

Appendix 9B Vehicular Traffic

9B.1 INTRODUCTION

The Port Authority of New York & New Jersey (PANYNJ) proposes to replace the existing Port Authority Bus Terminal (PABT) in Manhattan, New York with a new Main Terminal, Storage & Staging Facility (SSF), also referred to as the West Adjunct in the Final NEPA Scoping Information Packet, and a new ramp structure atop Galvin Plaza (the Replacement Facility), accompanied by private development to assist in funding its construction. Both the Replacement Facility and the private development are collectively referred to as the Bus Terminal Replacement Project (the Proposed Project).

As part of the Proposed Project, transportation analyses were completed to determine the impacts on the city street and transit network within the project Study Area.

This assessment focuses on the potential impacts to vehicular operations and mobility. The assessment presents existing (2019) and projected (2028, 2032, and 2040) traffic, for both the No Action Alternative and the Proposed Project in the vicinity of the Study Area, as well as possible mitigations for the Future with the Proposed Project (2040). These analyses were conducted to be consistent with the New York City's *CEQR Technical Manual 2020* (CEQR Technical Manual).¹ Analysis of potential additional effects during the construction process are addressed in **Chapter 14, "Construction."**

This assessment only addresses operational impacts of the No Action Alternative and the Proposed Project. Construction related impacts are presented in **Chapter 14**.

9B.2 PROJECT DESCRIPTION

The Proposed Project consists of the Replacement Facility and private development to assist in the funding of the Proposed Project. The Proposed Project would be located within Manhattan Community District 4 and is generally bounded by West 42nd Street to the north, West 39th Street to the south, Eighth Avenue to the east, and Eleventh Avenue to the west. The private development associated with the Proposed Project is anticipated to consist of two commercial

¹ In collaboration with the Mayor's Office of Environmental Coordination, the decision on which CEQR Technical Manual to use on projects which were initiated under one version of the CEQR Technical Manual, but whose environmental determination will be issued following the publication of a newer CEQR Technical Manual, falls to the lead agency. The lead agency considers whether a project has sufficiently advanced in its data collection, analysis, and review that the change in TM would not have substantive changes in methodology and would not result in different environmental determination or findings than would not be covered under the previous CEQR Technical Manual. NYCDOT has examined the project and the updates to the CEQR Technical Manual dated December 2020 and the 2021 version of the TM and has determined that the use of the 2021 version is unlikely to result in a different determination or findings for this specific project. Therefore, this analysis continues use of the NYCDOT CEQR Technical Manual December 2020 version.

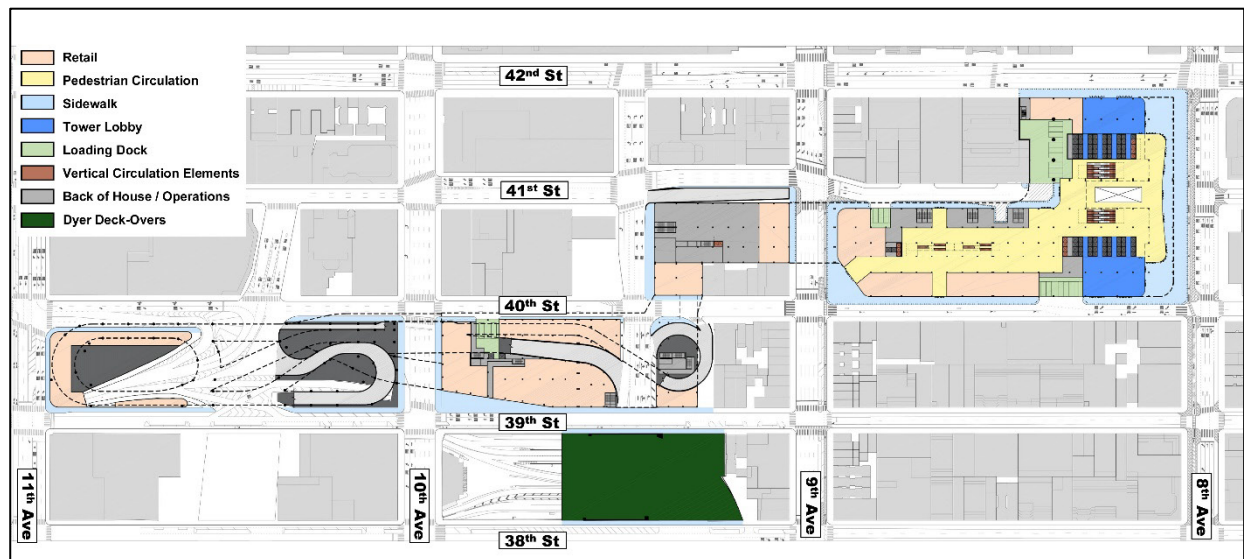
office towers. The proposed retail program – with street facing retail and interior terminal retail – would be developed as part of the Replacement Facility.

Table 9B-1 presents details of the various components of the Proposed Project and **Figure 9B-1** and **Figure 9B-2** provide illustrative depictions.

Table 9B-1. Square footage Summaries of Existing PABT and the Proposed Project

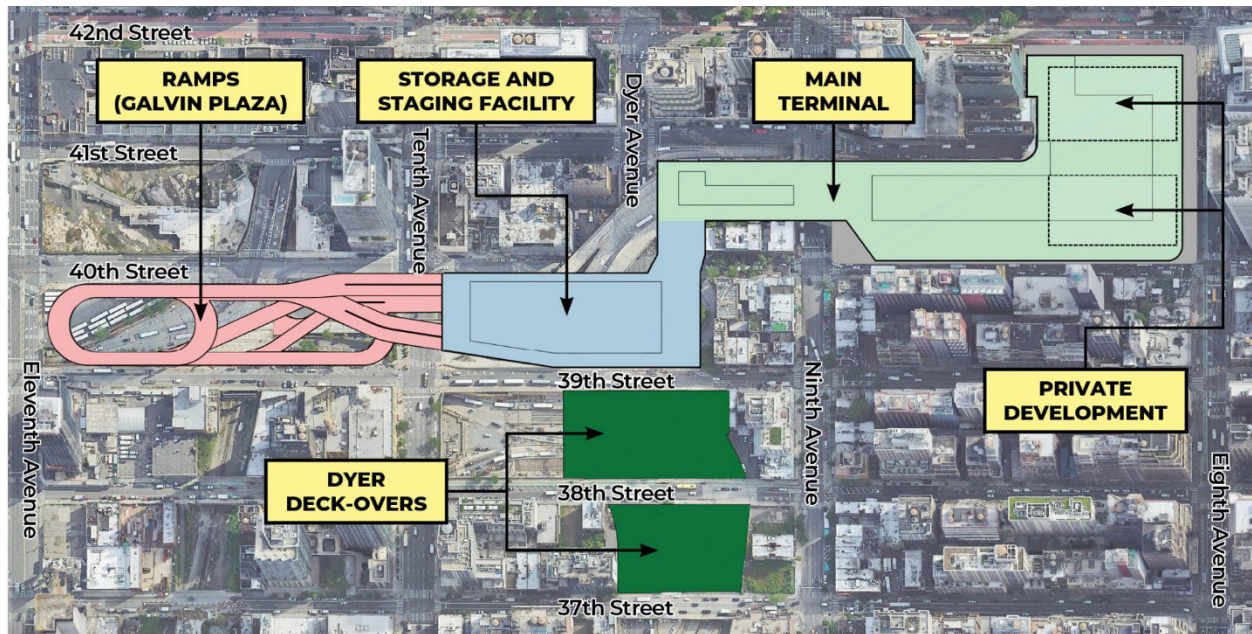
	Terminal (sf)	Commercial (sf)	Retail (sf)			Total SF
			Street-Facing	Interior	Retail Total	
Existing PABT	1,212,030	-			158,168	1,370,198
New Main Terminal	2,458,250	-	55,665	13,700	69,365	2,527,615
SSF	893,449	-	65,700	-	65,700	959,149
Ramp Structure	-	-	20,279	-	20,279	20,279
Tower 1	-	3,000,000	-	-	-	3,000,000
Tower 2	-	2,000,000	-	-	-	2,000,000
Total	3,351,699	5,000,000	141,644	13,700	155,344	8,507,043

Figure 9B-1. Proposed Project (Street Level Floor Plan)



Source: PANYNJ (2023)

Figure 9B-2. Proposed Project



Source: WSP (2023)

9B.3 METHODOLOGY

9B.3.1 Traffic Analysis Methodology

These analyses were conducted consistent with the CEQR Technical Manual. All data collection efforts were reviewed with and approved by PANYNJ and the New York City Department of Transportation (NYC DOT).

9B.3.1.1 Peak Hours

Traffic data collection included traffic counts which were used to develop detailed traffic flow maps for AM and PM peak hours for the 2019 Base Year. The data was used to determine an AM and PM peak hour, and to develop flow maps for:

- AM Peak Hour: 8:00 a.m. – 9:00 a.m.
- PM Peak Hour: 5:00 p.m. – 6:00 p.m.

9B.3.1.2 Study Area

The Study Area is bound by West 30th Street to the south, West 50th Street to the north, Seventh Avenue to the east and the West Side Highway/Twelfth Avenue to the west. The Study Area is presented on **Figure 9B-3** and encompasses streets, avenues, bus terminal ramps, and Lincoln Tunnel approaches. The Study Area includes 132 signalized intersections. A full list of intersections can be found in **Appendix 9F, "Travel Demand Factors Memorandum."**

The Study Area was determined during the development of the Travel Demand Forecasting Memorandum (TDF Memo) in collaboration with NYC DOT and based on the intersections that

experienced additional vehicular traffic due to the proposed development and required analysis. The Study Area was expanded to 30th Street because of the use of a PANYNJ-owned property at West 30th Street for intercity (i.e., non-commuter) bus operations during construction and expanded to Twelfth Avenue because of planned NYC DOT Street Improvement Projects (SIPs) to capture possible diversions due to geometric changes on the roadways.

Figure 9B-3. Traffic Study Area



Source: WSP (2023)

9B.3.1.3 Data Collection

Traffic data was collected during several months in May 2018 and November 2021 to determine the existing traffic volumes throughout the Study Area. 2018 counts were used for the first iteration of the Base Year conditions, representing the original Study Area.

It should be noted that the Base Year for the analysis is 2019 and presents pre-COVID-19 conditions. Although the traffic data collection occurred in 2018, PANYNJ and NYC DOT concurred that 2019 would be analyzed as the Base Year to match other projects in the area. 2019 was chosen to align with the Empire Station Environmental Impact Statement (EIS).

Automated Traffic Recorder (ATR) counts from the Western Rail Yards EIS and NYC DOT Traffic Information Management System Data were used where available. Additional ATR counts were collected at 25 roadway locations in the Study Area in May 2018 where previous data was not

available. In addition, 10 ATR counts were collected on the ramps and entrances/exits to and from the PABT area in June 2018.

Also, 65 turning movement counts (TMCs) were conducted from 6 a.m. to 7p.m. over three days on May 8 through May 10, 2018.

In the early planning development of the Proposed Project, the Study Area was expanded to 30th Street and Twelfth Avenue for reasons mentioned in **Section 9B.3.1.2**, and an additional 12 manual TMCs were conducted in early November 2021 during the 8 - 9 a.m. and 5 - 6 p.m. peak hours. The new counts were performed for locations where data was missing and needed for analysis. It should be noted that as part of this effort, two intersections previously counted in 2018 were recounted to ensure volume compatibility between the two time frames, to assure the combined balanced network accurately reflected 2019 Base Year Conditions.

Due to proposed SIPs planned by NYC DOT, the number of travel lanes will decrease on several avenues in the Study Area between the existing year and the future years of analysis. Additional traffic counts (TMCs and ATRs) were collected in May 2023 in locations where these improvements had already been installed. These counts were used to verify and accurately predict traffic volumes for the future No Action years, based on the incremental change observed between the counts taken in 2018 and 2023.

ATR and TMC locations are shown in **Appendix 9F**.

The TMC data collection also collected vehicle classification information including motorcycles, cars, light goods vehicles, buses, single-unit trucks, and articulated buses.

For a full summary of data collection, see Data Collection Plan and Collection Plan Update in **Appendix 9F**.

Additional data that was collected includes:

- **Speed Data** - The Uber Movement Street speed data corresponding to May 2018 was downloaded, which coincides with the time that the majority of traffic data collection effort occurred. The street speed data from Uber Movement offered aggregated, anonymous speed and travel time data gathered from Uber's many driver-partners by street segments and by time intervals. The speed data was used for the Aimsun model Construction analysis which is summarized in **Appendix 14A, "Construction."**
- **Pedestrian Counts** – Pedestrian data was collected at 65 intersections that were in the pedestrian analysis Study Area. Refer to **Appendix 9D, "Pedestrians,"** for more information regarding the pedestrian analysis.
- **Physical Inventory** – Geometric features, including number of lanes, lane widths, lane assignments, permitted turns, parking regulations, bus stops, and queueing information.
- **Signal Timing Data** – NYC DOT provided current and future traffic signal timing information.

In consultation with NYC DOT, it was determined that the software platform Synchro (version 11) would be utilized to examine traffic capacity and operations. Synchro is an intersection analysis software that allows the user to analyze changes in delays and Level of Service (LOS) due to changes in traffic volumes and vehicle routings. The Synchro platform follows up-to-date *Highway Capacity Manual* (HCM) methodology and has simulation capabilities to measure vehicle queues and provide graphical representations of existing and proposed traffic conditions.

For a full description of the calibration process, see the Calibration Memo in **Appendix 9F**.

9B.3.1.4 Traffic Volume Development

Recent field studies along with data from previously approved projects with overlapping Study Areas, such as the Pennsylvania Station Area Civic and Land Use Improvement Project Final EIS (FEIS), the Western Rail Yards FEIS and data from NYC DOT's Traffic Information Management System database, were used. At locations where traffic data were not available from these sources, TMCs were collected to complete the full set of required Study Area intersections where capacity analysis is warranted. These counts were used to develop detailed traffic flow maps for AM and PM peak hours for the 2019 Base Year.

The Future Without the Proposed Project reflects the No Action Alternative, in which the Proposed Project would not be built. In this case, the existing Terminal would require rehabilitation due to aging. Future No Action Alternative traffic demand forecasts were developed for three years: 2028, which represents the initial Estimated Time of Completion (ETC) for SSF, 2032, the ETC and commencement of operations of the new Main Terminal, and the 2040 Design Year, which is also the year by which both private development towers are expected to be completed. Forecasts were developed for the AM and PM peak-hour traffic flow for the Study Area using CEQR Technical Manual guidelines and a CEQR Technical Manual background growth rate provided by NYC DOT. The future year traffic flow maps were developed with various components: the CEQR Technical Manual background growth rate applied to 2019 volumes, a growth rate determined to represent soft site developments in the Study Area, and additional large-scale background developments (Moynihan Train Hall, 495th Eleventh Avenue, Western Rail Yard, Penn Station Master Plan and other Penn Station vicinity as-of-right development and the Empire Station Complex). The CEQR Technical Manual growth rates were determined by using 0.25% for Years 1-5, and 0.125% for Year 6 and beyond. A summary of the CEQR Technical Manual and Soft Site growth rates applied to the Base Year volumes is shown in **Table 9B-2**. The future without the Proposed Project would also require some buses to utilize curbside locations, the 30th Street property, and city streets outside of the Study Area. More details about the bus movements are described in **Sections 9B4.1.1, 9B5.1.1, 9B5.2.1, and 9B6.1.1**. Modified bus operations are further detailed in **Appendix 9A, "Bus Services."**

Table 9B-2. Future Year Growth Rates

Description	Construction of SSF (assumed year 2028)	Construction of Main Terminal (assumed year 2032)	Construction of Towers & Full Build Analysis (assumed year 2040)
CEQR Technical Manual standard background growth rate	1.763%	2.273%	3.300%
Soft site growth rate	AM/MD/PM: 9.754% / 13.036% / 12.661%	AM/MD/PM: 6.898% / 9.220% / 8.955%	AM/MD/PM: 10.814% / 14.384% / 13.914%

Traffic demand forecasts for the Proposed Project were developed using trip generation, modal split, and trip distribution processes to determine the number of total trips that would be added to the network as a result of the Proposed Project. For a description of the full forecasting process, see the TDF Memo in **Appendix 9F**. The Replacement Facility itself is not anticipated to increase the number of bus trips on the city street system due to bus operations utilizing direct tunnel access to the Replacement Facility. Rather, in the Study Area, bus volumes on city streets in the Future with the Proposed Project would be anticipated to decrease due to the redesigned ramp structure and the SSF, and the inclusion of intercity buses and jitneys that now use city streets for storage, staging, pick-up, and discharge. These changes are reflected in the traffic flow maps. The private development portion of the Proposed Project would also generate new trips in the Study Area. The volume development processes are described in more detail in **Sections 9B4.1.1, 9B5.1.1, 9B5.2.1, and 9B6.1.1**.

9B.3.1.5 Synchro Analysis

The Synchro software utilizes HCM 2010 methodology for capacity analysis. The analysis determines traffic operations in terms of flow rates, volume to capacity (v/c) ratios, traffic delays, and LOS. The v/c ratio represents the ratio of traffic volume on an approach or lane group to the approach's carrying capacity. A v/c ratio of less than 0.90 is generally considered indicative of non-congested conditions in dense urban areas, while higher values indicate increasing congestion. At a v/c ratio between 0.95 and 1.0, near-capacity conditions are reached, and delays can become substantial. Ratios greater than 1.0 indicate saturated conditions with queueing.

LOS describes the quality of traffic flow and is based on an average delay (in seconds) experienced by vehicles. **Table 9B-3** shows the thresholds for LOS at both unsignalized and signalized intersections, as defined by the HCM.

Table 9B-3. Level of Service Thresholds

Level of Service	Delay (in seconds) Un-Signalized	Delay (in seconds) Signalized
A	≤10	≤10
B	>10-15	>10-20
C	>15-25	>20-35
D	>25-35	>35-55
E	>35-50	>55-80
F	>50	>80

LOS A, B, and C are considered acceptable, LOS D is considered marginally acceptable up to mid-LOS D (45 seconds of delay for signalized intersections) and unacceptable above mid-LOS D, and LOS E and F indicate congestion. These guidelines are applicable to individual traffic movements or lane groups, intersection approaches, and overall intersection LOS. In these traffic impact analyses, a signalized lane group operating at LOS E or F or with a v/c ratio of 0.90 or above is identified as congested.

The physical network coding into Synchro consists of inputting road geometry and lane assignments, followed by signal timing. The volume input consists of inputting the balanced vehicular volumes into the model. This process was used to create an existing 2019 Base Year model. The model was calibrated to match existing field conditions. Calibration was done per the CEQR Technical Manual guidelines and additional NYC DOT guidance, provided for this project. Once calibrated and approved, the 2019 Base models were used to create the Synchro models for the analysis of the No Action Alternative and the Proposed Project. The Synchro Calibration Memo is included in the **Appendix 9F**.

The results of the Proposed Project were compared to the No Action Alternative to determine the potential for significant adverse impacts. Based on criteria in the CEQR Technical Manual, if a lane group in the Future with the Proposed Project would be at LOS A, B, or C, or marginally acceptable LOS D (i.e., delay less than or equal to 45.0 seconds/vehicle for signalized intersections) the impact is not considered significant. If the lane-group LOS would deteriorate from LOS A, B, or C in the No Action Alternative to worse than mid-LOS D or to LOS E or F as a result of the Proposed Project, a significant traffic impact is identified. For a lane group that would operate at LOS D in the No Action Alternative, an increase in delay of 5.0 or more seconds as a result of the Proposed Project is considered a significant impact if the delay would exceed mid-LOS D (45 seconds of delay for signalized intersections). For a lane group that would operate at LOS E in the No Action Alternative, a projected increase in delay of 4.0 or more seconds as a result of the Proposed Project is considered a significant impact. For a lane group that would operate at LOS F in the No Action Alternative, a projected increase in delay of 3.0 or more seconds as a result of the Proposed Project is considered a significant impact.

Additionally, as described previously, this assessment was conducted consistent with the CEQR Technical Manual. Per the CEQR Technical Manual, actions proposed below 60th Street in Manhattan that would result in more than 240 residential dwelling units or 115,000 gross square

feet (gsf) of office development require traffic analysis. The Proposed Project consists of the development of approximately 5.0 million gross square feet (gsf) of commercial office space and approximately 100,729 gsf of new commercial retail space. Therefore, a traffic analysis is warranted. Only the incremental demand of the new retail development from that of the existing retail development in existing locations was considered. Therefore, only the retail at the SSF and Block 1050 west of Ninth Avenue (80,450 sf) and the retail at Ramp Structures (20,279 sf) are in new locations and are included in the trip generation. This process makes the assumption in developing the trip generation for retail that the retail usages will remain similar compared to existing.

The CEQR Technical Manual identifies the procedures for this analysis to identify the impacts on vehicular traffic. This assessment begins with trip generation for the Proposed Project to determine the total number of vehicle trips that would be anticipated to be generated during the peak hours. The results of the trip generation are used in a Level 1 screening, which then determines if a Level 2 screening is necessary. A Level 2 screening is warranted if the Level 1 screening demonstrates that there would be 50 or more peak hour vehicle trips. In order to conduct the Level 2 assessment, the trips that were generated previously are distributed and assigned to specific roadways and intersections. If this process demonstrates there are more than 50 peak hour vehicle trips at any one intersection, then further detailed analyses are warranted. NYC DOT has reviewed and provided input on the assumptions and analyses presented below. Based on these analyses, potential impacts of the Proposed Project were determined and are summarized in this assessment, along with proposed mitigation measures. Full Synchro outputs for all models can be found in **Appendix 9F**.

9B.3.2 Transportation Planning Methodology

9B.3.2.1 Level 1 Screening

Trip Generation was performed for the Proposed Project as a part of the Level 1 Screening. The Proposed Project would generate 11,574, 11,138, and 11,607 additional person trips in the AM, Midday, and PM peak hours, respectively. This correlates to 901, 565, and 851 vehicle trips in the AM, Midday, and PM peak hours, requiring a Level 2 screening. A summary of the trips that would be anticipated to be generated are shown in the TDF Memo and the Trip Generation file in **Appendix 9F**.

9B.3.2.2 Level 2 Screening

Project trips were assigned throughout the Study Area in the trip distribution process, as part of the Level 2 analysis. The distribution of vehicular trips was based on U.S. Census Bureau data from the American Community Survey. Vehicles would be routed to/from the Project Area via major Manhattan thoroughfares, including the West Side Highway and Lincoln Tunnel for west side traffic and Franklin D. Roosevelt Drive, the Queens-Midtown Tunnel, and Ed Koch Queensboro Bridge for east side traffic. Once arriving within the Study Area, traffic would move through the local streets to the Project Area. Results of the Level 2 screening indicated that a total of 89

intersections within the Study Area warrant traffic analysis based on the CEQR Technical Manual screening threshold of 50 or more vehicles added to an intersection during the peak hours.

Only the AM and PM peak hours were included for traffic analysis, as determined in the TDF Memo found in **Appendix 9F**. Per the TDF memo, all intersections flagged for analysis in the Midday Peak Hour were also flagged with higher volumes in either the AM or PM peak and presented similar other geometric and signalization overlaps between these hours. Due to the similarities and lower volumes, midday analysis was determined not to be necessary.

9B.4 AFFECTED ENVIRONMENT

9B.4.1 Existing Conditions

The Study Area is located in Midtown Manhattan, where the street network is primarily a grid system composed of mostly one-way avenues and streets through commercial neighborhoods. A series of ramps and connector roads also link the roadway network to the PABT and the Lincoln Tunnel, the latter of which is a major roadway connection between New York and New Jersey. The primary vehicular routes through the Study Area include the six north-south avenues (Twelfth Avenue, Eleventh Avenue, Tenth Avenue, Ninth Avenue, Eighth Avenue, and Seventh Avenue), and two east-west streets (42nd Street, 34th Street). There are numerous secondary east-west street routes as well as one secondary north-south route (Broadway).

9B.4.1.1 Vehicular

Streets

Streets in the Study Area run either east or west and have widths of approximately 30 to 35 feet. The two primary east-west streets that run in both directions (34th Street and 42nd Street) are the exception and have widths of approximately 50 to 60 feet.

34th Street is a major two-way crosstown street that spans the width of Manhattan. Throughout the Study Area, 34th Street typically has one through lane for general traffic and one bus-only lane in each direction. The SIM 24, SIM 23, M34 SBS, and M34A express bus routes operate along 34th Street in both directions. 34th Street is designated as a through truck route, with trucks prohibited between the Queens-Midtown Tunnel and Dyer Avenue between 11 a.m. and 6 p.m.

West 42nd Street is a two-way crosstown street that spans the width of Manhattan and generally provides two moving lanes in each direction for general traffic. In the eastbound direction east of Dyer Avenue, the curbside lane is designated as bus-only from 7 a.m. - 10 a.m. and from 4 p.m. - 7 p.m. Monday through Friday (except for the block between Seventh Avenue and Broadway). In the westbound direction east of Eighth Avenue, the curbside lane is designated as bus-only from 7 a.m. - 10 a.m. and from 4 p.m. - 7 p.m., Monday through Friday. Outside of these specified times, the curbside lanes are used for parking. The SIM 8, SIM 8 X, SIM 22, SIM 23, SIM 24, SIM 25, and SIM 30 express bus routes operate along West 42nd Street between Dyer and

Sixth Avenues and the M42 bus route operates along the entire length of West 42nd Street within the Study Area. West 42nd Street is designated as both a through and local truck route.

The remaining crosstown streets within the Study Area are characterized by one to two travel lanes (one-way) and curbside parking on either side. A portion of West 40th Street west of Eleventh Avenue allows westbound travel for buses entering and exiting the Michael J. Quill Bus Depot. A short segment of West 43rd Street west of Tenth Avenue operates as a two-way street to provide access to the New York City Fire Department Rescue Company 1. On West 39th, West 40th, and West 41st Streets, portions of the curb lane are used for bus layovers. A bus-only lane (effective 4 p.m. - 7 p.m., Monday through Friday) is located on the south side of West 41st Street between Ninth and Dyer Avenues, primarily serving the SIM express bus routes and buses exiting the South Wing Lower Level of the PABT. The segment of West 43rd Street between Eighth and Ninth Avenues serves as a terminus and layover area for buses on the M34A-SBS route.

Designated bike lanes and shared bike lanes are present on portions of West 38th, West 40th, and West 43rd Streets. The segment of West 42nd Street between Seventh Avenue and Broadway includes a shared bike lane in the eastbound direction.

Avenues

Avenues generally run north to south and have a width of approximately 60 to 70 feet. Avenues have sidewalks running parallel on both sides. The directions of the avenues alternate with Eighth and Tenth Avenues running northbound and Broadway, Seventh, Ninth, and Eleventh Avenues running southbound. Route 9A/Twelfth Avenue runs in both the northbound and southbound directions. Other north-south roadways include Dyer and Galvin Avenues.

Eighth Avenue is a one-way northbound roadway consisting of four moving lanes and at least one curb lane for parking. The curb lanes are often partially replaced by right or left turn bays at intersection approaches. As Eighth Avenue approaches the eastern side of the PABT at West 39th Street, the west curb lane becomes a designated taxi stand until West 42nd Street. One bus-only lane is present on the east side of the roadway from West 42nd to West 43rd Streets (in effect at all times) and from West 43rd to West 45th Streets (in effect from 4 p.m. - 7 p.m., Monday through Friday). The M34A-Select Bus Service (SBS), M20, and M104 bus routes operate along all or portions of Eighth Avenue within the Study Area. A Class I protected bike lane exists along the west side of Eighth Avenue for the entire Study Area except for a temporary transition to a shared lane from West 39th to West 42nd Streets within the vicinity of the PABT (as described further in **Section 9B.4.2.1**). Eighth Avenue serves as a local truck route through the entire Study Area.

Ninth Avenue is a one-way southbound roadway generally consisting of four moving lanes. Curbside parking is typically provided on one side of the street and the curb lanes are often partially replaced by right or left turn bays at intersection approaches. One bus-only lane (in effect from 4 p.m. - 7 p.m., Monday through Friday) is present on the west side of the roadway from West 43rd Street to West 41st Street and only buses are permitted to turn right onto

westbound West 41st Street within this time period. The M34A-SBS and M11 bus routes operate along Ninth Avenue for the entire Study Area. Additionally, the SIM 8, SIM 8X, SIM 22, SIM 23, SIM 24, SIM 25, and SIM 30 express buses (which travel between Staten Island and Manhattan) operate along a short segment of Ninth Avenue from West 42nd Street to West 41st Street. A Class I protected bike lane exists along the east side of Ninth Avenue through the entire Study Area. Ninth Avenue serves also as a local truck route through the entire Study Area.

Tenth Avenue is a one-way northbound roadway consisting of four moving lanes with parking lanes on both sides. The M11 bus route operates on Tenth Avenue through the entire Study Area; there is no designated bus lane. Tenth Avenue also serves as a local truck route through the entire Study Area.

Eleventh Avenue is primarily one-way southbound, but sections of the avenue in the Study Area are two-way between 34th and 40th Streets. To maintain accessibility to the Lincoln Tunnel entrance on West 40th Street, Eleventh Avenue carries three lanes in both the northbound and southbound directions from West 40th Street and below. Northbound lanes at West 40th Street can only turn right. North of West 40th Street, Eleventh Avenue generally consists of five southbound moving lanes and at least one curb lane for parking. One bus-only or bus-layover lane is present on the west side of the roadway from West 42nd Street and below. The M12 bus route operates along Eleventh Avenue in the southbound direction through the entire Study Area. Eleventh Avenue also serves as a local truck route through the entire Study Area. There is a designated bike lane along Eleventh Avenue for portions of the Study Area.

Dyer Avenue is a northbound roadway situated mid-block between Ninth and Tenth Avenues. The roadway extends from West 40th to West 42nd Streets and primarily provides egress for vehicles exiting the South or Center Tubes of the Lincoln Tunnel. During the weekday PM peak period a southbound, bus-only contraflow lane is provided along the west side of Dyer Avenue to provide access to the Center Tube of the Lincoln Tunnel. This contraflow lane provides service to the SIM8, SIM8x, SIM22, SIM23, SIM24, SIM25, and SIM30 express bus routes and buses exiting the lower levels of the PABT. During the period when contraflow travel is in operation, Dyer Avenue consists of three northbound travel lanes and one southbound travel lane. At all other times, the roadway consists of four northbound travel lanes only. Dyer Avenue serves as a local truck route. The segment of Dyer Avenue between 34th Street and 36th Street is also part of the Study Area.

Galvin Avenue is a one-way southbound roadway between Tenth and Eleventh Avenues. The roadway extends from West 41st to West 40th Streets and primarily provides access to the North Tube of the Lincoln Tunnel. Galvin Avenue has a roadway width of approximately 80 feet and provides two travel lanes and one bus-only lane.

Intersections

There are 138 intersections in the Study Area. 132 are signalized, and six are unsignalized. The signal timings for the signalized intersections were either provided by NYC DOT or from the Pennsylvania Station Area Civic and Land Use Improvement Project FEIS.

Other Existing Infrastructure

The Study Area contains the Manhattan approach to the Lincoln Tunnel, a major Hudson River crossing linking Midtown Manhattan with Weehawken, New Jersey. The tunnel, operated by the PANYNJ, consists of three, two-lane tubes: the North Tube, the Center Tube, and the South Tube. The North Tube operates in the westbound direction at all times, the South Tube operates in the eastbound direction at all times, and the Center Tube is bi-directional, with both lanes operating in the eastbound direction during the weekday AM peak period and both lanes operating in the westbound direction during the weekday PM peak period. During the weekday AM peak period, the north lane of the Center Tube generally serves as the extension of the Exclusive Bus Lane (XBL), a 2.5-mile-long contraflow lane that the PANYNJ operates on New Jersey Route 495 to alleviate Manhattan Bound bus congestion. The XBL provides eastbound service for buses only on weekdays from 6:00 a.m. - 10:00 a.m., allowing a direct connection between the New Jersey Turnpike and Manhattan via the Lincoln Tunnel. The Center Tube is bi-directional at all other times of day.

The proximity of the Lincoln Tunnel has a major influence on the Study Area. Important access points for the tunnel within the Study Area include Galvin Avenue at West 40th Street and Dyer Avenue at West 40th Street. Galvin Avenue acts as an entry point, providing access to the North Tube, while Dyer Avenue acts as an entry/exit point for both the Center and South Tubes. The Lincoln Tunnel Expressway also provides access to the Manhattan approach of the tunnel at West 30th, West 31st, West 33rd, and West 36th Streets.

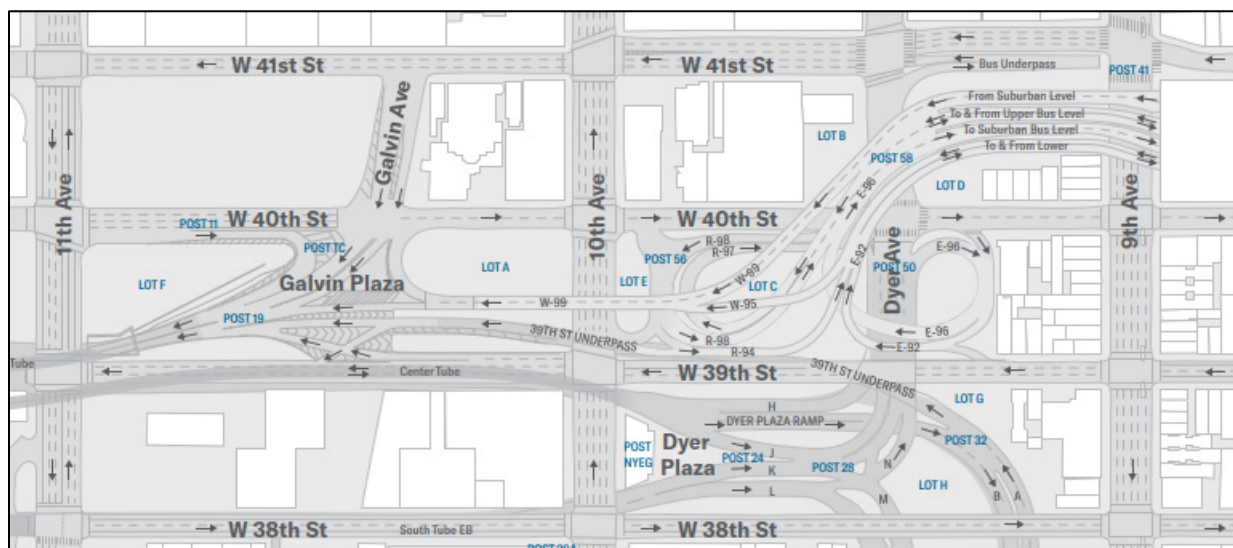
Buses traveling between the Lincoln Tunnel and into the PABT primarily use grade-separated ramp connections that do not require buses to travel on the local street network. These ramps serve distinct routes to/from the tunnel, with some ramps reversing direction in the morning and evening to match the operation of the tunnel. During the AM peak period, buses traveling to the lower level of the North Wing of the PABT exit from either the Center or South Tubes of the Lincoln Tunnel and travel north on Dyer Avenue to access the Greyhound Tunnel. Buses leaving the lower level of the North Wing exit at the Greyhound Tunnel and proceed west on West 41st Street before turning left on Galvin Avenue to access the North Tube of the Lincoln Tunnel. During the PM peak period, buses traveling to the lower level of the North Wing all exit from the South Tube of the Lincoln Tunnel and travel north on Dyer Avenue to access the Greyhound Tunnel. Buses leaving the lower level of the North Wing exit at the Greyhound Tunnel and either proceed west on West 41st Street before turning left on Galvin Avenue to access the North Tube of the Lincoln Tunnel or turn left on Dyer Avenue and use the contraflow lane to access the Center Tube of the Lincoln Tunnel.

During the AM peak period, buses traveling to the lower level of the South Wing exit from either the Center or South Tubes of the Lincoln Tunnel and travel north on Dyer Avenue to turn right onto West 40th Street and access the South Wing entrance after Ninth Avenue. Buses leaving the lower level of the South Wing exit left onto West 41st Street and proceed west before turning left onto Galvin Avenue to access the North Tube of the Lincoln Tunnel. During the PM peak period, buses exiting the lower level of the South Wing also have the option of using the contraflow lane on Dyer Avenue to access the Center Tube of the Lincoln Tunnel.

During the AM peak period, buses traveling to the third and fourth levels of the terminal from the South Tube of the Lincoln Tunnel proceed north on Dyer Avenue followed by an immediate right turn onto Ramp 96 which continues up to both the third and fourth levels. Buses exiting from the Center Tube also proceed north on Dyer Avenue, but turn left onto Ramps 97 and 98 which both continue up to the third and fourth levels. Buses leaving the third and fourth levels proceed onto Ramp 99 which leads directly to the North Tube of the Lincoln Tunnel. Ramp 99 also offers the option of turning right onto West 40th Street for those buses returning to the local street network. During the PM peak period, Ramp 97 reverses direction allowing buses leaving the third and fourth levels to enter the Center Tube of the Lincoln Tunnel via the contraflow lane on Dyer Avenue.

Most ramps at the existing PABT are restricted to buses only. However, automobiles accessing the parking garage on the top level of the terminal can use Ramps 92, 94, 95, 96, and 99 with some restrictions. This is further described in **Appendix 9F. Figure 9B-4** shows a map of the ramp area with labels.

Figure 9B-4. Ramp Area Map



Source: PANYNJ (2023)

Existing Traffic Volumes

The Base Year flow maps were developed using the data and methodologies described in **Sections 9B3.1.3 and 9B3.1.4.**

After the existing traffic data was compiled, adjustments were made to provide a balanced roadway volume network, per CEQR Technical Manual.² These adjustments were performed based upon professional judgement taking into consideration the reliability and consistency of the data to appropriately account for established patterns. Given the highly commercial nature of the Study Area there are many mid-block entrances and exits (serving parking garages for example) that impact having a balanced traffic flow in the network. To balance the flow map, the difference in volumes between two intersections were used to determine the volumes using mid-block entrances and exits. In general, the major mid-block entrances and exits were considered and balanced while the minor entrances and exits were not considered because of low volumes. The count data used to establish the existing traffic conditions were adjusted to account for changes in volumes and street operations between the various parameters discussed above. Traffic data adjustments and balancing were refined using the following steps:

- Study Area locations with count data from 2018 were generally used as a baseline reference to adjust and balance the Study Area locations with count data from years prior to 2018.
- Study Area locations along avenues were adjusted and balanced based on the most common year of count data. If the most common year of count data along an avenue was from prior to 2018, volumes were instead adjusted and balanced based on study locations with count data from within the last three years.

All Balanced Flow Maps were reviewed and approved by NYC DOT. Refer to **Appendix 9F** for existing traffic volume flow maps.

Synchro Analysis

The physical network coding of the Synchro models consists of inputting road geometry, lane assignments, followed by signal timings. The geometry was coded based on 2019 lane geometry. For roads where there were long-term roadway or lane closures in place for construction these were coded in the model as being closed. This primarily includes the areas around the Hudson Yards Development and the Moynihan Train Hall construction. The input into the model consists of the balanced vehicular volumes.

Calibration of the Synchro model was performed using the CEQR Technical Manual, *Chapter 16 – Transportation* and NYCDOT's *Synchro Software Calibration* guidelines. Calibration efforts were performed when the v/c ratio for a lane group exceeds 1.05 under existing conditions. Results such as travel times and queues were also compared to field observations and previously conducted traffic analyses from nearby projects with overlapping Study Area intersections. See

² See CEQR Technical Manual (2020) Page 16-25 for a description and definition of the *Preparation of Peak Hour Traffic Volume Maps*

Synchro Calibration Report in **Appendix 9F** for more details regarding Synchro model calibration. The results from the Synchro models were reported per CEQR Technical Manual for both the un-calibrated and calibrated AM and PM models. The full Synchro outputs can be found in **Appendix 9F**. The results reports include delay, LOS, and queueing information. An abbreviated summary of the AM and PM un-calibrated and calibrated Synchro results can be found in **Table 9B-4** and **Table 9B-5** at the end of this report, and the full table can be found in **Appendix 9F**. Intersections showing LOS E or F are highlighted in the tables.

In the calibrated AM model, there were several movements that operate at LOS E or F, which were mostly left turning movements. There were two intersections with an overall LOS E, and one with LOS F. All other intersections operated at LOS D or better. The intersections operating at LOS E or F in the AM calibrated model are:

- Broadway at West 42nd Street (LOS E)
- Ninth Avenue at West 31st Street (LOS E)
- Eighth Avenue at West 33rd Street (LOS F)

In the calibrated PM model, there were there were several movements that operated at LOS E or F, which were mostly left turning movements. There were three intersections with an overall LOS E, and none with LOS F. All other intersections operated at LOS D or better. The intersections operating at LOS E in the PM calibrated model are:

- Tenth Avenue at West 39th Street
- Tenth Avenue and West 40th Street
- Tenth Avenue and West 41st Street

9B.4.2 Future Conditions in the Study Area

Future conditions in the Study Area include several changes compared to existing conditions. These changes include the construction of private developments, as well as other changes expected to be made to the roadway, pedestrian, and transit networks, all of which are anticipated to occur regardless of the Proposed Project.

9B.4.2.1 Vehicular

Roadway conditions that have changed or are expected to change between 2019 and all future years (2028, 2032, and 2040) of analysis, for both No Action and With Action are summarized below. A comparison table showing details of all geometric changes due to SIPs can be found in **Appendix 9F**.

- There are geometric changes along West 30th Street between Ninth Avenue and Tenth Avenue due to construction for new bus operations. This change will include an entrance off Ninth Avenue between West 31st Street and West 30th Street, an exit on Dyer Avenue

between West 31st Street and West 30th Street and changes the lane geometry along West 30th Street between Dyer Avenue and Ninth Avenue.

- The block of Broadway between West 39th Street and West 40th Street has been closed to only allow pedestrians. This also results in re-routing of traffic within the No Action flow maps.
- The number of lanes along Tenth Avenue decreases from five to four travel lanes in future conditions due to a new bike lane to be striped in 2023.
- New Eighth Avenue, Ninth Avenue, and Eleventh Avenue striping plans from a 2022 SIP were used to update the model in the Study Area and resulted in removal of a traffic lane along most of the corridor.
- Northern blocks (West 46th Street to West 50th Street) of Seventh Avenue in the Study Area decreased from four to three travel lanes due to the planned bike lane improvements.
- During the construction for the Hudson Yards development, several roads were closed to traffic in 2019. These roads will be re-opened before 2028 and include:
 - Hudson Blvd between West 36th Street and West 33rd Street
 - One lane of West 35th Street between Tenth Avenue and Eleventh Avenue
- There were several turn restrictions implemented between 2019 and 2022:
 - Eighth Avenue at West 34th Street: Prohibited eastbound left turn & northbound left turn & northbound right turn.
 - Seventh Avenue at West 42nd Street: Prohibited westbound left turn & eastbound right turn.
 - Eighth Avenue at West 42nd Street: Prohibited northbound left turn.

In addition to geometric changes made in the Study Area, signal timing changes were made for a large portion of the Study Area, due to changes made since 2019. The taxi pick-up and drop-off location is assumed to remain in the existing location on Eighth Avenue per NYC DOT's SIP.

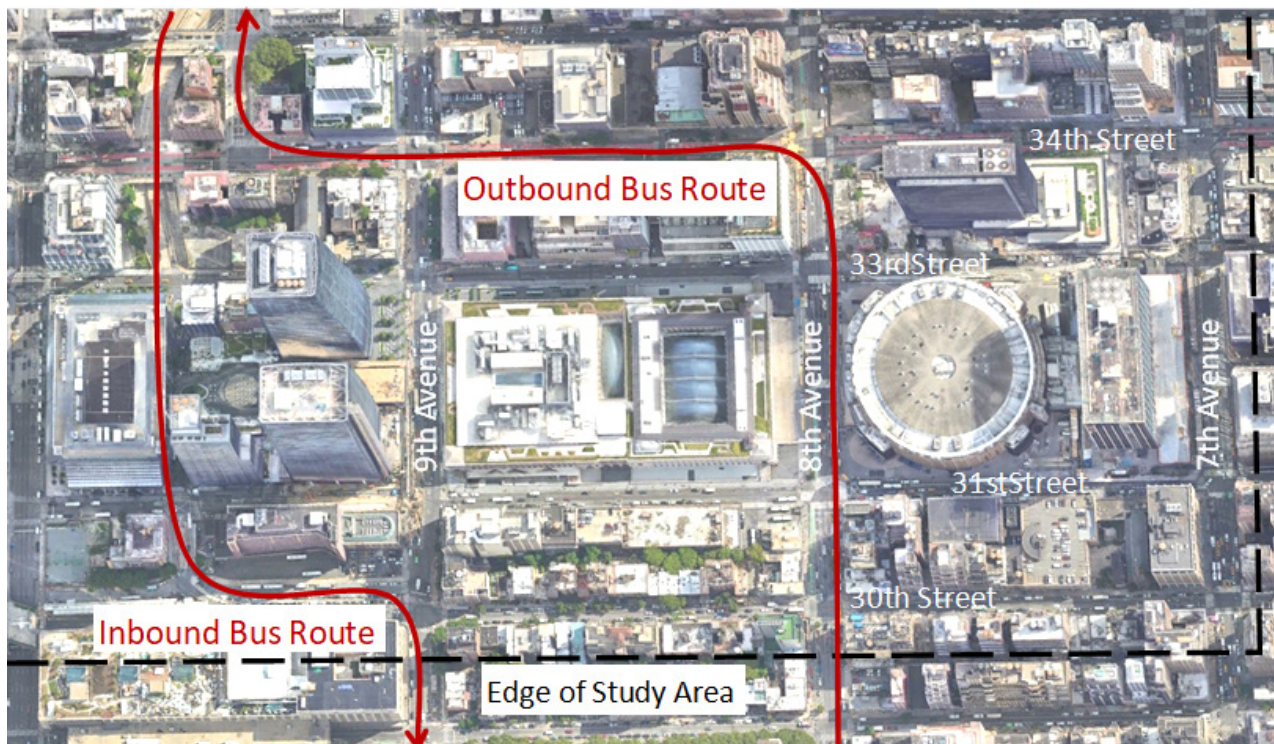
9B.5 FUTURE WITHOUT THE PROPOSED PROJECT

The Future Without the Proposed Project would reflect several changes in how buses serving the PABT would operate, resulting in buses utilizing new on-street locations. While the Proposed Project would increase the capacity of the Main Terminal and improve peak hour efficiency and operations, the No Action Alternative would result in a PABT with reduced bus capacity. Under the No Action Alternative, the PANYNJ would implement a series of major structural repairs to address aging floor slabs. Given the size of the structural repairs, the restored PABT would need to comply with the Americans with Disabilities Act, which would involve installation of ramps and additional elevators, which would remove bus gates, and lower the facilities capacity by 27%.

Under the No Action Alternative, by 2040 when the existing PABT has completed all structural repairs, there would be 90 buses utilizing curbside locations on Dyer Avenue, Hudson Boulevard, West 35th Street, 11th Avenue, West 34th Street, and West 33rd Street. There would also be 55

buses utilizing the 30th Street lots. As detailed in **Appendix 9A** there is a shortfall of curbside location within the Study Area that can accommodate the identified bus shortfall (those buses which cannot be accommodated within the PABT). These buses, 156 during the construction period and 206 in 2040, are assumed to route through the Study Area to the south of West 30th Street and utilize city streets beyond the Study Area in the Hudson Yards area. These buses were assumed to traverse the Study Area by utilizing the Lincoln ramping system south to West 30th Street, turn left towards Ninth Avenue, and head south on Ninth Avenue at West 30th Street. Return trips are assumed to enter back into the Study Area by coming north on Eighth Avenue and turning left onto West 34th Street to enter back into the Lincoln Tunnel south tube, as shown in **Figure 9B-5**. These bus numbers were reflected in all three No Action flow maps which can be found in **Appendix 9F**. More details regarding bus volumes can also be found in **Appendix 9C**, "Transit."

Figure 9B-5. Unaccommodated Bus Routing



Source: Radin Consulting (2023)

9B.5.1 2028 Analysis Year

9B.5.1.1 Future Traffic Volumes

As described in **Section 9B.3.1.4**, the future year 2028 No Action Alternative volumes were developed using guidance from NYC DOT. The traffic volumes used for this project reflect changes to account for background growth calculated per CEQR Technical Manual, and large-scale background developments, as described in **Section 9B.3.1.4**. Refer to **Appendix 9F** for the Future with the Proposed Project (2028) traffic volume flow maps.

9B.5.1.2 Synchro Analysis

The physical coding of the Synchro network included making all geometric and signal timing changes as noted in **Section 9B.4.2.1**. The signal timings were provided by NYC DOT and included both updates that have already been made in the field since 2019 (the existing analysis year), as well as timings that will be implemented as a part of future planned projects, by the 2028 analysis.

An abbreviated summary of the AM and PM 2028 No Action synchro results can be found in **Table 9B-8** and **Table 9B-9** at the end of this report; intersections showing LOS E or F are highlighted in the tables. **Figure 9B-8** and **Figure 9B-9** at the end of this report show the LOS results map for the full Study Area. The full results table with all LOS, delay, and queueing results can be found in **Appendix 9F**.

In the AM model, there were many movements that operated at LOS E or F. There were 15 intersections of the 138 with an overall LOS E, and 35 with LOS F. All other intersections operated at LOS D or better.

In the PM model, there were many movements that operated at LOS E or F. There were 23 intersections of the 138 with an overall LOS E, and 44 with LOS F. All other intersections operated at LOS D or better.

9B.5.2 2032 Analysis Year

9B.5.2.1 Future Traffic Volumes

As described in **Section 9B.3.1.4**, the future year 2032 No Action Alternative volumes were developed using guidance from NYC DOT. The traffic volumes used for this project reflect changes to account for background growth, per CEQR Technical Manual and large-scale background developments, as described in **Section 9B.3.1.4**, and per bus volume updates described in **Section 9B.5**. Refer to **Appendix 9F** for the Future with the Proposed Project (2040) traffic volume flow maps. More details regarding bus volumes can also be found in **Appendix 9A**.

9B.5.2.2 Synchro Analysis

The physical coding of the Synchro network included making all geometric and signal timing changes as noted in **Section 9B.4.2.1**. The signal timings were provided by NYCDOT and included both updates that have already been made in the field since 2019 (the existing analysis year), as well as timings that will be implemented as a part of future planned projects.

An abbreviated summary of the AM and PM 2032 No Action synchro results can be found in **Table 9B-10** and **Table 9B-11** at the end of this report with intersections showing LOS E or F are highlighted in the tables. **Figure 9B-10** and **Figure 9B-11** at the end of this report show the LOS results map for the full Study Area. The full results table with all LOS, delay, and queueing results can be found in **Appendix 9F**.

In the AM model, many movements are expected to operate that operated at LOS E or F, with 15 of the 138 intersections at an overall LOS E, and 36 with LOS F. All other intersections operated at LOS D or better.

In the PM model, there were many movements that operated at LOS E or F. There were 26 intersections of the 138 with an overall LOS E, and 42 with LOS F. All other intersections operated at LOS D or better.

9B.5.3 2040 Analysis Year

9B.5.3.1 Future Traffic Volumes

As described in **Section 9B.3.1.4**, the future year 2040 No Action Alternative volumes were developed using guidance from NYC DOT. The traffic volumes used for this analysis year reflect changes to account for background growth per CEQR Technical Manual and large-scale background developments, as described in **Section 9B.3.1.4**, and per bus volume updates described in **Section 9B.5**. This process for the No Action Alternative flow map included using a CEQR Technical Manual standard background growth rate applied to all Existing year volumes, and additional growth from private land use development projects. The 2040 No Action Volume flow maps can be found in **Appendix 9F**.

9B.5.3.2 Synchro Analysis

The physical coding of the Synchro network included making all geometric and signal timing changes as noted in **Section 9B.4.2.1**. The signal timings were provided by NYC DOT and included both updates that have already been made in the field since 2019 (the existing analysis year), as well as timings that will be implemented as a part of future planned projects.

A summary of the AM and PM 2040 No Action Synchro results can be found in **Table 9B-12** and **Table 9B-13** at the end of this report with intersections showing LOS E or F are highlighted in the tables. **Figure 9B-12** and **Figure 9B-13** at the end of this report show the LOS results map for the full Study Area. The full results table with all LOS, delay, and queueing results can be found in **Appendix 9F**.

In the AM model, there would be many movements that operated at LOS E or F. There were 16 intersections of the 138 with an overall LOS E, and 53 with LOS F. All other intersections operated at LOS D or better.

In the PM model, there would be movements that operated at LOS E or F. There were 18 intersections of the 138 with an overall LOS E, and 62 with LOS F. All other intersections operated at LOS D or better.

9B.6 POTENTIAL IMPACTS OF THE PROPOSED PROJECT

9B.6.1 2028 Analysis Year

9B.6.1.1 Future Traffic Volumes

The 2028 Future Year With Action Conditions represent the time where the SSF and Dyer Deck-Overs would be constructed, before construction of the new Main Terminal and private development. The 2028 Proposed Project traffic volumes include the 2028 No Action volumes, as well as volume changes due to the temporary terminal and long-term construction. In 2028 With Action conditions, there would be 90 buses utilizing curbside operating locations on Dyer Avenue, Hudson Boulevard, West 35th Street, Eleventh Avenue, West 34th Street, and West 33rd Street. There would also be 55 buses utilizing the West 30th Street lots, and 115 buses utilizing the Dyer Deck-Overs. These changes include re-routes for on-street buses to the temporary terminal. The Future with the Proposed Project (2028) traffic volume flow maps can be found in **Appendix 9F**.

9B.6.1.2 Synchro Analysis

The physical coding of the Synchro network consisted of using the 2028 No Action model.

An abbreviated summary of the AM and PM Future with the Proposed Project (2028) Synchro results can be found in **Table 9B-14** and **Table 9B-15** at the end of this report with intersections showing LOS E or F are highlighted in the tables. **Figure 9B-14** and **Figure 9B-15** at the end of this report show the LOS results map for the full Study Area. Results in this report are only shown for intersections where analysis was required due to CEQR Technical Manual screenings. The full results table with all LOS, delay, and queueing results can be found in **Appendix 9F**.

In the AM model, there would be many movements that operated at LOS E or F. Of the 89 intersections that required analysis, there were 11 intersections with an overall LOS E, and 29 with LOS F. All other intersections operated at LOS D or better.

In the PM model, there would be many movements that operated at LOS E or F. Of the 89 intersections that required analysis, there were 16 intersections with an overall LOS E, and 31 with LOS F. All other intersections operated at LOS D or better.

9B.6.2 2032 Analysis Year

9B.6.2.1 Future Traffic Volumes

The 2032 Future With Action year represents the condition where the new bus Terminal would be open, but prior to the private development being constructed. The 2032 Proposed Project traffic volumes include the 2032 No Action volumes, but with the removal of the buses using the city streets and West 30th Street lot, as these buses would be housed in the new terminal. The Future with the Proposed Project (2032) traffic volume flow maps can be found in **Appendix 9F**.

9B.6.2.2 *Synchro Analysis*

The physical coding of the Synchro network consisted of using the 2032 No Action model, but including the closure of West 41st Street between Eighth and Ninth Avenues.

An abbreviated summary of the AM and PM Future with the Proposed Project (2032) Synchro results can be found in **Table 9B-16** and **Table 9B-17** at the end of this report with intersections showing LOS E or F are highlighted in the tables. **Figure 9B-16** and **Figure 9B-17** at the end of this report show the LOS results map for the full Study Area. Results in this report are only shown for intersections where analysis was required due to CEQR Technical Manual screenings. The full results table with all LOS, delay, and queueing results can be found in **Appendix 9F**.

In the AM model, there would be many movements that operated at LOS E or F. Of the 89 intersections that required analysis, there were 12 intersections with an overall LOS E, and 28 with LOS F. All other intersections operated at LOS D or better.

In the PM model, there would be many movements that operated at LOS E or F. Of the 89 intersections that required analysis, there were 13 intersections with an overall LOS E, and 32 with LOS F. All other intersections operated at LOS D or better.

9B.6.3 2040 Analysis Year

9B.6.3.1 *Future Traffic Volumes*

The 2040 Future With Action Condition represent the final conditions of the Proposed Project, where the SSF, Main Terminal, and private development, and open space on the Dyer Deck-Overs are complete. The future year 2040 With Action Condition volumes include the 2040 No Action volumes, but with the removal of the buses using the city streets and West 30th Street lot, as these buses will be housed in the new terminal. The Future with the Proposed Project (2040) traffic volume flow maps can be found in **Appendix 9F**.

9B.6.3.2 *Synchro Analysis*

The physical coding of the Synchro network used the 2040 No Action model, but included the closure of 41st Street between Eighth and Ninth Avenues, and the closure of one lane on West 40th Street between Galvin Avenue and Tenth Avenue.

An abbreviated summary of the AM and PM Future with the Proposed Project (2040) Synchro results can be found in **Table 9B-18** and **Table 9B-19** at the end of this report with intersections showing LOS E or F are highlighted in the tables. **Figure 9B-18** and **Figure 9B-19** at the end of this report show the LOS results map for the full Study Area. Results in this report are only shown for intersections where analysis was required due to CEQR Technical Manual screenings. The full results table with all LOS, delay, and queueing results can be found in **Appendix 9F**.

In the AM model, there would be many movements that operated at LOS E or F. Of the 89 intersections that required analysis, there were 11 intersections with an overall LOS E, and 42 with LOS F. All other intersections operated at LOS D or better.

In the PM model, there would be many movements that operated at LOS E or F. Of the 89 intersections that required analysis, there were 13 intersections with an overall LOS E, and 51 with LOS F. All other intersections operated at LOS D or better.

Mitigation Results

The No Action delay results per lane group were compared to the Proposed Project results for the 2040 final build conditions to determine the Proposed Project's potential to result in significant adverse impacts. The completion of the private development in 2040 would add the most traffic to the streets in the area around the Proposed Project, and therefore would be the year with the most impacts, so was the year that mitigations were analyzed. Significant adverse impacts were defined consistent with the CEQR Technical Manual as follows:

- A lane group with LOS D that had a delay increase of 5.0s or more (total greater than 45s).
- A lane group with LOS E that had an increase of 4.0s or more.
- A lane group with LOS F that had an increase of 3.0s or more.

Results in this report are only shown for intersections where analysis was required due to CEQR Technical Manual screenings. The result comparison concluded 57 out of the 89 intersections in the AM and 58 intersections in the PM out of the 89 that required analysis would experience significant adverse impacts as a result of the Proposed Project. The comparison tables are shown in **Table 9B-20** and **Table 9B-21** at the end of this report. The full intersection comparison results can be found in the **Appendix 9F**.

Mitigation efforts were analyzed for all movements (as well as overall intersections) that showed a significant impact as a result of the Proposed Project. When conducting the mitigation analysis, there were several standard CEQR Technical Manual approved efforts that were identified and analyzed. The first mitigation effort that was applied was signal timing green time allocation (adjusted by a maximum of four seconds per CEQR Technical Manual guidelines). Additional mitigation efforts included removal of parking during peak hours, re-striping through and turn lanes, and potentially adding exclusive or overlapping turning phases.

Overall, 14 of 57 intersections would be able to be mitigated through these measures in the AM model, and 16 of 56 intersections in the PM. In general, it was found that changes to the signal timing offered the best results when applying mitigation measures to the impacted intersections. **Table 9B-24** summarizes the applied changes at the individual intersections with the redistribution of existing signal green time. It should be noted that no pedestrian crossing times were modified as part of these changes. Pedestrian times for Flashing Walk & Don't Walk indications have remained unchanged.

Table 9B-22 and **Table 9B-23** show the comparison tables between the No Action Alternative and the Proposed Project results including mitigations. The full intersection results can be found in the **Appendix 9F**.

9B.7 CONCLUSIONS

In the existing conditions calibrated AM model in the Base Year (2019), there were several movements that operated at LOS E or F, which were mostly left turning movements. There were two intersections with an overall LOS E, and one with LOS F. All other intersections operated at LOS D or better.

In the existing conditions calibrated PM model, there were there were several movements that operated at LOS E or F, which were mostly left turning movements. There were three intersections with an overall LOS E, and none with LOS F. All other intersections operated at LOS D or better.

The No Action Alternative traffic demand forecasts were developed for three years: 2028, which represents the initial ETC (2028: ETC for the SSF), 2032, the ETC for commencement of operations of the new Main Terminal, and the 2040 Design Year, which is also the year by which both of the new development towers are expected to be completed and fully occupied. Forecasts were developed for the AM and PM peak-hour traffic flow for the Study Area using CEQR Technical Manual guidelines and a CEQR Technical Manual background growth rate provided by NYC DOT.

The Proposed Project would generate 11,574, 11,138, and 11,607 person trips in the AM, midday, and PM peak hours, respectively. This correlates to 901, 565, and 851 vehicle trips in the AM, midday, and PM peak hours, respectively. A total of 89 intersections within the Study Area warranted traffic analysis based on the CEQR Technical Manual screening threshold of 50 or more vehicles added to an intersection during the peak hours.

In the Future Without the Proposed Project (2028) model, there would be many movements that operated at LOS E or F. In the AM peak hour, there would be 15 intersections of the 138 within the Study Area that operated with an overall LOS E, and 35 with LOS F. In the PM peak hour, there would be 23 intersections of the 138 within the Study Area that operated with an overall LOS E, and 44 with LOS F. In the Future with the Proposed Project (2028) model, of the 89 intersections that required analysis, there would be 11 intersections in the AM with an overall LOS E, and 29 with LOS F. Of the 89 intersections in the PM that required analysis, there would be 16 intersections with an overall LOS E, and 31 with LOS F.

In the Future Without the Proposed Project (2032) model, there would be many movements that operated at LOS E or F. In the AM peak hour, there would be 15 intersections of the 138 within the Study Area that operated with an overall LOS E, and 36 with LOS F. In the PM peak hour, there would be 26 intersections of the 138 within the Study Area that operated with an overall LOS E, and 42 with LOS F. In the Future with the Proposed Project (2032) model, of the 89 intersections that required analysis, there would be 12 intersections in the AM with an overall LOS E, and 28 with LOS F. Of the 89 intersections in the PM that required analysis, there would be 13 intersections with an overall LOS E, and 32 with LOS F.

In the Future Without the Proposed Project (2040) model, there would be multiple movements that operated at LOS E or F. In the AM peak hour, there would be 16 intersections of the 138 within the Study Area that operated with an overall LOS E, and 53 with LOS F. In the PM peak hour, there would be 18 intersections of the 138 within the Study Area that operated with an overall LOS E, and 62 with LOS F. In the Future With the Proposed Project (2040) model, of the 89 intersections that required analysis, there would be 11 intersections in the AM with an overall LOS E, and 42 with LOS F. Of the 89 intersections in the PM that required analysis, there would be 13 intersections with an overall LOS E, and 51 with LOS F.

No Action and With Action LOS results are summarized in **Table 9B-4** and **Table 9B-5**. No Action results are shown out of the full 138 intersections of the Study Area, while With Action results are only shown out of the 89 intersections that required analysis per CEQR Technical Manual guidelines.

Table 9B-4. Summary of No-Action Results

	AM Peak Hour		PM Peak Hour	
	LOS E	LOS F	LOS E	LOS F
2028	15	35	23	44
2032	15	36	26	42
2040	16	53	18	62

Table 9B-5. Summary or With Action Results

	AM Peak Hour		PM Peak Hour	
	LOS E	LOS F	LOS E	LOS F
2028	11	29	16	31
2032	12	28	13	32
2040	11	42	13	51

Mitigation efforts were analyzed for all movements (as well as overall intersections) that showed a significant impact as a result of the Proposed Project. When conducting the mitigation analysis, there were several standard CEQR Technical Manual approved efforts that were identified and analyzed. Overall, 14 of 57 intersections would be able to be mitigated through these measures in the AM model, and 16 of 56 intersections in the PM. These mitigations were done by small changes in the signal timings green time allocations, and are summarized at the end of this report in **Table 9B-24**.

Table 9B-6. AM Synchro Calibrated Results Summary

2019 Base Year Conditions – AM Peak Hour (calibrated)			
Intersection	Approach	Delay	LOS
Broadway and 42 nd Street	INTERSECTION	66.8	E
Broadway and 47 th Street	INTERSECTION	31.1	C
Broadway and 49 th Street	INTERSECTION	11.4	B
7 th Ave and 30 th Street	INTERSECTION	12.6	B
7 th Ave and 31 st Street	INTERSECTION	8.8	A
7 th Ave and 34 th Street	INTERSECTION	26.9	C
7 th Ave and 36 th Street	INTERSECTION	13.0	B
7 th Ave and 37 th Street	INTERSECTION	9.9	A
7 th Ave and 38 th Street	INTERSECTION	14.7	B
7 th Ave and 39 th Street	INTERSECTION	7.9	A
7 th Ave and 40 th Street	INTERSECTION	19.8	B
7 th Ave and 41 st Street	INTERSECTION	23.4	C
7 th Ave and 42 nd Street	INTERSECTION	47.1	D
7 th Ave and 43 rd Street	INTERSECTION	9.7	A
7 th Ave and 44 th Street	INTERSECTION	14.2	B
7 th Ave and 45 th Street	INTERSECTION	26.8	C
7 th Ave and 46 th Street	INTERSECTION	9.7	A
7 th Ave and 47 th Street	INTERSECTION	6.0	A
7 th Ave and 48 th Street	INTERSECTION	27.8	C
7 th Ave and 49 th Street	INTERSECTION	20.7	C
7 th Ave and 50 th Street	INTERSECTION	19.6	B
8 th Ave and 31 st Street	INTERSECTION	11.8	B
8 th Ave and 33 rd Street	INTERSECTION	86.8	F
8 th Ave and 34 th Street	INTERSECTION	44.6	D
8 th Ave and 35 th Street	INTERSECTION	12.7	B
8 th Ave and 36 th Street	INTERSECTION	20.5	C
8 th Ave and 37 th Street	INTERSECTION	11.7	B
8 th Ave and 38 th Street	INTERSECTION	14.8	B
8 th Ave and 39 th Street	INTERSECTION	14.9	B
8 th Ave and 40 th Street	INTERSECTION	18.5	B
8 th Ave and 41 st Street	INTERSECTION	19.1	B
8 th Ave and 42 nd Street	INTERSECTION	43.5	D
8 th Ave and 43 rd Street	INTERSECTION	19.1	B
8 th Ave and 44 th Street	INTERSECTION	18.4	B
8 th Ave and 45 th Street	INTERSECTION	8.6	A
8 th Ave and 46 th Street	INTERSECTION	11.3	B
8 th Ave and 47 th Street	INTERSECTION	13.5	B
8 th Ave and 48 th Street	INTERSECTION	23.9	C
8 th Ave and 49 th Street	INTERSECTION	18.4	B
8 th Ave and 50 th Street	INTERSECTION	10.1	B
9 th Ave and 31 st Street	INTERSECTION	62.5	E
9 th Ave and 34 th Street	INTERSECTION	23.0	C
9 th Ave and 35 th Street	INTERSECTION	10.7	B
9 th Ave and 36 th Street	INTERSECTION	11.5	B
9 th Ave and 37 th Street	INTERSECTION	12.1	B
9 th Ave and 38 th Street	INTERSECTION	12.1	B

2019 Base Year Conditions – AM Peak Hour (calibrated)			
Intersection	Approach	Delay	LOS
9 th Ave and 39 th Street	INTERSECTION	18.8	B
9 th Ave and 40 th Street	INTERSECTION	20.0	C
9 th Ave and 41 st Street	INTERSECTION	11.5	B
9 th Ave and 42 nd Street	INTERSECTION	30.3	C
9 th Ave and 43 rd Street	INTERSECTION	6.9	A
9 th Ave and 44 th Street	INTERSECTION	11.1	B
9 th Ave and 45 th Street	INTERSECTION	14.9	B
9 th Ave and 46 th Street	INTERSECTION	9.7	A
9 th Ave and 47 th Street	INTERSECTION	6.1	A
9 th Ave and 48 th Street	INTERSECTION	16.2	B
9 th Ave and 49 th Street	INTERSECTION	8.1	A
Dyer Ave and 40 th Street	INTERSECTION	18.3	B
Dyer Ave and 41 st Street	INTERSECTION	20.0	C
Dyer Ave and 42 nd Street	INTERSECTION	12.9	B
10 th Ave and 31 st Street	INTERSECTION	9.7	A
10 th Ave and 33 rd Street	INTERSECTION	11.6	B
10 th Ave and 34 th Street	INTERSECTION	22.8	C
10 th Ave and 35 th Street	INTERSECTION	29.9	C
10 th Ave and 36 th Street	INTERSECTION	8.2	A
10 th Ave and 37 th Street	INTERSECTION	16.1	B
10 th Ave and 38 th Street	INTERSECTION	10.2	B
10 th Ave and 39 th Street	INTERSECTION	10.0	A
10 th Ave and 40 th Street	INTERSECTION	14.5	B
10 th Ave and 41 st Street	INTERSECTION	43.5	D
10 th Ave and 42 nd Street	INTERSECTION	22.2	C
10 th Ave and 43 rd Street	INTERSECTION	15.8	B
10 th Ave and 44 th Street	INTERSECTION	23.1	C
10 th Ave and 45 th Street	INTERSECTION	10.1	B
10 th Ave and 46 th Street	INTERSECTION	17.9	B
10 th Ave and 47 th Street	INTERSECTION	10.4	B
10 th Ave and 48 th Street	INTERSECTION	5.1	A
10 th Ave and 49 th Street	INTERSECTION	6.2	A
10 th Ave and 50 th Street	INTERSECTION	8.2	A
Galvin Ave and 40 th Street	INTERSECTION	25.9	C
Galvin Ave and 41 st Street (Unsignalized)	INTERSECTION	0.0	A
11 th Ave and 37 th Street	INTERSECTION	8.3	A
11 th Ave and 38 th Street	INTERSECTION	6.1	A
11 th Ave and 39 th Street	INTERSECTION	10.5	B
11 th Ave and 40 th Street	INTERSECTION	15.8	B
11 th Ave and 41 st Street	INTERSECTION	15.3	B
11 th Ave and 42 nd Street	INTERSECTION	15.5	B
11 th Ave and 43 rd Street	INTERSECTION	8.2	A
11 th Ave and 44 th Street	INTERSECTION	23.6	C
11 th Ave and 45 th Street	INTERSECTION	5.4	A
11 th Ave and 46 th Street	INTERSECTION	5.2	A
11 th Ave and 47 th Street	INTERSECTION	2.7	A

2019 Base Year Conditions – AM Peak Hour (calibrated)			
Intersection	Approach	Delay	LOS
11 th Ave and 48 th Street	INTERSECTION	9.5	A
11 th Ave and 49 th Street	INTERSECTION	12.4	B
12 th Ave and 30 th Street	INTERSECTION	67.1	E
12 th Ave and 34 th Street	INTERSECTION	29.1	C
12 th Ave and 36 th Street	INTERSECTION	5.1	A
12 th Ave and 37 th Street	INTERSECTION	7.1	A
12 th Ave and 39 th Street	INTERSECTION	24.6	C
12 th Ave and 40 th Street	INTERSECTION	8.4	A
12 th Ave and 41 st Street	INTERSECTION	15	B
12 th Ave and 42 nd Street	INTERSECTION	38	D
12 th Ave and 43 rd Street	INTERSECTION	5.4	A
12 th Ave and 44 th Street	INTERSECTION	7.7	A
12 th Ave and 45 th Street (Unsignalized)	INTERSECTION	0	A
12 th Ave and 46 th Street	INTERSECTION	33.4	C
12 th Ave and 47 th Street (Unsignalized)	INTERSECTION	0	A
12 th Ave and 48 th Street	INTERSECTION	52.6	D
12 th Ave and 49 th Street	INTERSECTION	25.2	C

Table 9B-7. PM Synchro Calibrated Results Summary

2019 Base Year Conditions – PM Peak Hour (calibrated)			
Intersection	Approach	Delay	LOS
Broadway and 42 nd Street	INTERSECTION	15.0	B
Broadway and 47 th Street	INTERSECTION	49.3	D
Broadway and 49 th Street	INTERSECTION	12.3	B
7 th Ave and 30 th Street	INTERSECTION	18.4	B
7 th Ave and 31 st Street	INTERSECTION	12.0	B
7 th Ave and 34 th Street	INTERSECTION	20.0	B
7 th Ave and 36 th Street	INTERSECTION	13.5	B
7 th Ave and 37 th Street	INTERSECTION	16.2	B
7 th Ave and 38 th Street	INTERSECTION	12.5	B
7 th Ave and 39 th Street	INTERSECTION	14.4	B
7 th Ave and 40 th Street	INTERSECTION	7.8	A
7 th Ave and 41 st Street	INTERSECTION	7.4	A
7 th Ave and 42 nd Street	INTERSECTION	16.4	B
7 th Ave and 43 rd Street	INTERSECTION	8.1	A
7 th Ave and 44 th Street	INTERSECTION	13.3	B
7 th Ave and 45 th Street	INTERSECTION	19.2	B
7 th Ave and 46 th Street	INTERSECTION	16.8	B
7 th Ave and 47 th Street	INTERSECTION	4.4	A
7 th Ave and 48 th Street	INTERSECTION	14.3	B
7 th Ave and 49 th Street	INTERSECTION	8.9	A
7 th Ave and 50 th Street	INTERSECTION	20.8	C
8 th Ave and 31 st Street	INTERSECTION	20.2	C
8 th Ave and 33 rd Street	INTERSECTION	21.4	C
8 th Ave and 34 th Street	INTERSECTION	51.3	D
8 th Ave and 35 th Street	INTERSECTION	11.5	B
8 th Ave and 36 th Street	INTERSECTION	18.3	B
8 th Ave and 37 th Street	INTERSECTION	12.6	B
8 th Ave and 38 th Street	INTERSECTION	13.8	B
8 th Ave and 39 th Street	INTERSECTION	19.2	B
8 th Ave and 40 th Street	INTERSECTION	11.6	B
8 th Ave and 41 st Street	INTERSECTION	12.3	B
8 th Ave and 42 nd Street	INTERSECTION	34.5	C
8 th Ave and 43 rd Street	INTERSECTION	7.6	A
8 th Ave and 44 th Street	INTERSECTION	10.9	B
8 th Ave and 45 th Street	INTERSECTION	13.2	B
8 th Ave and 46 th Street	INTERSECTION	11.0	B
8 th Ave and 47 th Street	INTERSECTION	13.2	B
8 th Ave and 48 th Street	INTERSECTION	8.5	A
8 th Ave and 49 th Street	INTERSECTION	7.2	A
8 th Ave and 50 th Street	INTERSECTION	18.0	B
9 th Ave and 31 st Street	INTERSECTION	18.4	B
9 th Ave and 34 th Street	INTERSECTION	31.9	C
9 th Ave and 35 th Street	INTERSECTION	15.1	B
9 th Ave and 36 th Street	INTERSECTION	9.3	A
9 th Ave and 37 th Street	INTERSECTION	22.3	C
9 th Ave and 38 th Street	INTERSECTION	12.8	B
9 th Ave and 39 th Street	INTERSECTION	16.8	B
9 th Ave and 40 th Street	INTERSECTION	8.6	A

2019 Base Year Conditions – PM Peak Hour (calibrated)			
Intersection	Approach	Delay	LOS
9 th Ave and 41 st Street	INTERSECTION	12.9	B
9 th Ave and 42 nd Street	INTERSECTION	19.2	B
9 th Ave and 43 rd Street	INTERSECTION	10.7	B
9 th Ave and 44 th Street	INTERSECTION	18.9	B
9 th Ave and 45 th Street	INTERSECTION	28.2	C
9 th Ave and 46 th Street	INTERSECTION	20.0	C
9 th Ave and 47 th Street	INTERSECTION	19.9	B
9 th Ave and 48 th Street	INTERSECTION	13.8	B
9 th Ave and 49 th Street	INTERSECTION	9.1	A
Dyer Ave and 40 th Street	INTERSECTION	21.4	C
Dyer Ave and 41 st Street	INTERSECTION	19.3	B
Dyer Ave and 42 nd Street	INTERSECTION	17.0	B
10 th Ave and 31 st Street	INTERSECTION	4.8	A
10 th Ave and 33 rd Street	INTERSECTION	7.6	A
10 th Ave and 34 th Street	INTERSECTION	16.3	B
10 th Ave and 35 th Street	INTERSECTION	48.5	D
10 th Ave and 36 th Street	INTERSECTION	21.6	C
10 th Ave and 37 th Street	INTERSECTION	12.3	B
10 th Ave and 38 th Street	INTERSECTION	14.2	B
10 th Ave and 39 th Street	INTERSECTION	56.3	E
10 th Ave and 40 th Street	INTERSECTION	68.0	E
10 th Ave and 41 st Street	INTERSECTION	64.4	E
10 th Ave and 42 nd Street	INTERSECTION	11.0	B
10 th Ave and 43 rd Street	INTERSECTION	11.6	B
10 th Ave and 44 th Street	INTERSECTION	7.0	A
10 th Ave and 45 th Street	INTERSECTION	9.0	A
10 th Ave and 46 th Street	INTERSECTION	8.1	A
10 th Ave and 47 th Street	INTERSECTION	10.4	B
10 th Ave and 48 th Street	INTERSECTION	4.0	A
10 th Ave and 49 th Street	INTERSECTION	4.3	A
10 th Ave and 50 th Street	INTERSECTION	8.0	A
Galvin Ave and 40 th Street	INTERSECTION	48.7	D
Galvin Ave and 41 st Street (Unsignalized)	INTERSECTION	0.0	A
11 th Ave and 37 th Street	INTERSECTION	12.7	B
11 th Ave and 38 th Street	INTERSECTION	7.8	A
11 th Ave and 39 th Street	INTERSECTION	8.4	A
11 th Ave and 40 th Street	INTERSECTION	15.6	B
11 th Ave and 41 st Street	INTERSECTION	14.7	B
11 th Ave and 42 nd Street	INTERSECTION	29.9	C
11 th Ave and 43 rd Street	INTERSECTION	10.4	B
11 th Ave and 44 th Street	INTERSECTION	15.2	B
11 th Ave and 45 th Street	INTERSECTION	16.2	B
11 th Ave and 46 th Street	INTERSECTION	5.7	A
11 th Ave and 47 th Street	INTERSECTION	4.3	A
11 th Ave and 48 th Street	INTERSECTION	5.9	A
11 th Ave and 49 th Street	INTERSECTION	11.5	B
12 th Ave and 30 th Street	INTERSECTION	58.7	E

2019 Base Year Conditions – PM Peak Hour (calibrated)			
Intersection	Approach	Delay	LOS
12 th Ave and 34 th Street	INTERSECTION	16.2	B
12 th Ave and 36 th Street	INTERSECTION	4.4	A
12 th Ave and 37 th Street	INTERSECTION	13.4	B
12 th Ave and 39 th Street	INTERSECTION	16.5	B
12 th Ave and 40 th Street	INTERSECTION	7.7	A
12 th Ave and 41 st Street	INTERSECTION	3.9	A
12 th Ave and 42 nd Street	INTERSECTION	31.6	C
12 th Ave and 43 rd Street	INTERSECTION	37.8	D
12 th Ave and 44 th Street	INTERSECTION	39	D
12 th Ave and 45 th Street (Unsignalized)	INTERSECTION	0.0	A
12 th Ave and 46 th Street	INTERSECTION	39.6	D
12 th Ave and 47 th Street (Unsignalized)	INTERSECTION	0.0	A
12 th Ave and 48 th Street	INTERSECTION	40.4	D
12 th Ave and 49 th Street	INTERSECTION	50.4	D

Figure 9B-6. 2019 AM Base Year LOS Map

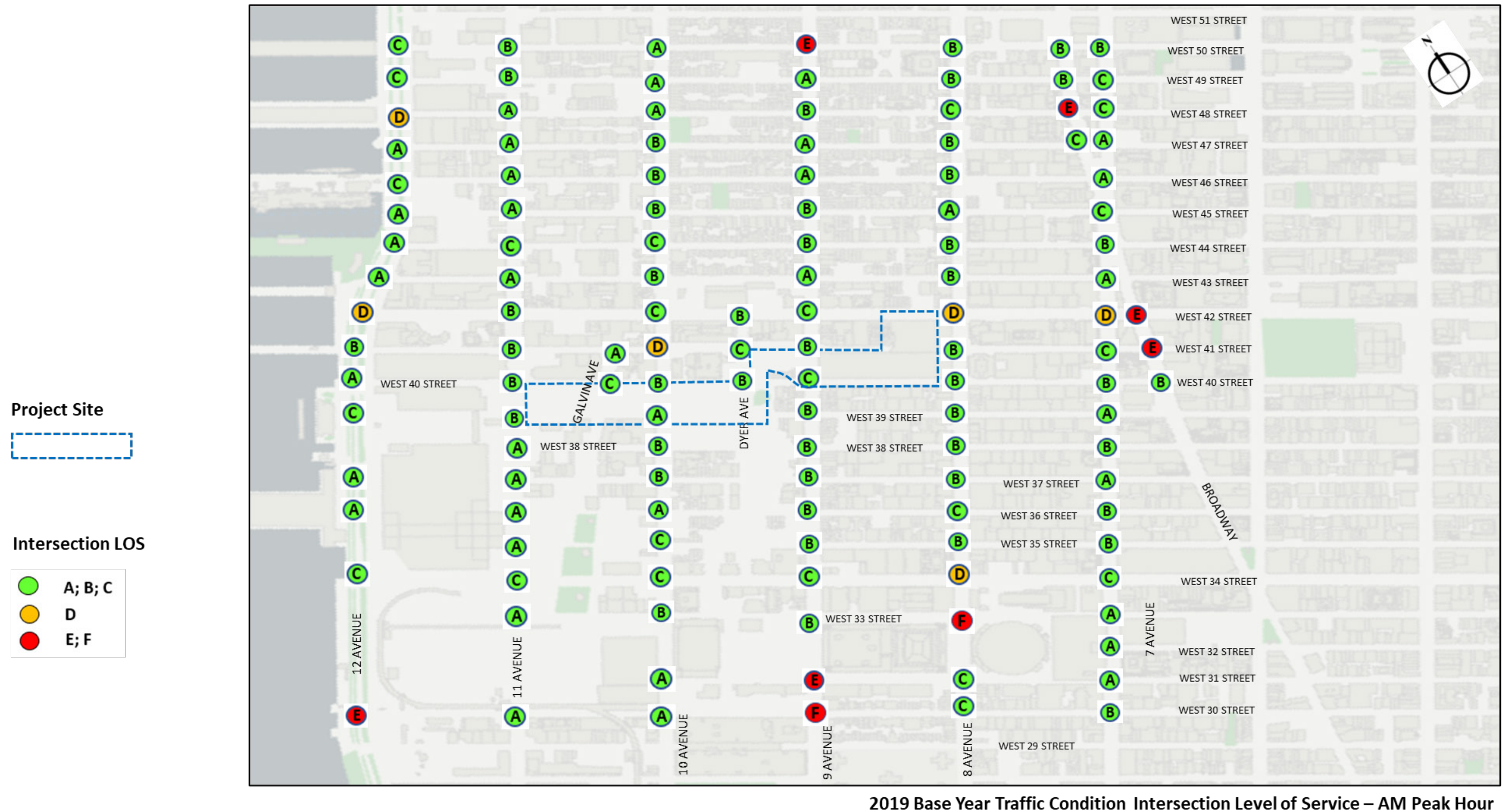
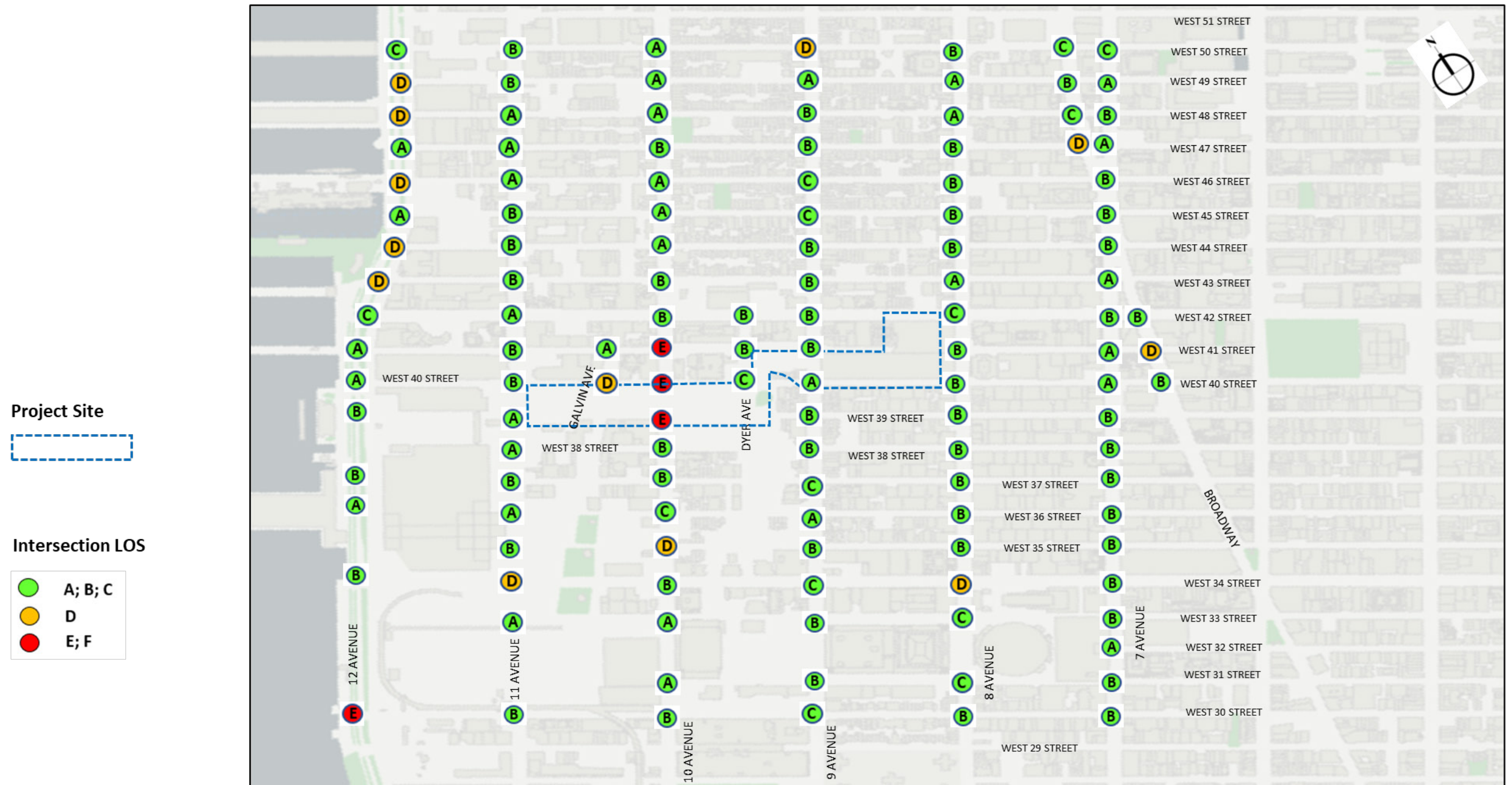


Figure 9B-7. 2019 PM Existing LOS Map



2019 Base Year Traffic Condition Intersection Level of Service – PM Peak Hour
Figure 4

Table 9B-8. 2028 AM No Action LOS and Delay Results

2028 No Action – AM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 40 th Street	INTERSECTION	20.7	C
Broadway and 41 st Street	INTERSECTION	71.0	E
Broadway and 42 nd Street	INTERSECTION	621.1	F
Broadway and 47 th Street	INTERSECTION	32.0	C
Broadway at 48 th Street	INTERSECTION	54.9	D
Broadway and 49 th Street	INTERSECTION	14.0	B
Broadway and 50 th Street	INTERSECTION	18.9	B
7 th Ave and 30 th Street	INTERSECTION	165.9	F
7 th Ave and 31 st Street	INTERSECTION	16.1	B
7 th Ave and 32 nd Street	INTERSECTION	81.1	F
7 th Ave and 33 rd Street	INTERSECTION	17.0	B
7 th Ave and 34 th Street	INTERSECTION	72.3	E
7 th Ave and 35 th Street	INTERSECTION	13.4	B
7 th Ave and 36 th Street	INTERSECTION	30.2	C
7 th Ave and 37 th Street	INTERSECTION	14.2	B
7 th Ave and 38 th Street	INTERSECTION	13.8	B
7 th Ave and 39 th Street	INTERSECTION	47.0	D
7 th Ave and 40 th Street	INTERSECTION	29.1	C
7 th Ave and 41 st Street	INTERSECTION	30.1	C
7 th Ave and 42 nd Street	INTERSECTION	166.6	F
7 th Ave and 43 rd Street	INTERSECTION	11.5	B
7 th Ave and 44 th Street	INTERSECTION	16.1	B
7 th Ave and 45 th Street	INTERSECTION	51.7	D
7 th Ave and 46 th Street	INTERSECTION	10.3	B
7 th Ave and 47 th Street	INTERSECTION	9.9	A
7 th Ave and 48 th Street	INTERSECTION	29.2	C
7 th Ave and 49 th Street	INTERSECTION	26.5	C
7 th Ave and 50 th Street	INTERSECTION	32.7	C
8 th Ave and 30 th Street	INTERSECTION	189.5	F
8 th Ave and 31 st Street	INTERSECTION	84.8	F
8 th Ave and 33 rd Street	INTERSECTION	134.4	F
8 th Ave and 34 th Street	INTERSECTION	186.0	F
8 th Ave and 35 th Street	INTERSECTION	274.5	F
8 th Ave and 36 th Street	INTERSECTION	87.9	F
8 th Ave and 37 th Street	INTERSECTION	26.0	C
8 th Ave and 38 th Street	INTERSECTION	35.5	D
8 th Ave and 39 th Street	INTERSECTION	68.5	E
8 th Ave and 40 th Street	INTERSECTION	85.6	F
8 th Ave and 41 st Street	INTERSECTION	51.3	D
8 th Ave and 42 nd Street	INTERSECTION	137.5	F
8 th Ave and 43 rd Street	INTERSECTION	104.2	F
8 th Ave and 44 th Street	INTERSECTION	380.1	F
8 th Ave and 45 th Street	INTERSECTION	64.9	E
8 th Ave and 46 th Street	INTERSECTION	111.9	F
8 th Ave and 47 th Street	INTERSECTION	49.6	D
8 th Ave and 48 th Street	INTERSECTION	195.2	F

2028 No Action – AM Peak Hour			
Intersection	Approach	Delay	LOS
8 th Ave and 49 th Street	INTERSECTION	80.9	F
8 th Ave and 50 th Street	INTERSECTION	151.0	F
9 th Ave and 30 th Street	INTERSECTION	12.2	B
9 th Ave and 31 st Street	INTERSECTION	17.9	B
9 th Ave and 33 rd Street	INTERSECTION	48.9	D
9 th Ave and 34 th Street	INTERSECTION	176.3	F
9 th Ave and 35 th Street	INTERSECTION	23.0	C
9 th Ave and 36 th Street	INTERSECTION	101.0	F
9 th Ave and 37 th Street	INTERSECTION	16.8	B
9 th Ave and 38 th Street	INTERSECTION	26.5	C
9 th Ave and 39 th Street	INTERSECTION	13.8	B
9 th Ave and 40 th Street	INTERSECTION	104.3	F
9 th Ave and 41 st Street	INTERSECTION	8.3	A
9 th Ave and 42 nd Street	INTERSECTION	159.9	F
9 th Ave and 43 rd Street	INTERSECTION	16.0	B
9 th Ave and 44 th Street	INTERSECTION	17.7	B
9 th Ave and 45 th Street	INTERSECTION	11.7	B
9 th Ave and 46 th Street	INTERSECTION	9.3	A
9 th Ave and 47 th Street	INTERSECTION	5.2	A
9 th Ave and 48 th Street	INTERSECTION	18.5	B
9 th Ave and 49 th Street	INTERSECTION	14.4	B
9 th Ave and 50 th Street	INTERSECTION	158.4	F
Dyer Ave and 40 th Street	INTERSECTION	21.7	C
Dyer Ave and 41 st Street	INTERSECTION	57.3	E
Dyer Ave and 42 nd Street	INTERSECTION	97.5	F
10 th Ave and 30 th Street	INTERSECTION	111.6	F
10 th Ave and 31 st Street	INTERSECTION	14.8	B
10 th Ave and 33 rd Street	INTERSECTION	38.6	D
10 th Ave and 34 th Street	INTERSECTION	59.6	E
10 th Ave and 35 th Street	INTERSECTION	37.2	D
10 th Ave and 36 th Street	INTERSECTION	8.4	A
10 th Ave and 37 th Street	INTERSECTION	24.4	C
10 th Ave and 38 th Street	INTERSECTION	15.1	B
10 th Ave and 39 th Street	INTERSECTION	8.0	A
10 th Ave and 40 th Street	INTERSECTION	18.3	B
10 th Ave and 41 st Street	INTERSECTION	59.1	E
10 th Ave and 42 nd Street	INTERSECTION	218.6	F
10 th Ave and 43 rd Street	INTERSECTION	51.4	D
10 th Ave and 44 th Street	INTERSECTION	467.8	F
10 th Ave and 45 th Street	INTERSECTION	62.7	E
10 th Ave and 46 th Street	INTERSECTION	111.7	F
10 th Ave and 47 th Street	INTERSECTION	92.2	F
10 th Ave and 48 th Street	INTERSECTION	65.2	E
10 th Ave and 49 th Street	INTERSECTION	60.7	E
10 th Ave and 50 th Street	INTERSECTION	160.2	F
Galvin Ave and 40 th Street	INTERSECTION	21.5	C

2028 No Action – AM Peak Hour			
Intersection	Approach	Delay	LOS
Galvin Ave and 41 st Street (Unsignalized)	INTERSECTION	0.0	A
11 th Ave and 30 th Street	INTERSECTION	23.0	C
11 th Ave and 33 rd Street	INTERSECTION	9.9	A
11 th Ave at 34 th Street	INTERSECTION	30.3	C
11 th Ave at 35 th Street	INTERSECTION	10.2	B
11 th Ave at 36 th Street	INTERSECTION	10.3	B
11 th Ave and 37 th Street	INTERSECTION	8.9	A
11 th Ave and 38 th Street	INTERSECTION	13.0	B
11 th Ave and 39 th Street	INTERSECTION	47.5	D
11 th Ave and 40 th Street	INTERSECTION	101.6	F
11 th Ave and 41 st Street	INTERSECTION	17.0	B
11 th Ave and 42 nd Street	INTERSECTION	104.1	F
11 th Ave and 43 rd Street	INTERSECTION	6.9	A
11 th Ave and 44 th Street	INTERSECTION	10.5	B
11 th Ave and 45 th Street	INTERSECTION	11.2	B
11 th Ave and 46 th Street	INTERSECTION	6.3	A
11 th Ave and 47 th Street	INTERSECTION	6.2	A
11 th Ave and 48 th Street	INTERSECTION	19.2	B
11 th Ave and 49 th Street	INTERSECTION	32.9	C
11 th Ave and 50 th Street	INTERSECTION	20.4	C
12 th Ave and 30 th Street	INTERSECTION	152.9	F
12 th Ave and 34 th Street	INTERSECTION	41.6	D
12 th Ave and 36 th Street	INTERSECTION	21.1	C
12 th Ave and 37 th Street	INTERSECTION	40.1	D
12 th Ave and 39 th Street	INTERSECTION	60.8	E
12 th Ave and 40 th Street	INTERSECTION	50.5	D
12 th Ave and 41 st Street	INTERSECTION	69.9	E
12 th Ave and 42 nd Street	INTERSECTION	81.6	F
12 th Ave and 43 rd Street	INTERSECTION	36.4	D
12 th Ave and 44 th Street	INTERSECTION	55.5	E
12 th Ave and 45 th Street (Unsignalized)	INTERSECTION	2.1	A
12 th Ave and 46 th Street	INTERSECTION	56.0	E
12 th Ave and 47 th Street (Unsignalized)	INTERSECTION	1.4	A
12 th Ave and 48 th Street	INTERSECTION	108.6	F
12 th Ave and 49 th Street	INTERSECTION	71.0	E
12 th Ave and 50 th Street	INTERSECTION	92.0	F

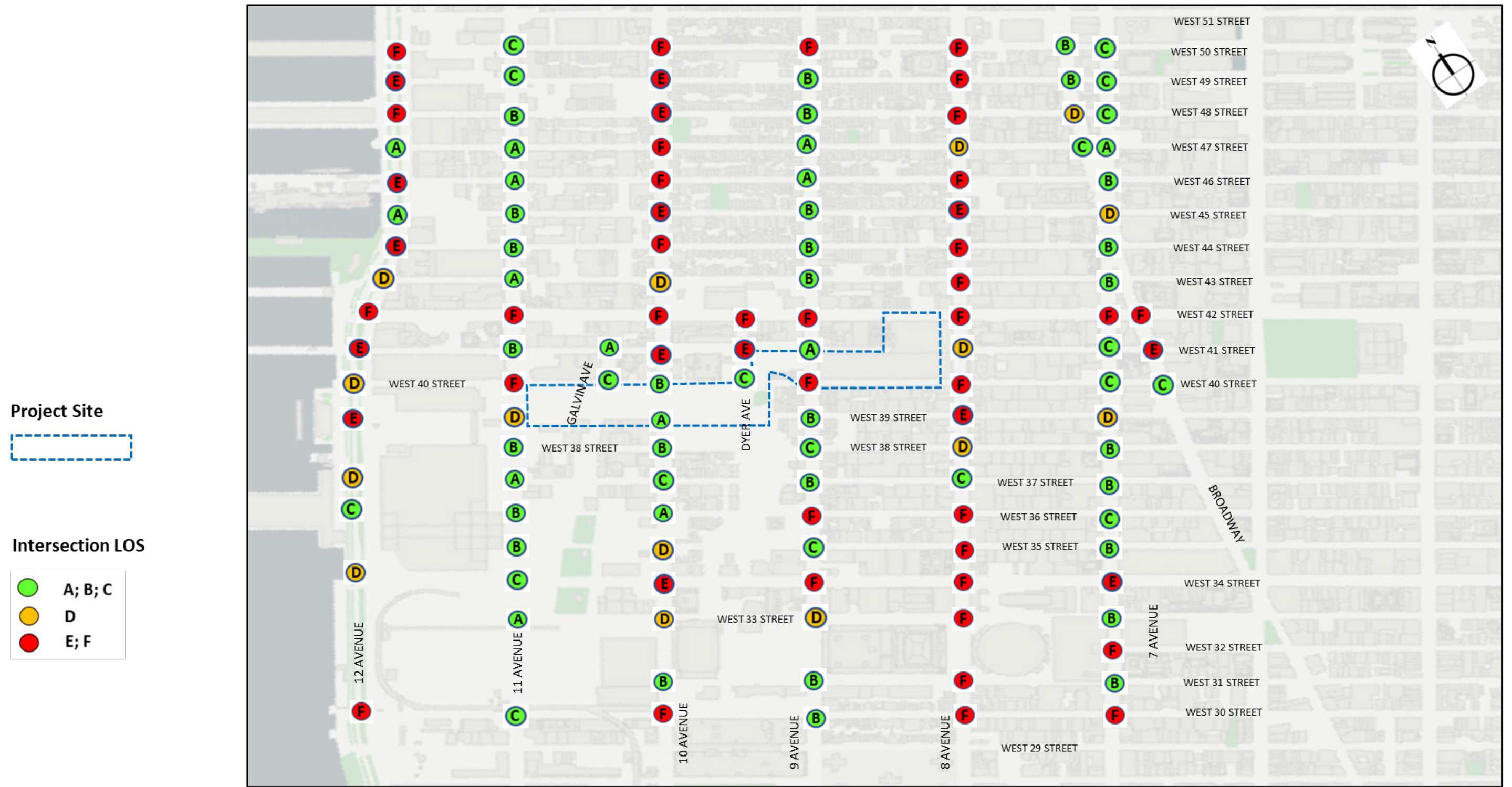
Table 9B-9. 2028 PM No Action LOS and Delay Results

2028 No Action – PM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 40 th Street	INTERSECTION	21.3	C
Broadway and 41 st Street	INTERSECTION	68.7	E
Broadway and 42 nd Street	INTERSECTION	316.7	F
Broadway and 47 th Street	INTERSECTION	58.5	E
Broadway at 48 th Street	INTERSECTION	114.7	F
Broadway and 49 th Street	INTERSECTION	28.0	C
Broadway and 50 th Street	INTERSECTION	20.4	C
7 th Ave and 30 th Street	INTERSECTION	193.4	F
7 th Ave and 31 st Street	INTERSECTION	22.8	C
7 th Ave and 32 nd Street	INTERSECTION	235.2	F
7 th Ave and 33 rd Street	INTERSECTION	26.4	C
7 th Ave and 34 th Street	INTERSECTION	55.3	E
7 th Ave and 35 th Street	INTERSECTION	16.0	B
7 th Ave and 36 th Street	INTERSECTION	17.5	B
7 th Ave and 37 th Street	INTERSECTION	32.4	C
7 th Ave and 38 th Street	INTERSECTION	12.1	B
7 th Ave and 39 th Street	INTERSECTION	140.2	F
7 th Ave and 40 th Street	INTERSECTION	13.6	B
7 th Ave and 41 st Street	INTERSECTION	48.2	D
7 th Ave and 42 nd Street	INTERSECTION	185.6	F
7 th Ave and 43 rd Street	INTERSECTION	37.0	D
7 th Ave and 44 th Street	INTERSECTION	10.7	B
7 th Ave and 45 th Street	INTERSECTION	25.2	C
7 th Ave and 46 th Street	INTERSECTION	2.3	A
7 th Ave and 47 th Street	INTERSECTION	17.5	B
7 th Ave and 48 th Street	INTERSECTION	155.9	F
7 th Ave and 49 th Street	INTERSECTION	12.8	B
7 th Ave and 50 th Street	INTERSECTION	40.1	D
8 th Ave and 30 th Street	INTERSECTION	188.1	F
8 th Ave and 31 st Street	INTERSECTION	256.1	F
8 th Ave and 33 rd Street	INTERSECTION	278.7	F
8 th Ave and 34 th Street	INTERSECTION	203.0	F
8 th Ave and 35 th Street	INTERSECTION	155.4	F
8 th Ave and 36 th Street	INTERSECTION	292.9	F
8 th Ave and 37 th Street	INTERSECTION	76.6	E
8 th Ave and 38 th Street	INTERSECTION	261.2	F
8 th Ave and 39 th Street	INTERSECTION	70.1	E
8 th Ave and 40 th Street	INTERSECTION	62.1	E
8 th Ave and 41 st Street	INTERSECTION	218.1	F
8 th Ave and 42 nd Street	INTERSECTION	230.2	F
8 th Ave and 43 rd Street	INTERSECTION	53.3	D
8 th Ave and 44 th Street	INTERSECTION	94.7	F
8 th Ave and 45 th Street	INTERSECTION	263.7	F
8 th Ave and 46 th Street	INTERSECTION	199.5	F
8 th Ave and 47 th Street	INTERSECTION	179.7	F
8 th Ave and 48 th Street	INTERSECTION	646.9	F

2028 No Action – PM Peak Hour			
Intersection	Approach	Delay	LOS
8 th Ave and 49 th Street	INTERSECTION	62.8	E
8 th Ave and 50 th Street	INTERSECTION	175.9	F
9 th Ave and 30 th Street	INTERSECTION	54.1	D
9 th Ave and 31 st Street	INTERSECTION	114.5	F
9 th Ave and 33 rd Street	INTERSECTION	110.2	F
9 th Ave and 34 th Street	INTERSECTION	265.5	F
9 th Ave and 35 th Street	INTERSECTION	65.0	E
9 th Ave and 36 th Street	INTERSECTION	36.7	D
9 th Ave and 37 th Street	INTERSECTION	48.1	D
9 th Ave and 38 th Street	INTERSECTION	7.5	A
9 th Ave and 39 th Street	INTERSECTION	43.1	D
9 th Ave and 40 th Street	INTERSECTION	67.3	E
9 th Ave and 41 st Street	INTERSECTION	51.8	D
9 th Ave and 42 nd Street	INTERSECTION	75.8	E
9 th Ave and 43 rd Street	INTERSECTION	52.5	D
9 th Ave and 44 th Street	INTERSECTION	76.6	E
9 th Ave and 45 th Street	INTERSECTION	71.3	E
9 th Ave and 46 th Street	INTERSECTION	15.9	B
9 th Ave and 47 th Street	INTERSECTION	8.9	A
9 th Ave and 48 th Street	INTERSECTION	12.2	B
9 th Ave and 49 th Street	INTERSECTION	5.8	A
9 th Ave and 50 th Street	INTERSECTION	72.1	E
Dyer Ave and 40 th Street	INTERSECTION	20.8	C
Dyer Ave and 41 st Street	INTERSECTION	27.3	C
Dyer Ave and 42 nd Street	INTERSECTION	232.9	F
10 th Ave and 30 th Street	INTERSECTION	72.7	E
10 th Ave and 31 st Street	INTERSECTION	21.2	C
10 th Ave and 33 rd Street	INTERSECTION	86.4	F
10 th Ave and 34 th Street	INTERSECTION	114.4	F
10 th Ave and 35 th Street	INTERSECTION	78.8	E
10 th Ave and 36 th Street	INTERSECTION	67.8	E
10 th Ave and 37 th Street	INTERSECTION	60.7	E
10 th Ave and 38 th Street	INTERSECTION	90.2	F
10 th Ave and 39 th Street	INTERSECTION	49.6	D
10 th Ave and 40 th Street	INTERSECTION	122.9	F
10 th Ave and 41 st Street	INTERSECTION	68.4	E
10 th Ave and 42 nd Street	INTERSECTION	123.5	F
10 th Ave and 43 rd Street	INTERSECTION	13.6	B
10 th Ave and 44 th Street	INTERSECTION	205.5	F
10 th Ave and 45 th Street	INTERSECTION	54.1	D
10 th Ave and 46 th Street	INTERSECTION	35.9	D
10 th Ave and 47 th Street	INTERSECTION	24.6	C
10 th Ave and 48 th Street	INTERSECTION	14.5	B
10 th Ave and 49 th Street	INTERSECTION	20.5	C
10 th Ave and 50 th Street	INTERSECTION	42.9	D
Galvin Ave and 40 th Street	INTERSECTION	66.7	E

2028 No Action – PM Peak Hour			
Intersection	Approach	Delay	LOS
Galvin Ave and 41 st Street (Unsignalized)	INTERSECTION	0.0	A
11 th Ave and 30 th Street	INTERSECTION	109.1	F
11 th Ave and 33 rd Street	INTERSECTION	13.5	B
11 th Ave at 34 th Street	INTERSECTION	113.7	F
11 th Ave at 35 th Street	INTERSECTION	24.6	C
11 th Ave at 36 th Street	INTERSECTION	6.4	A
11 th Ave and 37 th Street	INTERSECTION	8.8	A
11 th Ave and 38 th Street	INTERSECTION	12.0	B
11 th Ave and 39 th Street	INTERSECTION	9.4	A
11 th Ave and 40 th Street	INTERSECTION	299.4	F
11 th Ave and 41 st Street	INTERSECTION	39.3	D
11 th Ave and 42 nd Street	INTERSECTION	298.9	F
11 th Ave and 43 rd Street	INTERSECTION	7.4	A
11 th Ave and 44 th Street	INTERSECTION	22.3	C
11 th Ave and 45 th Street	INTERSECTION	9.6	A
11 th Ave and 46 th Street	INTERSECTION	5.3	A
11 th Ave and 47 th Street	INTERSECTION	6.7	A
11 th Ave and 48 th Street	INTERSECTION	6.2	A
11 th Ave and 49 th Street	INTERSECTION	9.7	A
11 th Ave and 50 th Street	INTERSECTION	21.1	C
12 th Ave and 30 th Street	INTERSECTION	172.0	F
12 th Ave and 34 th Street	INTERSECTION	53.1	D
12 th Ave and 36 th Street	INTERSECTION	56.5	E
12 th Ave and 37 th Street	INTERSECTION	79.0	E
12 th Ave and 39 th Street	INTERSECTION	104.4	F
12 th Ave and 40 th Street	INTERSECTION	60.1	E
12 th Ave and 41 st Street	INTERSECTION	53.7	D
12 th Ave and 42 nd Street	INTERSECTION	112.1	F
12 th Ave and 43 rd Street	INTERSECTION	91.2	F
12 th Ave and 44 th Street	INTERSECTION	83.1	F
12 th Ave and 45 th Street (Unsignalized)	INTERSECTION	3.8	A
12 th Ave and 46 th Street	INTERSECTION	69.0	E
12 th Ave and 47 th Street (Unsignalized)	INTERSECTION	6.0	A
12 th Ave and 48 th Street	INTERSECTION	114.7	F
12 th Ave and 49 th Street	INTERSECTION	61.5	E
12 th Ave and 50 th Street	INTERSECTION	122.8	F

Figure 9B-8. 2028 AM No Action LOS Map



2028 No Action Traffic Condition Intersection Level of Service – AM Peak Hour

Figure 9B-9. 2028 PM No Action LOS Map

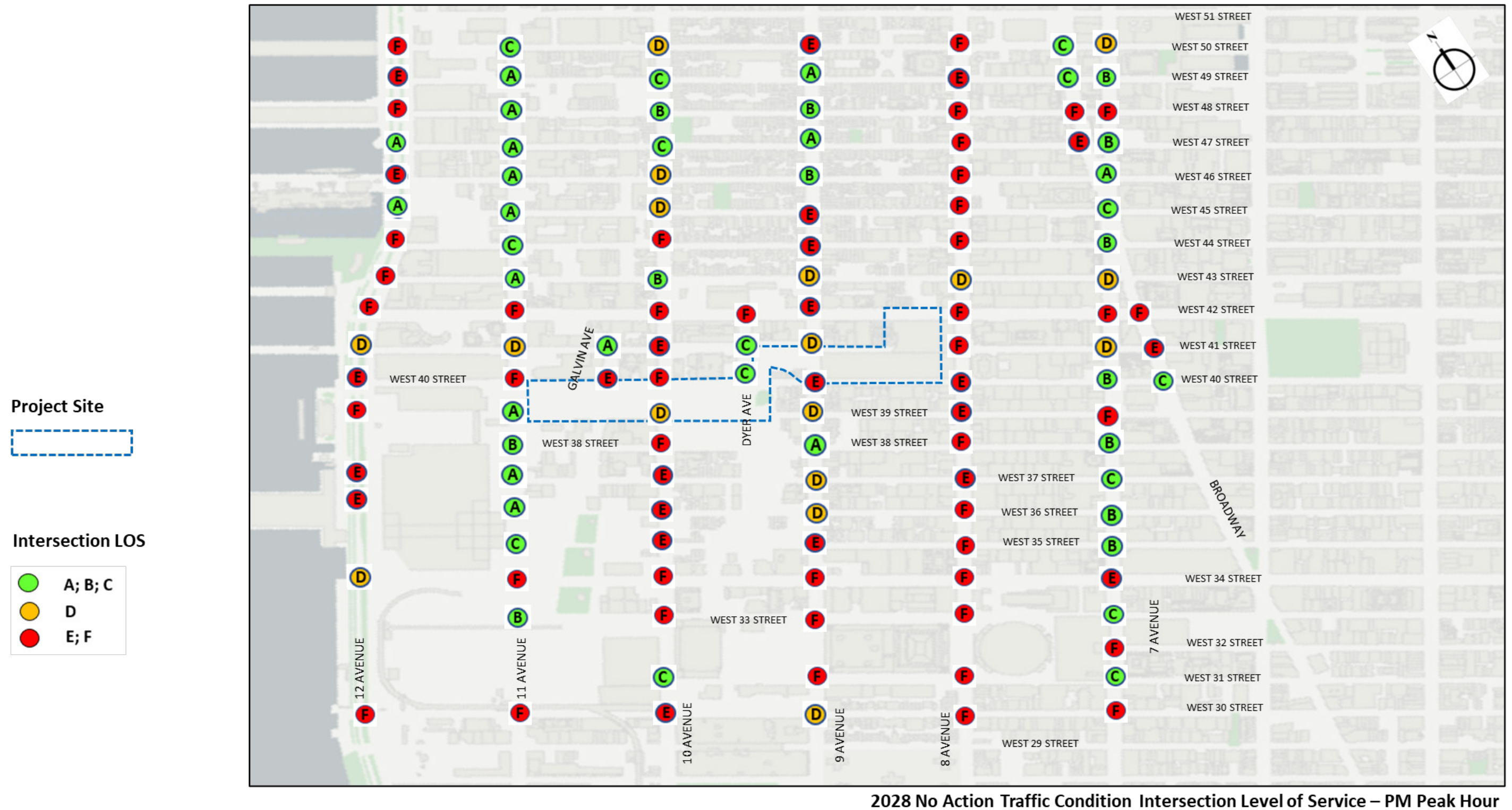


Table 9B-10. 2032 AM No Action LOS and Delay Results

2032 No Action - AM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 40th Street	INTERSECTION	23.2	C
Broadway and 41st Street	INTERSECTION	61.7	E
Broadway and 42nd Street	INTERSECTION	606.7	F
Broadway and 47th Street	INTERSECTION	31.3	C
Broadway at 48th Street	INTERSECTION	53.8	D
Broadway and 49th Street	INTERSECTION	13.6	B
Broadway and 50th Street	INTERSECTION	18.2	B
7th Ave and 30th Street	INTERSECTION	162.1	F
7th Ave and 31st Street	INTERSECTION	16.5	B
7th Ave and 32nd Street	INTERSECTION	83.8	F
7th Ave and 33rd Street	INTERSECTION	13.6	B
7th Ave and 34th Street	INTERSECTION	55.8	E
7th Ave and 35th Street	INTERSECTION	12.9	B
7th Ave and 36th Street	INTERSECTION	27.0	C
7th Ave and 37th Street	INTERSECTION	13.9	B
7th Ave and 38th Street	INTERSECTION	13.5	B
7th Ave and 39th Street	INTERSECTION	43.5	D
7th Ave and 40th Street	INTERSECTION	27.7	C
7th Ave and 41st Street	INTERSECTION	33.9	C
7th Ave and 42nd Street	INTERSECTION	159.2	F
7th Ave and 43rd Street	INTERSECTION	11.4	B
7th Ave and 44th Street	INTERSECTION	15.8	B
7th Ave and 45th Street	INTERSECTION	29.9	C
7th Ave and 46th Street	INTERSECTION	10.1	B
7th Ave and 47th Street	INTERSECTION	9.8	A
7th Ave and 48th Street	INTERSECTION	28.5	C
7th Ave and 49th Street	INTERSECTION	24.9	C
7th Ave and 50th Street	INTERSECTION	30.6	C
8th Ave and 30th Street	INTERSECTION	215.4	F
8th Ave and 31st Street	INTERSECTION	83.8	F
8th Ave and 33rd Street	INTERSECTION	136.6	F
8th Ave and 34th Street	INTERSECTION	190.5	F
8th Ave and 35th Street	INTERSECTION	265.6	F
8th Ave and 36th Street	INTERSECTION	84.6	F
8th Ave and 37th Street	INTERSECTION	25.6	C
8th Ave and 38th Street	INTERSECTION	33.3	C
8th Ave and 39th Street	INTERSECTION	67.6	E
8th Ave and 40th Street	INTERSECTION	83.0	F
8th Ave and 41st Street	INTERSECTION	40.4	D
8th Ave and 42nd Street	INTERSECTION	129.1	F
8th Ave and 43rd Street	INTERSECTION	99.6	F
8th Ave and 44th Street	INTERSECTION	369.1	F
8th Ave and 45th Street	INTERSECTION	66.6	E
8th Ave and 46th Street	INTERSECTION	107.3	F
8th Ave and 47th Street	INTERSECTION	48.9	D
8th Ave and 48th Street	INTERSECTION	187.1	F

2032 No Action - AM Peak Hour			
Intersection	Approach	Delay	LOS
8th Ave and 49th Street	INTERSECTION	78.1	E
8th Ave and 50th Street	INTERSECTION	143.9	F
9th Ave and 30th Street	INTERSECTION	16.1	B
9th Ave and 31st Street	INTERSECTION	18.2	B
9th Ave and 33rd Street	INTERSECTION	56.5	E
9th Ave and 34th Street	INTERSECTION	197.8	F
9th Ave and 35th Street	INTERSECTION	19.9	B
9th Ave and 36th Street	INTERSECTION	104.1	F
9th Ave and 37th Street	INTERSECTION	16.8	B
9th Ave and 38th Street	INTERSECTION	24.7	C
9th Ave and 39th Street	INTERSECTION	13.5	B
9th Ave and 40th Street	INTERSECTION	97.7	F
9th Ave and 41st Street	INTERSECTION	8.2	A
9th Ave and 42nd Street	INTERSECTION	152.0	F
9th Ave and 43rd Street	INTERSECTION	15.6	B
9th Ave and 44th Street	INTERSECTION	17.1	B
9th Ave and 45th Street	INTERSECTION	11.6	B
9th Ave and 46th Street	INTERSECTION	9.1	A
9th Ave and 47th Street	INTERSECTION	5.2	A
9th Ave and 48th Street	INTERSECTION	18.1	B
9th Ave and 49th Street	INTERSECTION	14.1	B
9th Ave and 50th Street	INTERSECTION	154.4	F
Dyer Ave and 40th Street	INTERSECTION	20.8	C
Dyer Ave and 41st Street	INTERSECTION	54.0	D
Dyer Ave and 42nd Street	INTERSECTION	90.0	F
10th Ave and 30th Street	INTERSECTION	229.3	F
10th Ave and 31st Street	INTERSECTION	17.4	B
10th Ave and 33rd Street	INTERSECTION	43.1	D
10th Ave and 34th Street	INTERSECTION	71.1	E
10th Ave and 35th Street	INTERSECTION	34.2	C
10th Ave and 36th Street	INTERSECTION	8.8	A
10th Ave and 37th Street	INTERSECTION	23.6	C
10th Ave and 38th Street	INTERSECTION	15.3	B
10th Ave and 39th Street	INTERSECTION	8.0	A
10th Ave and 40th Street	INTERSECTION	23.7	C
10th Ave and 41st Street	INTERSECTION	59.0	E
10th Ave and 42nd Street	INTERSECTION	220.4	F
10th Ave and 43rd Street	INTERSECTION	50.0	D
10th Ave and 44th Street	INTERSECTION	129.0	F
10th Ave and 45th Street	INTERSECTION	72.9	E
10th Ave and 46th Street	INTERSECTION	121.4	F
10th Ave and 47th Street	INTERSECTION	103.2	F
10th Ave and 48th Street	INTERSECTION	76.7	E
10th Ave and 49th Street	INTERSECTION	70.3	E
10th Ave and 50th Street	INTERSECTION	170.3	F
Galvin Ave and 40th Street	INTERSECTION	21.2	C

2032 No Action - AM Peak Hour			
Intersection	Approach	Delay	LOS
Galvin Ave and 41st Street (Unsignalized)	INTERSECTION	0.0	A
11th Ave and 30th Street	INTERSECTION	46.6	D
11th Ave and 33rd Street	INTERSECTION	11.2	B
11th Ave at 34th Street	INTERSECTION	51.2	D
11th Ave at 35th Street	INTERSECTION	12.0	B
11th Ave at 36th Street	INTERSECTION	17.2	B
11th Ave and 37th Street	INTERSECTION	11.9	B
11th Ave and 38th Street	INTERSECTION	37.9	D
11th Ave and 39th Street	INTERSECTION	72.2	E
11th Ave and 40th Street	INTERSECTION	139.8	F
11th Ave and 41st Street	INTERSECTION	17.1	B
11th Ave and 42nd Street	INTERSECTION	94.3	F
11th Ave and 43rd Street	INTERSECTION	6.3	A
11th Ave and 44th Street	INTERSECTION	9.8	A
11th Ave and 45th Street	INTERSECTION	10.3	B
11th Ave and 46th Street	INTERSECTION	6.0	A
11th Ave and 47th Street	INTERSECTION	5.7	A
11th Ave and 48th Street	INTERSECTION	16.9	B
11th Ave and 49th Street	INTERSECTION	28.0	C
11th Ave and 50th Street	INTERSECTION	20.4	C
12th Ave and 30th Street	INTERSECTION	151.5	F
12th Ave and 34th Street	INTERSECTION	42.6	D
12th Ave and 36th Street	INTERSECTION	20.3	C
12th Ave and 37th Street	INTERSECTION	38.9	D
12th Ave and 39th Street	INTERSECTION	61.6	E
12th Ave and 40th Street	INTERSECTION	49.2	D
12th Ave and 41st Street	INTERSECTION	69.9	E
12th Ave and 42nd Street	INTERSECTION	81.6	F
12th Ave and 43rd Street	INTERSECTION	34.8	C
12th Ave and 44th Street	INTERSECTION	54.2	D
12th Ave and 45th Street (Unsignalized)	INTERSECTION	2.0	A
12th Ave and 46th Street	INTERSECTION	54.8	D
12th Ave and 47th Street (Unsignalized)	INTERSECTION	1.8	A
12th Ave and 48th Street	INTERSECTION	106.6	F
12th Ave and 49th Street	INTERSECTION	70.7	E
12th Ave and 50th Street	INTERSECTION	89.8	F

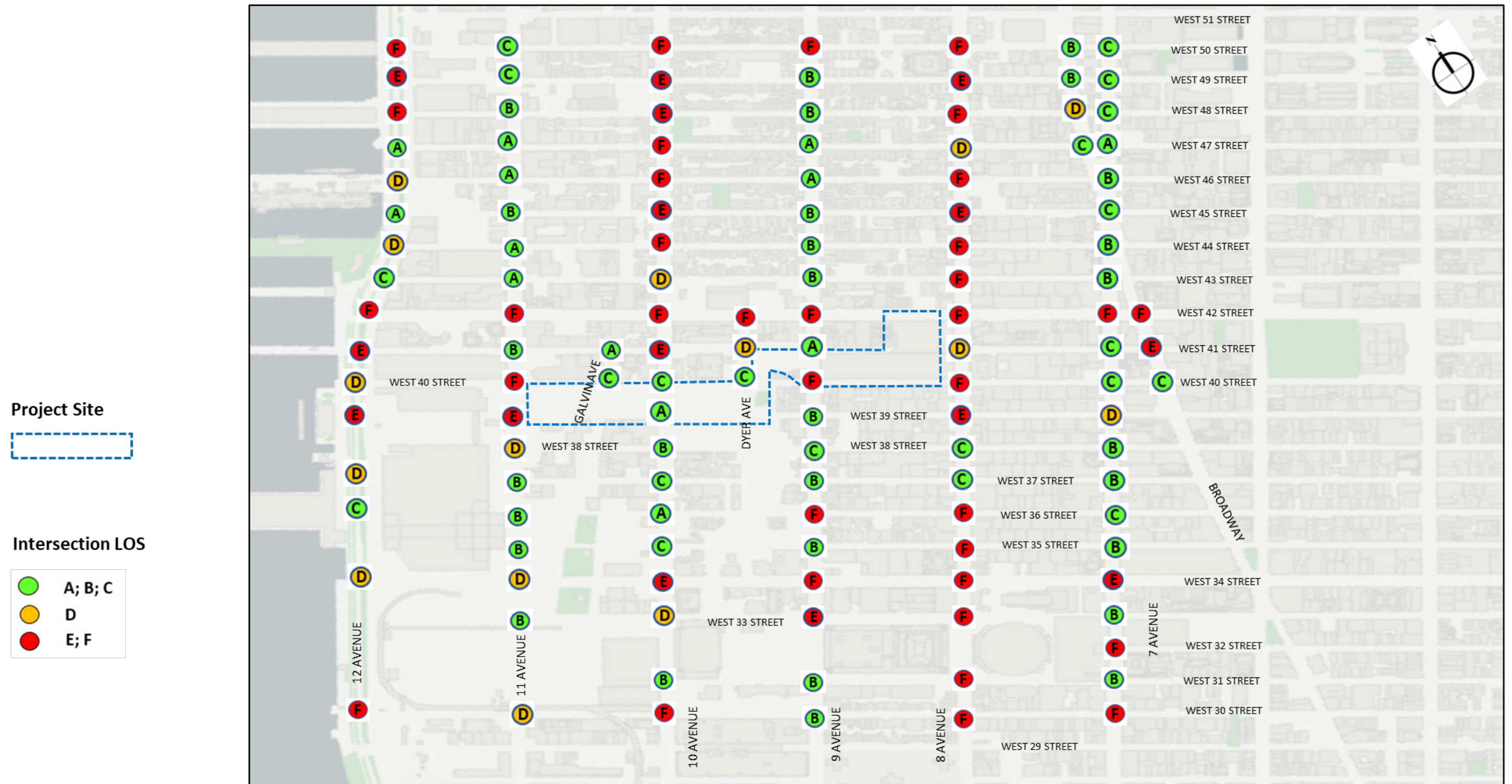
Table 9B-11. 2032 PM No Action LOS and Delay Results

2032 No Action - PM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 40th Street	INTERSECTION	20.4	C
Broadway and 41st Street	INTERSECTION	67.1	E
Broadway and 42nd Street	INTERSECTION	288.4	F
Broadway and 47th Street	INTERSECTION	54.7	D
Broadway at 48th Street	INTERSECTION	101.7	F
Broadway and 49th Street	INTERSECTION	27.0	C
Broadway and 50th Street	INTERSECTION	19.7	B
7th Ave and 30th Street	INTERSECTION	190.1	F
7th Ave and 31st Street	INTERSECTION	23.3	C
7th Ave and 32nd Street	INTERSECTION	246.3	F
7th Ave and 33rd Street	INTERSECTION	24.7	C
7th Ave and 34th Street	INTERSECTION	57.1	E
7th Ave and 35th Street	INTERSECTION	15.6	B
7th Ave and 36th Street	INTERSECTION	15.9	B
7th Ave and 37th Street	INTERSECTION	29.3	C
7th Ave and 38th Street	INTERSECTION	11.6	B
7th Ave and 39th Street	INTERSECTION	129.7	F
7th Ave and 40th Street	INTERSECTION	13.4	B
7th Ave and 41st Street	INTERSECTION	48.2	D
7th Ave and 42nd Street	INTERSECTION	176.5	F
7th Ave and 43rd Street	INTERSECTION	35.4	D
7th Ave and 44th Street	INTERSECTION	10.5	B
7th Ave and 45th Street	INTERSECTION	22.9	D
7th Ave and 46th Street	INTERSECTION	2.3	A
7th Ave and 47th Street	INTERSECTION	17.0	B
7th Ave and 48th Street	INTERSECTION	147.4	F
7th Ave and 49th Street	INTERSECTION	12.5	B
7th Ave and 50th Street	INTERSECTION	37.0	D
8th Ave and 30th Street	INTERSECTION	216.0	F
8th Ave and 31st Street	INTERSECTION	249.7	F
8th Ave and 33rd Street	INTERSECTION	275.2	F
8th Ave and 34th Street	INTERSECTION	200.1	F
8th Ave and 35th Street	INTERSECTION	87.1	F
8th Ave and 36th Street	INTERSECTION	285.2	F
8th Ave and 37th Street	INTERSECTION	71.9	E
8th Ave and 38th Street	INTERSECTION	251.5	F
8th Ave and 39th Street	INTERSECTION	65.7	E
8th Ave and 40th Street	INTERSECTION	61.7	E
8th Ave and 41st Street	INTERSECTION	207.2	F
8th Ave and 42nd Street	INTERSECTION	217.6	F
8th Ave and 43rd Street	INTERSECTION	49.2	D
8th Ave and 44th Street	INTERSECTION	89.5	F
8th Ave and 45th Street	INTERSECTION	250.7	F
8th Ave and 46th Street	INTERSECTION	190.3	F
8th Ave and 47th Street	INTERSECTION	170.0	F
8th Ave and 48th Street	INTERSECTION	621.7	F

2032 No Action - PM Peak Hour			
Intersection	Approach	Delay	LOS
8th Ave and 49th Street	INTERSECTION	58.0	E
8th Ave and 50th Street	INTERSECTION	167.8	F
9th Ave and 30th Street	INTERSECTION	52.6	D
9th Ave and 31st Street	INTERSECTION	109.0	F
9th Ave and 33rd Street	INTERSECTION	113.3	F
9th Ave and 34th Street	INTERSECTION	277.0	F
9th Ave and 35th Street	INTERSECTION	63.4	E
9th Ave and 36th Street	INTERSECTION	35.9	D
9th Ave and 37th Street	INTERSECTION	44.1	D
9th Ave and 38th Street	INTERSECTION	7.3	A
9th Ave and 39th Street	INTERSECTION	40.2	D
9th Ave and 40th Street	INTERSECTION	69.8	E
9th Ave and 41st Street	INTERSECTION	51.9	D
9th Ave and 42nd Street	INTERSECTION	69.5	E
9th Ave and 43rd Street	INTERSECTION	48.2	D
9th Ave and 44th Street	INTERSECTION	71.7	E
9th Ave and 45th Street	INTERSECTION	68.6	E
9th Ave and 46th Street	INTERSECTION	15.7	B
9th Ave and 47th Street	INTERSECTION	8.7	A
9th Ave and 48th Street	INTERSECTION	12.0	B
9th Ave and 49th Street	INTERSECTION	5.9	A
9th Ave and 50th Street	INTERSECTION	66.4	E
Dyer Ave and 40th Street	INTERSECTION	20.6	C
Dyer Ave and 41st Street	INTERSECTION	27.2	C
Dyer Ave and 42nd Street	INTERSECTION	211.9	F
10th Ave and 30th Street	INTERSECTION	103.6	F
10th Ave and 31st Street	INTERSECTION	29.2	C
10th Ave and 33rd Street	INTERSECTION	90.9	F
10th Ave and 34th Street	INTERSECTION	132.1	F
10th Ave and 35th Street	INTERSECTION	77.3	E
10th Ave and 36th Street	INTERSECTION	74.8	E
10th Ave and 37th Street	INTERSECTION	61.3	E
10th Ave and 38th Street	INTERSECTION	97.6	F
10th Ave and 39th Street	INTERSECTION	50.8	D
10th Ave and 40th Street	INTERSECTION	132.7	F
10th Ave and 41st Street	INTERSECTION	69.1	E
10th Ave and 42nd Street	INTERSECTION	129.4	F
10th Ave and 43rd Street	INTERSECTION	13.8	B
10th Ave and 44th Street	INTERSECTION	23.1	C
10th Ave and 45th Street	INTERSECTION	59.6	E
10th Ave and 46th Street	INTERSECTION	49.3	D
10th Ave and 47th Street	INTERSECTION	36.0	D
10th Ave and 48th Street	INTERSECTION	20.9	C
10th Ave and 49th Street	INTERSECTION	31.5	C
10th Ave and 50th Street	INTERSECTION	48.0	D
Galvin Ave and 40th Street	INTERSECTION	69.2	E

2032 No Action - PM Peak Hour			
Intersection	Approach	Delay	LOS
Galvin Ave and 41st Street (Unsignalized)	INTERSECTION	0.0	A
11th Ave and 30th Street	INTERSECTION	145.0	F
11th Ave and 33rd Street	INTERSECTION	13.3	B
11th Ave at 34th Street	INTERSECTION	129.3	F
11th Ave at 35th Street	INTERSECTION	31.0	C
11th Ave at 36th Street	INTERSECTION	6.5	A
11th Ave and 37th Street	INTERSECTION	8.2	A
11th Ave and 38th Street	INTERSECTION	11.2	B
11th Ave and 39th Street	INTERSECTION	8.9	A
11th Ave and 40th Street	INTERSECTION	269.6	F
11th Ave and 41st Street	INTERSECTION	55.0	E
11th Ave and 42nd Street	INTERSECTION	270.3	F
11th Ave and 43rd Street	INTERSECTION	6.9	A
11th Ave and 44th Street	INTERSECTION	18.2	B
11th Ave and 45th Street	INTERSECTION	9.2	A
11th Ave and 46th Street	INTERSECTION	4.8	A
11th Ave and 47th Street	INTERSECTION	6.1	A
11th Ave and 48th Street	INTERSECTION	5.6	A
11th Ave and 49th Street	INTERSECTION	8.4	A
11th Ave and 50th Street	INTERSECTION	20.7	C
12th Ave and 30th Street	INTERSECTION	178.7	F
12th Ave and 34th Street	INTERSECTION	68.3	E
12th Ave and 36th Street	INTERSECTION	59.6	E
12th Ave and 37th Street	INTERSECTION	78.7	E
12th Ave and 39th Street	INTERSECTION	103.1	F
12th Ave and 40th Street	INTERSECTION	56.7	E
12th Ave and 41st Street	INTERSECTION	53.1	D
12th Ave and 42nd Street	INTERSECTION	98.8	F
12th Ave and 43rd Street	INTERSECTION	86.0	F
12th Ave and 44th Street	INTERSECTION	76.5	E
12th Ave and 45th Street (Unsignalized)	INTERSECTION	3.6	A
12th Ave and 46th Street	INTERSECTION	70.7	E
12th Ave and 47th Street (Unsignalized)	INTERSECTION	5.8	A
12th Ave and 48th Street	INTERSECTION	112.4	F
12th Ave and 49th Street	INTERSECTION	61.7	E
12th Ave and 50th Street	INTERSECTION	120.1	F

Figure 9B-10. 2032 AM No Action LOS Map



2032 No Action Traffic Condition Intersection Level of Service – AM Peak Hour

Figure 9B-11. 2032 PM No Action LOS Map

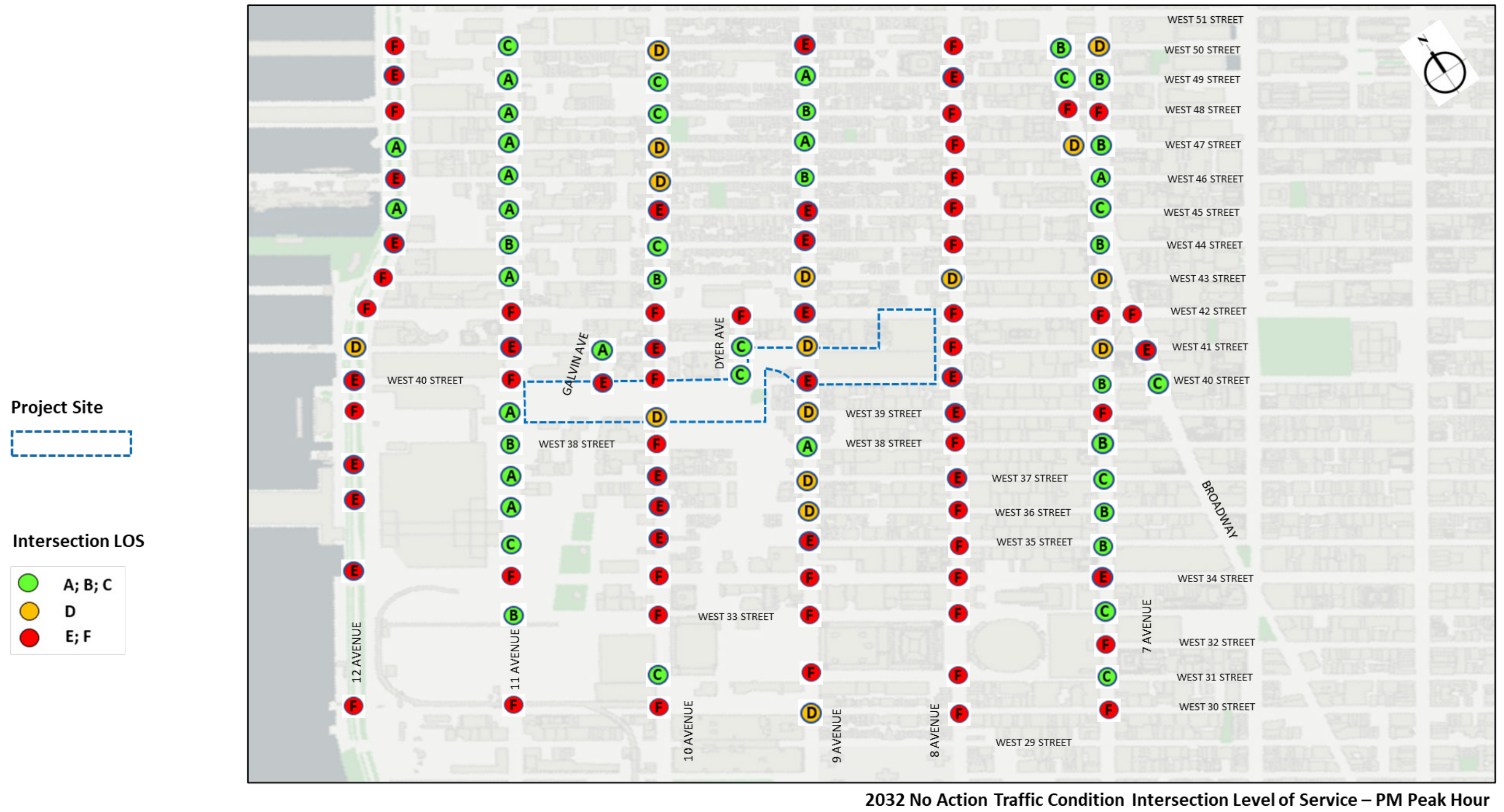


Table 9B-12. 2040 AM No Action LOS and Delay Results

2040 No Action – AM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 40 th Street	INTERSECTION	23.4	C
Broadway and 41 st Street	INTERSECTION	67.9	E
Broadway and 42 nd Street	INTERSECTION	651.3	F
Broadway and 47 th Street	INTERSECTION	32.7	C
Broadway at 48 th Street	INTERSECTION	55.9	E
Broadway and 49 th Street	INTERSECTION	14.5	B
Broadway and 50 th Street	INTERSECTION	19.8	B
7 th Ave and 30 th Street	INTERSECTION	460.7	F
7 th Ave and 31 st Street	INTERSECTION	28.4	C
7 th Ave and 32 nd Street	INTERSECTION	143.9	F
7 th Ave and 33 rd Street	INTERSECTION	20.3	C
7 th Ave and 34 th Street	INTERSECTION	86.2	F
7 th Ave and 35 th Street	INTERSECTION	36.9	D
7 th Ave and 36 th Street	INTERSECTION	62.3	E
7 th Ave and 37 th Street	INTERSECTION	21.5	C
7 th Ave and 38 th Street	INTERSECTION	15.6	B
7 th Ave and 39 th Street	INTERSECTION	53.2	D
7 th Ave and 40 th Street	INTERSECTION	42.3	D
7 th Ave and 41 st Street	INTERSECTION	63.2	E
7 th Ave and 42 nd Street	INTERSECTION	193.0	F
7 th Ave and 43 rd Street	INTERSECTION	12.7	B
7 th Ave and 44 th Street	INTERSECTION	14.8	B
7 th Ave and 45 th Street	INTERSECTION	60.1	E
7 th Ave and 46 th Street	INTERSECTION	10.0	B
7 th Ave and 47 th Street	INTERSECTION	10.0	A
7 th Ave and 48 th Street	INTERSECTION	28.6	C
7 th Ave and 49 th Street	INTERSECTION	26.3	C
7 th Ave and 50 th Street	INTERSECTION	35.1	D
8 th Ave and 30 th Street	INTERSECTION	415.8	F
8 th Ave and 31 st Street	INTERSECTION	218.2	F
8 th Ave and 33 rd Street	INTERSECTION	333.5	F
8 th Ave and 34 th Street	INTERSECTION	299.8	F
8 th Ave and 35 th Street	INTERSECTION	409.9	F
8 th Ave and 36 th Street	INTERSECTION	130.3	F
8 th Ave and 37 th Street	INTERSECTION	60.0	E
8 th Ave and 38 th Street	INTERSECTION	174.3	F
8 th Ave and 39 th Street	INTERSECTION	87.9	F
8 th Ave and 40 th Street	INTERSECTION	105.3	F
8 th Ave and 41 st Street	INTERSECTION	64.1	E
8 th Ave and 42 nd Street	INTERSECTION	153.4	F
8 th Ave and 43 rd Street	INTERSECTION	143.1	F
8 th Ave and 44 th Street	INTERSECTION	136.4	F
8 th Ave and 45 th Street	INTERSECTION	101.9	F
8 th Ave and 46 th Street	INTERSECTION	154.7	F
8 th Ave and 47 th Street	INTERSECTION	59.3	E
8 th Ave and 48 th Street	INTERSECTION	236.2	F

2040 No Action – AM Peak Hour			
Intersection	Approach	Delay	LOS
8 th Ave and 49 th Street	INTERSECTION	114.7	F
8 th Ave and 50 th Street	INTERSECTION	191.5	F
9 th Ave and 30 th Street	INTERSECTION	80.3	F
9 th Ave and 31 st Street	INTERSECTION	20.3	C
9 th Ave and 33 rd Street	INTERSECTION	134.3	F
9 th Ave and 34 th Street	INTERSECTION	262.5	F
9 th Ave and 35 th Street	INTERSECTION	30.5	C
9 th Ave and 36 th Street	INTERSECTION	132.3	F
9 th Ave and 37 th Street	INTERSECTION	18.3	B
9 th Ave and 38 th Street	INTERSECTION	30.2	C
9 th Ave and 39 th Street	INTERSECTION	13.8	B
9 th Ave and 40 th Street	INTERSECTION	112.2	F
9 th Ave and 41 st Street	INTERSECTION	9.2	A
9 th Ave and 42 nd Street	INTERSECTION	164.7	F
9 th Ave and 43 rd Street	INTERSECTION	23.9	C
9 th Ave and 44 th Street	INTERSECTION	21.7	C
9 th Ave and 45 th Street	INTERSECTION	13.3	B
9 th Ave and 46 th Street	INTERSECTION	8.9	A
9 th Ave and 47 th Street	INTERSECTION	5.4	A
9 th Ave and 48 th Street	INTERSECTION	18.5	B
9 th Ave and 49 th Street	INTERSECTION	14.5	B
9 th Ave and 50 th Street	INTERSECTION	183.7	F
Dyer Ave and 40 th Street	INTERSECTION	23.3	C
Dyer Ave and 41 st Street	INTERSECTION	61.5	E
Dyer Ave and 42 nd Street	INTERSECTION	110.8	F
10 th Ave and 30 th Street	INTERSECTION	327.8	F
10 th Ave and 31 st Street	INTERSECTION	18.2	B
10 th Ave and 33 rd Street	INTERSECTION	123.2	F
10 th Ave and 34 th Street	INTERSECTION	117.8	F
10 th Ave and 35 th Street	INTERSECTION	38.8	D
10 th Ave and 36 th Street	INTERSECTION	10.4	B
10 th Ave and 37 th Street	INTERSECTION	26.6	C
10 th Ave and 38 th Street	INTERSECTION	17.7	B
10 th Ave and 39 th Street	INTERSECTION	8.8	A
10 th Ave and 40 th Street	INTERSECTION	51.6	D
10 th Ave and 41 st Street	INTERSECTION	62.8	E
10 th Ave and 42 nd Street	INTERSECTION	261.6	F
10 th Ave and 43 rd Street	INTERSECTION	49.7	D
10 th Ave and 44 th Street	INTERSECTION	160.7	F
10 th Ave and 45 th Street	INTERSECTION	99.9	F
10 th Ave and 46 th Street	INTERSECTION	150.6	F
10 th Ave and 47 th Street	INTERSECTION	132.3	F
10 th Ave and 48 th Street	INTERSECTION	103.2	F
10 th Ave and 49 th Street	INTERSECTION	96.7	F
10 th Ave and 50 th Street	INTERSECTION	200.8	F
Galvin Ave and 40 th Street	INTERSECTION	21.1	C

2040 No Action – AM Peak Hour			
Intersection	Approach	Delay	LOS
Galvin Ave and 41 st Street (Unsignalized)	INTERSECTION	0.0	A
11 th Ave and 30 th Street	INTERSECTION	131.2	F
11 th Ave and 33 rd Street	INTERSECTION	13.8	B
11 th Ave at 34 th Street	INTERSECTION	73.4	E
11 th Ave at 35 th Street	INTERSECTION	13.2	B
11 th Ave at 36 th Street	INTERSECTION	31.2	C
11 th Ave and 37 th Street	INTERSECTION	24.3	C
11 th Ave and 38 th Street	INTERSECTION	40.3	D
11 th Ave and 39 th Street	INTERSECTION	96.9	F
11 th Ave and 40 th Street	INTERSECTION	164.3	F
11 th Ave and 41 st Street	INTERSECTION	20.0	C
11 th Ave and 42 nd Street	INTERSECTION	118.3	F
11 th Ave and 43 rd Street	INTERSECTION	6.6	A
11 th Ave and 44 th Street	INTERSECTION	10.6	B
11 th Ave and 45 th Street	INTERSECTION	10.4	B
11 th Ave and 46 th Street	INTERSECTION	6.2	A
11 th Ave and 47 th Street	INTERSECTION	5.7	A
11 th Ave and 48 th Street	INTERSECTION	18.9	B
11 th Ave and 49 th Street	INTERSECTION	33.0	C
11 th Ave and 50 th Street	INTERSECTION	21.3	C
12 th Ave and 30 th Street	INTERSECTION	273.3	F
12 th Ave and 34 th Street	INTERSECTION	71.2	E
12 th Ave and 36 th Street	INTERSECTION	54.1	D
12 th Ave and 37 th Street	INTERSECTION	94.7	F
12 th Ave and 39 th Street	INTERSECTION	118.8	F
12 th Ave and 40 th Street	INTERSECTION	74.3	E
12 th Ave and 41 st Street	INTERSECTION	103.5	F
12 th Ave and 42 nd Street	INTERSECTION	130.1	F
12 th Ave and 43 rd Street	INTERSECTION	62.3	E
12 th Ave and 44 th Street	INTERSECTION	72.8	E
12 th Ave and 45 th Street (Unsignalized)	INTERSECTION	4.8	A
12 th Ave and 46 th Street	INTERSECTION	96.1	F
12 th Ave and 47 th Street (Unsignalized)	INTERSECTION	1.3	A
12 th Ave and 48 th Street	INTERSECTION	170.7	F
12 th Ave and 49 th Street	INTERSECTION	73.0	E
12 th Ave and 50 th Street	INTERSECTION	145.7	F

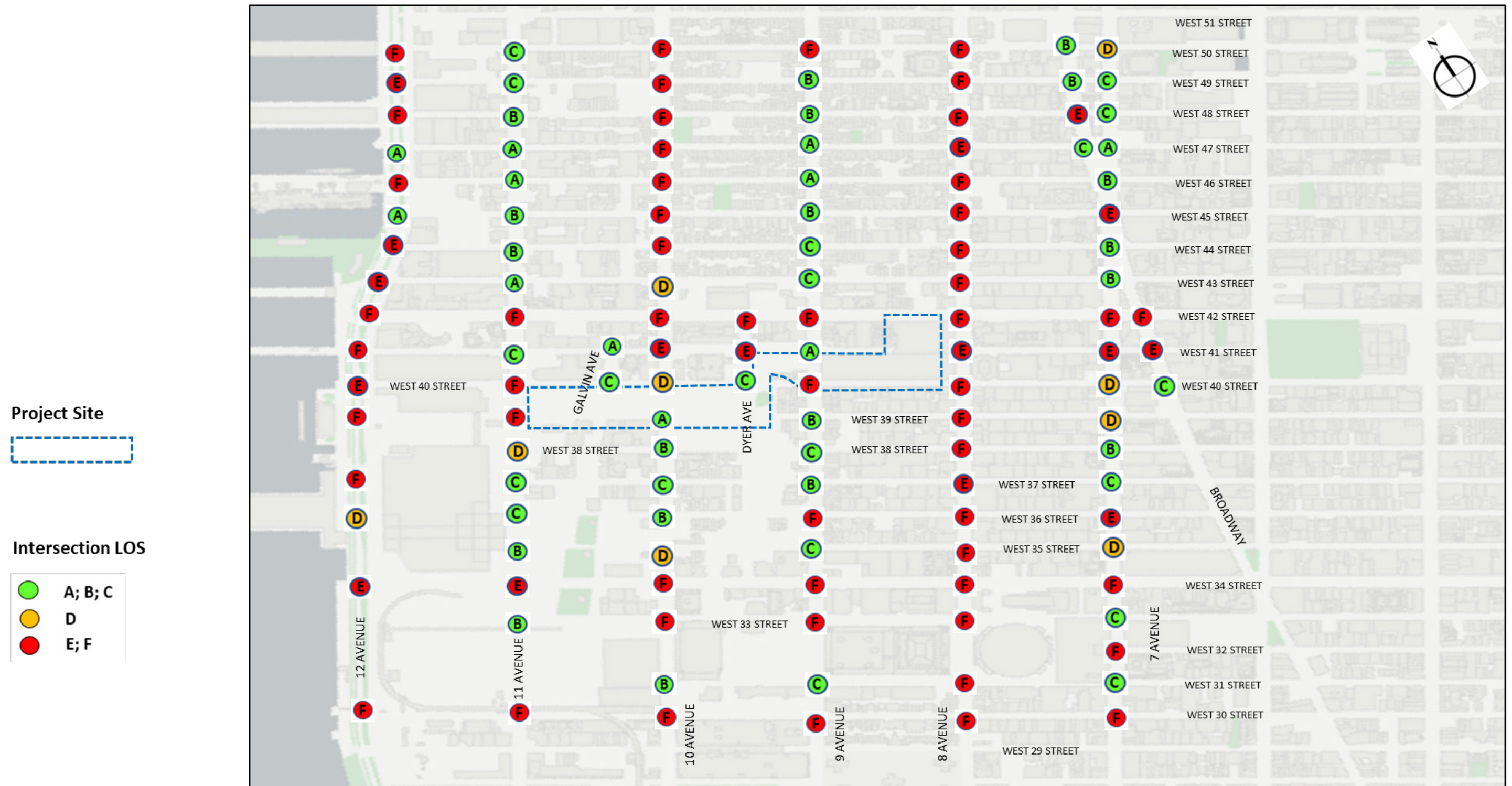
Table 9B-13. 2040 PM No Action LOS and Delay Results

2040 No Action – PM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 40 th Street	INTERSECTION	22.2	C
Broadway and 41 st Street	INTERSECTION	72.8	E
Broadway and 42 nd Street	INTERSECTION	333.0	F
Broadway and 47 th Street	INTERSECTION	62.7	E
Broadway at 48 th Street	INTERSECTION	123.5	F
Broadway and 49 th Street	INTERSECTION	28.6	C
Broadway and 50 th Street	INTERSECTION	21.3	C
7 th Ave and 30 th Street	INTERSECTION	439.7	F
7 th Ave and 31 st Street	INTERSECTION	83.9	F
7 th Ave and 32 nd Street	INTERSECTION	267.3	F
7 th Ave and 33 rd Street	INTERSECTION	27.2	C
7 th Ave and 34 th Street	INTERSECTION	58.3	E
7 th Ave and 35 th Street	INTERSECTION	26.3	C
7 th Ave and 36 th Street	INTERSECTION	31.3	C
7 th Ave and 37 th Street	INTERSECTION	64.3	E
7 th Ave and 38 th Street	INTERSECTION	12.9	B
7 th Ave and 39 th Street	INTERSECTION	139.1	F
7 th Ave and 40 th Street	INTERSECTION	19.1	B
7 th Ave and 41 st Street	INTERSECTION	61.5	E
7 th Ave and 42 nd Street	INTERSECTION	225.0	F
7 th Ave and 43 rd Street	INTERSECTION	35.2	D
7 th Ave and 44 th Street	INTERSECTION	10.5	B
7 th Ave and 45 th Street	INTERSECTION	26.1	C
7 th Ave and 46 th Street	INTERSECTION	5.0	A
7 th Ave and 47 th Street	INTERSECTION	30.3	C
7 th Ave and 48 th Street	INTERSECTION	172.8	F
7 th Ave and 49 th Street	INTERSECTION	18.2	B
7 th Ave and 50 th Street	INTERSECTION	49.4	D
8 th Ave and 30 th Street	INTERSECTION	361.8	F
8 th Ave and 31 st Street	INTERSECTION	395.7	F
8 th Ave and 33 rd Street	INTERSECTION	485.7	F
8 th Ave and 34 th Street	INTERSECTION	283.1	F
8 th Ave and 35 th Street	INTERSECTION	217.0	F
8 th Ave and 36 th Street	INTERSECTION	382.3	F
8 th Ave and 37 th Street	INTERSECTION	118.7	F
8 th Ave and 38 th Street	INTERSECTION	340.8	F
8 th Ave and 39 th Street	INTERSECTION	102.5	F
8 th Ave and 40 th Street	INTERSECTION	83.9	F
8 th Ave and 41 st Street	INTERSECTION	237.8	F
8 th Ave and 42 nd Street	INTERSECTION	246.1	F
8 th Ave and 43 rd Street	INTERSECTION	60.6	E
8 th Ave and 44 th Street	INTERSECTION	124.4	F
8 th Ave and 45 th Street	INTERSECTION	315.6	F
8 th Ave and 46 th Street	INTERSECTION	241.2	F
8 th Ave and 47 th Street	INTERSECTION	216.1	F
8 th Ave and 48 th Street	INTERSECTION	693.6	F

2040 No Action – PM Peak Hour			
Intersection	Approach	Delay	LOS
8 th Ave and 49 th Street	INTERSECTION	93.9	F
8 th Ave and 50 th Street	INTERSECTION	212.9	F
9 th Ave and 30 th Street	INTERSECTION	88.3	E
9 th Ave and 31 st Street	INTERSECTION	141.5	F
9 th Ave and 33 rd Street	INTERSECTION	200.6	F
9 th Ave and 34 th Street	INTERSECTION	321.7	F
9 th Ave and 35 th Street	INTERSECTION	68.0	E
9 th Ave and 36 th Street	INTERSECTION	50.9	D
9 th Ave and 37 th Street	INTERSECTION	66.1	E
9 th Ave and 38 th Street	INTERSECTION	7.8	A
9 th Ave and 39 th Street	INTERSECTION	46.1	D
9 th Ave and 40 th Street	INTERSECTION	68.9	E
9 th Ave and 41 st Street	INTERSECTION	51.5	D
9 th Ave and 42 nd Street	INTERSECTION	149.1	F
9 th Ave and 43 rd Street	INTERSECTION	64.0	E
9 th Ave and 44 th Street	INTERSECTION	97.6	F
9 th Ave and 45 th Street	INTERSECTION	74.2	E
9 th Ave and 46 th Street	INTERSECTION	17.9	B
9 th Ave and 47 th Street	INTERSECTION	9.3	A
9 th Ave and 48 th Street	INTERSECTION	12.9	B
9 th Ave and 49 th Street	INTERSECTION	6.3	A
9 th Ave and 50 th Street	INTERSECTION	90.6	F
Dyer Ave and 40 th Street	INTERSECTION	20.9	C
Dyer Ave and 41 st Street	INTERSECTION	27.3	C
Dyer Ave and 42 nd Street	INTERSECTION	251.1	F
10 th Ave and 30 th Street	INTERSECTION	Err	F
10 th Ave and 31 st Street	INTERSECTION	31.9	C
10 th Ave and 33 rd Street	INTERSECTION	160.9	F
10 th Ave and 34 th Street	INTERSECTION	162.5	F
10 th Ave and 35 th Street	INTERSECTION	83.2	F
10 th Ave and 36 th Street	INTERSECTION	101.9	F
10 th Ave and 37 th Street	INTERSECTION	69.3	E
10 th Ave and 38 th Street	INTERSECTION	125.2	F
10 th Ave and 39 th Street	INTERSECTION	60.6	E
10 th Ave and 40 th Street	INTERSECTION	162.5	F
10 th Ave and 41 st Street	INTERSECTION	93.1	F
10 th Ave and 42 nd Street	INTERSECTION	156.2	F
10 th Ave and 43 rd Street	INTERSECTION	17.4	B
10 th Ave and 44 th Street	INTERSECTION	45.5	D
10 th Ave and 45 th Street	INTERSECTION	80.3	F
10 th Ave and 46 th Street	INTERSECTION	52.4	D
10 th Ave and 47 th Street	INTERSECTION	55.2	E
10 th Ave and 48 th Street	INTERSECTION	39.6	D
10 th Ave and 49 th Street	INTERSECTION	54.5	D
10 th Ave and 50 th Street	INTERSECTION	70.7	E
Galvin Ave and 40 th Street	INTERSECTION	87.1	F

2040 No Action – PM Peak Hour			
Intersection	Approach	Delay	LOS
Galvin Ave and 41 st Street (Unsignalized)	INTERSECTION	0.0	A
11 th Ave and 30 th Street	INTERSECTION	323.5	F
11 th Ave and 33 rd Street	INTERSECTION	16.1	B
11 th Ave at 34 th Street	INTERSECTION	126.9	F
11 th Ave at 35 th Street	INTERSECTION	32.1	C
11 th Ave at 36 th Street	INTERSECTION	7.1	A
11 th Ave and 37 th Street	INTERSECTION	8.4	A
11 th Ave and 38 th Street	INTERSECTION	12.5	B
11 th Ave and 39 th Street	INTERSECTION	9.3	A
11 th Ave and 40 th Street	INTERSECTION	301.8	F
11 th Ave and 41 st Street	INTERSECTION	66.1	E
11 th Ave and 42 nd Street	INTERSECTION	305.8	F
11 th Ave and 43 rd Street	INTERSECTION	7.1	A
11 th Ave and 44 th Street	INTERSECTION	21.4	C
11 th Ave and 45 th Street	INTERSECTION	9.4	B
11 th Ave and 46 th Street	INTERSECTION	5.0	A
11 th Ave and 47 th Street	INTERSECTION	6.2	A
11 th Ave and 48 th Street	INTERSECTION	5.7	A
11 th Ave and 49 th Street	INTERSECTION	9.3	A
11 th Ave and 50 th Street	INTERSECTION	21.7	C
12 th Ave and 30 th Street	INTERSECTION	273.8	F
12 th Ave and 34 th Street	INTERSECTION	113.1	F
12 th Ave and 36 th Street	INTERSECTION	70.6	E
12 th Ave and 37 th Street	INTERSECTION	109.0	F
12 th Ave and 39 th Street	INTERSECTION	158.0	F
12 th Ave and 40 th Street	INTERSECTION	105.6	F
12 th Ave and 41 st Street	INTERSECTION	77.4	F
12 th Ave and 42 nd Street	INTERSECTION	148.7	F
12 th Ave and 43 rd Street	INTERSECTION	115.2	F
12 th Ave and 44 th Street	INTERSECTION	122.7	F
12 th Ave and 45 th Street (Unsignalized)	INTERSECTION	4.0	A
12 th Ave and 46 th Street	INTERSECTION	100.3	F
12 th Ave and 47 th Street (Unsignalized)	INTERSECTION	6.4	A
12 th Ave and 48 th Street	INTERSECTION	165.3	F
12 th Ave and 49 th Street	INTERSECTION	65.9	F
12 th Ave and 50 th Street	INTERSECTION	168.5	F

Figure 9B-12. 2040 AM No Action LOS Map



2040 No Action Traffic Condition Intersection Level of Service – AM Peak Hour

Figure 9B-13. 2040 PM No Action LOS Map

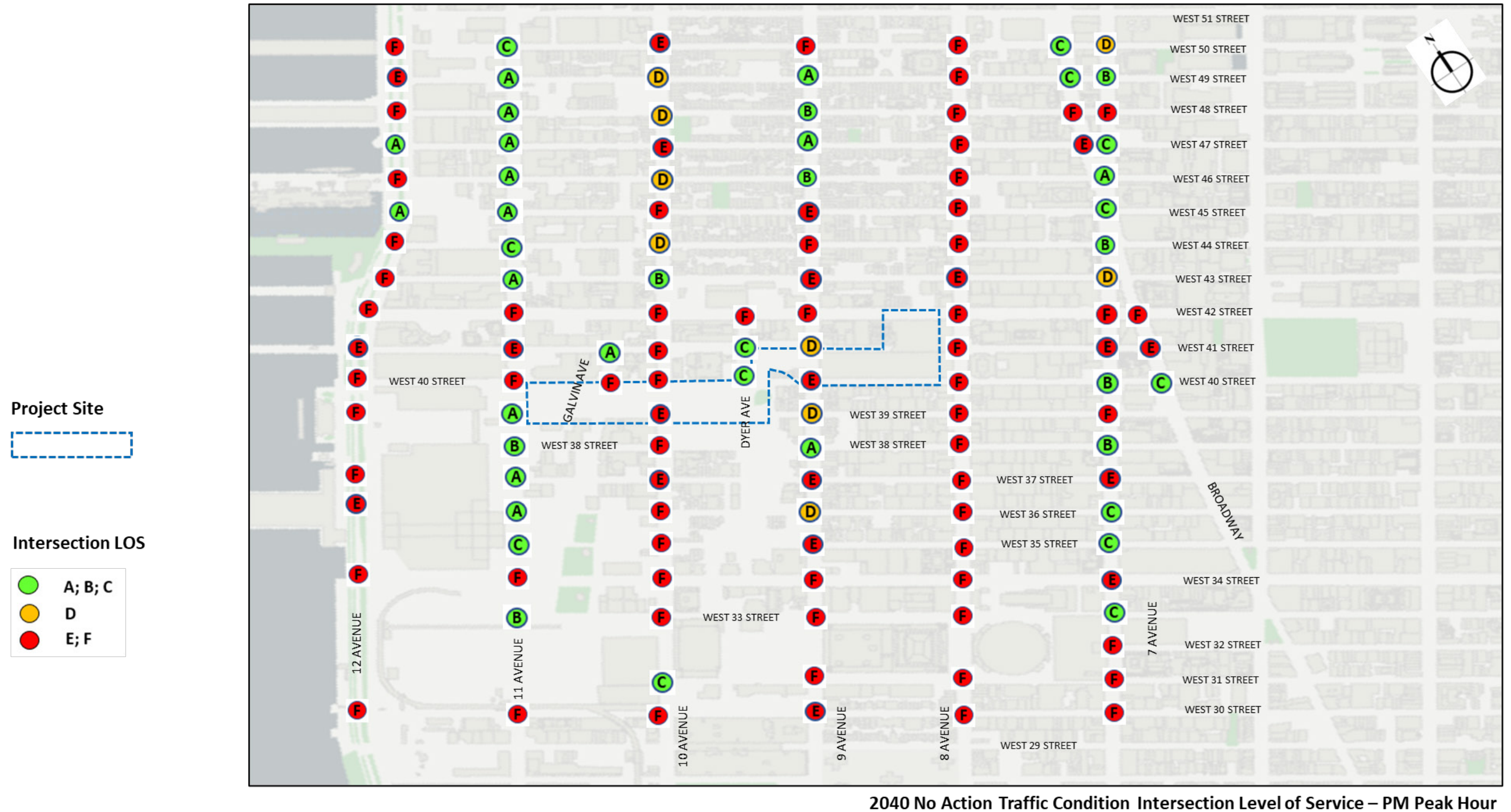


Table 9B-14. 2028 AM Proposed Project LOS and Delay Results

2028 Proposed Project - AM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 42nd Street	INTERSECTION	626.0	F
Broadway and 47th Street	INTERSECTION	32.0	C
Broadway and 49th Street	INTERSECTION	14.0	B
Broadway and 50th Street	INTERSECTION	18.9	B
7th Ave and 30th Street	INTERSECTION	156.7	F
7th Ave and 34th Street	INTERSECTION	73.4	E
7th Ave and 36th Street	INTERSECTION	30.2	C
7th Ave and 37th Street	INTERSECTION	14.2	B
7th Ave and 38th Street	INTERSECTION	13.8	B
7th Ave and 39th Street	INTERSECTION	47.0	D
7th Ave and 40th Street	INTERSECTION	29.1	D
7th Ave and 41st Street	INTERSECTION	29.9	C
7th Ave and 42nd Street	INTERSECTION	166.4	F
7th Ave and 43rd Street	INTERSECTION	11.5	B
7th Ave and 44th Street	INTERSECTION	16.1	B
7th Ave and 45th Street	INTERSECTION	40.0	D
7th Ave and 46th Street	INTERSECTION	10.3	A
7th Ave and 47th Street	INTERSECTION	9.9	A
7th Ave and 48th Street	INTERSECTION	29.2	C
7th Ave and 49th Street	INTERSECTION	26.5	C
7th Ave and 50th Street	INTERSECTION	32.7	C
8th Ave and 30th Street	INTERSECTION	187.3	F
8th Ave and 34th Street	INTERSECTION	186.0	F
8th Ave and 35th Street	INTERSECTION	275.7	F
8th Ave and 36th Street	INTERSECTION	87.9	F
8th Ave and 37th Street	INTERSECTION	26.0	C
8th Ave and 38th Street	INTERSECTION	35.5	D
8th Ave and 39th Street	INTERSECTION	68.5	E
8th Ave and 40th Street	INTERSECTION	85.6	F
8th Ave and 41st Street	INTERSECTION	47.3	D
8th Ave and 42nd Street	INTERSECTION	135.8	F
8th Ave and 43rd Street	INTERSECTION	104.3	F
8th Ave and 44th Street	INTERSECTION	379.1	F
8th Ave and 45th Street	INTERSECTION	64.8	E
8th Ave and 46th Street	INTERSECTION	111.8	F
8th Ave and 47th Street	INTERSECTION	49.6	D
8th Ave and 48th Street	INTERSECTION	195.2	F
8th Ave and 49th Street	INTERSECTION	80.9	F
8th Ave and 50th Street	INTERSECTION	151.0	F
9th Ave and 30th Street	INTERSECTION	143.1	F
9th Ave and 31st Street	INTERSECTION	17.9	B
9th Ave and 33rd Street	INTERSECTION	55.6	E
9th Ave and 34th Street	INTERSECTION	186.4	F
9th Ave and 35th Street	INTERSECTION	21.4	C
9th Ave and 36th Street	INTERSECTION	101.0	F
9th Ave and 37th Street	INTERSECTION	16.8	B

2028 Proposed Project -AM Peak Hour			
Intersection	Approach	Delay	LOS
9th Ave and 38th Street	INTERSECTION	26.5	C
9th Ave and 39th Street	INTERSECTION	13.8	B
9th Ave and 40th Street	INTERSECTION	104.3	F
9th Ave and 41st Street	INTERSECTION	8.3	A
9th Ave and 42nd Street	INTERSECTION	159.9	F
9th Ave and 43rd Street	INTERSECTION	16.0	B
9th Ave and 44th Street	INTERSECTION	17.7	B
9th Ave and 45th Street	INTERSECTION	11.7	B
9th Ave and 46th Street	INTERSECTION	9.3	B
9th Ave and 47th Street	INTERSECTION	5.2	A
9th Ave and 49th Street	INTERSECTION	14.4	B
Dyer Ave and 40th Street	INTERSECTION	21.7	C
Dyer Ave and 41st Street	INTERSECTION	57.3	E
Dyer Ave and 42nd Street	INTERSECTION	97.5	F
10th Ave and 34th Street	INTERSECTION	59.6	E
10th Ave and 35th Street	INTERSECTION	37.2	D
10th Ave and 36th Street	INTERSECTION	8.4	A
10th Ave and 37th Street	INTERSECTION	24.4	C
10th Ave and 38th Street	INTERSECTION	15.1	B
10th Ave and 39th Street	INTERSECTION	8.0	A
10th Ave and 40th Street	INTERSECTION	18.4	B
10th Ave and 41st Street	INTERSECTION	59.1	E
10th Ave and 42nd Street	INTERSECTION	218.6	F
10th Ave and 43rd Street	INTERSECTION	51.4	D
10th Ave and 44th Street	INTERSECTION	467.8	F
10th Ave and 45th Street	INTERSECTION	62.7	E
10th Ave and 46th Street	INTERSECTION	111.7	F
10th Ave and 47th Street	INTERSECTION	92.2	F
10th Ave and 48th Street	INTERSECTION	65.2	E
10th Ave and 49th Street	INTERSECTION	60.7	E
10th Ave and 50th Street	INTERSECTION	160.2	F
11th Ave and 40th Street	INTERSECTION	101.4	F
11th Ave and 41st Street	INTERSECTION	17.6	B
11th Ave and 42nd Street	INTERSECTION	104.2	F
11th Ave and 43rd Street	INTERSECTION	6.9	A
11th Ave and 44th Street	INTERSECTION	10.5	B
11th Ave and 45th Street	INTERSECTION	11.2	B
11th Ave and 46th Street	INTERSECTION	6.3	A
11th Ave and 47th Street	INTERSECTION	6.2	A
11th Ave and 48th Street	INTERSECTION	19.2	B
11th Ave and 49th Street	INTERSECTION	32.9	C
12th Ave and 41st Street	INTERSECTION	69.9	E
12th Ave and 42nd Street	INTERSECTION	81.6	F
Galvin Ave and 40th Street	INTERSECTION	21.4	C

Table 9B-15. 2028 PM Proposed Project LOS and Delay Results

2028 Proposed Project - PM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 42nd Street	INTERSECTION	316.7	F
Broadway and 47th Street	INTERSECTION	58.5	E
Broadway and 49th Street	INTERSECTION	28.0	C
Broadway and 50th Street	INTERSECTION	20.4	C
7th Ave and 30th Street	INTERSECTION	194.0	F
7th Ave and 34th Street	INTERSECTION	59.5	E
7th Ave and 36th Street	INTERSECTION	17.5	B
7th Ave and 37th Street	INTERSECTION	32.4	C
7th Ave and 38th Street	INTERSECTION	12.1	B
7th Ave and 39th Street	INTERSECTION	140.2	F
7th Ave and 40th Street	INTERSECTION	13.7	B
7th Ave and 41st Street	INTERSECTION	48.2	D
7th Ave and 42nd Street	INTERSECTION	185.6	F
7th Ave and 43rd Street	INTERSECTION	37.0	D
7th Ave and 44th Street	INTERSECTION	10.7	B
7th Ave and 45th Street	INTERSECTION	25.2	C
7th Ave and 46th Street	INTERSECTION	2.3	A
7th Ave and 47th Street	INTERSECTION	17.5	B
7th Ave and 48th Street	INTERSECTION	155.9	F
7th Ave and 49th Street	INTERSECTION	12.8	B
7th Ave and 50th Street	INTERSECTION	40.1	D
8th Ave and 30th Street	INTERSECTION	192.5	F
8th Ave and 34th Street	INTERSECTION	156.2	F
8th Ave and 35th Street	INTERSECTION	155.5	F
8th Ave and 36th Street	INTERSECTION	292.9	F
8th Ave and 37th Street	INTERSECTION	76.6	E
8th Ave and 38th Street	INTERSECTION	261.2	F
8th Ave and 39th Street	INTERSECTION	70.1	E
8th Ave and 40th Street	INTERSECTION	62.6	E
8th Ave and 41st Street	INTERSECTION	218.1	F
8th Ave and 42nd Street	INTERSECTION	230.2	F
8th Ave and 43rd Street	INTERSECTION	53.3	D
8th Ave and 44th Street	INTERSECTION	94.7	F
8th Ave and 45th Street	INTERSECTION	263.7	F
8th Ave and 46th Street	INTERSECTION	199.5	F
8th Ave and 47th Street	INTERSECTION	179.7	F
8th Ave and 48th Street	INTERSECTION	646.9	F
8th Ave and 49th Street	INTERSECTION	62.8	E
8th Ave and 50th Street	INTERSECTION	175.9	F
9th Ave and 30th Street	INTERSECTION	67.8	E
9th Ave and 31st Street	INTERSECTION	101.8	F
9th Ave and 33rd Street	INTERSECTION	110.2	F
9th Ave and 34th Street	INTERSECTION	230.5	F
9th Ave and 35th Street	INTERSECTION	65.1	E
9th Ave and 36th Street	INTERSECTION	37.2	D
9th Ave and 37th Street	INTERSECTION	48.0	D

2028 Proposed Project - PM Peak Hour			
Intersection	Approach	Delay	LOS
9th Ave and 38th Street	INTERSECTION	7.5	A
9th Ave and 39th Street	INTERSECTION	43.1	D
9th Ave and 40th Street	INTERSECTION	67.2	E
9th Ave and 41st Street	INTERSECTION	51.8	D
9th Ave and 42nd Street	INTERSECTION	75.8	E
9th Ave and 43rd Street	INTERSECTION	52.5	D
9th Ave and 44th Street	INTERSECTION	76.6	E
9th Ave and 45th Street	INTERSECTION	71.3	E
9th Ave and 46th Street	INTERSECTION	15.9	B
9th Ave and 47th Street	INTERSECTION	8.9	A
9th Ave and 49th Street	INTERSECTION	5.8	A
Dyer Ave and 40th Street	INTERSECTION	21.4	C
Dyer Ave and 41st Street	INTERSECTION	27.1	C
Dyer Ave and 42nd Street	INTERSECTION	232.9	F
10th Ave and 34th Street	INTERSECTION	114.7	F
10th Ave and 35th Street	INTERSECTION	78.8	E
10th Ave and 36th Street	INTERSECTION	67.8	E
10th Ave and 37th Street	INTERSECTION	80.8	F
10th Ave and 38th Street	INTERSECTION	107.1	F
10th Ave and 39th Street	INTERSECTION	51.8	D
10th Ave and 40th Street	INTERSECTION	157.9	F
10th Ave and 41st Street	INTERSECTION	68.4	E
10th Ave and 42nd Street	INTERSECTION	123.5	F
10th Ave and 43rd Street	INTERSECTION	13.6	B
10th Ave and 44th Street	INTERSECTION	205.5	F
10th Ave and 45th Street	INTERSECTION	54.1	D
10th Ave and 46th Street	INTERSECTION	35.9	D
10th Ave and 47th Street	INTERSECTION	24.6	C
10th Ave and 48th Street	INTERSECTION	14.5	B
10th Ave and 49th Street	INTERSECTION	20.5	C
10th Ave and 50th Street	INTERSECTION	42.9	D
11th Ave and 40th Street	INTERSECTION	299.5	F
11th Ave and 41st Street	INTERSECTION	51.9	D
11th Ave and 42nd Street	INTERSECTION	300.1	F
11th Ave and 43rd Street	INTERSECTION	7.4	A
11th Ave and 44th Street	INTERSECTION	22.3	C
11th Ave and 45th Street	INTERSECTION	9.6	A
11th Ave and 46th Street	INTERSECTION	5.3	A
11th Ave and 47th Street	INTERSECTION	6.7	A
11th Ave and 48th Street	INTERSECTION	6.2	A
11th Ave and 49th Street	INTERSECTION	9.7	A
12th Ave and 41st Street	INTERSECTION	53.7	D
12th Ave and 42nd Street	INTERSECTION	112.1	F
Galvin Ave and 40th Street	INTERSECTION	66.7	E

Figure 9B-14. 2028 AM Proposed Project LOS Map

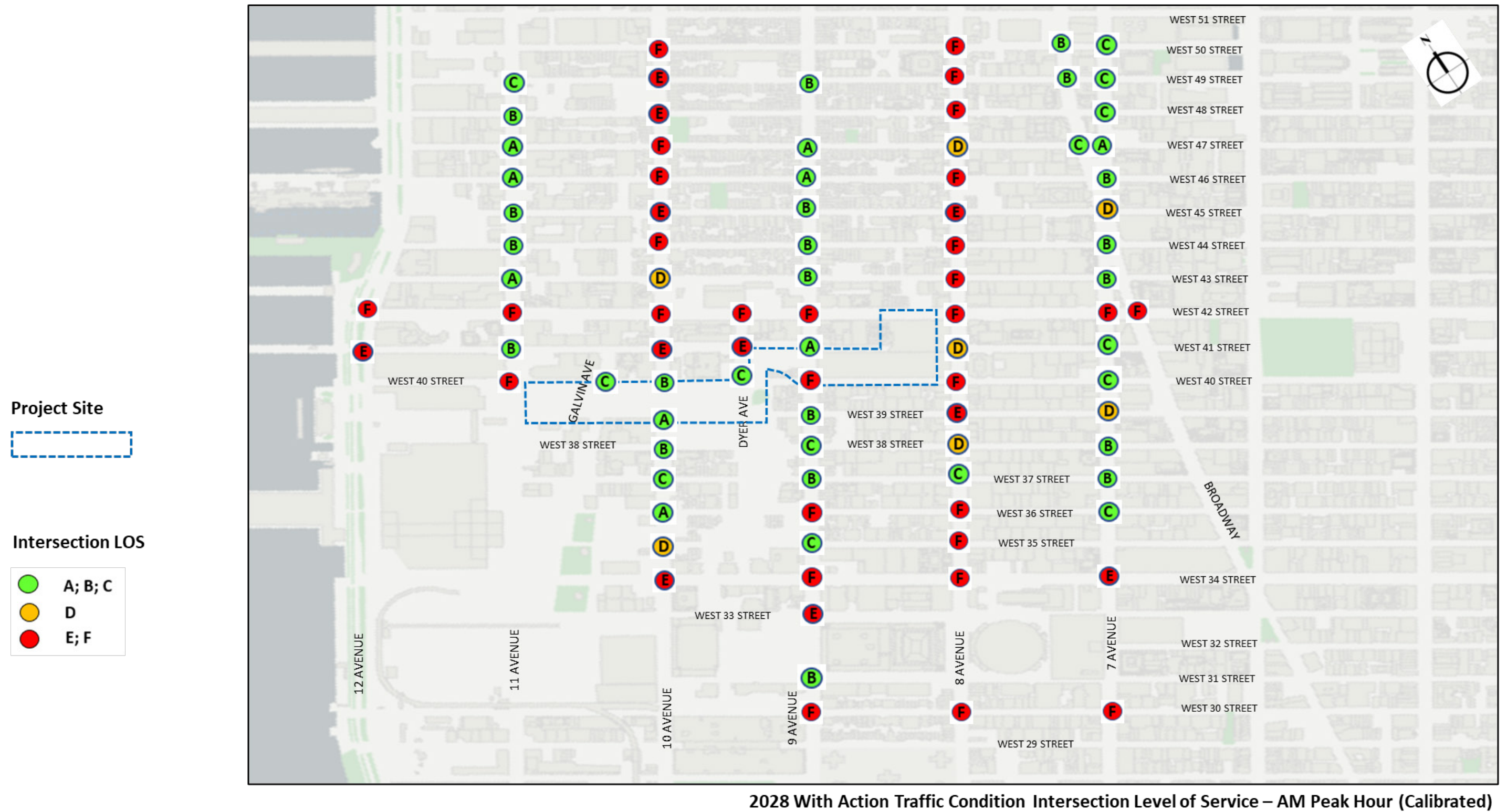


Figure 9B-15. 2028 PM Proposed Project LOS Map

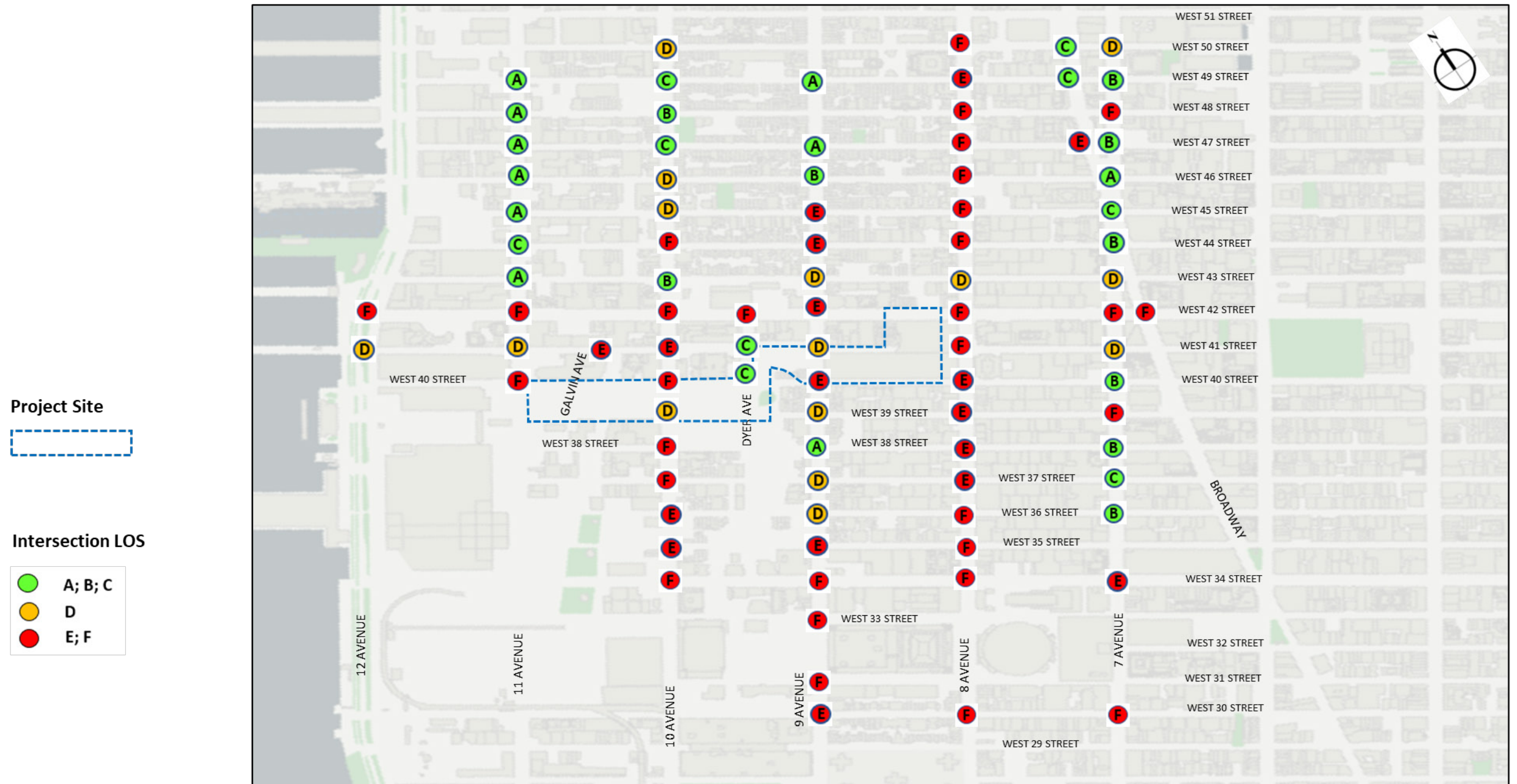


Table 9B-16. 2032 AM Proposed Project LOS and Delay Results

2032 Proposed Project - AM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 42nd Street	INTERSECTION	619.4	F
Broadway and 47th Street	INTERSECTION	31.3	C
Broadway and 49th Street	INTERSECTION	13.6	B
Broadway and 50th Street	INTERSECTION	18.2	B
7th Ave and 30th Street	INTERSECTION	186.4	F
7th Ave and 34th Street	INTERSECTION	76.4	E
7th Ave and 36th Street	INTERSECTION	27.0	C
7th Ave and 37th Street	INTERSECTION	13.9	B
7th Ave and 38th Street	INTERSECTION	13.7	B
7th Ave and 39th Street	INTERSECTION	43.3	D
7th Ave and 40th Street	INTERSECTION	27.7	C
7th Ave and 41st Street	INTERSECTION	36.5	D
7th Ave and 42nd Street	INTERSECTION	159.0	F
7th Ave and 43rd Street	INTERSECTION	11.4	B
7th Ave and 44th Street	INTERSECTION	15.8	B
7th Ave and 45th Street	INTERSECTION	35.6	D
7th Ave and 46th Street	INTERSECTION	10.1	B
7th Ave and 47th Street	INTERSECTION	9.8	A
7th Ave and 48th Street	INTERSECTION	28.5	C
7th Ave and 49th Street	INTERSECTION	24.9	C
7th Ave and 50th Street	INTERSECTION	30.6	C
8th Ave and 30th Street	INTERSECTION	213.6	F
8th Ave and 34th Street	INTERSECTION	190.6	F
8th Ave and 35th Street	INTERSECTION	267.1	F
8th Ave and 36th Street	INTERSECTION	84.6	F
8th Ave and 37th Street	INTERSECTION	25.6	C
8th Ave and 38th Street	INTERSECTION	31.6	C
8th Ave and 39th Street	INTERSECTION	68.5	E
8th Ave and 40th Street	INTERSECTION	83.1	F
8th Ave and 41st Street	INTERSECTION	56.2	E
8th Ave and 42nd Street	INTERSECTION	141.3	F
8th Ave and 43rd Street	INTERSECTION	104.7	F
8th Ave and 44th Street	INTERSECTION	98.7	F
8th Ave and 45th Street	INTERSECTION	246.2	F
8th Ave and 46th Street	INTERSECTION	107.6	F
8th Ave and 47th Street	INTERSECTION	48.9	D
8th Ave and 48th Street	INTERSECTION	187.1	F
8th Ave and 49th Street	INTERSECTION	77.9	E
8th Ave and 50th Street	INTERSECTION	143.9	F
9th Ave and 30th Street	INTERSECTION	143.5	F
9th Ave and 31st Street	INTERSECTION	18.3	B
9th Ave and 33rd Street	INTERSECTION	56.5	E
9th Ave and 34th Street	INTERSECTION	196.3	F
9th Ave and 35th Street	INTERSECTION	19.9	B
9th Ave and 36th Street	INTERSECTION	104.1	F
9th Ave and 37th Street	INTERSECTION	15.7	B

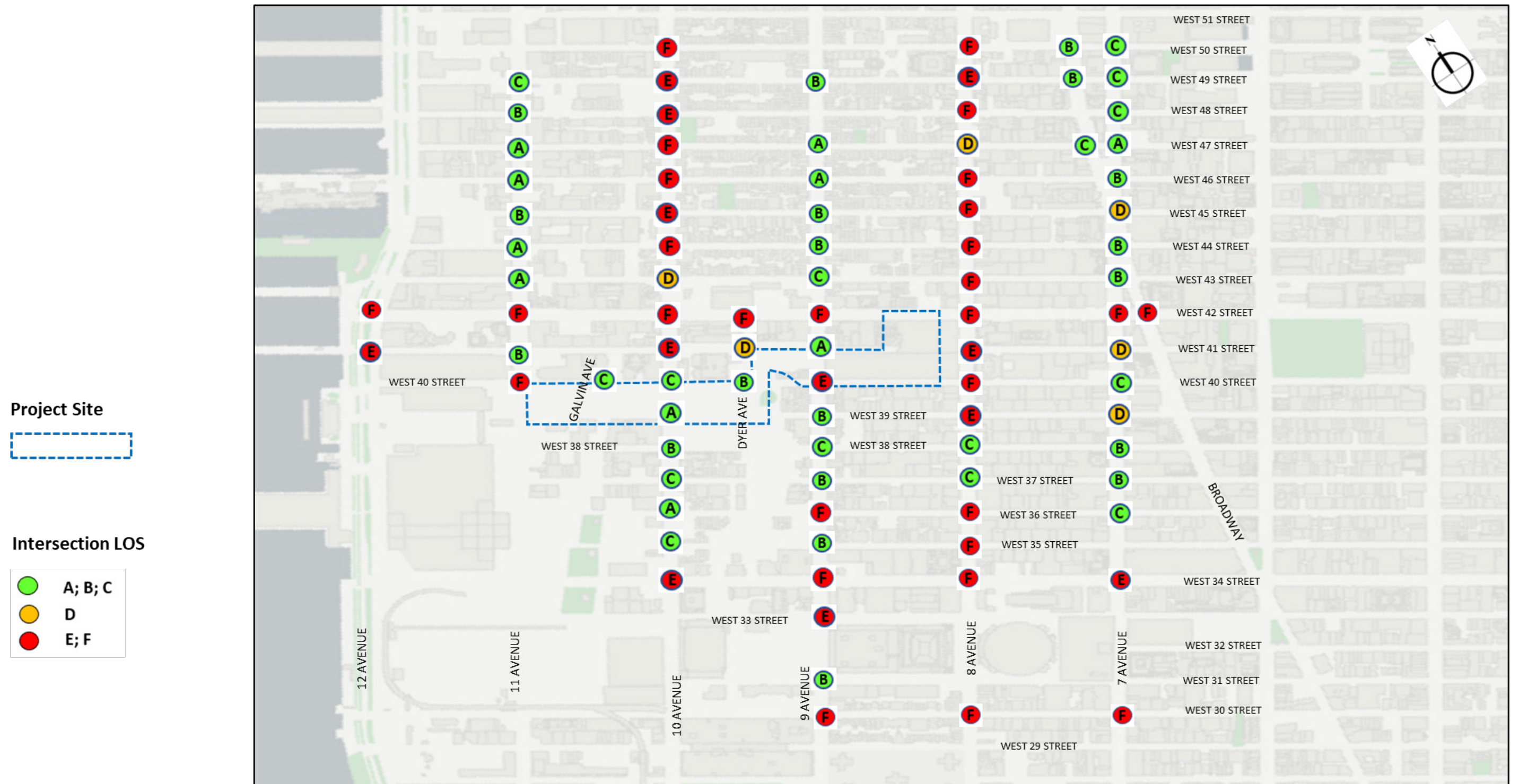
2032 Proposed Project - AM Peak Hour			
Intersection	Approach	Delay	LOS
9th Ave and 38th Street	INTERSECTION	25.1	C
9th Ave and 39th Street	INTERSECTION	14.4	B
9th Ave and 40th Street	INTERSECTION	71.7	E
9th Ave and 41st Street	INTERSECTION	6.2	A
9th Ave and 42nd Street	INTERSECTION	159.5	F
9th Ave and 43rd Street	INTERSECTION	22.4	C
9th Ave and 44th Street	INTERSECTION	18.1	B
9th Ave and 45th Street	INTERSECTION	11.9	B
9th Ave and 46th Street	INTERSECTION	9.1	A
9th Ave and 47th Street	INTERSECTION	5.2	A
9th Ave and 49th Street	INTERSECTION	14.1	B
Dyer Ave and 40th Street	INTERSECTION	18.7	B
Dyer Ave and 41st Street	INTERSECTION	54.5	D
Dyer Ave and 42nd Street	INTERSECTION	86.2	F
10th Ave and 34th Street	INTERSECTION	74.8	E
10th Ave and 35th Street	INTERSECTION	34.1	C
10th Ave and 36th Street	INTERSECTION	8.9	A
10th Ave and 37th Street	INTERSECTION	23.6	C
10th Ave and 38th Street	INTERSECTION	15.6	B
10th Ave and 39th Street	INTERSECTION	8.1	A
10th Ave and 40th Street	INTERSECTION	24.6	C
10th Ave and 41st Street	INTERSECTION	58.9	E
10th Ave and 42nd Street	INTERSECTION	215.3	F
10th Ave and 43rd Street	INTERSECTION	50.0	D
10th Ave and 44th Street	INTERSECTION	129.1	F
10th Ave and 45th Street	INTERSECTION	72.8	E
10th Ave and 46th Street	INTERSECTION	121.4	F
10th Ave and 47th Street	INTERSECTION	103.2	F
10th Ave and 48th Street	INTERSECTION	76.7	E
10th Ave and 49th Street	INTERSECTION	70.2	E
10th Ave and 50th Street	INTERSECTION	170.3	F
11th Ave and 40th Street	INTERSECTION	135.1	F
11th Ave and 41st Street	INTERSECTION	17.7	B
11th Ave and 42nd Street	INTERSECTION	95.7	F
11th Ave and 43rd Street	INTERSECTION	6.3	A
11th Ave and 44th Street	INTERSECTION	9.8	A
11th Ave and 45th Street	INTERSECTION	10.3	B
11th Ave and 46th Street	INTERSECTION	6.0	A
11th Ave and 47th Street	INTERSECTION	5.7	A
11th Ave and 48th Street	INTERSECTION	16.9	B
11th Ave and 49th Street	INTERSECTION	27.5	C
12th Ave and 41st Street	INTERSECTION	69.9	E
12th Ave and 42nd Street	INTERSECTION	81.6	F
Galvin Ave and 40th Street	INTERSECTION	20.6	C

Table 9B-17. 2032 PM Proposed Project LOS and Delay Results

2032 Proposed Project - PM Peak Hour			
Intersection	Approach	Delay	LOS
Broadway and 42nd Street	INTERSECTION	324.0	F
Broadway and 47th Street	INTERSECTION	54.7	D
Broadway and 49th Street	INTERSECTION	27.0	C
Broadway and 50th Street	INTERSECTION	19.7	B
7th Ave and 30th Street	INTERSECTION	198.4	F
7th Ave and 34th Street	INTERSECTION	61.7	E
7th Ave and 36th Street	INTERSECTION	16.0	B
7th Ave and 37th Street	INTERSECTION	30.3	C
7th Ave and 38th Street	INTERSECTION	11.6	B
7th Ave and 39th Street	INTERSECTION	126.6	F
7th Ave and 40th Street	INTERSECTION	14.6	B
7th Ave and 41st Street	INTERSECTION	51.4	D
7th Ave and 42nd Street	INTERSECTION	190.0	F
7th Ave and 43rd Street	INTERSECTION	35.4	D
7th Ave and 44th Street	INTERSECTION	10.5	B
7th Ave and 45th Street	INTERSECTION	22.9	C
7th Ave and 46th Street	INTERSECTION	2.3	A
7th Ave and 47th Street	INTERSECTION	17.0	B
7th Ave and 48th Street	INTERSECTION	147.4	F
7th Ave and 49th Street	INTERSECTION	12.5	B
7th Ave and 50th Street	INTERSECTION	37.0	D
8th Ave and 30th Street	INTERSECTION	221.2	F
8th Ave and 34th Street	INTERSECTION	155.3	F
8th Ave and 35th Street	INTERSECTION	140.8	F
8th Ave and 36th Street	INTERSECTION	285.1	F
8th Ave and 37th Street	INTERSECTION	61.9	E
8th Ave and 38th Street	INTERSECTION	225.6	F
8th Ave and 39th Street	INTERSECTION	53.4	D
8th Ave and 40th Street	INTERSECTION	60.9	E
8th Ave and 41st Street	INTERSECTION	90.6	F
8th Ave and 42nd Street	INTERSECTION	261.5	F
8th Ave and 43rd Street	INTERSECTION	54.9	D
8th Ave and 44th Street	INTERSECTION	102.5	F
8th Ave and 45th Street	INTERSECTION	361.4	F
8th Ave and 46th Street	INTERSECTION	190.3	F
8th Ave and 47th Street	INTERSECTION	170.0	F
8th Ave and 48th Street	INTERSECTION	621.7	F
8th Ave and 49th Street	INTERSECTION	58.0	E
8th Ave and 50th Street	INTERSECTION	167.8	F
9th Ave and 30th Street	INTERSECTION	123.8	F
9th Ave and 31st Street	INTERSECTION	99.7	F
9th Ave and 33rd Street	INTERSECTION	100.7	F
9th Ave and 34th Street	INTERSECTION	222.9	F
9th Ave and 35th Street	INTERSECTION	63.3	E
9th Ave and 36th Street	INTERSECTION	35.7	D
9th Ave and 37th Street	INTERSECTION	52.7	D

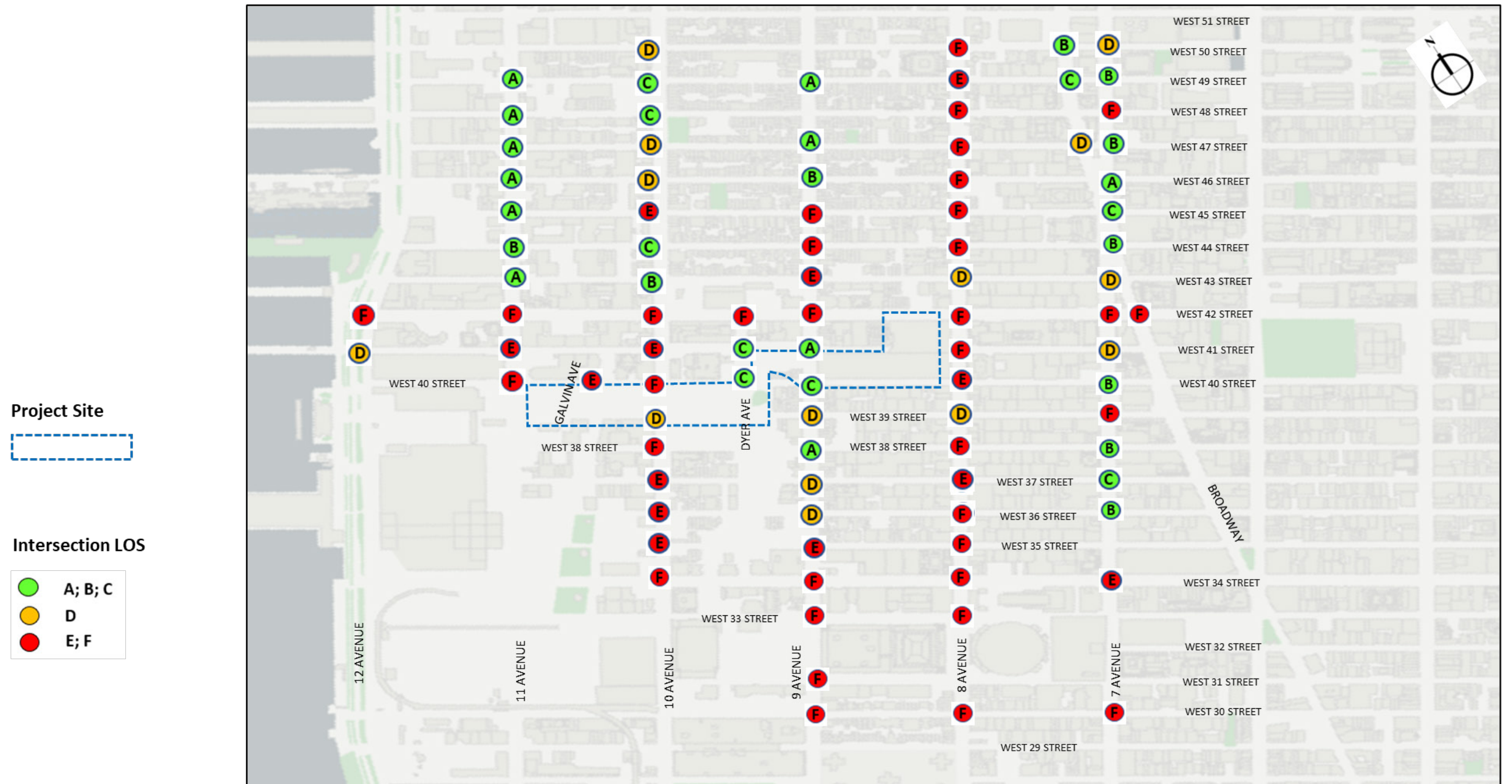
2032 Proposed Project - PM Peak Hour			
Intersection	Approach	Delay	LOS
9th Ave and 38th Street	INTERSECTION	7.5	A
9th Ave and 39th Street	INTERSECTION	53.4	D
9th Ave and 40th Street	INTERSECTION	32.8	C
9th Ave and 41st Street	INTERSECTION	4.1	A
9th Ave and 42nd Street	INTERSECTION	90.5	F
9th Ave and 43rd Street	INTERSECTION	66.6	E
9th Ave and 44th Street	INTERSECTION	81.8	F
9th Ave and 45th Street	INTERSECTION	81.2	F
9th Ave and 46th Street	INTERSECTION	15.7	B
9th Ave and 47th Street	INTERSECTION	8.7	A
9th Ave and 49th Street	INTERSECTION	5.9	A
Dyer Ave and 40th Street	INTERSECTION	21.2	C
Dyer Ave and 41st Street	INTERSECTION	26.1	C
Dyer Ave and 42nd Street	INTERSECTION	211.8	F
10th Ave and 34th Street	INTERSECTION	127.1	F
10th Ave and 35th Street	INTERSECTION	73.3	E
10th Ave and 36th Street	INTERSECTION	64.6	E
10th Ave and 37th Street	INTERSECTION	59.9	E
10th Ave and 38th Street	INTERSECTION	91.6	F
10th Ave and 39th Street	INTERSECTION	49.6	D
10th Ave and 40th Street	INTERSECTION	113.7	F
10th Ave and 41st Street	INTERSECTION	74.9	E
10th Ave and 42nd Street	INTERSECTION	129.8	F
10th Ave and 43rd Street	INTERSECTION	13.6	B
10th Ave and 44th Street	INTERSECTION	23.1	C
10th Ave and 45th Street	INTERSECTION	59.6	E
10th Ave and 46th Street	INTERSECTION	49.3	D
10th Ave and 47th Street	INTERSECTION	36.0	D
10th Ave and 48th Street	INTERSECTION	20.9	C
10th Ave and 49th Street	INTERSECTION	31.5	C
10th Ave and 50th Street	INTERSECTION	48.0	D
11th Ave and 40th Street	INTERSECTION	269.9	F
11th Ave and 41st Street	INTERSECTION	66.0	E
11th Ave and 42nd Street	INTERSECTION	272.2	F
11th Ave and 43rd Street	INTERSECTION	6.8	A
11th Ave and 44th Street	INTERSECTION	18.2	B
11th Ave and 45th Street	INTERSECTION	9.2	A
11th Ave and 46th Street	INTERSECTION	4.8	A
11th Ave and 47th Street	INTERSECTION	6.1	A
11th Ave and 48th Street	INTERSECTION	5.7	A
11th Ave and 49th Street	INTERSECTION	8.4	A
12th Ave and 41st Street	INTERSECTION	53.1	D
12th Ave and 42nd Street	INTERSECTION	98.8	F
Galvin Ave and 40th Street	INTERSECTION	67.9	E

Figure 9B-16. 2032 AM Proposed Project LOS Map



2032 With Action Traffic Condition Intersection Level of Service – AM Peak Hour (Calibrated)

Figure 9B-17. 2032 PM Proposed Project LOS Map



2032 With Action Traffic Condition Intersection Level of Service – PM Peak Hour (Calibrated)

Table 9B-18. 2040 AM Proposed Project LOS and Delay Results

2040 Proposed Project - AM Peak Hour			
Intersection	Approach	Delay	LOS
9th Ave and 38th Street	INTERSECTION	29.0	C
9th Ave and 39th Street	INTERSECTION	14.5	B
9th Ave and 40th Street	INTERSECTION	124.9	F
9th Ave and 41st Street	INTERSECTION	60.0	E
9th Ave and 42nd Street	INTERSECTION	232.7	F
9th Ave and 43rd Street	INTERSECTION	138.1	F
9th Ave and 44th Street	INTERSECTION	59.1	E
9th Ave and 45th Street	INTERSECTION	19.9	B
9th Ave and 46th Street	INTERSECTION	10.2	B
9th Ave and 47th Street	INTERSECTION	5.6	A
9th Ave and 49th Street	INTERSECTION	15.0	B
Dyer Ave and 40th Street	INTERSECTION	25.6	C
Dyer Ave and 41st Street	INTERSECTION	78.3	E
Dyer Ave and 42nd Street	INTERSECTION	163.4	F
10th Ave and 34th Street	INTERSECTION	128.9	F
10th Ave and 35th Street	INTERSECTION	40.8	D
10th Ave and 36th Street	INTERSECTION	11.4	B
10th Ave and 37th Street	INTERSECTION	33.5	C
10th Ave and 38th Street	INTERSECTION	21.8	C
10th Ave and 39th Street	INTERSECTION	12.9	B
10th Ave and 40th Street	INTERSECTION	62.3	E
10th Ave and 41st Street	INTERSECTION	68.9	E
10th Ave and 42nd Street	INTERSECTION	285.7	F
10th Ave and 43rd Street	INTERSECTION	49.2	D
10th Ave and 44th Street	INTERSECTION	172.7	F
10th Ave and 45th Street	INTERSECTION	110.5	F
10th Ave and 46th Street	INTERSECTION	161.7	F
10th Ave and 47th Street	INTERSECTION	144.1	F
10th Ave and 48th Street	INTERSECTION	114.4	F
10th Ave and 49th Street	INTERSECTION	109.3	F
10th Ave and 50th Street	INTERSECTION	212.4	F
11th Ave and 40th Street	INTERSECTION	165.4	F
11th Ave and 41st Street	INTERSECTION	40.4	D
11th Ave and 42nd Street	INTERSECTION	169.0	F
11th Ave and 43rd Street	INTERSECTION	6.5	A
11th Ave and 44th Street	INTERSECTION	10.5	B
11th Ave and 45th Street	INTERSECTION	10.2	B
11th Ave and 46th Street	INTERSECTION	6.2	A
11th Ave and 47th Street	INTERSECTION	5.6	A
11th Ave and 48th Street	INTERSECTION	18.9	B
11th Ave and 49th Street	INTERSECTION	43.9	D
12th Ave and 41st Street	INTERSECTION	105.1	F
12th Ave and 42nd Street	INTERSECTION	129.7	F
Galvin Ave and 40th Street	INTERSECTION	19.0	B
Broadway and 42nd Street	INTERSECTION	681.6	F
Broadway and 47th Street	INTERSECTION	40.0	D
Broadway and 49th Street	INTERSECTION	17.3	B
Broadway and 50th Street	INTERSECTION	23.5	C
7th Ave and 30th Street	INTERSECTION	492.7	F
7th Ave and 34th Street	INTERSECTION	179.7	F

2040 Proposed Project - AM Peak Hour			
Intersection	Approach	Delay	LOS
7th Ave and 36th Street	INTERSECTION	70.7	E
7th Ave and 37th Street	INTERSECTION	26.7	C
7th Ave and 38th Street	INTERSECTION	15.9	B
7th Ave and 39th Street	INTERSECTION	63.1	E
7th Ave and 40th Street	INTERSECTION	66.7	E
7th Ave and 41st Street	INTERSECTION	63.7	E
7th Ave and 42nd Street	INTERSECTION	197.5	F
7th Ave and 43rd Street	INTERSECTION	13.4	B
7th Ave and 44th Street	INTERSECTION	15.4	B
7th Ave and 45th Street	INTERSECTION	64.0	E
7th Ave and 46th Street	INTERSECTION	10.1	B
7th Ave and 47th Street	INTERSECTION	11.0	B
7th Ave and 48th Street	INTERSECTION	28.4	C
7th Ave and 49th Street	INTERSECTION	29.4	C
7th Ave and 50th Street	INTERSECTION	37.8	D
8th Ave and 30th Street	INTERSECTION	417.8	F
8th Ave and 34th Street	INTERSECTION	315.8	F
8th Ave and 35th Street	INTERSECTION	436.9	F
8th Ave and 36th Street	INTERSECTION	295.1	F
8th Ave and 37th Street	INTERSECTION	56.1	E
8th Ave and 38th Street	INTERSECTION	204.9	F
8th Ave and 39th Street	INTERSECTION	108.7	F
8th Ave and 40th Street	INTERSECTION	202.7	F
8th Ave and 41st Street	INTERSECTION	151.2	F
8th Ave and 42nd Street	INTERSECTION	196.5	F
8th Ave and 43rd Street	INTERSECTION	224.9	F
8th Ave and 44th Street	INTERSECTION	160.3	F
8th Ave and 45th Street	INTERSECTION	336.2	F
8th Ave and 46th Street	INTERSECTION	166.9	F
8th Ave and 47th Street	INTERSECTION	68.1	E
8th Ave and 48th Street	INTERSECTION	245.9	F
8th Ave and 49th Street	INTERSECTION	132.2	F
8th Ave and 50th Street	INTERSECTION	206.4	F
9th Ave and 30th Street	INTERSECTION	306.7	F
9th Ave and 31st Street	INTERSECTION	21.3	C
9th Ave and 33rd Street	INTERSECTION	139.6	F
9th Ave and 34th Street	INTERSECTION	266.2	F
9th Ave and 35th Street	INTERSECTION	40.8	D
9th Ave and 36th Street	INTERSECTION	153.4	F
9th Ave and 37th Street	INTERSECTION	20.3	C

Table 9B-19. 2040 PM Proposed Project LOS and Delay Results

2040 Proposed Project - PM Peak Hour			
Intersection	Approach	Delay	LOS
9th Ave and 38th Street	INTERSECTION	10.6	B
9th Ave and 39th Street	INTERSECTION	70.2	E
9th Ave and 40th Street	INTERSECTION	80.4	F
9th Ave and 41st Street	INTERSECTION	239.2	F
9th Ave and 42nd Street	INTERSECTION	271.8	F
9th Ave and 43rd Street	INTERSECTION	232.1	F
9th Ave and 44th Street	INTERSECTION	123.4	F
9th Ave and 45th Street	INTERSECTION	86.8	F
9th Ave and 46th Street	INTERSECTION	19.5	B
9th Ave and 47th Street	INTERSECTION	9.5	A
9th Ave and 49th Street	INTERSECTION	6.6	A
Dyer Ave and 40th Street	INTERSECTION	21.5	C
Dyer Ave and 41st Street	INTERSECTION	26.3	C
Dyer Ave and 42nd Street	INTERSECTION	273.6	F
10th Ave and 34th Street	INTERSECTION	204.4	F
10th Ave and 35th Street	INTERSECTION	80.9	F
10th Ave and 36th Street	INTERSECTION	98.0	F
10th Ave and 37th Street	INTERSECTION	63.9	E
10th Ave and 38th Street	INTERSECTION	130.0	F
10th Ave and 39th Street	INTERSECTION	58.8	E
10th Ave and 40th Street	INTERSECTION	175.8	F
10th Ave and 41st Street	INTERSECTION	91.1	F
10th Ave and 42nd Street	INTERSECTION	173.6	F
10th Ave and 43rd Street	INTERSECTION	36.9	D
10th Ave and 44th Street	INTERSECTION	78.7	E
10th Ave and 45th Street	INTERSECTION	99.9	F
10th Ave and 46th Street	INTERSECTION	59.7	E
10th Ave and 47th Street	INTERSECTION	67.1	E
10th Ave and 48th Street	INTERSECTION	50.6	E
10th Ave and 49th Street	INTERSECTION	54.2	D
10th Ave and 50th Street	INTERSECTION	89.5	F
11th Ave and 40th Street	INTERSECTION	339.1	F
11th Ave and 41st Street	INTERSECTION	67.0	E
11th Ave and 42nd Street	INTERSECTION	354.5	F
11th Ave and 43rd Street	INTERSECTION	6.9	A
11th Ave and 44th Street	INTERSECTION	20.6	C
11th Ave and 45th Street	INTERSECTION	9.4	A
11th Ave and 46th Street	INTERSECTION	4.9	A
11th Ave and 47th Street	INTERSECTION	6.0	A
11th Ave and 48th Street	INTERSECTION	5.7	A
11th Ave and 49th Street	INTERSECTION	9.4	A
12th Ave and 41st Street	INTERSECTION	84.5	F
12th Ave and 42nd Street	INTERSECTION	156.0	F
Galvin Ave and 40th Street	INTERSECTION	112.3	F
Broadway and 42nd Street	INTERSECTION	367.0	F
Broadway and 47th Street	INTERSECTION	65.3	E
Broadway and 49th Street	INTERSECTION	29.0	C
Broadway and 50th Street	INTERSECTION	22.0	C
7th Ave and 30th Street	INTERSECTION	498.4	F
7th Ave and 34th Street	INTERSECTION	146.2	F

2040 Proposed Project - PM Peak Hour			
Intersection	Approach	Delay	LOS
7th Ave and 36th Street	INTERSECTION	48.2	D
7th Ave and 37th Street	INTERSECTION	76.7	E
7th Ave and 38th Street	INTERSECTION	16.0	B
7th Ave and 39th Street	INTERSECTION	135.5	F
7th Ave and 40th Street	INTERSECTION	34.5	C
7th Ave and 41st Street	INTERSECTION	73.3	E
7th Ave and 42nd Street	INTERSECTION	377.7	F
7th Ave and 43rd Street	INTERSECTION	50.0	D
7th Ave and 44th Street	INTERSECTION	10.8	B
7th Ave and 45th Street	INTERSECTION	28.4	C
7th Ave and 46th Street	INTERSECTION	6.7	A
7th Ave and 47th Street	INTERSECTION	37.1	D
7th Ave and 48th Street	INTERSECTION	178.0	F
7th Ave and 49th Street	INTERSECTION	22.1	C
7th Ave and 50th Street	INTERSECTION	62.9	E
8th Ave and 30th Street	INTERSECTION	370.5	F
8th Ave and 34th Street	INTERSECTION	262.8	F
8th Ave and 35th Street	INTERSECTION	243.9	F
8th Ave and 36th Street	INTERSECTION	399.5	F
8th Ave and 37th Street	INTERSECTION	112.9	F
8th Ave and 38th Street	INTERSECTION	335.4	F
8th Ave and 39th Street	INTERSECTION	107.5	F
8th Ave and 40th Street	INTERSECTION	124.2	F
8th Ave and 41st Street	INTERSECTION	132.5	F
8th Ave and 42nd Street	INTERSECTION	312.6	F
8th Ave and 43rd Street	INTERSECTION	138.3	F
8th Ave and 44th Street	INTERSECTION	175.6	F
8th Ave and 45th Street	INTERSECTION	471.6	F
8th Ave and 46th Street	INTERSECTION	265.6	F
8th Ave and 47th Street	INTERSECTION	239.6	F
8th Ave and 48th Street	INTERSECTION	716.6	F
8th Ave and 49th Street	INTERSECTION	117.1	F
8th Ave and 50th Street	INTERSECTION	242.7	F
9th Ave and 30th Street	INTERSECTION	228.0	F
9th Ave and 31st Street	INTERSECTION	147.8	F
9th Ave and 33rd Street	INTERSECTION	202.6	F
9th Ave and 34th Street	INTERSECTION	296.3	F
9th Ave and 35th Street	INTERSECTION	80.4	F
9th Ave and 36th Street	INTERSECTION	75.3	E
9th Ave and 37th Street	INTERSECTION	95.2	F

Figure 9B-18. 2040 AM Proposed Project LOS Map

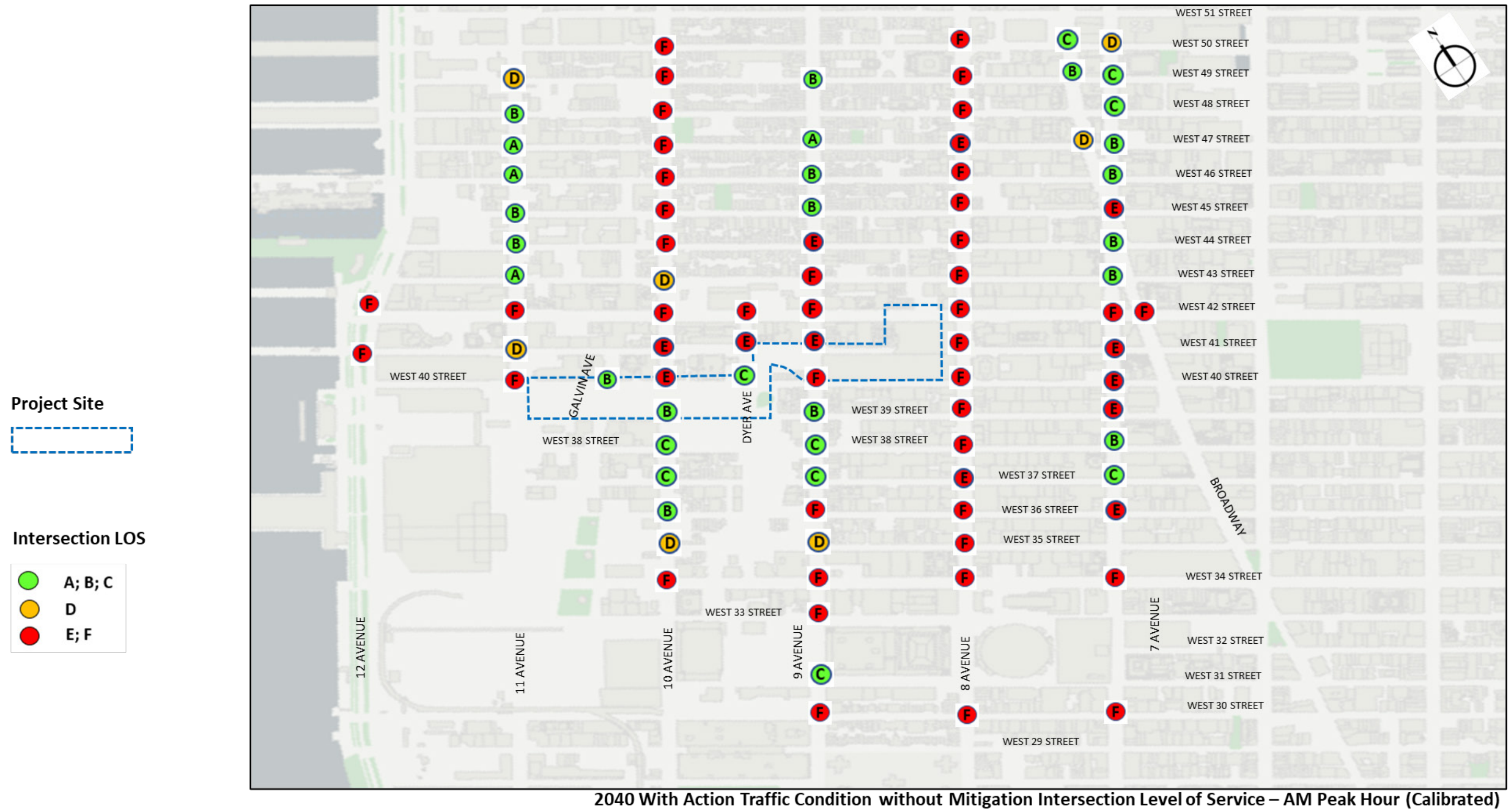
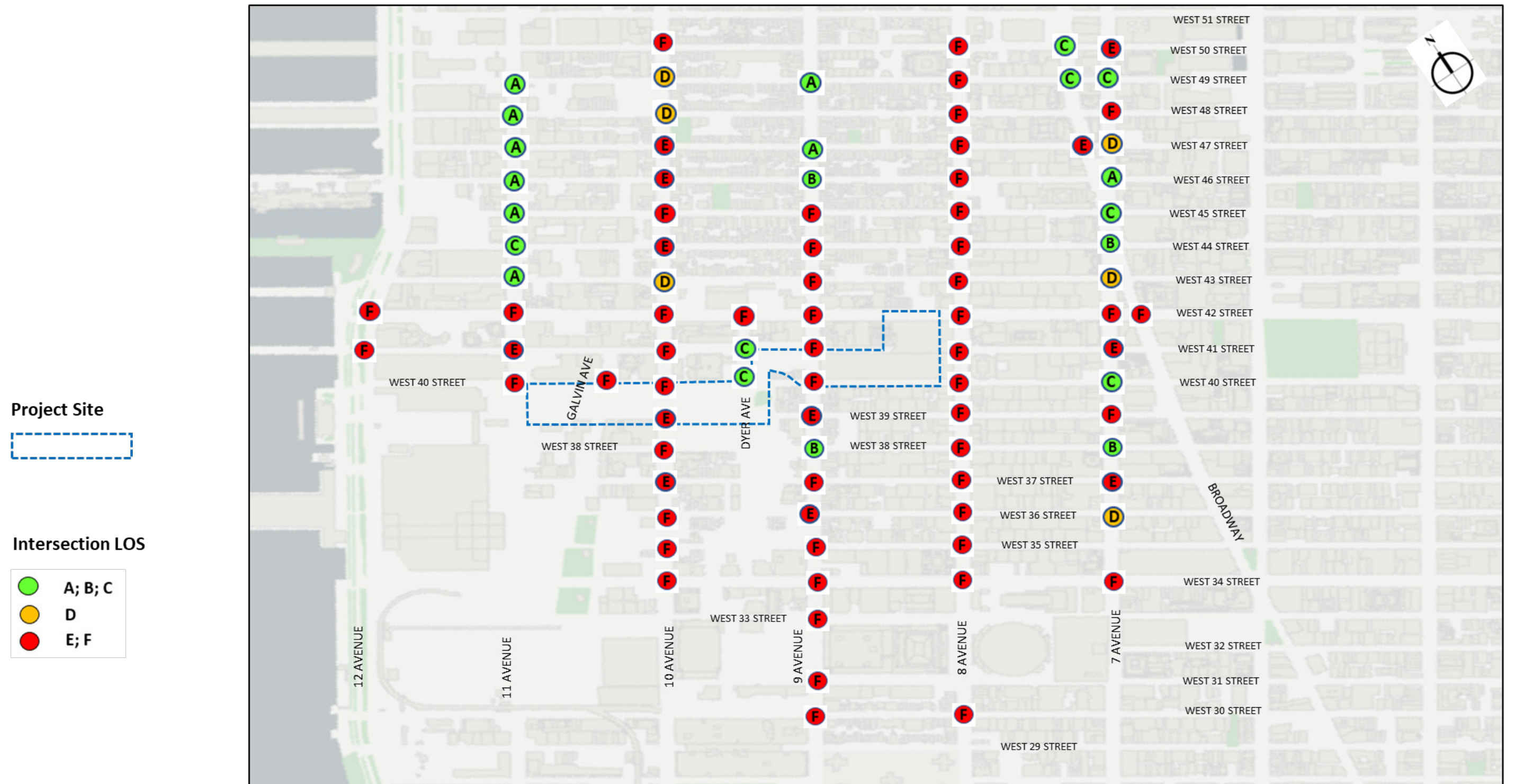


Figure 9B-19. 2040 PM Proposed Project LOS Map



2040 With Action Traffic Condition without Mitigation Intersection Level of Service – PM Peak Hour (Calibrated)

Table 9B-20. 2040 AM No Action & Proposed Project Comparison and Impacts

2040 Comparison - AM Peak Hour						
Intersection	Approach	No Action		Proposed Project		Impact?
		Delay	LOS	Delay	LOS	
Broadway and 42nd Street	INTERSECTION	651.3	F	681.6	F	YES
Broadway and 47th Street	INTERSECTION	32.7	C	40	D	YES
Broadway and 49th Street	INTERSECTION	14.5	B	17.3	B	No
Broadway and 50th Street	INTERSECTION	19.8	B	23.5	C	No
7th Ave and 30th Street	INTERSECTION	460.7	F	492.7	F	YES
7th Ave and 34th Street	INTERSECTION	86.2	F	179.7	F	YES
7th Ave and 36th Street	INTERSECTION	62.3	E	70.7	E	YES
7th Ave and 37th Street	INTERSECTION	21.5	C	26.7	C	YES
7th Ave and 38th Street	INTERSECTION	15.6	B	15.9	B	No
7th Ave and 39th Street	INTERSECTION	53.2	D	63.1	E	YES
7th Ave and 40th Street	INTERSECTION	42.3	D	66.7	E	YES
7th Ave and 41st Street	INTERSECTION	63.2	E	63.7	E	No
7th Ave and 42nd Street	INTERSECTION	193	F	197.5	F	YES
7th Ave and 43rd Street	INTERSECTION	12.7	B	13.4	B	No
7th Ave and 44th Street	INTERSECTION	14.8	B	15.4	B	No
7th Ave and 45th Street	INTERSECTION	60.1	E	64.0	E	No
7th Ave and 46th Street	INTERSECTION	10	B	10.1	B	No
7th Ave and 47th Street	INTERSECTION	10	A	11	B	No
7th Ave and 48th Street	INTERSECTION	28.6	C	28.4	C	No
7th Ave and 49th Street	INTERSECTION	26.3	C	29.4	C	YES
7th Ave and 50th Street	INTERSECTION	35.1	D	37.8	D	YES
8th Ave and 30th Street	INTERSECTION	415.8	F	417.8	F	No
8th Ave and 34th Street	INTERSECTION	299.8	F	315.8	F	YES
8th Ave and 35th Street	INTERSECTION	409.9	F	436.9	F	YES
8th Ave and 36th Street	INTERSECTION	130.3	F	295.1	F	YES
8th Ave and 37th Street	INTERSECTION	60	E	56.1	E	No
8th Ave and 38th Street	INTERSECTION	174.3	F	204.9	F	YES
8th Ave and 39th Street	INTERSECTION	87.9	F	108.7	F	YES
8th Ave and 40th Street	INTERSECTION	105.3	F	202.7	F	YES
8th Ave and 41st Street	INTERSECTION	64.1	E	151.2	F	YES
8th Ave and 42nd Street	INTERSECTION	153.4	F	196.5	F	YES
8th Ave and 43rd Street	INTERSECTION	143.1	F	224.9	F	YES
8th Ave and 44th Street	INTERSECTION	136.4	F	160.3	F	YES
8th Ave and 45th Street	INTERSECTION	101.9	F	336.2	F	YES
8th Ave and 46th Street	INTERSECTION	154.7	F	166.9	F	YES
8th Ave and 47th Street	INTERSECTION	59.3	E	68.1	E	YES
8th Ave and 48th Street	INTERSECTION	236.2	F	245.9	F	YES
8th Ave and 49th Street	INTERSECTION	114.7	F	132.2	F	YES
8th Ave and 50th Street	INTERSECTION	191.5	F	206.4	F	YES
9th Ave and 30th Street	INTERSECTION	80.3	F	306.7	F	YES
9th Ave and 31st Street	INTERSECTION	20.3	C	21.3	C	No
9th Ave and 33rd Street	INTERSECTION	134.3	F	139.6	F	YES
9th Ave and 34th Street	INTERSECTION	262.5	F	266.2	F	YES
9th Ave and 35th Street	INTERSECTION	30.5	C	40.8	D	YES

2040 Comparison - AM Peak Hour						
Intersection	Approach	No Action		Proposed Project		Impact?
		Delay	LOS	Delay	LOS	
9th Ave and 36th Street	INTERSECTION	132.3	F	153.4	F	YES
9th Ave and 37th Street	INTERSECTION	18.3	B	20.3	C	No
9th Ave and 38th Street	INTERSECTION	30.2	C	29	C	No
9th Ave and 39th Street	INTERSECTION	13.8	B	14.5	B	YES
9th Ave and 40th Street	INTERSECTION	112.2	F	124.9	F	YES
9th Ave and 41st Street	INTERSECTION	9.2	A	60	E	YES
9th Ave and 42nd Street	INTERSECTION	164.7	F	232.7	F	YES
9th Ave and 43rd Street	INTERSECTION	23.9	C	138.1	F	YES
9th Ave and 44th Street	INTERSECTION	21.7	C	59.1	E	YES
9th Ave and 45th Street	INTERSECTION	13.3	B	19.9	B	No
9th Ave and 46th Street	INTERSECTION	8.9	A	10.2	B	No
9th Ave and 47th Street	INTERSECTION	5.4	A	5.6	A	No
9th Ave and 49th Street	INTERSECTION	14.5	B	15	B	No
Dyer Ave and 40th Street	INTERSECTION	23.3	C	25.6	C	No
Dyer Ave and 41st Street	INTERSECTION	61.5	E	78.3	E	YES
Dyer Ave and 42nd Street	INTERSECTION	110.8	F	163.4	F	YES
10th Ave and 34th Street	INTERSECTION	117.8	F	128.9	F	YES
10th Ave and 35th Street	INTERSECTION	38.8	D	40.8	D	YES
10th Ave and 36th Street	INTERSECTION	10.4	B	11.4	B	No
10th Ave and 37th Street	INTERSECTION	26.6	C	33.5	C	YES
10th Ave and 38th Street	INTERSECTION	17.7	B	21.8	C	No
10th Ave and 39th Street	INTERSECTION	8.8	A	12.9	B	No
10th Ave and 40th Street	INTERSECTION	51.6	D	62.3	E	YES
10th Ave and 41st Street	INTERSECTION	62.8	E	68.9	E	YES
10th Ave and 42nd Street	INTERSECTION	261.6	F	285.7	F	YES
10th Ave and 43rd Street	INTERSECTION	49.7	D	49.2	D	No
10th Ave and 44th Street	INTERSECTION	160.7	F	172.7	F	YES
10th Ave and 45th Street	INTERSECTION	99.9	F	110.5	F	YES
10th Ave and 46th Street	INTERSECTION	150.6	F	161.7	F	YES
10th Ave and 47th Street	INTERSECTION	132.3	F	144.1	F	YES
10th Ave and 48th Street	INTERSECTION	103.2	F	114.4	F	YES
10th Ave and 49th Street	INTERSECTION	96.7	F	109.3	F	YES
10th Ave and 50th Street	INTERSECTION	200.8	F	212.4	F	YES
11th Ave and 40th Street	INTERSECTION	164.3	F	165.4	F	YES
11th Ave and 41st Street	INTERSECTION	20	C	40.4	D	No
11th Ave and 42nd Street	INTERSECTION	118.3	F	169	F	YES
11th Ave and 43rd Street	INTERSECTION	6.6	A	6.5	A	No
11th Ave and 44th Street	INTERSECTION	10.6	B	10.5	B	No
11th Ave and 45th Street	INTERSECTION	10.4	B	10.2	B	No
11th Ave and 46th Street	INTERSECTION	6.2	A	6.2	A	No
11th Ave and 47th Street	INTERSECTION	5.7	A	5.6	A	No
11th Ave and 48th Street	INTERSECTION	18.9	B	18.9	B	No
11th Ave and 49th Street	INTERSECTION	33	C	43.9	D	YES
12th Ave and 41st Street	INTERSECTION	103.5	F	105.1	F	No
12th Ave and 42nd Street	INTERSECTION	130.1	F	129.7	F	No
Galvin Ave and 40th Street	INTERSECTION	21.1	C	19	B	No

Table 9B-21. 2040 PM No Action & Proposed Project Comparison and Impacts

2040 Comparison - PM Peak Hour						
Intersection	Approach	No Action		Proposed Project		Impact?
		Delay	LOS	Delay	LOS	
Broadway and 42nd Street	INTERSECTION	333	F	367	F	YES
Broadway and 47th Street	INTERSECTION	62.7	E	65.3	E	YES
Broadway and 49th Street	INTERSECTION	28.6	C	29	C	No
Broadway and 50th Street	INTERSECTION	21.3	C	22	C	No
7th Ave and 30th Street	INTERSECTION	439.7	F	498.4	F	YES
7th Ave and 34th Street	INTERSECTION	58.3	E	146.2	F	YES
7th Ave and 36th Street	INTERSECTION	31.3	C	48.2	D	YES
7th Ave and 37th Street	INTERSECTION	64.3	E	76.7	E	YES
7th Ave and 38th Street	INTERSECTION	12.9	B	16	B	No
7th Ave and 39th Street	INTERSECTION	139.1	F	135.5	F	YES
7th Ave and 40th Street	INTERSECTION	19.1	B	34.5	C	YES
7th Ave and 41st Street	INTERSECTION	61.5	E	73.3	E	No
7th Ave and 42nd Street	INTERSECTION	225	F	377.7	F	YES
7th Ave and 43rd Street	INTERSECTION	35.2	D	50	D	No
7th Ave and 44th Street	INTERSECTION	10.5	B	10.8	B	No
7th Ave and 45th Street	INTERSECTION	26.1	C	28.4	C	YES
7th Ave and 46th Street	INTERSECTION	5	A	6.7	A	No
7th Ave and 47th Street	INTERSECTION	30.3	C	37.1	D	No
7th Ave and 48th Street	INTERSECTION	172.8	F	178	F	No
7th Ave and 49th Street	INTERSECTION	18.2	B	22.1	C	YES
7th Ave and 50th Street	INTERSECTION	49.4	D	62.9	E	YES
8th Ave and 30th Street	INTERSECTION	361.8	F	370.5	F	YES
8th Ave and 34th Street	INTERSECTION	283.1	F	262.8	F	YES
8th Ave and 35th Street	INTERSECTION	217	F	243.9	F	YES
8th Ave and 36th Street	INTERSECTION	382.3	F	399.5	F	YES
8th Ave and 37th Street	INTERSECTION	118.7	F	112.9	F	No
8th Ave and 38th Street	INTERSECTION	340.8	F	335.4	F	YES
8th Ave and 39th Street	INTERSECTION	102.5	F	107.5	F	YES
8th Ave and 40th Street	INTERSECTION	83.9	F	124.2	F	YES
8th Ave and 41st Street	INTERSECTION	237.8	F	132.5	F	YES
8th Ave and 42nd Street	INTERSECTION	246.1	F	312.6	F	YES
8th Ave and 43rd Street	INTERSECTION	60.6	E	138.3	F	YES
8th Ave and 44th Street	INTERSECTION	124.4	F	175.6	F	YES
8th Ave and 45th Street	INTERSECTION	315.6	F	471.6	F	YES
8th Ave and 46th Street	INTERSECTION	241.2	F	265.6	F	YES
8th Ave and 47th Street	INTERSECTION	216.1	F	239.6	F	YES
8th Ave and 48th Street	INTERSECTION	693.6	F	716.6	F	YES
8th Ave and 49th Street	INTERSECTION	93.9	F	117.1	F	YES
8th Ave and 50th Street	INTERSECTION	212.9	F	242.7	F	YES
9th Ave and 30th Street	INTERSECTION	88.3	E	228	F	YES
9th Ave and 31st Street	INTERSECTION	141.5	F	147.8	F	YES
9th Ave and 33rd Street	INTERSECTION	200.6	F	202.6	F	YES
9th Ave and 34th Street	INTERSECTION	321.7	F	296.3	F	YES
9th Ave and 35th Street	INTERSECTION	68	E	80.4	F	YES
9th Ave and 36th Street	INTERSECTION	50.9	D	75.3	E	YES
9th Ave and 37th Street	INTERSECTION	66.1	E	95.2	F	YES
9th Ave and 38th Street	INTERSECTION	7.8	A	10.6	B	No
9th Ave and 39th Street	INTERSECTION	46.1	D	70.2	E	YES
9th Ave and 40th Street	INTERSECTION	68.9	E	80.4	F	YES

2040 Comparison - PM Peak Hour						
Intersection	Approach	No Action		Proposed Project		Impact?
		Delay	LOS	Delay	LOS	
9th Ave and 41st Street	INTERSECTION	51.5	D	239.2	F	YES
9th Ave and 42nd Street	INTERSECTION	149.1	F	271.8	F	YES
9th Ave and 43rd Street	INTERSECTION	64	E	232.1	F	YES
9th Ave and 44th Street	INTERSECTION	97.6	F	123.4	F	YES
9th Ave and 45th Street	INTERSECTION	74.2	E	86.8	F	No
9th Ave and 46th Street	INTERSECTION	17.9	B	19.5	B	No
9th Ave and 47th Street	INTERSECTION	9.3	A	9.5	A	No
9th Ave and 49th Street	INTERSECTION	6.3	A	6.6	A	No
Dyer Ave and 40th Street	INTERSECTION	20.9	C	21.5	C	No
Dyer Ave and 41st Street	INTERSECTION	27.3	C	26.3	C	No
Dyer Ave and 42nd Street	INTERSECTION	251.1	F	273.6	F	YES
10th Ave and 34th Street	INTERSECTION	162.5	F	204.4	F	YES
10th Ave and 35th Street	INTERSECTION	83.2	F	80.9	F	No
10th Ave and 36th Street	INTERSECTION	101.9	F	98	F	No
10th Ave and 37th Street	INTERSECTION	69.3	E	63.9	E	YES
10th Ave and 38th Street	INTERSECTION	125.2	F	130	F	No
10th Ave and 39th Street	INTERSECTION	60.6	E	58.8	E	No
10th Ave and 40th Street	INTERSECTION	162.5	F	175.8	F	YES
10th Ave and 41st Street	INTERSECTION	93.1	F	91.1	F	No
10th Ave and 42nd Street	INTERSECTION	156.2	F	173.6	F	YES
10th Ave and 43rd Street	INTERSECTION	17.4	B	36.9	D	No
10th Ave and 44th Street	INTERSECTION	45.5	D	78.7	E	YES
10th Ave and 45th Street	INTERSECTION	80.3	F	99.9	F	YES
10th Ave and 46th Street	INTERSECTION	52.4	D	59.7	E	YES
10th Ave and 47th Street	INTERSECTION	55.2	E	67.1	E	YES
10th Ave and 48th Street	INTERSECTION	39.6	D	50.6	E	YES
10th Ave and 49th Street	INTERSECTION	54.5	D	54.2	D	No
10th Ave and 50th Street	INTERSECTION	70.7	E	89.5	F	YES
11th Ave and 40th Street	INTERSECTION	301.8	F	339.1	F	YES
11th Ave and 41st Street	INTERSECTION	66.1	E	67	E	No
11th Ave and 42nd Street	INTERSECTION	305.8	F	354.5	F	YES
11th Ave and 43rd Street	INTERSECTION	7.1	A	6.9	A	No
11th Ave and 44th Street	INTERSECTION	21.4	C	20.6	C	No
11th Ave and 45th Street	INTERSECTION	9.4	B	9.4	A	No
11th Ave and 46th Street	INTERSECTION	5	A	4.9	A	No
11th Ave and 47th Street	INTERSECTION	6.2	A	6	A	No
11th Ave and 48th Street	INTERSECTION	5.7	A	5.7	A	No
11th Ave and 49th Street	INTERSECTION	9.3	A	9.4	A	YES
12th Ave and 41st Street	INTERSECTION	77.4	F	84.5	F	No
12th Ave and 42nd Street	INTERSECTION	148.7	F	156	F	No
Galvin Ave and 40th Street	INTERSECTION	87.1	F	112.3	F	No

Table 9B-22. 2040 AM Without Mitigation & With Mitigation Comparison

2040 Mitigation Comparison - AM Peak Hour						
Intersection	Approach	No Mitigation		With Mitigation		Mitigated?
		Delay	LOS	Delay	LOS	
Broadway and 42nd Street	INTERSECTION	681.6	F	680.2	F	No
Broadway and 47th Street	INTERSECTION	40	D	40.0	D	No
Broadway and 49th Street	INTERSECTION	17.3	B	17.4	B	n/a
Broadway and 50th Street	INTERSECTION	23.5	C	22.9	C	n/a
7th Ave and 30th Street	INTERSECTION	492.7	F	492.8	F	No
7th Ave and 34th Street	INTERSECTION	179.7	F	90.7	F	YES
7th Ave and 36th Street	INTERSECTION	70.7	E	65.0	E	YES
7th Ave and 37th Street	INTERSECTION	26.7	C	26.7	C	No
7th Ave and 38th Street	INTERSECTION	15.9	B	14.6	B	n/a
7th Ave and 39th Street	INTERSECTION	63.1	E	54.3	D	YES
7th Ave and 40th Street	INTERSECTION	66.7	E	66.7	E	No
7th Ave and 41st Street	INTERSECTION	63.7	E	62.4	E	n/a
7th Ave and 42nd Street	INTERSECTION	197.5	F	179.6	F	YES
7th Ave and 43rd Street	INTERSECTION	13.4	B	13.8	B	n/a
7th Ave and 44th Street	INTERSECTION	15.4	B	15.4	B	n/a
7th Ave and 45th Street	INTERSECTION	64.0	E	64.0	E	n/a
7th Ave and 46th Street	INTERSECTION	10.1	B	10.0	B	n/a
7th Ave and 47th Street	INTERSECTION	11	B	11.0	B	n/a
7th Ave and 48th Street	INTERSECTION	28.4	C	28.3	C	n/a
7th Ave and 49th Street	INTERSECTION	29.4	C	27.3	C	YES
7th Ave and 50th Street	INTERSECTION	37.8	D	34.1	C	YES
8th Ave and 30th Street	INTERSECTION	417.8	F	417.8	F	No
8th Ave and 34th Street	INTERSECTION	315.8	F	315.8	F	No
8th Ave and 35th Street	INTERSECTION	436.9	F	436.9	F	No
8th Ave and 36th Street	INTERSECTION	295.1	F	295.1	F	No
8th Ave and 37th Street	INTERSECTION	56.1	E	56.1	E	n/a
8th Ave and 38th Street	INTERSECTION	204.9	F	204.9	F	No
8th Ave and 39th Street	INTERSECTION	108.7	F	108.6	F	No
8th Ave and 40th Street	INTERSECTION	202.7	F	202.8	F	No
8th Ave and 41st Street	INTERSECTION	151.2	F	151.2	F	No
8th Ave and 42nd Street	INTERSECTION	196.5	F	196.4	F	No
8th Ave and 43rd Street	INTERSECTION	224.9	F	224.9	F	No
8th Ave and 44th Street	INTERSECTION	160.3	F	160.3	F	No
8th Ave and 45th Street	INTERSECTION	336.2	F	336.2	F	No
8th Ave and 46th Street	INTERSECTION	166.9	F	156.8	F	YES
8th Ave and 47th Street	INTERSECTION	68.1	E	67.8	E	No
8th Ave and 48th Street	INTERSECTION	245.9	F	245.9	F	No
8th Ave and 49th Street	INTERSECTION	132.2	F	132.2	F	No
8th Ave and 50th Street	INTERSECTION	206.4	F	194.1	F	YES
9th Ave and 30th Street	INTERSECTION	306.7	F	306.7	F	No
9th Ave and 31st Street	INTERSECTION	21.3	C	21.3	C	n/a
9th Ave and 33rd Street	INTERSECTION	139.6	F	139.6	F	No
9th Ave and 34th Street	INTERSECTION	266.2	F	266.1	F	No
9th Ave and 35th Street	INTERSECTION	40.8	D	39.9	D	YES
9th Ave and 36th Street	INTERSECTION	153.4	F	153.4	F	No
9th Ave and 37th Street	INTERSECTION	20.3	C	19.7	B	n/a
9th Ave and 38th Street	INTERSECTION	29	C	29.1	C	n/a
9th Ave and 39th Street	INTERSECTION	14.5	B	15.2	B	YES

2040 Mitigation Comparison - AM Peak Hour						
Intersection	Approach	No Mitigation		With Mitigation		Mitigated?
		Delay	LOS	Delay	LOS	
9th Ave and 40th Street	INTERSECTION	124.9	F	103.1	F	YES
9th Ave and 41st Street	INTERSECTION	60	E	8.6	A	n/a
9th Ave and 42nd Street	INTERSECTION	232.7	F	227.9	F	No
9th Ave and 43rd Street	INTERSECTION	138.1	F	138.1	F	No
9th Ave and 44th Street	INTERSECTION	59.1	E	59.1	E	No
9th Ave and 45th Street	INTERSECTION	19.9	B	19.9	B	n/a
9th Ave and 46th Street	INTERSECTION	10.2	B	10.2	B	n/a
9th Ave and 47th Street	INTERSECTION	5.6	A	5.6	A	n/a
9th Ave and 49th Street	INTERSECTION	15	B	15.0	B	n/a
Dyer Ave and 40th Street	INTERSECTION	25.6	C	25.6	C	n/a
Dyer Ave and 41st Street	INTERSECTION	78.3	E	78.3	E	No
Dyer Ave and 42nd Street	INTERSECTION	163.4	F	163.4	F	No
10th Ave and 34th Street	INTERSECTION	128.9	F	128.9	F	No
10th Ave and 35th Street	INTERSECTION	40.8	D	39.5	D	YES
10th Ave and 36th Street	INTERSECTION	11.4	B	11.1	B	n/a
10th Ave and 37th Street	INTERSECTION	33.5	C	33.5	C	No
10th Ave and 38th Street	INTERSECTION	21.8	C	21.8	C	n/a
10th Ave and 39th Street	INTERSECTION	12.9	B	9.6	A	n/a
10th Ave and 40th Street	INTERSECTION	62.3	E	47.7	D	YES
10th Ave and 41st Street	INTERSECTION	68.9	E	71.4	E	No
10th Ave and 42nd Street	INTERSECTION	285.7	F	285.7	F	No
10th Ave and 43rd Street	INTERSECTION	49.2	D	49.2	D	n/a
10th Ave and 44th Street	INTERSECTION	172.7	F	172.7	F	No
10th Ave and 45th Street	INTERSECTION	110.5	F	99.8	F	YES
10th Ave and 46th Street	INTERSECTION	161.7	F	162.3	F	No
10th Ave and 47th Street	INTERSECTION	144.1	F	132.1	F	YES
10th Ave and 48th Street	INTERSECTION	114.4	F	103.7	F	YES
10th Ave and 49th Street	INTERSECTION	109.3	F	110.0	F	No
10th Ave and 50th Street	INTERSECTION	212.4	F	212.4	F	No
11th Ave and 40th Street	INTERSECTION	165.4	F	165.4	F	No
11th Ave and 41st Street	INTERSECTION	40.4	D	40.4	D	n/a
11th Ave and 42nd Street	INTERSECTION	169	F	169.0	F	No
11th Ave and 43rd Street	INTERSECTION	6.5	A	6.5	A	n/a
11th Ave and 44th Street	INTERSECTION	10.5	B	10.5	B	n/a
11th Ave and 45th Street	INTERSECTION	10.2	B	9.5	A	n/a
11th Ave and 46th Street	INTERSECTION	6.2	A	6.2	A	n/a
11th Ave and 47th Street	INTERSECTION	5.6	A	5.6	A	n/a
11th Ave and 48th Street	INTERSECTION	18.9	B	18.9	B	n/a
11th Ave and 49th Street	INTERSECTION	43.9	D	33.9	C	YES
12th Ave and 41st Street	INTERSECTION	105.1	F	105.1	F	n/a
12th Ave and 42nd Street	INTERSECTION	129.7	F	129.7	F	n/a
Galvin Ave and 40th Street	INTERSECTION	19	B	19.0	B	n/a

Table 9B-23. 2040 PM Without Mitigation & With Mitigation Comparison

2040 Mitigation Comparison - PM Peak Hour						
Intersection	Approach	No Mitigation		With Mitigation		Mitigated?
		Delay	LOS	Delay	LOS	
Broadway and 42nd Street	INTERSECTION	367	F	367.0	F	No
Broadway and 47th Street	INTERSECTION	65.3	E	61.7	E	YES
Broadway and 49th Street	INTERSECTION	29	C	29.0	C	n/a
Broadway and 50th Street	INTERSECTION	22	C	22.0	C	n/a
7th Ave and 30th Street	INTERSECTION	498.4	F	498.5	F	No
7th Ave and 34th Street	INTERSECTION	146.2	F	84.5	F	No
7th Ave and 36th Street	INTERSECTION	48.2	D	43.6	D	YES
7th Ave and 37th Street	INTERSECTION	76.7	E	65.1	E	YES
7th Ave and 38th Street	INTERSECTION	16	B	15.5	B	n/a
7th Ave and 39th Street	INTERSECTION	135.5	F	127.3	F	YES
7th Ave and 40th Street	INTERSECTION	34.5	C	34.4	C	n/a
7th Ave and 41st Street	INTERSECTION	73.3	E	73.3	E	No
7th Ave and 42nd Street	INTERSECTION	377.7	F	377.7	F	No
7th Ave and 43rd Street	INTERSECTION	50	D	50.0	D	n/a
7th Ave and 44th Street	INTERSECTION	10.8	B	10.8	B	n/a
7th Ave and 45th Street	INTERSECTION	28.4	C	28.4	C	No
7th Ave and 46th Street	INTERSECTION	6.7	A	6.7	A	n/a
7th Ave and 47th Street	INTERSECTION	37.1	D	37.1	D	n/a
7th Ave and 48th Street	INTERSECTION	178	F	178.0	F	n/a
7th Ave and 49th Street	INTERSECTION	22.1	C	22.1	C	n/a
7th Ave and 50th Street	INTERSECTION	62.9	E	62.9	E	No
8th Ave and 30th Street	INTERSECTION	370.5	F	370.5	F	No
8th Ave and 34th Street	INTERSECTION	262.8	F	262.8	F	No
8th Ave and 35th Street	INTERSECTION	243.9	F	243.9	F	No
8th Ave and 36th Street	INTERSECTION	399.5	F	399.5	F	No
8th Ave and 37th Street	INTERSECTION	112.9	F	112.4	F	n/a
8th Ave and 38th Street	INTERSECTION	335.4	F	335.4	F	No
8th Ave and 39th Street	INTERSECTION	107.5	F	107.2	F	No
8th Ave and 40th Street	INTERSECTION	124.2	F	124.2	F	No
8th Ave and 41st Street	INTERSECTION	132.5	F	132.5	F	n/a
8th Ave and 42nd Street	INTERSECTION	312.6	F	312.6	F	No
8th Ave and 43rd Street	INTERSECTION	138.3	F	138.3	F	No
8th Ave and 44th Street	INTERSECTION	175.6	F	175.6	F	No
8th Ave and 45th Street	INTERSECTION	471.6	F	471.5	F	No
8th Ave and 46th Street	INTERSECTION	265.6	F	240.1	F	YES
8th Ave and 47th Street	INTERSECTION	239.6	F	239.4	F	No
8th Ave and 48th Street	INTERSECTION	716.6	F	693.0	F	YES
8th Ave and 49th Street	INTERSECTION	117.1	F	117.8	F	No
8th Ave and 50th Street	INTERSECTION	242.7	F	242.7	F	No
9th Ave and 30th Street	INTERSECTION	228	F	228.3	F	No
9th Ave and 31st Street	INTERSECTION	147.8	F	136.1	F	YES
9th Ave and 33rd Street	INTERSECTION	202.6	F	202.6	F	No
9th Ave and 34th Street	INTERSECTION	296.3	F	296.1	F	No
9th Ave and 35th Street	INTERSECTION	80.4	F	78.9	E	YES
9th Ave and 36th Street	INTERSECTION	75.3	E	75.3	E	No
9th Ave and 37th Street	INTERSECTION	95.2	F	94.8	F	No
9th Ave and 38th Street	INTERSECTION	10.6	B	10.6	B	n/a
9th Ave and 39th Street	INTERSECTION	70.2	E	70.2	E	No
9th Ave and 40th Street	INTERSECTION	80.4	F	69.8	E	YES

2040 Mitigation Comparison - PM Peak Hour						
Intersection	Approach	No Mitigation		With Mitigation		Mitigated?
		Delay	LOS	Delay	LOS	
9th Ave and 41st Street	INTERSECTION	239.2	F	45.7	D	n/a
9th Ave and 42nd Street	INTERSECTION	271.8	F	271.5	F	No
9th Ave and 43rd Street	INTERSECTION	232.1	F	232.1	F	No
9th Ave and 44th Street	INTERSECTION	123.4	F	123.4	F	No
9th Ave and 45th Street	INTERSECTION	86.8	F	86.8	F	No
9th Ave and 46th Street	INTERSECTION	19.5	B	19.5	B	n/a
9th Ave and 47th Street	INTERSECTION	9.5	A	9.6	A	n/a
9th Ave and 49th Street	INTERSECTION	6.6	A	6.6	A	n/a
Dyer Ave and 40th Street	INTERSECTION	21.5	C	21.6	C	n/a
Dyer Ave and 41st Street	INTERSECTION	26.3	C	26.1	C	n/a
Dyer Ave and 42nd Street	INTERSECTION	273.6	F	209.1	F	YES
10th Ave and 34th Street	INTERSECTION	204.4	F	204.4	F	No
10th Ave and 35th Street	INTERSECTION	80.9	F	80.9	F	n/a
10th Ave and 36th Street	INTERSECTION	98	F	98.0	F	n/a
10th Ave and 37th Street	INTERSECTION	63.9	E	63.9	E	YES
10th Ave and 38th Street	INTERSECTION	130	F	130.0	F	YES
10th Ave and 39th Street	INTERSECTION	58.8	E	58.8	E	No
10th Ave and 40th Street	INTERSECTION	175.8	F	175.7	F	YES
10th Ave and 41st Street	INTERSECTION	91.1	F	91.1	E	n/a
10th Ave and 42nd Street	INTERSECTION	173.6	F	174.0	F	No
10th Ave and 43rd Street	INTERSECTION	36.9	D	36.9	D	n/a
10th Ave and 44th Street	INTERSECTION	78.7	E	61.6	E	No
10th Ave and 45th Street	INTERSECTION	99.9	F	67.2	E	YES
10th Ave and 46th Street	INTERSECTION	59.7	E	55.3	E	YES
10th Ave and 47th Street	INTERSECTION	67.1	E	53.7	D	YES
10th Ave and 48th Street	INTERSECTION	50.6	E	50.6	D	n/a
10th Ave and 49th Street	INTERSECTION	54.2	D	54.2	D	n/a
10th Ave and 50th Street	INTERSECTION	89.5	F	89.6	F	No
11th Ave and 40th Street	INTERSECTION	339.1	F	339.1	F	No
11th Ave and 41st Street	INTERSECTION	67	E	67.0	E	n/a
11th Ave and 42nd Street	INTERSECTION	354.5	F	354.5	F	No
11th Ave and 43rd Street	INTERSECTION	6.9	A	6.9	A	n/a
11th Ave and 44th Street	INTERSECTION	20.6	C	20.6	C	n/a
11th Ave and 45th Street	INTERSECTION	9.4	A	9.2	A	n/a
11th Ave and 46th Street	INTERSECTION	4.9	A	4.9	A	n/a
11th Ave and 47th Street	INTERSECTION	6	A	6.1	A	n/a
11th Ave and 48th Street	INTERSECTION	5.7	A	5.7	A	n/a
11th Ave and 49th Street	INTERSECTION	9.4	A	9.4	A	n/a
12th Ave and 41st Street	INTERSECTION	84.5	F	84.5	F	No
12th Ave and 42nd Street	INTERSECTION	156	F	156.0	F	No
Galvin Ave and 40th Street	INTERSECTION	112.3	F	112.3	F	No

Table 9B-24. Mitigations Applied

2040 Mitigation Applied - AM Peak Hour						
Intersection	Phase Which had Time Added			Phase From Which Time was Removed		
	Phase	Movement	Change (sec)	Phase	Movement	Change (sec)
7th Ave and 34th Street	4, 8	EBT, WBT	41 to 42	6	SBT	49 to 48
7th Ave and 36th Street	4	EBTR	33 to 34	6	SBTL	50 to 49
7th Ave and 39th Street	4	WBT	33 to 35	6	SBT	50 to 48
7th Ave and 42nd Street	4, 8	EBT, WBT	36 to 38	1, 6	SBL, SBTR	24 to 22, 54 to 52
7th Ave and 49th Street	3, 8	WBL, WBT	29 to 30, 36 to 37	6	SBT	54 to 53
7th Ave and 50th Street	4	EBTR	33 to 34	6	SBTL	50 to 49
8th Ave and 46th Street	2	SBTR	48 to 49	4	EBTL	35 to 34
8th Ave and 50th Street	2	NBTR	48 to 49	4, 7	EBT, EBL	42 to 41, 32 to 31
9th Ave and 35th Street	8	WBT	35 to 36	6	SBT	55 to 54
9th Ave and 39th Street	4, 8	WBT	33 to 34	6	SBT	47 to 46
9th Ave and 40th Street	2	EBT, EBR	34 to 36	1	SBT	42 to 40
10th Ave and 35th Street	8	WBT	33.5 to 34	2	NBT	49.5 to 49
10th Ave and 40th Street	2	NBT	45 to 49	4	EBT	38 to 34
10th Ave and 45th Street	8	WBT	49.5 to 50.5	2	NBT	33.5 to 32.5
10th Ave and 47th Street	2	NBLT	49.5 to 50.5	8	WBT	33.5 to 32.5
10th Ave and 48th Street	2	NBT	49.5 to 50.5	4	EBTL	33.5 to 32.5
11th Ave and 49th Street	8	WBT	25 to 27	6	SBT	48 to 46

2040 Mitigation Applied - PM Peak Hour						
Intersection	Phase Which had Time Added			Phase From Which Time was Removed		
	Phase	Movement	Change (sec)	Phase	Movement	Change (sec)
Broadway and 47th Street	6	SBR	23 to 24	8, 4	WB	40 to 39, 67 to 66
7th Ave and 36th Street	4	EBLT	33 to 35	6	SBT	50 to 48
7th Ave and 37th Street	8	WBLT	33 to 35	6	SBT	50 to 48
7th Ave and 39th Street	4	WBLT	33 to 34	6	SBTL	50 to 49
8th Ave and 46th Street	2	NBT	48 to 50	4	EBLT	35 to 33
8th Ave and 48th Street	2	NBT	50 to 51	8, 4	4	33 to 32
9th Ave and 31st Street	6	SBT	44 to 45	8	WBLT	39 to 38
9th Ave and 35th Street	8	WBTR	35 to 36	6	SBT	55 to 54
9th Ave and 40th Street	1	SBT	43 to 44	2	EBT, EBR	33 to 32
Dyer Ave and 42nd Street	4, 8	EBT, WBT	39 to 42	2, 6	NBLTR, SBR	51 to 48
10th Ave and 37th Street	8	WBTR	33.5 to 34.5	2	NBLT	49.5 to 48.5
11th Ave and 38th Street	2	NBT	47 to 48	4	EBLT	36 to 35
10th Ave and 40th Street	2	NBT	45 to 46	4	EBT	38 to 37
10th Ave and 41st Street	2	NBL, NBT	31 to 32	4, 8	WBT, WBR	49 to 48, 22 to 21
10th Ave and 45th Street	2	NBT	49.5 to 52.5	8	WBTR	33.5 to 30.5
10th Ave and 46th Street	2	NBT	49.5 to 50	4	EBLT	23.5 to 33
10th Ave and 47th Street	2	NBT	49.5 to 51.5	8	WBT	33.5 to 31.5