB | T | 1.25 | 508.4 | F | WB | T | 1.25 | 508.4 | F |
| | WB | R | 0.27 | 13.7 | B | WB | R | 0.27 | 13.7 | B | WB | R | 0.27 | 13.7 | B |
| | NB | L | 1.47 | 428.0 | F | NB | L | 1.47 | 428.0 | F | NB | L | 1.47 | 428.0 | F |
| | NB | T | 1.03 | 103.1 | F | NB | T | 1.07 | 118.1 | F | NB | T | 1.08 | 119.2 | F |
| Tenth Ave. @ 42nd Street | EB | LT | 1.81 | 606.9 | F | EB | LT | 1.81 | 611.1 | F | EB | LT | 1.70 | 546.7 | F |
| | WB | TR | 0.69 | 33.3 | C | WB | TR | 0.70 | 33.5 | C | WB | TR | 0.67 | 31.7 | C |
| | WB | T (LnT) | 1.28 | 793.6 | F | WB | T (LnT) | 1.28 | 793.6 | F | WB | T (LnT) | 1.09 | 639.8 | F |
| | NB | LTR | 0.79 | 15.9 | B | NB | LTR | 0.82 | 16.6 | B | NB | LTR | 0.84 | 18.0 | B |
| Eleventh Ave./ Twelfth Ave. @ 22nd Street | WB (22nd) | R | 0.06 | 12.7 | B | WB (22nd) | R | 0.06 | 12.7 | B | WB (22nd) | R | 0.06 | 12.7 | B |
| | NB (11th) | T | 0.06 | 26.0 | C | NB (11th) | T | 0.06 | 26.0 | C | NB (11th) | T | 0.06 | 26.0 | C |
| | WB (11th) | L | 0.77 | 61.6 | E | WB (11th) | L | 0.79 | 62.4 | E | WB (11th) | L | 0.78 | 61.9 | E |
| | WB (11th) | LR | 0.68 | 64.9 | E | WB (11th) | LR | 0.66 | 63.6 | E | WB (11th) | LR | 0.69 | 65.3 | E |
| | NB (9A) | T | 1.14 | 140.1 | F | NB (9A) | T | 1.15 | 142.0 | F | NB (9A) | T | 1.15 | 142.0 | F |
| | SB (9A) | T | 0.79 | 17.9 | B | SB (9A) | T | 0.79 | 18.1 | B | SB (9A) | T | 0.79 | 18.1 | B |
| Eleventh Ave. @ 24th Street | EB | R | 0.27 | 27.2 | C | EB | R | 0.27 | 27.2 | C | EB | R | 0.28 | 28.1 | C |
| | NB | L | 0.35 | 28.0 | C | NB | L | 0.35 | 28.0 | C | NB | L | 0.37 | 28.9 | C |
| | SB | L | 0.25 | 4.5 | A | SB | L | 0.27 | 4.7 | A | SB | L | 0.27 | 4.7 | A |
| | SB | TR | 1.32 | 248.0 | F | SB | TR | 1.36 | 267.4 | F | SB | TR | 1.31 | 241.9 | F |
| Eleventh Ave. @ 29th Street | WB | LT | 1.02 | 137.1 | F | WB | LT | 1.07 | 287.0 | F | WB | LT | 0.83 | 26.9 | C |
| | SB | TR | 0.48 | 15.4 | B | SB | TR | 0.52 | 15.8 | B | SB | TR | 0.72 | 28.2 | C |
| Eleventh Ave. @ 30th Street | EB | TR | 0.92 | 45.2 | D | EB | TR | 1.00 | 62.8 | E | EB | TR | 0.48 | 19.7 | B |
| | SB | LT | 1.04 | 116.6 | F | SB | LT | 1.14 | 152.9 | F | SB | LT | 0.98 | 34.1 | C |
| Eleventh Ave. @ 33rd Street | WB | L | 0.60 | 36.0 | D | WB | L | 0.95 | 85.2 | F | WB | L | 0.69 | 36.5 | D |
| | WB | LT | 0.63 | 32.5 | C | WB | LT | 0.95 | 57.5 | E | WB | LT | 0.67 | 27.5 | C |
| | SB | TR | 0.47 | 5.7 | A | SB | TR | 0.52 | 6.0 | A | SB | TR | 0.62 | 12.8 | B |

## Table 24-10A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Eleventh Ave. @ 34th Street | EB | L | 0.40 | 20.6 | C | EB | L | 0.49 | 23.2 | C | EB | L | 0.45 | 20.1 | C |
| | EB | TR | 0.37 | 27.0 | C | EB | TR | 0.42 | 27.8 | C | EB | TR | 0.39 | 25.2 | C |
| | WB | L | 0.58 | 27.3 | C | WB | L | 0.65 | 31.0 | C | WB | L | 0.60 | 26.3 | C |
| | WB | TR | 0.91 | 52.4 | D | WB | TR | 0.99 | 66.5 | E | WB | TR | 0.90 | 46.8 | D |
| | SB | LT | 0.80 | 25.4 | C | SB | LT | 0.86 | 27.8 | C | SB | LT | 0.93 | 35.3 | D |
| | SB | R | 0.36 | 18.9 | B | SB | R | 0.45 | 21.6 | C | SB | R | 0.50 | 25.2 | C |
| Eleventh Ave. @ 37th Street | EB | LR | 0.11 | 27.2 | C | EB | LR | 0.11 | 27.2 | C | EB | LR | 0.09 | 25.5 | C |
| | WB | L | 0.77 | 53.9 | D | WB | L | 0.83 | 60.8 | E | WB | L | 0.73 | 47.6 | D |
| | WB | R | 0.29 | 31.4 | C | WB | R | 0.31 | 32.0 | C | WB | R | 0.28 | 29.4 | C |
| | NB | T | 0.11 | 2.9 | A | NB | T | 0.11 | 2.9 | A | NB | T | 0.12 | 3.7 | A |
| | SB | T | 0.53 | 9.4 | A | SB | T | 0.56 | 9.7 | A | SB | T | 0.58 | 11.0 | B |
| Eleventh Ave. @ 38th Street | NB | TR | 1.20 | 470.4 | F | NB | TR | 1.31 | 516.6 | F | NB | TR | 1.15 | 418.0 | F |
| | SB | LT | 0.86 | 20.3 | C | SB | LT | 0.91 | 23.5 | C | SB | LT | 0.89 | 21.5 | C |
| Eleventh Ave. @ 39th Street | EB | L | 0.00 | 19.3 | B | EB | L | 0.00 | 19.3 | B | EB | L | 0.00 | 20.0 | B |
| | EB | LR | 0.00 | 19.3 | B | EB | LR | 0.00 | 19.3 | B | EB | LR | 0.00 | 20.0 | B |
| | WB | L | 0.38 | 25.0 | C | WB | L | 0.48 | 27.1 | C | WB | L | 0.48 | 28.5 | C |
| | WB | LR | 0.63 | 32.4 | C | WB | LR | 0.71 | 36.7 | D | WB | LR | 0.71 | 39.6 | D |
| | NB | T | 1.07 | 446.0 | F | NB | T | 1.10 | 451.7 | F | NB | T | 1.10 | 347.8 | F |
| | SB | T | 0.67 | 16.4 | B | SB | T | 0.69 | 16.8 | B | SB | T | 0.70 | 16.0 | B |
| Eleventh Ave. @ 40th Street | EB | TR | 0.94 | 75.5 | E | EB | TR | 0.94 | 76.3 | E | EB | TR | 0.94 | 76.3 | E |
| | NB | R | 1.07 | 253.8 | F | NB | R | 1.13 | 275.0 | F | NB | R | 1.13 | 275.0 | F |
| | SB | L | 1.00 | 126.4 | F | SB | L | 1.00 | 127.0 | F | SB | L | 1.00 | 127.0 | F |
| | SB | TR | 0.53 | 4.7 | A | SB | TR | 0.54 | 4.8 | A | SB | TR | 0.55 | 4.8 | A |
| Eleventh Ave. @ 42nd Street | EB | TR | 0.76 | 32.0 | C | EB | TR | 0.76 | 32.0 | C | EB | TR | 0.79 | 33.6 | C |
| | WB | L | 0.46 | 248.0 | F | WB | L | 0.42 | 233.5 | F | WB | L | 0.41 | 233.6 | F |
| | WB | LT | 0.49 | 98.4 | F | WB | LT | 0.52 | 106.6 | F | WB | LT | 0.53 | 110.7 | F |
| | SB | T | 0.78 | 25.7 | C | SB | T | 0.81 | 26.7 | C | SB | T | 0.81 | 26.7 | C |
| | SB | R | 0.92 | 78.7 | E | SB | R | 0.92 | 78.7 | E | SB | R | 0.92 | 78.7 | E |
| | SB | LT (LnT) | 1.29 | 264.9 | F | SB | LT (LnT) | 1.29 | 264.9 | F | SB | LT (LnT) | 1.29 | 264.9 | F |
| Eleventh Ave. @ 44th Street | EB | LTR | 1.13 | 504.4 | F | EB | LTR | 1.15 | 510.0 | F | EB | LTR | 1.09 | 425.7 | F |
| | SB | L | 0.13 | 6.5 | A | SB | L | 0.13 | 6.5 | A | SB | L | 0.13 | 5.4 | A |
| | SB | T | 1.29 | 183.4 | F | SB | T | 1.27 | 175.1 | F | SB | T | 1.21 | 145.0 | F |
| | SB | T (LnT) | 1.17 | 222.1 | F | SB | T (LnT) | 1.26 | 259.0 | F | SB | T (LnT) | 1.08 | 174.0 | F |
| Eleventh Ave. @ 47th Street | WB | LTR | 0.91 | 53.0 | D | WB | LTR | 0.93 | 56.0 | E | WB | LTR | 0.88 | 48.6 | D |
| | NB | L | 0.25 | 10.4 | B | NB | L | 0.25 | 10.4 | B | NB | L | 0.25 | 10.8 | B |
| | NB | T | 0.11 | 2.9 | A | NB | T | 0.11 | 2.9 | A | NB | T | 0.11 | 3.3 | A |
| | **SB** | **TR** | **1.03** | **77.1** | **E** | **SB** | **TR** | **1.04** | **81.1** | **F** | **SB** | **T** | **0.97** | **29.6** | **C** |
| | | | | | | | | | | | **SB** | **R** | **0.06** | **6.5** | **A** |
| Eleventh Ave. @ 54th Street | EB | LTR | 0.69 | 41.1 | D | EB | LTR | 0.70 | 41.7 | D | EB | LTR | 0.74 | 44.8 | D |
| | NB | L | 1.33 | 448.6 | F | NB | L | 1.36 | 465.3 | F | NB | L | 1.30 | 425.8 | F |
| | NB | TR | 0.35 | 3.9 | A | NB | TR | 0.36 | 4.0 | A | NB | TR | 0.36 | 3.5 | A |
| | SB | L | 0.31 | 9.2 | A | SB | L | 0.32 | 9.4 | A | SB | L | 0.31 | 8.9 | A |
| | SB | TR | 0.80 | 15.6 | B | SB | TR | 0.81 | 15.8 | B | SB | TR | 0.79 | 14.7 | B |
| Eleventh Ave. @ 57th Street | EB | L | 0.51 | 33.1 | C | EB | L | 0.51 | 33.1 | C | EB | L | 0.53 | 36.1 | D |
| | **EB** | **TR** | **1.22** | **481.5** | **F** | **EB** | **TR** | **1.22** | **481.5** | **F** | **EB** | **T** | **0.61** | **34.6** | **C** |
| | | | | | | | | | | | **EB** | **R** | **0.58** | **36.6** | **D** |
| | WB | L | 0.71 | 44.1 | D | WB | L | 0.71 | 44.1 | D | WB | L | 0.61 | 33.0 | C |
| | WB | TR | 0.78 | 36.0 | D | WB | TR | 0.78 | 36.0 | D | WB | TR | 0.85 | 42.1 | D |
| | NB | L | 0.87 | 76.1 | E | NB | L | 0.88 | 78.3 | E | NB | L | 0.81 | 60.6 | E |
| | NB | TR | 0.40 | 14.9 | B | NB | TR | 0.41 | 15.0 | B | NB | TR | 0.39 | 13.3 | B |
| | SB | L | 1.17 | 271.9 | F | SB | L | 1.19 | 285.8 | F | SB | L | 1.12 | 248.0 | F |
| | SB | TR | 0.70 | 22.7 | C | SB | TR | 0.71 | 22.8 | C | SB | TR | 0.68 | 20.7 | C |

## Table 24-10A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Twelfth Ave. @ 24th Street | WB | L | 0.67 | 71.0 | E | WB | L | 0.68 | 71.8 | E | WB | L | 0.68 | 71.8 | E |
| | WB | LTR | 0.67 | 72.1 | E | WB | LTR | 0.68 | 72.7 | E | WB | LTR | 0.67 | 71.8 | E |
| | WB | R | 0.67 | 71.0 | E | WB | R | 0.68 | 72.3 | E | WB | R | 0.70 | 73.3 | E |
| | NB | TR | 1.11 | 125.9 | F | NB | TR | 1.11 | 127.6 | F | NB | TR | 1.11 | 127.6 | F |
| | SB | L | 0.65 | 87.2 | F | SB | L | 0.65 | 87.2 | F | SB | L | 0.65 | 87.2 | F |
| | SB | T | 0.85 | 27.7 | C | SB | T | 0.85 | 27.9 | C | SB | T | 0.85 | 27.9 | C |
| Twelfth Ave. @ 29th Street | WB | LR | 1.95 | 987.2 | F | WB | LR | 2.19 | 1095.0 | F | WB | LR | 1.92 | 914.4 | F |
| | NB | T | 0.76 | 3.8 | A | NB | T | 0.76 | 3.8 | A | NB | T | 0.78 | 4.2 | A |
| | SB | T | 0.68 | 10.0 | A | SB | T | 0.68 | 10.0 | A | SB | T | 0.70 | 11.7 | B |
| Twelfth Ave. @ 30th Street | EB | LTR | 0.00 | 64.4 | E | EB | LTR | 0.00 | 64.4 | E | EB | LTR | 0.00 | 64.4 | E |
| | NB | TR | 0.93 | 8.8 | A | NB | TR | 0.95 | 11.0 | B | NB | TR | 0.98 | 17.3 | B |
| | SB | L | 1.34 | 427.2 | F | SB | L | 1.52 | 504.5 | F | SB | L | 1.28 | 372.5 | F |
| | SB | TR | 0.81 | 17.1 | B | SB | TR | 0.82 | 17.2 | B | SB | TR | 0.84 | 19.8 | B |
| Twelfth Ave. @ 43th Street | WB | LTR | 1.00 | 107.7 | F | WB | LTR | 1.02 | 182.1 | F | WB | LTR | 0.95 | 93.0 | F |
| | NB | L | 0.16 | 68.0 | E | NB | L | 0.16 | 68.0 | E | NB | L | 0.16 | 68.0 | E |
| | NB | T | 0.87 | 5.8 | A | NB | T | 0.88 | 6.1 | A | NB | T | 0.89 | 6.8 | A |
| | SB | T | 0.77 | 21.7 | C | SB | T | 0.78 | 21.9 | C | SB | T | 0.79 | 23.6 | C |
| | SB | R | 0.02 | 10.6 | B | SB | R | 0.02 | 10.6 | B | SB | R | 0.02 | 11.4 | B |
| Twelfth Ave.@ 46th Street | EB | LTR | 0.17 | 51.9 | D | EB | LTR | 0.17 | 51.9 | D | EB | LTR | 0.18 | 53.8 | D |
| | NB | TR | 1.12 | 158.6 | F | NB | TR | 1.13 | 165.0 | F | NB | TR | 1.11 | 152.1 | F |
| | SB | L | 0.61 | 83.3 | F | SB | L | 0.61 | 83.3 | F | SB | L | 0.61 | 83.3 | F |
| | SB | T | 0.78 | 13.6 | B | SB | T | 0.79 | 13.7 | B | SB | T | 0.77 | 12.3 | B |
| Twelfth Ave. @ 54th Street | EB | R | 0.00 | 5.3 | A | EB | R | 0.00 | 5.3 | A | EB | R | 0.00 | 5.3 | A |
| | WB | R | 0.81 | 81.6 | F | WB | R | 0.81 | 82.0 | F | WB | R | 0.81 | 82.0 | F |
| | NB | TR | 1.23 | 185.2 | F | NB | TR | 1.24 | 191.2 | F | NB | TR | 1.24 | 191.2 | F |
| | SB | L | 0.44 | 57.4 | E | SB | L | 0.44 | 57.5 | E | SB | L | 0.44 | 57.5 | E |
| | SB | T | 0.75 | 12.9 | B | SB | T | 0.75 | 13.0 | B | SB | T | 0.75 | 13.0 | B |
| Twelfth Ave. @ 56th Street | NB | T | 1.23 | 160.3 | F | NB | T | 1.24 | 167.0 | F | NB | T | 1.24 | 167.0 | F |
| | SB | L | 1.11 | 387.3 | F | SB | L | 1.11 | 387.3 | F | SB | L | 1.11 | 387.3 | F |
| | SB | T | 0.59 | 0.7 | A | SB | T | 0.60 | 0.7 | A | SB | T | 0.60 | 0.7 | A |
| Broadway @ 35th Street | WB | L | 0.11 | 20.9 | C | WB | L | 0.11 | 20.9 | C | WB | L | 0.10 | 19.5 | B |
| | WB | T | 1.49 | 279.9 | F | WB | T | 1.54 | 302.1 | F | WB | T | 1.45 | 258.1 | F |
| | SB | T | 0.39 | 8.9 | A | SB | T | 0.39 | 8.9 | A | SB | T | 0.40 | 10.3 | B |
| | SB | R | 0.44 | 12.9 | B | SB | R | 0.44 | 12.9 | B | SB | R | 0.46 | 15.1 | B |
| Broadway @ 36th Street | EB | TR | 0.94 | 41.0 | D | EB | TR | 0.98 | 48.7 | D | EB | TR | 0.93 | 38.3 | D |
| | SB | L | 0.57 | 42.5 | D | SB | L | 0.57 | 42.5 | D | SB | L | 0.57 | 42.5 | D |
| | SB | T | 0.48 | 15.4 | B | SB | T | 0.48 | 15.4 | B | SB | T | 0.51 | 17.3 | B |
| Dyer Ave @ 34th Street | EB | T | 0.26 | 11.8 | B | EB | T | 0.28 | 12.0 | B | EB | T | 0.29 | 12.1 | B |
| | WB | T | 0.60 | 16.3 | B | WB | T | 0.61 | 16.5 | B | WB | T | 0.62 | 16.7 | B |
| | WB | R | 2.76 | 1350.0 | F | WB | R | 2.82 | 1373.0 | F | WB | R | 2.82 | 1373.0 | F |
| | SB | L | 0.78 | 58.8 | E | SB | L | 0.78 | 58.8 | E | SB | L | 0.81 | 61.6 | E |
| | SB | LR | 0.80 | 61.0 | E | SB | LR | 0.81 | 62.6 | E | SB | LR | 0.80 | 62.1 | E |
| | SB | R | 0.79 | 62.4 | E | SB | R | 0.82 | 66.1 | E | SB | R | 0.80 | 63.0 | E |
| Dyer Ave @ 35th Street | WB | LTR | 0.76 | 195.2 | F | WB | LTR | 0.80 | 207.8 | F | WB | LTR | 0.76 | 181.5 | F |
| | NB | LT | 0.32 | 26.5 | C | NB | LT | 0.33 | 26.7 | C | NB | LT | 0.33 | 26.7 | C |
| | SB | TR | 0.68 | 32.7 | C | SB | TR | 0.69 | 33.1 | C | SB | TR | 0.69 | 33.1 | C |
| Dyer Ave @ 36th Street | EB | TR | 0.70 | 73.7 | E | EB | TR | 0.84 | 115.1 | F | EB | TR | 0.75 | 72.5 | E |
| | NB | TR | 1.67 | 556.6 | F | NB | TR | 1.70 | 570.2 | F | NB | TR | 1.52 | 469.3 | F |
| | SB | L | 0.61 | 34.5 | C | SB | L | 0.51 | 31.5 | C | SB | L | 0.66 | 40.4 | D |
| | SB | LT | 0.61 | 30.6 | C | SB | LT | 0.66 | 31.6 | C | SB | LT | 0.76 | 37.7 | D |
| | SB | R | 0.45 | 11.6 | B | SB | R | 0.45 | 11.6 | B | SB | R | 0.48 | 13.7 | B |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-10B
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour) Unsignalized Intersections

| Intersection | 2017 Interim Future Without the Proposed Actions | | | 2017 Interim Future With the Proposed Actions | | | 2017 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS |
| Twelfth Ave. @ 33rd St. | WB | 53.9 | F | WB | 131.6 | F | WB | 44.1 | D |
| | NB | -- | -- | NB | -- | -- | NB | 18.8 | B |
| Twelfth Ave. @ 47th St. | WB | 383.0 | F | WB | 435.2 | F | WB | 53.7 | D |
| | NB | -- | -- | NB | -- | -- | NB | 27.6 | C |

## Table 24-10C
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| Sixth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Sixth Ave. @ 36th St. | EBT: G=24<br>EBTL: G=16<br>NB: G=40 | EBT: G=24<br>EBTL: G=18<br>NB: G=38 |
| Seventh Ave. @ 29th St. | WB: G= 36<br>SB: G=44 | WB: G=37<br>SB: G=43 |
| Seventh Ave. @ 30th St. | EB: G=36<br>SB: G=44 | EB: G=39<br>SB: G=41 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St. | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| | WB: G= 23<br>SB: G= 52 | WB: G=23<br>SB G=57 |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15' each) – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13' each) – Restriping by prohibiting parking on the south side of 36th St. |
| Eighth Ave. @ 29th St. | WB: G=36<br>NB: G=44 | WB: G=37<br>NB: G=43 |
| Eighth Ave. @ 30th St. | EB: G=38<br>NB: G=42 | EB: G=39<br>NB: G=41 |
| Eighth Ave. @ 31st St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe. |
| | NB: G=40<br>WB: G=40 | NB: G=41<br>WB: G=39 |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 34th St. | EB/WB: G=40<br>All Ped: G=7<br>NB: G=33 | EB/WB: G=39<br>All Ped: G=7<br>NB: G=34 |
| Eighth Ave. @ 35th St. | WB: G=31<br>NB: G=49 | WB: G=32<br>NB: G=48 |

## Table 24-10C (cont'd)
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Weekday PM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Eighth Ave. @ 38th St. | EB: G=38<br>NB: G=42 | EB: G=36<br>NB: G=44 |
| Ninth Ave. @ 28th St. | EB: (1 Lane) TR | EB: (2 Lanes) T, R – An additional lane from prohibiting parking on the south side of 28th St., and restripe |
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=29<br>SBT: G=26<br>SB: G=18 |
| Ninth Ave. @ 31st St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=10<br>EB/WB: G=30<br>SB: G=35 | WB: G=10<br>EB/WB: G=32<br>SB: G=33 |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=31<br>SB: G=49 |
| Ninth Ave. @ 36th St.* | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: 33<br>SB: 47 |
| Ninth Ave. @ 37th St. | Impacts cannot be fully mitigated | |
| Ninth Ave. @ 42nd St. | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=4<br>EB/WB: G=29<br>Ped N-S: G=7<br>NB/SB: G=35 | WB: G=4<br>EB/WB: G=30<br>Ped N-S: G=7<br>NB/SB: G=34 |
| Tenth Ave. @ 26th St. | EB: G=32<br>NB: G=48 | EB: G=33<br>NB: G=47 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=38<br>NB: G=42 |
| Tenth Ave. @ 29th St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |

## Table 24-10C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 33rd St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| | WB: G=32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Tenth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=33<br>NB: G=47 |
| Tenth Ave. @ 36th St. | NB (3 Lanes): T, T, TR | NB (4 Lanes): T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| Tenth Ave. @ 37th St. | WB: G= 32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Tenth Ave. @ 38th St. | EB: G=30<br>NB: G=50 | EB: G=28<br>NB: G=52 |
| Tenth Ave. @ 39th St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 40th St. | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach. (10' each) |
| | EB: G=36<br>NB: G=44 | EB: G=34<br>NB: G=46 |
| Tenth Ave. @ 41st St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 42nd St. | EB/WB: G=28<br>NB: G=45 | EB/WB: G=29<br>NB: G=44 |
| Eleventh/Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 24th St. | SBL&NBL&EBR: G=24<br>SB: G=27 | SBL&NBL&EBR: G=23<br>SB: G=28 |
| Eleventh Ave. @ 29th St. | WB: G=40<br>SB: G=40 | WB: G=51<br>SB: G=29 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 33rd St. | WB: G=25<br>SB: G=55 | WB: G=34<br>SB: G=46 |
| Eleventh Ave. @ 34th St. | EB/WB: G=26<br>SB: G=40 | EB/WB: G=29<br>SB: G=37 |
| Eleventh Ave. @ 37th St. | EB/WB: G=22<br>NB/SB: G=58 | EB/WB: G=24<br>NB/SB: G=56 |

## Table 24-10C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Eleventh Ave. @ 38th St. | ALL PED: G=26<br>NB/SB: G=54 | ALL PED: G=25<br>NB/SB: G=55 |
| Eleventh Ave. @ 39th St. | EB/WB: G=31<br>NB/SB: G=49 | EB/WB: G=30<br>NB/SB: G=50 |
| Eleventh Ave. @ 40th St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 42nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 44th St. | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 47th St. | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| | WB: G=22<br>SB: G=58 | WB: G=23<br>SB: G=57 |
| Eleventh Ave. @ 54th St. | EB: G=22<br>NB/SB: G=58 | EB: G=21<br>NB/SB: G=59 |
| Eleventh Ave. @ 57th St. | EB: (2 Lanes) L, TR | EB: (3 Lanes) L, T, R – An additional lane from prohibiting parking on the south side of 57th St., and restripe |
| | EB/WB: G=27<br>NB/SB: G=40 | EB/WB: G=25<br>NB/SB: G=42 |
| Twelfth Ave. @ 24th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=25<br>NB/SB: G=114 | WB: G=28<br>NB/SB: G=111 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB Through: G=107<br>SB Left: G=16 | EB: G=11<br>NB/SB Through: G=104<br>SB Left: G=19 |
| Twelfth Ave. @ 33rd St.* | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | Signalized<br>WB: G=48<br>NB: G=92 |
| Twelfth Ave. @ 41st St. | EB/WB: G=17<br>EB only: G=9<br>NB/SB: G=96<br>SB only: G=7 | EB/WB: G=17<br>EB only: G=7<br>NB/SB: G=98<br>SB only: G=7 |
| Twelfth Ave. @ 43rd St. | WB: G=29<br>NB: G=11<br>NB/SB: G=94 | WB: G=31<br>NB: G=11<br>NB/SB: G=92 |

## Table 24-10C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Weekday PM Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Twelfth Ave. @ 46th St. | EB: G=5<br>EB: G=18<br>NB/SB: G=93<br>SB/SBL: G=13 | EB: G=5<br>EB: G=16<br>NB/SB: G=95<br>SB/SBL: G=13 |
| Twelfth Ave. @ 47th St. | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from daylighting on the north side of 33rd St. |
| | Unsignalized | Proposed Signal Timing:<br>WB: G=38<br>NB: G=102 |
| Twelfth Ave. @ 54th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 56th St. | Impacts cannot be fully mitigated | |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=33<br>SB: G=47 |
| Broadway @ 36th St. | EB: G=39<br>SBT: G=25<br>SBTL: G=16 | EB: G=41<br>SBT: G=23<br>SBTL: G=16 |
| Dyer Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Dyer Ave. @ 35th St. | WB: G=27<br>NB: G=28<br>NB/SB: G=25 | WB: G=28<br>NB: G=27<br>NB/SB: G=25 |
| Dyer Ave. @ 36th St. | EB: G=26<br>SB: G=25<br>NBT/SBR: G=24 | EB: G=29<br>SB: G=21<br>NBT/SBR: G=25 |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-11A
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Saturday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Sixth Ave. @ 28th Street | EB | LT | 1.06 | 280.2 | F | EB | LT | 1.08 | 285.6 | F | EB | LT | 1.05 | 269.1 | F |
| | NB | TR | 0.88 | 21.7 | C | NB | TR | 0.88 | 22.0 | C | NB | TR | 0.90 | 24.2 | C |
| Sixth Ave. @ 30th Street | **EB** | **LT** | **0.64** | **62.8** | **E** | **EB** | **LT** | **0.68** | **68.4** | **E** | **EB** | **L** | **0.34** | **17.3** | **B** |
| | | | | | | | | | | | **EB** | **T** | **0.37** | **39.4** | **D** |
| | NB | TR | 1.00 | 44.7 | D | NB | TR | 1.01 | 84.0 | F | NB | TR | 0.93 | 39.6 | D |
| Sixth Ave. @ 34th Street | EB | T | 0.59 | 49.4 | D | EB | T | 0.61 | 52.0 | D | EB | T | 0.61 | 52.0 | D |
| | WB | TR | 0.47 | 13.6 | B | WB | TR | 0.48 | 13.7 | B | WB | TR | 0.48 | 13.7 | B |
| | NB | T | 1.28 | 248.3 | F | NB | T | 1.29 | 252.6 | F | NB | T | 1.29 | 252.6 | F |
| | SB | T | 1.35 | 381.7 | F | SB | T | 1.35 | 381.7 | F | SB | T | 1.35 | 381.7 | F |
| Seventh Ave. @ 28th Street | EB | TR | 0.85 | 295.5 | F | EB | TR | 0.88 | 305.8 | F | EB | TR | 0.84 | 276.9 | F |
| | SB | LT | 0.59 | 14.0 | B | SB | LT | 0.60 | 14.1 | B | SB | LT | 0.61 | 15.2 | B |
| Seventh Ave. @ 29th Street | WB | LT | 1.03 | 184.3 | F | WB | LT | 1.06 | 288.0 | F | WB | LT | 0.93 | 44.6 | D |
| | SB | TR | 0.70 | 15.7 | B | SB | TR | 0.71 | 15.8 | B | SB | TR | 0.80 | 22.1 | C |
| Seventh Ave. @ 31st Street | **WB** | **LT** | **1.33** | **370.1** | **F** | **WB** | **LT** | **1.35** | **381.2** | **F** | **WB** | **L** | **0.24** | **17.8** | **B** |
| | | | | | | | | | | | **WB** | **T** | **1.16** | **308.5** | **F** |
| | SB | TR | 0.70 | 17.3 | B | SB | TR | 0.70 | 17.3 | B | SB | TR | 0.70 | 17.3 | B |
| Seventh Ave. @ 33rd Street | **WB** | **LT** | **1.12** | **455.3** | **F** | **WB** | **LT** | **1.13** | **458.4** | **F** | **WB** | **L** | **0.42** | **33.0** | **C** |
| | | | | | | | | | | | **WB** | **T** | **0.75** | **43.6** | **D** |
| | SB | TR | 0.88 | 11.7 | B | SB | TR | 0.89 | 12.5 | B | SB | TR | 0.65 | 6.0 | A |
| Seventh Ave. @ 35th Street | WB | L | 0.81 | 44.5 | D | WB | L | 0.81 | 44.5 | D | WB | L | 0.73 | 36.9 | D |
| | WB | LT | 0.88 | 46.6 | D | WB | LT | 0.93 | 54.2 | D | WB | LT | 0.68 | 29.4 | C |
| | SB | TR | 0.71 | 14.4 | B | SB | TR | 0.72 | 14.6 | B | SB | TR | 0.72 | 14.6 | B |
| Seventh Ave. @ 36th Street | EB | TR | 1.16 | 397.7 | F | EB | TR | 1.18 | 405.2 | F | EB | TR | 0.98 | 51.6 | D |
| | SB | LT | 0.67 | 15.1 | B | SB | LT | 0.68 | 15.2 | B | SB | LT | 0.68 | 15.2 | B |
| Seventh Ave. @ 37th Street | WB | LT | 0.87 | 181.5 | F | WB | LT | 0.88 | 187.1 | F | WB | LT | 0.85 | 169.1 | F |
| | SB | TR | 0.68 | 18.3 | B | SB | TR | 0.68 | 18.5 | B | SB | TR | 0.70 | 19.6 | B |
| Seventh Ave. @ 38th Street | EB | TR | 0.94 | 263.0 | F | EB | TR | 0.95 | 268.5 | F | EB | TR | 0.92 | 244.5 | F |
| | SB | LT | 0.53 | 13.3 | B | SB | LT | 0.54 | 13.3 | B | SB | LT | 0.55 | 14.2 | B |
| Eighth Ave. @ 29th Street | WB | TR | 1.20 | 345.5 | F | WB | TR | 1.22 | 355.3 | F | WB | TR | 1.19 | 334.3 | F |
| | NB | LT | 0.70 | 19.6 | B | NB | LT | 0.70 | 19.8 | B | NB | LT | 0.72 | 21.2 | C |
| Eighth Ave. @ 30th Street | EB | LT | 1.01 | 92.5 | F | EB | LT | 1.04 | 209.4 | F | EB | LT | 0.85 | 82.8 | F |
| | NB | TR | 0.68 | 21.8 | C | NB | TR | 0.69 | 22.0 | C | NB | TR | 0.85 | 42.3 | D |
| Eighth Ave. @ 31st Street | **WB** | **TR** | **1.06** | **333.6** | **F** | **WB** | **TR** | **1.08** | **337.5** | **F** | **WB** | **T** | **0.49** | **62.8** | **E** |
| | | | | | | | | | | | **WB** | **R** | **1.21** | **521.5** | **F** |
| | NB | LT | 0.89 | 37.0 | D | NB | LT | 0.89 | 38.2 | D | NB | LT | 0.89 | 38.2 | D |
| Eighth Ave. @ 33rd Street | WB | TR | 0.47 | 15.0 | B | WB | TR | 0.49 | 15.2 | B | WB | TR | 0.50 | 16.0 | B |
| | NB | LT | 1.04 | 119.8 | F | NB | LT | 1.06 | 124.4 | F | NB | LT | 1.03 | 111.5 | F |
| Eighth Ave. @ 35th Street | WB | TR | 1.43 | 546.3 | F | WB | TR | 1.47 | 559.9 | F | WB | TR | 1.42 | 525.5 | F |
| | NB | LT | 0.71 | 12.0 | B | NB | LT | 0.71 | 12.0 | B | NB | LT | 0.73 | 13.0 | B |
| 8th Ave @ 36th Street | EB | LT | 0.99 | 307.3 | F | EB | LT | 1.01 | 319.2 | F | EB | LT | 0.92 | 243.3 | F |
| | NB | TR | 0.82 | 16.6 | B | NB | TR | 0.82 | 16.7 | B | NB | TR | 0.82 | 16.7 | B |
| Ninth Ave. @ 29th Street | WB | LT | 0.70 | 27.0 | C | WB | LT | 0.72 | 27.6 | C | WB | LT | 0.77 | 30.8 | C |
| | SB | TR | 1.01 | 81.8 | F | SB | TR | 1.02 | 88.5 | F | SB | TR | 0.97 | 29.3 | C |

## Table 24-11A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Saturday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersection | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS | Approach | Movement | V/C ratio | Delay (sec/veh) | LOS |
| Ninth Ave. @ 30th Street | EB | TR | 0.87 | 40.3 | D | EB | TR | 0.90 | 43.2 | D | EB | TR | 0.84 | 36.0 | D |
| | SB | L | 1.85 | 534.8 | F | SB | L | 1.87 | 543.4 | F | SB | L | 1.77 | 490.7 | F |
| | SB | T | 0.82 | 17.5 | B | SB | T | 0.82 | 17.5 | B | SB | T | 0.61 | 14.1 | B |
| Ninth Ave. @ 31st Street | WB | LTR | 1.02 | 136.4 | F | WB | LTR | 1.03 | 176.2 | F | WB | LTR | 0.90 | 38.9 | D |
| | SB | TR | 0.72 | 11.6 | B | SB | TR | 0.73 | 11.6 | B | SB | TR | 0.79 | 16.0 | B |
| Ninth Ave. @ 33rd Street | **WB** | **LT** | **1.51** | **598.8** | **F** | **WB** | **LT** | **1.59** | **629.1** | **F** | **WB** | **L** | **0.74** | **45.7** | **D** |
| | | | | | | | | | | | **WB** | **T** | **0.85** | **45.3** | **D** |
| | SB | TR | 0.77 | 12.4 | B | SB | TR | 0.77 | 12.5 | B | SB | TR | 0.77 | 12.5 | B |
| Ninth Ave. @ 35th Street | WB | LT | 1.01 | 113.3 | F | WB | LT | 1.06 | 302.7 | F | WB | LT | 0.74 | 27.1 | C |
| | SB | TR | 0.59 | 9.7 | A | SB | TR | 0.60 | 9.8 | A | SB | TR | 0.79 | 22.4 | C |
| Ninth Ave. @ 36th Street | EB | TR | 1.05 | 160.4 | F | EB | TR | 1.06 | 165.2 | F | EB | TR | 1.03 | 149.6 | F |
| | SB | LT | 0.83 | 20.5 | C | SB | LT | 0.84 | 21.2 | C | SB | L | 0.37 | 9.6 | A |
| | | | | | | | | | | | SB | T | 0.68 | 14.8 | B |
| Ninth Ave. @ 42nd Street | EB | TR | 0.59 | 27.6 | C | EB | TR | 0.59 | 27.6 | C | EB | TR | 0.55 | 25.6 | C |
| | WB | DefL | 1.04 | 239.9 | F | WB | DefL | 1.04 | 242.2 | F | WB | DefL | 0.98 | 85.2 | F |
| | WB | T | 0.23 | 17.0 | B | WB | T | 0.23 | 17.1 | B | WB | T | 0.22 | 15.8 | B |
| | SB | LTR | 0.92 | 32.2 | C | SB | LTR | 0.93 | 32.8 | C | SB | LT | 0.92 | 33.8 | C |
| | | | | | | | | | | | SB | R | 0.22 | 19.6 | B |
| Tenth Ave. @ 28th Street | EB | LT | 1.43 | 532.6 | F | EB | LT | 1.46 | 545.7 | F | EB | LT | 1.40 | 510.5 | F |
| | NB | TR | 0.53 | 11.8 | B | NB | TR | 0.53 | 11.9 | B | NB | TR | 0.55 | 12.8 | B |
| Tenth Ave. @ 30th Street | EB | LT | 1.69 | 601.9 | F | EB | LT | 1.87 | 685.1 | F | EB | LT | 0.84 | 36.0 | D |
| | NB | T | 0.51 | 11.5 | B | NB | T | 0.51 | 11.5 | B | NB | T | 0.51 | 11.5 | B |
| | NB | R | 1.25 | 243.8 | F | NB | R | 1.22 | 231.0 | F | NB | R | 0.83 | 26.1 | C |
| Tenth Ave. @ 31st Street | WB | R | 1.26 | 360.5 | F | WB | R | 1.28 | 368.0 | F | WB | R | 1.23 | 338.3 | F |
| | NB | T | 0.57 | 9.5 | A | NB | T | 0.58 | 9.6 | A | NB | T | 0.59 | 10.4 | B |
| Tenth Ave. @ 34th Street | EB | DefL | 0.76 | 50.3 | D | EB | DefL | 0.83 | 59.6 | E | EB | DefL | 0.76 | 47.0 | D |
| | EB | T | 0.28 | 22.7 | C | EB | T | 0.29 | 22.9 | C | EB | T | 0.27 | 21.3 | C |
| | WB | TR | 0.56 | 27.8 | C | WB | TR | 0.59 | 28.3 | C | WB | TR | 0.55 | 26.0 | C |
| | NB | LTR | 0.81 | 13.4 | B | NB | LTR | 0.82 | 13.6 | B | NB | LT | 0.77 | 14.0 | B |
| | | | | | | | | | | | NB | R | 0.27 | 9.6 | A |
| Tenth Ave. @ 35th Street | WB | TR | 1.04 | 229.0 | F | WB | TR | 1.09 | 263.7 | F | WB | TR | 1.01 | 113.3 | F |
| | NB | LT | 0.77 | 12.4 | B | NB | LT | 0.79 | 12.7 | B | NB | LT | 0.66 | 11.7 | B |
| Tenth Ave. @ 42nd Street | EB | LT | 1.96 | 753.6 | F | EB | LT | 1.97 | 756.2 | F | EB | LT | 1.80 | 657.9 | F |
| | WB | TR | 1.44 | 441.5 | F | WB | TR | 1.44 | 441.5 | F | WB | TR | 1.39 | 413.1 | F |
| | NB | LTR | 0.77 | 22.2 | C | NB | LTR | 0.78 | 22.6 | C | NB | LTR | 0.80 | 24.6 | C |
| Eleventh Ave./Twelfth Ave. @ 22nd Street | WB (22nd) | R | 0.09 | 13.1 | B | WB (22nd) | R | 0.09 | 13.1 | B | WB (22nd) | R | 0.09 | 13.1 | B |
| | NB (11th) | T | 0.16 | 27.4 | C | NB (11th) | T | 0.16 | 27.4 | C | NB (11th) | T | 0.16 | 27.4 | C |
| | WB (11th) | L | 0.28 | 34.8 | C | WB (11th) | L | 0.27 | 35.1 | D | WB (11th) | L | 0.32 | 35.4 | D |
| | WB (11th) | LR | 0.28 | 35.9 | D | WB (11th) | LR | 0.33 | 35.2 | D | WB (11th) | LR | 0.18 | 34.1 | C |
| | NB (9A) | T | 1.11 | 132.4 | F | NB (9A) | T | 1.11 | 133.7 | F | NB (9A) | T | 1.11 | 133.7 | F |
| | SB (9A) | T | 0.74 | 18.0 | B | SB (9A) | T | 0.75 | 18.0 | B | SB (9A) | T | 0.75 | 18.0 | B |
| Eleventh Ave. @ 30th Street | EB | TR | 0.86 | 38.4 | D | EB | TR | 0.95 | 51.4 | D | EB | TR | 0.45 | 18.5 | B |
| | SB | LT | 0.74 | 19.9 | B | SB | LT | 0.80 | 21.6 | C | SB | LT | 0.73 | 19.5 | B |

## Table 24-11A (cont'd)
## 2017 Future with the Proposed Actions:
## Approach Movement Operations With and Without Proposed Mitigation
## (Saturday Midday Peak Hour)
## Signalized Intersections

| | 2017 Future Without the Proposed Actions | | | | | 2017 Future With the Proposed Actions | | | | | 2017 Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Twelfth Ave. @ 24th Street | WB | L | 0.51 | 47.0 | D | WB | L | 0.51 | 47.1 | D | WB | L | 0.53 | 47.8 | D |
| | WB | LTR | 0.51 | 47.6 | D | WB | LTR | 0.51 | 47.3 | D | WB | LTR | 0.50 | 47.2 | D |
| | WB | R | 0.52 | 48.4 | D | WB | R | 0.52 | 48.7 | D | WB | R | 0.50 | 48.0 | D |
| | NB | TR | 1.09 | 120.9 | F | NB | TR | 1.09 | 122.2 | F | NB | TR | 1.09 | 122.2 | F |
| | SB | L | 1.08 | 426.6 | F | SB | L | 1.08 | 426.6 | F | SB | L | 1.08 | 426.6 | F |
| | SB | T | 0.82 | 27.4 | C | SB | T | 0.82 | 27.4 | C | SB | T | 0.82 | 27.4 | C |
| Twelfth Ave. @ 29th Street | WB | LR | 1.25 | 591.7 | F | WB | LR | 1.39 | 644.5 | F | WB | LR | 1.22 | 526.4 | F |
| | NB | T | 0.69 | 12.0 | B | NB | T | 0.70 | 12.0 | B | NB | T | 0.72 | 14.1 | B |
| | SB | T | 0.77 | 13.9 | B | SB | T | 0.77 | 13.9 | B | SB | T | 0.80 | 16.3 | B |
| Twelfth Ave. @ 30th Street | EB | LTR | 0.00 | 49.5 | D | EB | LTR | 0.00 | 49.5 | D | EB | LTR | 0.00 | 49.5 | D |
| | NB | TR | 0.79 | 16.5 | B | NB | TR | 0.81 | 17.1 | B | NB | TR | 0.83 | 19.1 | B |
| | SB | L | 1.16 | 328.7 | F | SB | L | 1.25 | 363.5 | F | SB | L | 1.10 | 281.9 | F |
| | SB | TR | 0.86 | 19.6 | B | SB | TR | 0.86 | 19.6 | B | SB | TR | 0.88 | 21.9 | C |
| Twelfth Ave. @ 37th Street | EB | LR | 0.16 | 43.3 | D | EB | LR | 0.16 | 43.3 | D | EB | LR | 0.17 | 44.4 | D |
| | EB | R | 0.09 | 42.6 | D | EB | R | 0.09 | 42.6 | D | EB | R | 0.09 | 43.5 | D |
| | NB | L | 0.26 | 51.6 | D | NB | L | 0.26 | 51.6 | D | NB | L | 0.26 | 51.6 | D |
| | NB | T | 0.84 | 21.8 | C | NB | T | 0.84 | 22.1 | C | NB | T | 0.84 | 22.1 | C |
| | SB | TR | 1.15 | 142.6 | F | SB | TR | 1.15 | 144.4 | F | SB | TR | 1.13 | 136.1 | F |
| Twelfth Ave. @ 41st Street | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 24.9 | C | EB | LR | 0.02 | 25.5 | C |
| | WB | L | 0.07 | 37.6 | D | WB | L | 0.07 | 37.6 | D | WB | L | 0.07 | 37.6 | D |
| | WB | R | 0.45 | 43.5 | D | WB | R | 0.45 | 43.5 | D | WB | R | 0.45 | 43.5 | D |
| | NB | T | 1.03 | 112.1 | F | NB | T | 1.04 | 115.2 | F | NB | T | 1.02 | 107.1 | F |
| | SB | T | 1.11 | 108.1 | F | SB | T | 1.12 | 109.6 | F | SB | T | 1.10 | 101.7 | F |
| Twelfth Ave. @ 42nd Street | EB | LTR | 0.09 | 32.6 | C | EB | LTR | 0.09 | 32.6 | C | EB | LTR | 0.10 | 33.4 | C |
| | WB | L | 0.50 | 41.7 | D | WB | L | 0.50 | 41.7 | D | WB | L | 0.52 | 43.2 | D |
| | WB | R | 0.63 | 24.5 | C | WB | R | 0.63 | 24.5 | C | WB | R | 0.64 | 25.8 | C |
| | NB | T | 1.16 | 156.3 | F | NB | T | 1.17 | 160.5 | F | NB | T | 1.14 | 148.1 | F |
| | NB | R | 0.22 | 26.8 | C | NB | R | 0.23 | 26.8 | C | NB | R | 0.22 | 26.1 | C |
| | SB | L | 0.68 | 48.5 | D | SB | L | 0.68 | 48.5 | D | SB | L | 0.68 | 48.5 | D |
| | SB | T | 0.88 | 21.8 | C | SB | T | 0.88 | 21.9 | C | SB | T | 0.87 | 20.7 | C |
| Twelfth Ave.@ 46th Street | EB | LTR | 0.18 | 36.6 | D | EB | LTR | 0.18 | 36.6 | D | EB | LTR | 0.19 | 37.4 | D |
| | NB | TR | 1.09 | 157.3 | F | NB | TR | 1.10 | 160.1 | F | NB | TR | 1.08 | 151.3 | F |
| | SB | L | 0.83 | 94.9 | F | SB | L | 0.83 | 94.9 | F | SB | L | 0.83 | 94.9 | F |
| | SB | T | 0.90 | 20.2 | C | SB | T | 0.90 | 20.3 | C | SB | T | 0.89 | 19.1 | B |
| Broadway @ 35th Street | WB | L | 0.22 | 22.6 | C | WB | L | 0.22 | 22.6 | C | WB | L | 0.20 | 20.9 | C |
| | WB | T | 1.14 | 131.2 | F | WB | T | 1.19 | 149.7 | F | WB | T | 1.11 | 119.7 | F |
| | SB | T | 0.26 | 8.0 | A | SB | T | 0.26 | 8.0 | A | SB | T | 0.28 | 9.2 | A |
| | SB | R | 0.47 | 13.7 | B | SB | R | 0.47 | 13.8 | B | SB | R | 0.50 | 16.4 | B |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-11B
## 2017 Future with the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Saturday Midday Peak Hour) Unsignalized Intersections

| Intersection | 2017 Interim Future Without the Proposed Actions | | | 2017 Interim Future With the Proposed Actions | | | 2017 Future With the Proposed Actions and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS | App | Delay Sec/Veh | LOS |
| Twelfth Ave. @ 33rd St. | WB | 17.5 | C | WB | 24.4 | C | WB | 23.3 | C |
| | NB | -- | -- | NB | -- | -- | NB | 35.3 | D |
| Twelfth Ave. @ 47th St. | WB | 79.8 | F | WB | 85.2 | F | WB | 36.4 | D |
| | NB | -- | -- | NB | -- | -- | NB | 33.1 | D |

## Table 24-11C
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Saturday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Sixth Ave. @ 28th St. | EB: G=37<br>NB: G=43 | EB: G=38<br>NB: G=42 |
| Sixth Ave. @ 30th St. | EB: (1 Lane) LT | EB: (2 Lanes) L, T – An additional lane from prohibiting parking on the north side of 30th St., and restripe |
| | EB: G=44<br>NB: G=36 | EB: G=41<br>NB: G=39 |
| Sixth Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Broadway @ 35th St. | WB: G=31<br>SB: G=49 | WB: G=33<br>SB: G=47 |
| Seventh Ave. @ 28th St. | EB: G=31<br>SB: G=49 | EB: G=32<br>SB: G=48 |
| Seventh Ave. @ 29th St. | WB: G=36<br>SB: G=44 | WB: G=41<br>SB: G=39 |
| Seventh Ave. @ 31st St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 31st St., and restripe |
| Seventh Ave. @ 33rd St. | WB: (1 Lane) LT<br>SB: (3 Lanes) T, T, TR | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe<br>SB: (4 Lanes) T, T, T, TR – An additional lane from prohibiting parking on the west side of Seventh Ave. |
| Seventh Ave. @ 35th St. | WB: (2 Lanes) L (12'), LT (10.5') | WB: (2 Lanes) L, LT (15' each) – Restriping by prohibiting parking on the north side of 35th St. |
| Seventh Ave. @ 36th St. | EB: (2 Lanes) T, TR (8.5') | EB: (2 Lanes) T, TR (13' each) – Restriping by prohibiting parking on the south side of 36th St. |
| Seventh Ave. @ 37th St. | WB: G=40<br>SB: G=40 | WB: G=41<br>SB: G=39 |
| Seventh Ave. @ 38th St. | EB: G=36<br>SB: G=44 | EB: G=37<br>SB: G=43 |
| Eighth Ave. @ 29th St. | WB: G=36<br>NB: G=44 | WB: G=37<br>NB: G=43 |
| Eighth Ave. @ 30th St. | EB: G=38<br>NB: G=42 | EB: G=46<br>NB: G=34<br>(Mitigation Unsuccessful in 2018) |
| Eighth Ave. @ 31st St. | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, T, R – An additional lane from prohibiting parking on the north side of 31st St., and restripe |
| Eighth Ave. @ 33rd St. | WB: G=47<br>NB: G=33 | WB: G=46<br>NB: G=34 |
| Eighth Ave. @ 35th St. | WB: G=31<br>NB: G=49 | WB: G=32<br>NB: G=48 |
| Eighth Ave. @ 36th St. | EB: (2 Lanes) LT, T (12') | EB: (2 Lanes) LT, T (14') – Restriping by prohibiting parking on the north side of 36th St. |
| Ninth Ave. @ 29th St. | SB: G=45<br>WB: G=35 | SB: G=47<br>WB: G=33 |

## Table 24-11C (cont'd)
## 2017 Future with the Proposed Actions:
## Proposed Mitigation Measures
## (Saturday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Ninth Ave. @ 30th St. | EB: G=27<br>SBT: G=29<br>SB: G=17 | EB: G=29<br>SBT: G=26<br>SB: G=18 |
| Ninth Ave. @ 31st St. | SB: G=50<br>WB: G=30 | SB: G=46<br>WB: G=34 |
| Ninth Ave. @ 33rd St. | WB: (1 Lane) LT | WB: (2 Lanes) L, T – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Ninth Ave. @ 34th St.* | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| Ninth Ave. @ 35th St. | WB: G=30<br>SB: G=50 | WB: G=42<br>SB: G=38 |
| Ninth Ave. @ 36th St.* | SB: (3 Lanes) LT, T, T | SB: (4 Lanes) L, T, T, T – An additional lane from prohibiting parking on the east side of Ninth Ave., and restripe |
| | EB: G=30<br>SB: G=50 | EB: 31<br>SB: 49 |
| Ninth Ave. @ 42nd St.* | SB: (4 Lanes) LT, T, T, TR | SB: (5 Lanes) LT, T, T, T, R – An additional lane from prohibiting parking on the west side of Ninth Ave., and restripe |
| | WB: G=4<br>EB/WB: G=29<br>Ped N-S: G=7<br>NB/SB: G=35 | WB: G=4<br>EB/WB: G=31<br>Ped N-S: G=7<br>NB/SB: G=33 |
| Tenth Ave. @ 28th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 33rd St.* | WB: (2 Lanes) T, TR | WB: (3 Lanes) T, TR, R – An additional lane from prohibiting parking on the south side of 33rd St., and restripe |
| Tenth Ave. @ 34th St.* | NB (4 Lanes): LT, T, T, TR | NB (5 Lanes): LT, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 36th St.* | NB (4 Lanes): T, T, T, TR | NB (5 Lanes): T, T, T, T, R – An additional lane from enforcing the existing parking prohibition on the east side of Tenth Ave., and restripe |
| Tenth Ave. @ 40th St.* | EB (2 Lanes): LT, T (16' each) | EB (3 Lanes): L, T, T – An additional lane from restriping the eastbound approach. (10' each) |

## Table 24-11C (cont'd)
## 2017 Future with the Proposed Actions: Proposed Mitigation Measures (Saturday Midday Peak Hour)

| INTERSECTION | 2017 Future With the Proposed Actions | 2017 Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 42nd St. | EB/WB: G=28<br>NB: G=45 | EB/WB: G=29<br>NB: G=44 |
| Eleventh/Twelfth Ave. @ 22nd St. | Impacts cannot be fully mitigated | |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 44th St.* | EB: (2 Lanes) LT, TR (11.4') | EB: (2 Lanes) LT, TR (16') – Restriping by prohibiting parking on the north side of 44th St. |
| Eleventh Ave. @ 47th St.* | SB (2 Lanes): T, TR | SB (3 Lanes): T, T, R– An additional lane from prohibiting parking on the west side of Eleventh Ave. |
| Eleventh Ave. @ 57th St.* | EB: (2 Lanes) L, TR | EB: (3 Lanes) L, T, R – An additional lane from prohibiting parking on the south side of 57th St., and restripe |
| Twelfth Ave. @ 24th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=26<br>NB/SB: G=83 | WB: G=29<br>NB/SB: G=80 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB: G=79<br>SB Left: G=14 | EB: G=11<br>NB/SB: G=77<br>SB Left: G=16 |
| Twelfth Ave. @ 33rd St. | WB: (1 Lane) R (16') | WB: (2 Lanes) R, R (12') – An additional lane from prohibiting parking on the north side of 33rd St., and restripe |
| | Unsignalized | WB: G=50<br>NB: G=60 |
| Twelfth Ave. @ 37th St. | EB: G=21<br>NB T and L: G=14<br>NB T and SB T: G=52<br>SB T and R: G=13 | EB: G=20<br>NB T and L: G=14<br>NB T and SB T: G=52<br>SB T and R: G=14 |
| Twelfth Ave. @ 41st St. | EB/WB: G=26<br>EB: G=11<br>NB/SB: G=50<br>SB: G=12 | EB/WB: G=26<br>EB: G=10<br>NB/SB: G=51<br>SB: G=12 |
| Twelfth Ave. @ 42nd St. | EB/WB: G=33<br>NB/SBT: G=45<br>SB/WBR: G=26 | EB/WB: G=32<br>NB/SBT: G=46<br>SB/WBR: G=26 |
| Twelfth Ave. @ 46th St. | EB: G=19<br>EB: G=5<br>NB/SB: G=65<br>SB/SBL: G=10 | EB: G=18<br>EB: G=5<br>NB/SB: G=66<br>SB/SBL: G=10 |
| Twelfth Ave. @ 47th St. | Unsignalized | Signalized<br>WB: G=39<br>NB: G=71 |
| Dyer Ave. @ 31st St.* | WB: (2 Lanes) LT, TR (11.3') | WB: (2 Lanes) LT, TR (15') – Restriping by prohibiting parking on the north side of 31st St. |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-12A
## 2016 Construction Condition:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday AM Peak Hour)

| | 2016 Construction Condition: Future Without the Proposed Actions | | | | | 2016 Construction Condition: Future With the Proposed Actions | | | | | 2017 Construction Condition: Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Tenth Ave. @ 30th St. | EB | LT | 2.01 | 770.0 | F | EB | LT | 2.05 | 790.9 | F | EB | LT | 1.98 | 750.9 | F |
| | NB | T | 0.58 | 9.6 | A | NB | T | 0.59 | 9.7 | A | NB | T | 0.60 | 10.5 | B |
| | NB | R | 0.83 | 29.6 | C | NB | R | 0.83 | 29.9 | C | NB | R | 0.86 | 34.2 | C |
| Tenth Ave. @ 31st St. | WB | R | 1.25 | 344.0 | F | WB | R | 1.25 | 345.0 | F | WB | R | 1.20 | 319.1 | F |
| | NB | T | 0.68 | 10.9 | B | NB | T | 0.69 | 11.0 | B | NB | T | 0.70 | 12.0 | B |
| Tenth Ave. @ 33rd St. | WB | TR | 0.97 | 57.7 | E | WB | TR | 1.11 | 490.5 | F | WB | TR | 1.11 | 490.5 | F |
| | NB | LT | 0.75 | 13.1 | B | NB | LT | 0.74 | 13.0 | B | NB | LT | 0.74 | 13.0 | B |
| Tenth Ave. @ 34th St. | EB | LT | 1.62 | 874.2 | F | EB | LT | 1.71 | 927.9 | F | EB | LT | 1.62 | 855.0 | F |
| | WB | T | 0.62 | 28.7 | C | WB | T | 0.63 | 28.9 | C | WB | T | 0.61 | 27.7 | C |
| | WB | R | 0.69 | 41.3 | D | WB | R | 0.71 | 42.3 | D | WB | R | 0.68 | 39.4 | D |
| | **NB** | **LTR** | **0.92** | **18.5** | **B** | **NB** | **LTR** | **1.01** | **75.8** | **E** | **NB** | **T** | **0.73** | **15.7** | **B** |
| | | | | | | | | | | | **NB** | **L** | **0.71** | **23.0** | **C** |
| | | | | | | | | | | | **NB** | **R** | **0.53** | **19.6** | **B** |
| Tenth Ave. @ 35th St. | WB | TR | 1.55 | 455.3 | F | WB | TR | 1.60 | 477.7 | F | WB | TR | 1.55 | 448.1 | F |
| | NB | LT | 0.87 | 15.7 | B | NB | LT | 0.88 | 15.9 | B | NB | LT | 0.90 | 17.7 | B |
| Eleventh Ave. @ 30th St. | EB | TR | 1.02 | 142.7 | F | EB | TR | 1.04 | 216.7 | F | EB | TR | 0.49 | 25.2 | C |
| | SB | LT | 1.08 | 134.4 | F | SB | LT | 1.10 | 141.8 | F | SB | LT | 1.01 | 106.8 | F |
| Eleventh Ave. @ 34th St. | EB | L | 0.48 | 24.5 | C | EB | L | 0.51 | 27.6 | C | EB | L | 0.51 | 27.6 | C |
| | EB | TR | 0.90 | 61.8 | E | EB | TR | 0.91 | 64.0 | E | EB | TR | 0.91 | 64.0 | E |
| | WB | L | 0.75 | 41.6 | D | WB | L | 0.76 | 42.7 | D | WB | L | 0.76 | 42.7 | D |
| | WB | TR | 1.32 | 579.0 | F | WB | TR | 1.78 | 740.7 | F | WB | TR | 1.78 | 740.7 | F |
| | SB | LTR | 1.41 | 268.7 | F | SB | LTR | 1.45 | 283.1 | F | SB | LTR | 1.45 | 283.1 | F |
| Twelfth Ave. @ 29th St. | WB | LR | 1.96 | 1056.0 | F | WB | LR | 1.99 | 1072.0 | F | WB | LR | 1.90 | 1010.0 | F |
| | NB | T | 0.61 | 9.1 | A | NB | T | 0.61 | 9.1 | A | NB | T | 0.61 | 9.6 | A |
| | SB | T | 1.03 | 68.1 | E | SB | T | 1.03 | 68.1 | E | SB | T | 1.04 | 71.8 | E |
| Twelfth Ave. @ 30th St. | EB | LTR | 0.00 | 64.4 | E | EB | LTR | 0.00 | 64.4 | E | EB | LTR | 0.00 | 65.3 | E |
| | NB | TR | 1.02 | 67.2 | E | NB | TR | 1.02 | 68.9 | E | NB | TR | 1.02 | 68.9 | E |
| | SB | L | 1.26 | 381.6 | F | SB | L | 1.28 | 393.8 | F | SB | L | 1.28 | 356.3 | F |
| | SB | TR | 1.21 | 147.8 | F | SB | TR | 1.21 | 147.8 | F | SB | TR | 1.21 | 147.8 | F |
| Twelfth Ave. @ 34th St. | WB | L | 0.48 | 60.6 | E | WB | L | 0.67 | 70.5 | E | WB | L | 0.67 | 70.5 | E |
| | WB | LR | 0.46 | 59.9 | E | WB | LR | 0.71 | 72.7 | E | WB | LR | 0.71 | 72.7 | E |
| | WB | R | 0.62 | 42.8 | D | WB | R | 0.80 | 53.6 | D | WB | R | 0.80 | 53.6 | D |
| | NB | T | 1.20 | 207.0 | F | NB | T | 1.10 | 168.1 | F | NB | T | 1.10 | 168.1 | F |
| | NB | R | 0.18 | 18.7 | B | NB | R | 0.19 | 18.8 | B | NB | R | 0.19 | 18.8 | B |
| | SB | L | 0.55 | 61.3 | E | SB | L | 0.55 | 61.4 | E | SB | L | 0.55 | 61.4 | E |
| | SB | T | 1.21 | 297.8 | F | SB | T | 1.21 | 298.0 | F | SB | T | 1.21 | 298.0 | F |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-12B
## 2016 Construction Condition:
## Proposed Mitigation Measures
## (Weekday AM Peak Hour)

| INTERSECTION | 2016 Construction Condition: Future With the Proposed Actions | 2016 Construction Condition: Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 30th St. | EB: G=30<br>NB: G=50 | EB: G=31<br>NB: G=49 |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 33rd St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 34th St. | NB: (4 Lanes) LT, T, T, TR | NB (6 Lanes): L, T, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe, and an additional lane from prohibiting parking on the west side of Tenth Ave., and restripe. |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=26<br>NB/SB: G=113 | WB: G=27<br>NB/SB: G=112 |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB: G=107<br>SBL: G=16 | EB: G=10<br>NB/SB: G=107<br>SBL: G=17 |
| Twelfth Ave. @ 34th St. | Impacts cannot be fully mitigated | |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-13A
## 2016 Construction Condition:
## Approach Movement Operations With and Without Proposed Mitigation
## (Weekday Midday Peak Hour)

| | 2016 Construction Condition: Future Without the Proposed Actions | | | | | 2016 Construction Condition: Future With the Proposed Actions | | | | | 2017 Construction Condition: Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Tenth Ave. @ 30th St. | EB | LT | 2.88 | 1178.0 | F | EB | LT | 2.94 | 1205.0 | F | EB | LT | 1.42 | 368.1 | F |
| | NB | T | 0.66 | 10.6 | B | NB | T | 0.66 | 10.6 | B | NB | T | 0.66 | 10.6 | B |
| | NB | R | 1.55 | 442.6 | F | NB | R | 1.55 | 442.6 | F | NB | R | 0.79 | 45.8 | F |
| Tenth Ave. @ 33rd St. | WB | TR | 1.00 | 64.4 | E | WB | TR | 1.16 | 507.2 | F | WB | TR | 1.16 | 507.2 | F |
| | NB | LT | 1.06 | 152.2 | F | NB | LT | 1.06 | 147.3 | F | NB | LT | 1.06 | 147.3 | F |
| Tenth Ave. @ 34th St. | EB | LT | 1.73 | 927.8 | F | EB | LT | 1.73 | 927.8 | F | EB | LT | 1.73 | 927.8 | F |
| | WB | T | 0.53 | 26.7 | C | WB | T | 0.54 | 26.7 | C | WB | T | 0.54 | 26.7 | C |
| | WB | R | 1.26 | 473.4 | F | WB | R | 1.26 | 473.4 | F | WB | R | 1.26 | 473.4 | F |
| | **NB** | **LTR** | **1.08** | **108.9** | **F** | **NB** | **LTR** | **1.20** | **159.1** | **F** | **NB** | **T** | **0.81** | **19.6** | **B** |
| | | | | | | | | | | | **NB** | **L** | **0.92** | **44.6** | **D** |
| | | | | | | | | | | | **NB** | **R** | **1.03** | **92.1** | **F** |
| Eleventh Ave. @ 30th St. | EB | TR | 1.17 | 331.6 | F | EB | TR | 1.19 | 343.6 | F | EB | TR | 0.56 | 35.3 | D |
| | SB | LT | 1.16 | 166.5 | F | SB | LT | 1.17 | 173.0 | F | SB | LT | 1.04 | 115.0 | F |
| Eleventh Ave. @ 34th St. | EB | L | 0.51 | 27.3 | C | EB | L | 0.50 | 27.3 | C | EB | L | 0.50 | 27.3 | C |
| | EB | TR | 0.88 | 59.7 | E | EB | TR | 0.89 | 61.3 | E | EB | TR | 0.89 | 61.3 | E |
| | WB | L | 0.57 | 25.4 | C | WB | L | 0.58 | 25.5 | C | WB | L | 0.58 | 25.5 | C |
| | WB | TR | 1.38 | 543.0 | F | WB | TR | 1.96 | 782.0 | F | WB | TR | 1.96 | 782.0 | F |
| | SB | LTR | 1.48 | 296.5 | F | SB | LTR | 1.51 | 309.4 | F | SB | LTR | 1.51 | 309.4 | F |
| Twelfth Ave. @ 29th St. | WB | LR | 1.48 | 720.8 | F | WB | LR | 1.49 | 725.9 | F | WB | LR | 1.49 | 676.1 | F |
| | NB | T | 0.60 | 10.4 | B | NB | T | 0.60 | 10.4 | B | NB | T | 0.60 | 10.4 | B |
| | SB | T | 1.01 | 65.4 | E | SB | T | 1.01 | 65.4 | E | SB | T | 1.01 | 69.8 | E |
| Twelfth Ave. @ 30th St. | EB | LTR | | 49.5 | D | EB | LTR | | 49.5 | D | EB | LTR | | 50.4 | D |
| | NB | TR | 1.08 | 90.8 | F | NB | TR | 1.08 | 91.6 | F | NB | TR | 1.08 | 91.6 | F |
| | SB | L | 1.33 | 372.3 | F | SB | L | 1.36 | 385.5 | F | SB | L | 1.27 | 341.3 | F |
| | SB | TR | 1.20 | 142.9 | F | SB | TR | 1.20 | 142.9 | F | SB | TR | 1.20 | 142.9 | F |
| Twelfth Ave. @ 34th St. | WB | L | 0.48 | 44.1 | D | WB | L | 0.65 | 50.6 | D | WB | L | 0.65 | 50.6 | D |
| | WB | LR | 0.50 | 44.4 | D | WB | LR | 0.67 | 51.4 | D | WB | LR | 0.67 | 51.4 | D |
| | WB | R | 0.50 | 30.0 | C | WB | R | 0.78 | 41.9 | D | WB | R | 0.78 | 41.9 | D |
| | NB | T | 1.12 | 173.7 | F | NB | T | 0.98 | 46.2 | D | NB | T | 0.98 | 46.2 | D |
| | NB | R | 0.25 | 18.1 | B | NB | R | 0.25 | 18.1 | B | NB | R | 0.25 | 18.1 | B |
| | SB | L | 0.65 | 57.8 | E | SB | L | 0.65 | 57.9 | E | SB | L | 0.65 | 57.9 | E |
| | SB | T | 1.06 | 257.3 | F | SB | T | 1.06 | 257.4 | F | SB | T | 1.06 | 257.4 | F |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-13B
## 2016 Construction Condition: Proposed Mitigation Measures (Weekday Midday Peak Hour)

| INTERSECTION | 2016 Construction Condition: Future With the Proposed Actions | 2016 Construction Condition: Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 33rd St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 34th St. | NB: (4 Lanes) LT, T, T, TR | NB (6 Lanes): L, T, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe, and an additional lane from prohibiting parking on the west side of Tenth Ave., and restripe. |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 30th St. | EB: G=11<br>NB/SB: G=79<br>SBL: G=14 | EB: G=10<br>NB/SB: G=79<br>SBL: G=15 |
| Twelfth Ave. @ 34th St. | Impacts cannot be fully mitigated | |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.

## Table 24-14A
## 2016 Construction Condition:
## Approach Movement Operations With And Without Proposed Mitigation
## (Weekday PM Peak Hour)

| | 2016 Construction Condition: Future Without the Proposed Actions | | | | | 2016 Construction Condition: Future With the Proposed Actions | | | | | 2017 Construction Condition: Future With the Proposed Actions and Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** | **Approach** | **Movement** | **V/C ratio** | **Delay (sec/veh)** | **LOS** |
| Tenth Ave. @ 30th St. | EB | LT | 2.89 | 1149.0 | F | EB | LT | 3.02 | 1208.0 | F | EB | LT | 1.46 | 368.4 | F |
| | NB | T | 0.41 | 8.0 | A | NB | T | 0.41 | 8.0 | A | NB | T | 0.41 | 8.0 | A |
| | NB | R | 1.30 | 269.2 | F | NB | R | 1.31 | 273.1 | F | NB | R | 0.88 | 54.5 | D |
| Tenth Ave. @ 31st St. | WB | R | 2.37 | 849.1 | F | WB | R | 2.46 | 888.7 | F | WB | R | 2.36 | 833.0 | F |
| | NB | T | 0.89 | 17.9 | B | NB | T | 0.91 | 18.8 | B | NB | T | 0.93 | 21.2 | C |
| Tenth Ave. @ 33rd St. | WB | TR | 0.96 | 53.7 | D | WB | TR | 1.18 | 513.3 | F | WB | TR | 1.18 | 513.3 | F |
| | NB | LT | 1.06 | 149.1 | F | NB | LT | 1.05 | 144.4 | F | NB | LT | 1.05 | 144.4 | F |
| Tenth Ave. @ 34th St. | EB | LT | 1.96 | 1077.0 | F | EB | LT | 2.14 | 1171.0 | F | EB | LT | 1.91 | 999.2 | F |
| | WB | T | 0.69 | 30.7 | C | WB | T | 0.69 | 30.8 | C | WB | T | 0.65 | 28.0 | C |
| | WB | R | 2.28 | 867.1 | F | WB | R | 2.30 | 876.7 | F | WB | R | 2.12 | 773.9 | F |
| | **NB** | **LTR** | **1.37** | **227.5** | **F** | **NB** | **LTR** | **1.58** | **325.9** | **F** | **NB** | **T** | **1.15** | **129.0** | **F** |
| | | | | | | | | | | | **NB** | **L** | **0.93** | **48.1** | **D** |
| | | | | | | | | | | | **NB** | **R** | **0.77** | **37.6** | **D** |
| Tenth Ave. @ 35th St. | WB | TR | 1.08 | 253.8 | F | WB | TR | 1.09 | 255.9 | F | WB | TR | 1.06 | 237.9 | F |
| | NB | LT | 0.87 | 14.6 | B | NB | LT | 0.90 | 15.9 | B | NB | LT | 0.92 | 17.7 | B |
| Tenth Ave. @ 36th St. | EB | LT | 0.38 | 24.3 | C | EB | LT | 0.39 | 24.4 | C | EB | LT | 0.44 | 27.3 | C |
| | NB | TR | 1.75 | 405.9 | F | NB | TR | 1.85 | 454.0 | F | NB | TR | 1.73 | 393.6 | F |
| Tenth Ave. @ 37th St. | WB | TR | 0.68 | 30.3 | C | WB | TR | 0.68 | 30.3 | C | WB | TR | 0.73 | 33.9 | C |
| | NB | LT | 1.65 | 369.0 | F | NB | LT | 1.70 | 391.3 | F | NB | LT | 1.62 | 351.0 | F |
| Eleventh Ave. @ 30th St. | EB | TR | 0.93 | 47.2 | D | EB | TR | 0.93 | 47.2 | D | EB | TR | 0.44 | 18.4 | B |
| | SB | LT | 1.07 | 127.1 | F | SB | LT | 1.08 | 130.0 | F | SB | LT | 0.96 | 72.3 | E |
| Eleventh Ave. @ 34th St. | EB | L | 0.46 | 26.0 | C | EB | L | 0.45 | 25.7 | C | EB | L | 0.45 | 25.7 | C |
| | EB | TR | 0.80 | 48.8 | D | EB | TR | 0.80 | 48.8 | D | EB | TR | 0.80 | 48.8 | D |
| | WB | L | 0.74 | 39.8 | D | WB | L | 0.75 | 40.5 | D | WB | L | 0.75 | 40.5 | D |
| | WB | TR | 1.94 | 890.7 | F | WB | TR | 2.66 | 1150.0 | F | WB | TR | 2.66 | 1150.0 | F |
| | SB | LTR | 1.42 | 266.6 | F | SB | LTR | 1.46 | 287.4 | F | SB | LTR | 1.46 | 287.4 | F |
| Twelfth Ave. @ 29th St. | WB | LR | 2.34 | 1206.0 | F | WB | LR | 2.37 | 1215.0 | F | WB | LR | 2.26 | 1143.0 | F |
| | NB | T | 0.76 | 3.8 | A | NB | T | 0.76 | 3.8 | A | NB | T | 0.76 | 3.9 | A |
| | SB | T | 0.97 | 29.1 | C | SB | T | 0.97 | 29.3 | C | SB | T | 0.98 | 31.8 | C |
| Twelfth Ave. @ 34th St. | WB | L | 0.43 | 58.0 | E | WB | L | 0.54 | 62.0 | E | WB | L | 0.54 | 62.0 | E |
| | WB | LR | 0.50 | 60.5 | E | WB | LR | 1.01 | 157.1 | F | WB | LR | 1.01 | 157.1 | F |
| | WB | R | 0.62 | 50.9 | D | WB | R | 1.04 | 253.5 | F | WB | R | 1.04 | 253.5 | F |
| | NB | T | 1.30 | 231.3 | F | NB | T | 1.18 | 179.3 | F | NB | T | 1.18 | 179.3 | F |
| | NB | R | 0.13 | 7.0 | A | NB | R | 0.13 | 7.0 | A | NB | R | 0.13 | 7.0 | A |
| | SB | L | 1.12 | 595.8 | F | SB | L | 1.12 | 595.8 | F | SB | L | 1.12 | 595.8 | F |
| | SB | T | 1.06 | 230.8 | F | SB | T | 1.06 | 230.8 | F | SB | T | 1.06 | 230.8 | F |

**Notes:**
Bold Indicates changed movements between conditions
Unmitigated approach movements denoted by shading
Delay calculated at greater than 300 seconds is considered unreliable, though the congestion at this level is considered an impact

## Table 24-14B
## 2016 Construction Condition: Proposed Mitigation Measures (Weekday PM Peak Hour)

| INTERSECTION | 2016 Construction Condition: Future With the Proposed Actions | 2016 Construction Condition: Future With the Proposed Actions and Mitigation |
|---|---|---|
| Tenth Ave. @ 30th St. | EB: (1 Lanes) LT | EB: (2 Lanes) LT, T – An additional lane from prohibiting parking on the north side of 30th St. |
| Tenth Ave. @ 31st St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 33rd St. | Impacts cannot be fully mitigated | |
| Tenth Ave. @ 34th St.+ | NB: (3 Lanes) LT, T, TR | NB (5 Lanes): L, T, T, T, R – An additional lane from prohibiting parking on the east side of Tenth Ave., and restripe, and an additional lane from prohibiting parking on the west side of Tenth Ave., and restripe. |
| | EB/WB: G=30<br>NB: G=50 | EB/WB: G=32<br>NB: G=48 |
| Tenth Ave. @ 35th St. | WB: G=30<br>NB: G=50 | WB: G=31<br>NB: G=49 |
| Tenth Ave. @ 36th St. | EB: G=30<br>NB: G=50 | EB: G=27<br>NB: G=53 |
| Tenth Ave. @ 37th St. | WB: G=32<br>NB: G=48 | WB: G=30<br>NB: G=50 |
| Eleventh Ave. @ 30th St. | EB: (1 Lane) TR | EB: (2 Lane) T, TR – An additional lane from enforcement of parking prohibition and prohibiting auth veh standing on the north side of 30th St. |
| Eleventh Ave. @ 34th St. | Impacts cannot be fully mitigated | |
| Twelfth Ave. @ 29th St. | WB: G=25<br>NB/SB: G=114 | WB: G=26<br>NB/SB: G=113 |
| Twelfth Ave. @ 34th St. | Impacts cannot be fully mitigated | |

**Note:**
"G" indicates amount of green phase time, in seconds.
(*) Mitigation not required during this period – intersection modified due to improvement in other time period.
+ One northbound through lane was removed in PM peak hour due to queued buses traveling to Port Authority Bus Terminal.

## H. TRANSIT AND PEDESTRIAN TABLES

**Table 24-15**
**2019 Future with the Proposed Actions:**
**Bus Operating Conditions**

| Bus Route | Direction | Project Generated Passengers | Additional Buses Needed | |
|---|---|---|---|---|
| | | | Regular | Articulated |
| **AM Peak Hour** | | | | |
| M10/ M20 | NB | 40 | 1 | 1 |
| | SB | 102 | 2 | 2 |
| M11 | NB | 80 | 2 | 1 |
| | SB | 180 | 3 | 2 |
| M34/ M16 | EB | 239 | 4 | 3 |
| | WB | 842 | 13 | 10 |
| **PM Peak Hour** | | | | |
| M10/ M20 | NB | 124 | 2 | 2 |
| | SB | 48 | 1 | 1 |
| M11 | NB | 248 | 4 | 3 |
| | SB | 86 | 2 | 1 |
| M34/ M16 | EB | 940 | 15 | 11 |
| | WB | 299 | 5 | 4 |

**Table 24-16**
**2019 Future with the Proposed Actions:**
**Summary of Pedestrian Element Locations**
**with Significant Adverse Impacts**

| Time Period | # of Elements Analyzed | No Significant Adverse Impacts | Mitigated Significant Adverse Impacts | Unmitigated Significant Adverse Impacts |
|---|---|---|---|---|
| **Sidewalks** | | | | |
| AM | 186 | 186 | 1 | 1 |
| Midday | 188 | 187 | 0 | 1 |
| PM | 188 | 183 | 1 | 4 |
| Saturday | 146 | 145 | 0 | 1 |
| **Crosswalks** | | | | |
| AM | 95 | 83 | 7 | 5 (3*) |
| Midday | 95 | 83 | 4 | 8 (5*) |
| PM | 95 | 85 | 7 | 3 |
| Saturday | 73 | 65 | 7 | 1 |
| **Corners** | | | | |
| AM | 90 | 77 | 10 | 3 |
| Midday | 90 | 81 | 2 | 7 (2*) |
| PM | 90 | 78 | 9 | 3 |
| Saturday | 70 | 63 | 7 | 0 |

**Note:** * Additional significant adverse impact is due to changes in traffic signal timing as part of traffic mitigation measures.

## Table 24-17
## 2019 Future with the Proposed Actions:
## Sidewalk Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Sidewalk Location | 2019 Future without the Proposed Actions | | | 2019 Future with the Proposed Actions | | | 2019 Future with the Proposed Actions With Mitigation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Effective Width | Pedestrian Flow Rate (p/15-min/ft) | LOS | Effective Width | Pedestrian Flow Rate (p/15-min/ft) | LOS | Effective Width | Pedestrian Flow Rate (p/15-min/ft) | LOS | Result |
| AM Peak Period | | | | | | | | | | | |
| 8. Tenth Avenue and West 33rd Street | 4 | 5.2 | 11.9 | E | 5.2 | 19.6 | F | 5.2 | 19.6 | F | Unmitigated |
| 12. Ninth Avenue and West 33rd Street | 3 | 3.5 | 20.5 | F | 3.5 | 23.5 | F | 6.5 | 12.7 | E | Mitigated through relocation of planters or street vendor |
| Midday Peak Period | | | | | | | | | | | |
| 8. Tenth Avenue and West 33rd Street | 4 | 5.2 | 31.8 | F | 5.2 | 34.0 | F | 11.0 | 34.0 | F | Unmitigated |
| PM Peak Period | | | | | | | | | | | |
| 8. Tenth Avenue and W. 33rd Street | 4 | 5.2 | 18.3 | F | 5.2 | 26.7 | F | 11.0 | 26.7 | F | Unmitigated |
| 12. Ninth Avenue and West 33rd Street | 3 | 3.5 | 24.4 | F | 3.5 | 27.8 | F | 6.5 | 15.0 | E | Mitigated through relocation of planters or street vendor |
| | 4 | 9.0 | 15.7 | E | 9.0 | 19.4 | F | 9.0 | 19.4 | F | Unmitigated |
| 15. Eighth Avenue and West 33rd Street | 7 | 9.0 | 14.6 | E | 9.0 | 17.8 | E | 9.0 | 17.8 | E | Unmitigated |
| | 8 | 5.3 | 17.5 | E | 5.3 | 19.7 | F | 5.3 | 19.7 | F | Unmitigated |
| Saturday Peak Period | | | | | | | | | | | |
| 8. Tenth Avenue and West 33rd Street | 4 | 5.2 | 14.9 | E | 5.2 | 18.0 | F | 11.0 | 18.0 | F | Unmitigated |

## Table 24-18
## 2019 Future with the Proposed Actions:
## Crosswalk Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Crosswalk Location | 2019 Future without the Proposed Actions | | | 2019 Future with the Proposed Actions | | | 2019 Future with the Proposed Actions With Mitigation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Result |
| **AM Peak Period** | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | South | 15.0 | 131.2 | A | 15.0 | 12.6 | E | 19.0 | 32.6 | C | Mitigated through widening |
| 8. Tenth Avenue and West 33rd Street | North | 15.0 | 17.3 | D | 15.0 | 14.4 | E | 119.0 | 18.5 | D | Mitigated through widening |
| | South | 15.0 | 7.4 | F | 15.0 | 3.8 | F | 20.0 | 5.6 | F | Unmitigated, but widening is proposed |
| 11. Ninth Avenue and West 34th Street | East | 16.0 | 15.9 | D | 16.0 | 15.3 | D | 16.0 | 13.0 | E | Unmitigated[1] |
| | West | 15.5 | 14.8 | E | 15.5 | 14.1 | E | 15.5 | 12.1 | E | Unmitigated[1] |
| 13. Ninth Avenue and West 31st Street | North | 17.0 | 16.7 | D | 17.0 | 14.9 | E | 21.0 | 19.7 | D | Mitigated through widening |
| | South | 13.0 | 16.6 | D | 13.0 | 14.9 | E | 17.0 | 21.1 | D | Mitigated through widening |
| 15. Eighth Avenue and West 33rd Street | North | 14.8 | 11.6 | E | 14.8 | 10.8 | E | 14.8 | 10.5 | E | Unmitigated[1] |
| | East | 17.4 | 13.7 | E | 17.4 | 12.5 | E | 17.9 | 13.4 | E | Mitigated through widening |
| | South | 17.4 | 13.3 | E | 17.4 | 10.1 | E | 21.4 | 12.5 | E | Mitigated through widening |
| 24. Boulevard and West 33rd Street | West | 20.0 | 7.4 | F | 20.0 | 5.6 | F | 23.0 | 6.8 | F | Mitigated through widening |
| 27. Boulevard and 33rd Street (West) | West | 15.0 | 23.0 | D | 15.0 | 13.6 | E | 15.0 | 13.6 | E | Unmitigated |
| **Midday Peak Period** | | | | | | | | | | | |
| 1. Route 9A and West 34th Street | South (East) | 14.4 | 11.5 | E | 14.4 | 8.9 | E | 16.9 | 10.8 | E | Mitigated through widening |
| | South (West) | 14.4 | 9.6 | E | 14.4 | 7.3 | F | 16.9 | 9.0 | E | Mitigated through widening |
| 5. Eleventh Avenue and West 33rd Street | South | 15.0 | 19.5 | D | 15.0 | 8.1 | E | 19.0 | 23.0 | D | Mitigated through widening |
| 7. Tenth Avenue and West 34th Street | East | 15.0 | 9.8 | E | 15.0 | 9.3 | E | 15.0 | 8.7 | E | Unmitigated[1] |
| | West | 17.0 | 12.0 | E | 17.0 | 11.2 | E | 17.0 | 10.5 | E | Unmitigated[1] |
| 9. Tenth Avenue and West 31st Street | South | 12.5 | 15.2 | D | 12.5 | 13.6 | E | 14.5 | 17.0 | D | Mitigated through widening |
| 13. Ninth Avenue and West 31st Street | East | 13.0 | 16.1 | D | 13.0 | 16.1 | D | 13.0 | 14.3 | E | Unmitigated[1] |
| | West | 15.0 | 13.9 | E | 15.0 | 13.9 | E | 15.0 | 12.2 | E | Unmitigated[1] |

## Table 24-18 (cont'd)
## 2019 Future with the Proposed Actions:
## Crosswalk Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Crosswalk Location | 2019 Future without the Proposed Actions | | | 2019 Future with the Proposed Actions | | | 2019 Future with the Proposed Actions With Mitigation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Result |
| **Midday Peak Period (continued)** | | | | | | | | | | | |
| 19. Tenth Avenue and West 35th Street | West | 13.0 | 16.5 | D | 13.0 | 15.4 | D | 13.0 | 14.5 | E | Unmitigated[1] |
| 25. Eleventh Avenue and 32nd Street | North | 15.0 | 165.9 | A | 20.0 | 5.0 | F | 20.0 | 5.0 | F | Unmitigated |
| | South | 15.0 | 336.9 | A | 20.0 | 9.4 | E | 20.0 | 9.4 | E | Unmitigated |
| 27. Boulevard and 33rd Street (West) | West | 15.0 | 15.7 | D | 15.0 | 10.7 | E | 15.0 | 10.7 | E | Unmitigated |
| **PM Peak Period** | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | South | 15.0 | 64.8 | A | 15.0 | 9.4 | E | 19.0 | 24.1 | C | Mitigated through widening |
| 6. Eleventh Avenue and West 30th Street | East | 15.0 | 10.7 | E | 15.0 | 8.7 | E | 16.5 | 9.8 | E | Mitigated through widening |
| 8. Tenth Avenue and West 33rd Street | South | 15.0 | 4.6 | F | 15.0 | 3.0 | F | 20.0 | 3.9 | F | Mitigated through widening |
| | West | 15.0 | 9.0 | E | 1.50 | 7.9 | F | 16.0 | 9.1 | E | Mitigated through widening |
| 9. Tenth Avenue and West. 31st Street | North | 15.0 | 12.8 | E | 15.0 | 10.8 | E | 15.0 | 13.6 | E | Mitigated through widening |
| 13. Ninth Avenue and West 31st Street | South | 13.0 | 11.5 | E | 13.0 | 10.3 | E | 17.0 | 14.9 | E | Mitigated through widening |
| 15. Eighth Avenue and West 33rd Street | South | 17.4 | 9.8 | E | 17.4 | 8.1 | E | 21.4 | 9.9 | E | Mitigated through widening |
| 24. Blvd and West 33rd Street | West | 20.0 | 9.3 | E | 20.0 | 6.0 | F | 23.0 | 7.1 | F | Unmitigated, but widening is proposed |
| 25. Eleventh Avenue and West 32nd Street | North | 15.0 | 336.9 | A | 20.0 | 8.3 | E | 20.0 | 8.3 | E | Unmitigated |
| 27. Boulevard and 33rd Street (West) | West | 15.0 | 22.6 | D | 15.0 | 14.5 | E | 15.0 | 14.5 | E | Unmitigated |
| **Saturday Peak Period** | | | | | | | | | | | |
| 6. Eleventh Avenue and West 30th Street | East | 15.0 | 13.3 | E | 15.0 | 12.3 | E | 16.5 | 13.8 | E | Mitigated through widening |
| 8. Tenth Avenue and West 33rd Street | South | 15.0 | 5.5 | F | 15.0 | 4.2 | F | 20.0 | 6.2 | F | Mitigated through widening |
| | West | 15.0 | 11.2 | E | 15.0 | 10.0 | E | 16.0 | 10.9 | E | Mitigated through widening |

## Table 24-18 (cont'd)
## 2019 Future with the Proposed Actions:
## Crosswalk Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Crosswalk Location | 2019 Future without the Proposed Actions | | | 2019 Future with he Proposed Actions | | | 2019 Future with the Proposed Actions With Mitigation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Result |
| **Saturday Peak Period (continued)** | | | | | | | | | | | |
| 12. Ninth Avenue and West 33rd Street | South | 20.0 | 6.8 | F | 20.0 | 5.6 | F | 24.0 | 6.9 | F | Mitigated through widening |
| | West | 15.0 | 16.9 | D | 15.0 | 14.9 | E | 15.5 | 15.5 | D | Mitigated through widening |
| 15. Eighth Avenue and West 33rd Street | South | 17.4 | 15.9 | D | 17.4 | 14.7 | E | 21.4 | 17.9 | D | Mitigated through widening |
| 24. Boulevard and West 33rd Street | West | 20.0 | 13.0 | E | 20.0 | 11.2 | E | 23.0 | 13.4 | E | Mitigated through widening |
| 25. Eleventh Avenue and West 32nd Street | North | 15.0 | 336.9 | A | 20.0 | 13.2 | E | 20.0 | 13.2 | E | Unmitigated |

**Notes:** 1. No significant adverse impact for the 2019 Future with the Proposed Actions condition. Significant adverse impact is due to changes in traffic signal timing as part of traffic mitigation measures.

## Table 24-19
## 2019 Future with the Proposed Actions:
## Corner Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Corner | 2019 Future without he Proposed Actions | | | | 2019 Future with the Proposed Actions | | | | 2019 Future with the Proposed Actions With Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Result |
| | | Major Width | Minor Width | | | Major Width | Minor Width | | | Major Width | Minor Width | | | |
| **AM Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 65.4 | A | 12.0 | 10.0 | 11.9 | E | 12.0 | 14.0 | 24.9 | C | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 135.2 | A | 12.0 | 10.0 | 13.1 | E | 12.0 | 14.0 | 23.9 | D | Mitigated through bulb out |
| | Northwest | 11.0 | 8.8 | 142.8 | A | 11.0 | 8.8 | 8.7 | E | 11.0 | 12.8 | 17.9 | D | Mitigated through bulb out |
| 8. Tenth Avenue and West 33rd Street | Northeast | 12.0 | 11.0 | 8.6 | E | 12.0 | 11.0 | 5.5 | F | 12.0 | 15.0 | 14.7 | E | Mitigated through bulb out |
| | Southeast | 13.8 | 10.0 | 3.7 | F | 13.8 | 10.0 | -2.7 | F | 13.8 | 14.0 | 2.6 | F | Unmitigated, but bulb out is proposed |
| | Southwest | 12.0 | 13.0 | 11.0 | E | 12.0 | 13.0 | 5.4 | F | 12.0 | 17.0 | 9.5 | E | Unmitigated, but bulb out is proposed |
| | Northwest | 12.0 | 10.0 | 12.3 | E | 12.0 | 10.0 | 9.6 | F | 12.0 | 14.0 | 17.2 | D | Mitigated through bulb out |

## Table 24-19 (cont'd)
## 2019 Future with the Proposed Actions:
## Corner Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Corner | 2019 Future without the Proposed Actions | | | | 2019 Future with the Proposed Actions | | | | 2019 Future with the Proposed Actions With Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Result |
| | | Major Width | Minor Width | | | Major Width | Minor Width | | | Major Width | Minor Width | | | |
| **AM Peak Period (continued)** | | | | | | | | | | | | | | |
| 12. Ninth Avenue and West 33rd Street | Northeast | 12.7 | 10.0 | -3.4 | F | 12.7 | 10.0 | -4.5 | F | 12.7 | 10.0 | -4.5 | F | Unmitigated |
| | Southeast | 12.0 | 10.0 | -10.8 | F | 12.0 | 10.0 | -12.0 | F | 12.0 | 14.0 | -8.6 | F | Mitigated through bulb out |
| | Southwest | 17.0 | 15.0 | 14.8 | F | 17.0 | 15.0 | 11.1 | E | 17.0 | 19.0 | 15.4 | D | Mitigated through bulb out |
| 13. Ninth Avenue and West 31st Street | Northeast | 12.0 | 10.0 | 12.2 | E | 12.0 | 10.0 | 9.7 | E | 12.0 | 14.0 | 24.8 | C | Mitigated through bulb out |
| | Southwest | 11.3 | 9.3 | 14.8 | E | 11.3 | 9.3 | 12.4 | E | 11.3 | 13.3 | 28.3 | C | Mitigated through bulb out |
| 15. Eighth Avenue and West 33rd Street | Southwest | 12.2 | 10.0 | 7.1 | F | 12.2 | 10.0 | 5.6 | F | 12.2 | 14.0 | 11.3 | E | Mitigated through bulb out |
| **Midday Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 9.8 | E | 12.0 | 10.0 | 4.8 | F | 12.0 | 14.0 | 11.4 | E | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 13.8 | E | 12.0 | 10.0 | 5.7 | F | 12.0 | 14.0 | 13.8 | E | Mitigated through bulb out |
| | Northwest | 11.0 | 8.8 | 24.1 | C | 11.0 | 8.8 | 5.4 | F | 11.0 | 12.8 | 13.0 | E | Unmitigated, but bulb out is proposed |
| 6. Eleventh Avenue and West 30th Street | Northeast | 14.5 | 14.5 | 12.9 | E | 14.5 | 14.5 | 11.4 | E | 14.5 | 14.5 | 11.4 | E | Unmitigated |
| 7. Tenth Avenue and West 34th Street | Northwest | 11.0 | 17.5 | 100 | E | 11.0 | 17.5 | 9.1 | E | 11.0 | 17.5 | 8.9 | E | Unmitigated[1] |
| 19. Tenth Avenue and West 35th Street | Northwest | 11.7 | 9.5 | 8.6 | E | 11.7 | 9.5 | 7.8 | F | 11.7 | 9.5 | 7.6 | F | Unmitigated[1] |
| 24. Boulevard and West 33rd Street | Northeast | 15.0 | 15.0 | 9.5 | E | 15.0 | 15.0 | 8.5 | E | 15.0 | 15.0 | 8.3 | E | Unmitigated |
| | Southwest | 19.0 | 13.0 | 9.3 | E | 19.0 | 13.0 | 7.3 | F | 19.0 | 13.0 | 7.3 | F | Unmitigated |
| 25. Eleventh Avenue and West 32nd Street | Northeast | 21.5 | 17.0 | 60.7 | A | 21.5 | 17.0 | 14.1 | E | 21.5 | 17.0 | 14.1 | E | Unmitigated |

## Table 24-19 (cont'd)
## 2019 Future with the Proposed Actions:
## Corner Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Corner | 2019 Future without the Proposed Actions | | | | 2019 Future with the Proposed Actions | | | | 2019 Future with the Proposed Actions With Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Result |
| | | Major Width | Minor Width | | | Major Width | Minor Width | | | Major Width | Minor Width | | | |
| **PM Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 30.6 | C | 12.0 | 10.0 | 8.7 | E | 12.0 | 14.0 | 16.9 | D | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 55.7 | B | 12.0 | 10.0 | 3.5 | F | 12.0 | 14.0 | 11.7 | E | Unmitigated, but bulb out is proposed |
| | Northwest | 11.0 | 8.8 | 63.0 | A | 11.0 | 8.0 | 4.5 | F | 11.0 | 12.8 | 12.8 | E | Unmitigated, but bulb out is proposed |
| 8. Tenth Avenue and West 33rd Street | Northeast | 12.0 | 11.0 | 7.2 | F | 12.0 | 11.0 | 5.8 | F | 12.0 | 15.0 | 11.2 | E | Mitigated through bulb out |
| | Southeast | 13.8 | 10.0 | 2.2 | F | 13.8 | 10.0 | -0.2 | F | 13.8 | 14.0 | 3.1 | F | Mitigated through bulb out |
| | Southwest | 12.0 | 13.0 | -3.4 | F | 12.0 | 13.0 | -5.8 | F | 12.0 | 17.0 | -3.7 | F | Mitigated through bulb out |
| 12. Ninth Avenue and West 33rd Street | Southwest | 17.0 | 15.0 | -6.1 | F | 17.0 | 15.0 | -7.6 | F | 17.0 | 19.0 | -4.4 | F | Mitigated through bulb out |
| 13. Ninth Avenue and West 31st Street | Southeast | 12.0 | 10.2 | 16.2 | D | 12.0 | 10.2 | 14.8 | E | 12.0 | 14.2 | 28.3 | C | Mitigated through bulb out |
| | Southwest | 11.3 | 9.3 | 12.0 | E | 11.3 | 9.3 | 9.6 | E | 11.3 | 13.3 | 224 | D | Mitigated through bulb out |
| | Northwest | 17.0 | 10.0 | 13.9 | E | 17.0 | 10.0 | 12.2 | E | 17.0 | 14.0 | 27.4 | C | Mitigated through bulb out |
| 15. Eight Avenue and West 33rd Street | Southeast | 16.0 | 17.8 | 14.2 | E | 16.0 | 17.8 | 12.1 | E | 17.0 | 18.8 | 14.7 | E | Mitigated through relocation of planters |
| 24. Boulevard and West 33rd Street | Southwest | 19.0 | 13.0 | 9.7 | E | 19.0 | 13.0 | 5.0 | F | 19.0 | 13.0 | 5.0 | F | Unmitigated |

**Table 24-19 (cont'd)**
**2019 Future with the Proposed Actions:**
**Corner Conditions – Locations with Significant Adverse Impacts with Mitigation**

| Intersection | Corner | 2019 Future without the Proposed Actions | | | | 2019 Future with the Proposed Actions | | | | 2019 Future with the Proposed Actions With Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Result |
| | | Major Width | Minor Width | | | Major Width | Minor Width | | | Major Width | Minor Width | | | |
| **Saturday Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 30.8 | C | 12.0 | 10.0 | 14.0 | E | 12.0 | 14.0 | 26.0 | C | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 50.8 | B | 12.0 | 10.0 | 14.7 | E | 12.0 | 14.0 | 28.3 | C | Mitigated through bulb out |
| | Northwest | 11.0 | 8.8 | 46.4 | B | 11.0 | 8.8 | 9.4 | E | 11.0 | 12.8 | 22.2 | D | Mitigated through bulb out |
| 8. Tenth Avenue and West 33rd Street | Northeast | 12.0 | 11.0 | 6.6 | F | 12.0 | 11.0 | 5.4 | F | 12.0 | 150 | 11.9 | E | Mitigated through bulb out |
| | Southeast | 13.8 | 10.0 | 2.0 | F | 13.8 | 10.0 | -0.1 | F | 13.8 | 140 | 4.7 | F | Mitigated through bulb out |
| | Southwest | 12.0 | 13.0 | 1.6 | F | 12.0 | 13.0 | 0.2 | F | 12.0 | 170 | 3.7 | F | Mitigated through bulb out |
| 12. Ninth Avenue and West 31st Street | Southeast | 12.0 | 10.0 | -0.6 | F | 12.0 | 10.0 | -1.6 | F | 12.0 | 14.0 | 2.5 | F | Mitigated through bulb out |

**Notes:** 1. No significant adverse impact for the 2019 Future with the Proposed Actions condition. Significant adverse impact is due to changes in traffic signal timing as part of traffic mitigation measures.

**Table 24-20**
**Additional Buses Needed for Proposed Actions: 2017 and 2019**

| Bus Route | Direction | 2017 Future with the Proposed Actions | | 2019 Future with the Proposed Actions | |
|---|---|---|---|---|---|
| | | Regular | Articulated | Regular | Articulated |
| **AM Peak Hour** | | | | | |
| M10/ M20 | NB | 1 | 1 | 1 | 1 |
| | SB | 1 | 1 | 2 | 2 |
| M11 | NB | 1 | 1 | 2 | 1 |
| | SB | 3 | 2 | 3 | 2 |
| M34/ M16 | EB | 2 | 2 | 4 | 3 |
| | WB | 13 | 9 | 13 | 10 |
| **PM Peak Hour** | | | | | |
| M10/ M20 | NB | 1 | 1 | 2 | 2 |
| | SB | 1 | 1 | 1 | 1 |
| M11 | NB | 4 | 3 | 4 | 3 |
| | SB | 1 | 1 | 2 | 1 |
| M34/ M16 | EB | 14 | 10 | 15 | 11 |
| | WB | 3 | 2 | 5 | 4 |

## Table 24-21
## 2017 Future with the Proposed Actions: Summary of Pedestrian Element Locations with Significant Adverse Impacts

| Time Period | # of Elements Analyzed | 2017 Future with the Proposed Actions | | | 2019 Future with the Proposed Actions | | |
|---|---|---|---|---|---|---|---|
| | | No Significant Adverse Impacts | Mitigated Significant Adverse Impacts | Unmitigated Significant Adverse Impacts | Not Impacted | Mitigated Significant Adverse Impacts | Unmitigated Significant Adverse Impacts |
| **Sidewalks** | | | | | | | |
| AM | 188 | 186 | 1 | 1 | 186 | 1 | 1 |
| Midday | 188 | 188 | 0 | 0 | 187 | 0 | 1 |
| PM | 188 | 184 | 1 | 3 | 183 | 1 | 4 |
| Saturday | 146 | 146 | 0 | 0 | 145 | 0 | 1 |
| **Crosswalks** | | | | | | | |
| AM | 95 | 86 | 4 | 5 (2*) | 83 | 7 | 5 (3*) |
| Midday | 95 | 86 | 2 | 7 (6*) | 83 | 4 | 8 (5*) |
| PM | 95 | 87 | 6 | 2 | 85 | 7 | 3 |
| Saturday | 73 | 72 | 0 | 1 | 65 | 7 | 1 |
| **Corners** | | | | | | | |
| AM | 90 | 77 | 12 | 1 | 77 | 10 | 3 |
| Midday | 90 | 84 | 3 | 3 | 81 | 2 | 7 (2*) |
| PM | 90 | 79 | 9 | 2 | 78 | 9 | 3 |
| Saturday | 70 | 69 | 1 | 0 | 63 | 7 | 0 |

**Note:** * Significant adverse impact is due to changes in traffic signal timing as part of traffic mitigation measures.

## Table 24-22
## 2017 Future with the Proposed Actions: Sidewalk Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Sidewalk Location | 2017 Future without the Proposed Actions | | | 2017 Future with the Proposed Actions | | | 2017 Future with the Proposed Actions With Mitigation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Effective Width | Peak 15-min Flow Rate (p/15-min.) | LOS | Effective Width | Peak 15-min Flow Rate (p/15-min.) | LOS | Effective Width | Peak 15-min Flow Rate (p/15-min.) | LOS | Result |
| **AM Peak Period** | | | | | | | | | | | |
| 8. Tenth Avenue and West 33rd Street | 4 | 5.2 | 11.9 | E | 5.2 | 17.9 | E | 5.2 | 17.9 | E | Unmitigated |
| 12. Ninth Avenue and West 33rd Street | 3 | 3.5 | 20.5 | F | 3.5 | 22.8 | F | 6.5 | 12.3 | E | Mitigated through removal of planter or street vendor |
| **PM Peak Period** | | | | | | | | | | | |
| 8. Tenth Avenue and W. 33rd Street | 4 | 5.2 | 18.3 | F | 5.2 | 24.5 | F | 5.2 | 24.5 | F | Unmitigated |
| 12. Ninth Avenue and West 33rd Street | 3 | 3.5 | 24.4 | F | 3.5 | 27.0 | F | 6.5 | 14.5 | E | Mitigated through removal of planter or street vendor |
| | 4 | 9.0 | 15.7 | E | 9.0 | 18.5 | F | 9.0 | 18.5 | F | Unmitigated |
| 15. Eighth Avenue and West 33rd Street | 7 | 9.0 | 14.6 | E | 9.0 | 16.9 | E | 9.0 | 16.9 | E | Unmitigated |

## Table 24-23
## 2017 Future with the Proposed Actions:
## Crosswalk Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Crosswalk Location | 2017 Future without the Proposed Actions | | | 2017 Future with the Proposed Actions | | | 2017 Future without the Proposed Actions With Mitigation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Crosswalk Width | Circulation area per pedestrian ($ft^2$/p) | LOS | Result |
| **AM Peak Period** | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | South | 15.0 | 131.2 | A | 15.0 | 7.9 | F | 20.0 | 21.6 | D | Mitigated through widening |
| 7. Tenth Avenue and West 34th Street | South | 16.0 | 15.2 | D | 16.0 | 14.7 | E | 16.5 | 19.4 | D | Mitigated through widening |
| 8. Tenth Avenue and West 33rd Street | North | 15.0 | 17.3 | D | 15.0 | 14.7 | E | 19.0 | 18.9 | D | Mitigated through widening |
| | South | 15.0 | 7.4 | F | 15.0 | 4.2 | F | 20.0 | 6.2 | F | Unmitigated, but widening is proposed |
| 11. Ninth Avenue and West 34th Street | East | 16.0 | 15.9 | D | 16.0 | 15.6 | D | 16.0 | 13.3 | E | Unmitigated[1] |
| | West | 15.5 | 14.8 | E | 15.5 | 14.4 | E | 15.5 | 12.4 | E | Unmitigated[1] |
| 15. Eighth Avenue and West 33rd Street | South | 17.4 | 13.3 | E | 17.4 | 10.6 | E | 21.4 | 13.2 | E | Mitigated through widening |
| 24. Boulevard and West 33rd Street | West | 20.0 | 7.4 | F | 20.0 | 5.8 | F | 20.0 | 5.8 | F | Unmitigated |
| 27. Boulevard and 33rd Street (west) | West | 15.0 | 23.0 | D | 15.0 | 14.5 | E | 5.0 | 14.5 | E | Unmitigated |
| **Midday Peak Period** | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | East | 15.0 | 21.4 | D | 15.0 | 18.7 | D | 15.0 | 14.1 | E | Unmitigated[1] |
| | South | 15.0 | 19.5 | D | 15.0 | 10.2 | E | 20.0 | 29.5 | C | Mitigated through widening |
| 7. Tenth Avenue and West 34th Street | East | 15.0 | 9.8 | E | 15.0 | 9.4 | E | 15.0 | 8.8 | E | Unmitigated[1] |
| | West | 17.0 | 12.0 | E | 17.0 | 11.3 | E | 17.0 | 10.7 | E | Unmitigated[1] |
| 9. Tenth Avenue and West 31st Street | South | 12.5 | 15.2 | D | 12.5 | 14.3 | E | 13.0 | 15.7 | D | Mitigated through widening |
| 13. Ninth Avenue and West 31st Street | East | 13.0 | 16.1 | D | 13.0 | 16.1 | D | 13.0 | 14.3 | E | Unmitigated[1] |
| | West | 15.0 | 13.9 | E | 15.0 | 13.9 | E | 15.0 | 12.2 | E | Unmitigated[1] |
| 19. Tenth Avenue and West 35th Street | West | 13.0 | 16.5 | D | 13.0 | 15.6 | D | 13.0 | 14.7 | E | Unmitigated[1] |
| 25. Eleventh Avenue and 32nd Street | North | 15.0 | 165.9 | A | 20.0 | 3.1 | F | 20.0 | 3.1 | F | Unmitigated |
| **PM Peak Period** | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | South | 15.0 | 64.8 | A | 15.0 | 7.1 | F | 20.0 | 18.8 | E | Mitigated through widening |
| 7. Tenth Avenue and West 34th Street | North | 15.0 | 11.6 | E | 15.0 | 10.6 | E | 15.5 | 11.0 | E | Mitigated through widening |
| 8. Tenth Avenue and West 33rd Street | South | 15.0 | 4.6 | F | 15.0 | 3.4 | F | 20.0 | 4.4 | F | Mitigated through widening |
| 9. Tenth Avenue and West 31st Street | North | 15.0 | 12.8 | E | 15.0 | 11.1 | E | 16.0 | 15.2 | D | Mitigated through widening |
| 15. Eighth Avenue and West 33rd Street | South | 17.4 | 9.8 | E | 17.4 | 8.6 | E | 21.4 | 10.5 | E | Mitigated through widening |
| 18. Eleventh Avenue and West 35th Street | South | 11.0 | 15.5 | D | 11.0 | 14.8 | E | 11.5 | 15.6 | D | Mitigated through widening |
| 24. Blvd and West 33rd Street | West | 20.0 | 9.3 | C | 20..0 | 6.3 | E | 20.0 | 6.3 | F | Unmitigated |
| 25. Eleventh Avenue and West 32nd Street | North | 15.0 | 336.9 | A | 20.0 | 8.6 | E | 20.0 | 8.6 | E | Unmitigated |
| **Saturday Peak Period** | | | | | | | | | | | |
| 25. Eleventh Avenue and West 32nd Street | North | 15.0 | 336.9 | A | 20.0 | 11.1 | E | 20.0 | 11.1 | E | Unmitigated |

**Notes:** 1. No significant adverse impact for the 2019 Future with the Proposed Actions Condition. Significant adverse impact is due to changes in traffic signal timing as part of traffic mitigation measures.

## Table 24-24
## 2017 Future with the Proposed Actions:
## Corner Conditions – Locations with Significant Adverse Impacts with Mitigation

| Intersection | Corner | 2017 Future without the Proposed Actions | | | | 2017 Future with the Proposed Actions | | | | 2017 Future with the Proposed Actions With Mitigation | | | | Result |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | Sidewalk | | Circulation area per pedestrian (ft2/p) | LOS | |
| | | Major Width | Minor Width | | | Major Width | Minor Width | | | Major Width | Minor Width | | | |
| **AM Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 65.4 | A | 12.0 | 10.0 | 5.5 | F | 12.0 | 14.0 | 19.0 | D | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 135.2 | A | 12.0 | 10.0 | 12.6 | E | 12.0 | 14.0 | 22.6 | D | Mitigated through bulb out |
| | Northwest | 11.0 | 8.8 | 142.8 | A | 11.0 | 8.8 | 10.5 | E | 11.0 | 12.8 | 20.3 | D | Mitigated through bulb out |
| 8. Tenth Avenue and West 33rd Street | Northeast | 12.0 | 11.0 | 8.6 | E | 12.0 | 11.0 | 5.8 | F | 12.0 | 15.0 | 15.4 | D | Mitigated through bulb out |
| | Southeast | 13.8 | 10.0 | 3.7 | F | 13.8 | 10.0 | -2.5 | F | 13.8 | 14.0 | 3.3 | F | Mitigated through bulb out |
| | Southwest | 12.0 | 13.0 | 11.0 | E | 12.0 | 13.0 | 7.0 | F | 12.0 | 17.0 | 11.5 | E | Mitigated through bulb out |
| | Northwest | 12.0 | 10.0 | 12.3 | E | 12.0 | 10.0 | 10.1 | E | 12.0 | 14.0 | 18.0 | D | Mitigated through bulb out |
| 12. Ninth Avenue and West 33rd Street | Northeast | 12.7 | 10.0 | -3.4 | F | 12.7 | 10.0 | -4.5 | F | 12.7 | 10.0 | -4.5 | F | Unmitigated |
| | Southeast | 12.0 | 10.0 | -10.7 | F | 12.0 | 10.0 | -12.1 | F | 12.0 | 14.0 | -8.6 | F | Mitigated through bulb out |
| | Southwest | 17.0 | 15.0 | 14.9 | E | 17.0 | 15.0 | 12.2 | E | 17.0 | 19.0 | 16.7 | D | Mitigated through bulb |
| 13. Ninth Avenue and West 31st Street | Northeast | 12.0 | 10.0 | 12.2 | E | 12.0 | 10.0 | 10.2 | E | 12.0 | 14.0 | 25.1 | C | Mitigated through bulb out |
| | Southwest | 11.3 | 9.3 | 15.5 | D | 11.3 | 9.3 | 13.2 | E | 11.3 | 13.3 | 29.6 | C | Mitigated through bulb out |
| 15. Eighth Avenue and West 33rd Street | Southwest | 12.2 | 10.0 | 7.1 | F | 12.2 | 10.0 | 6.1 | F | 12.2 | 14.0 | 12.0 | E | Mitigated through bulb out |
| **Midday Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 9.8 | E | 12.0 | 10.0 | 5.4 | F | 12.0 | 14.0 | 11.8 | E | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 13.8 | E | 12.0 | 10.0 | 8.0 | F | 12.0 | 14.0 | 17.2 | D | Mitigated through bulb out |
| | Northwest | 11.0 | 8.8 | 24.1 | C | 11.0 | 8.8 | 6.8 | F | 11.0 | 12.8 | 15.5 | D | Mitigated through bulb out |
| 6. Eleventh Avenue and West 30th Street | Northeast | 14.5 | 14.5 | 12.9 | E | 14.5 | 14.5 | 10.5 | E | 14.5 | 14.5 | 10.5 | E | Unmitigated |
| 24. Boulevard and West 33rd Street | Southwest | 19.0 | 13.0 | 9.3 | E | 19.0 | 13.0 | 7.9 | F | 19.0 | 13.0 | 7.9 | F | Unmitigated |
| 25. Eleventh Avenue and West 32nd Street | Northeast | 21.5 | 17.0 | 60.7 | A | 21.5 | 17.0 | 12.5 | E | 21.5 | 17.0 | 11.2 | E | Unmitigated |
| **PM Peak Period** | | | | | | | | | | | | | | |
| 5. Eleventh Avenue and West 33rd Street | Southeast | 12.0 | 10.0 | 30.6 | C | 12.0 | 10.0 | 8.3 | E | 12.0 | 14.0 | 15.8 | D | Mitigated through bulb out |
| | Southwest | 10.7 | 8.8 | 55.7 | B | 12.0 | 10.0 | -0.5 | F | 12.0 | 14.0 | 8.2 | E | Unmitigated, but bulb out is proposed |
| | Northwest | 11.0 | 8.8 | 63.0 | A | 11.0 | 8.0 | 5.6 | F | 11.0 | 12.8 | 15.3 | D | Mitigated through bulb out |
| 8. Tenth Avenue and West 33rd Street | Northeast | 12.0 | 11.0 | 7.2 | F | 12.0 | 11.0 | 6.2 | F | 12.0 | 15.0 | 11.7 | E | Mitigated through bulb out |
| | Southeast | 13.8 | 10.0 | 2.2 | F | 13.8 | 10.0 | 0.7 | F | 13.8 | 14.0 | 4.3 | F | Mitigated through bulb out |
| | Southwest | 12.0 | 13.0 | -3.4 | F | 12.0 | 13.0 | -5.6 | F | 12.0 | 17.0 | -3.3 | F | Mitigated through bulb out |
| 12. Ninth Avenue and West 33rd Street | Southwest | 17.0 | 15.0 | -6.1 | F | 17.0 | 15.0 | -7.6 | F | 17.0 | 19.0 | -4.2 | F | Mitigated through bulb out |
| 13. Ninth Avenue and West 31st Street | Southwest | 11.3 | 9.3 | 12.0 | E | 11.3 | 9.3 | 10.3 | E | 11.3 | 13.3 | 23.5 | D | Mitigated through bulb out |
| | Northwest | 17.0 | 10.0 | 13.9 | E | 17.0 | 10.0 | 12.6 | E | 17.0 | 14.0 | 28.1 | C | Mitigated through bulb out |
| 15. Eight Avenue and West 33rd Street | Southeast | 16.0 | 17.8 | 14.3 | E | 16.0 | 17.8 | 12.8 | E | 16.5 | 18.8 | 14.1 | E | Mitigated through bulb relocation of planters |
| 24. Boulevard and West 33rd Street | Southwest | 19.0 | 13.0 | 9.7 | E | 19.0 | 13.0 | 4.6 | F | 19.0 | 13.0 | 4.6 | F | Unmitigated |
| **Saturday Peak Period** | | | | | | | | | | | | | | |
| 10. Tenth Avenue and West 33rd Street | Southeast | 13.8 | 10.0 | 2.0 | F | 13.8 | 10.0 | 1.0 | F | 13.8 | 14.0 | 6.2 | F | Mitigated through bulb out |

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