APPENDIX D
TRANSPORTATION

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TECHNICAL MEMORANDUM

TO: **NYCDCP**

FROM: **Philip Habib & Associates**

DATE: **April 4, 2022**
(Revised August 8, 2022)

PROJECT: **Innovation QNS EIS (PHA No. 17-113)**

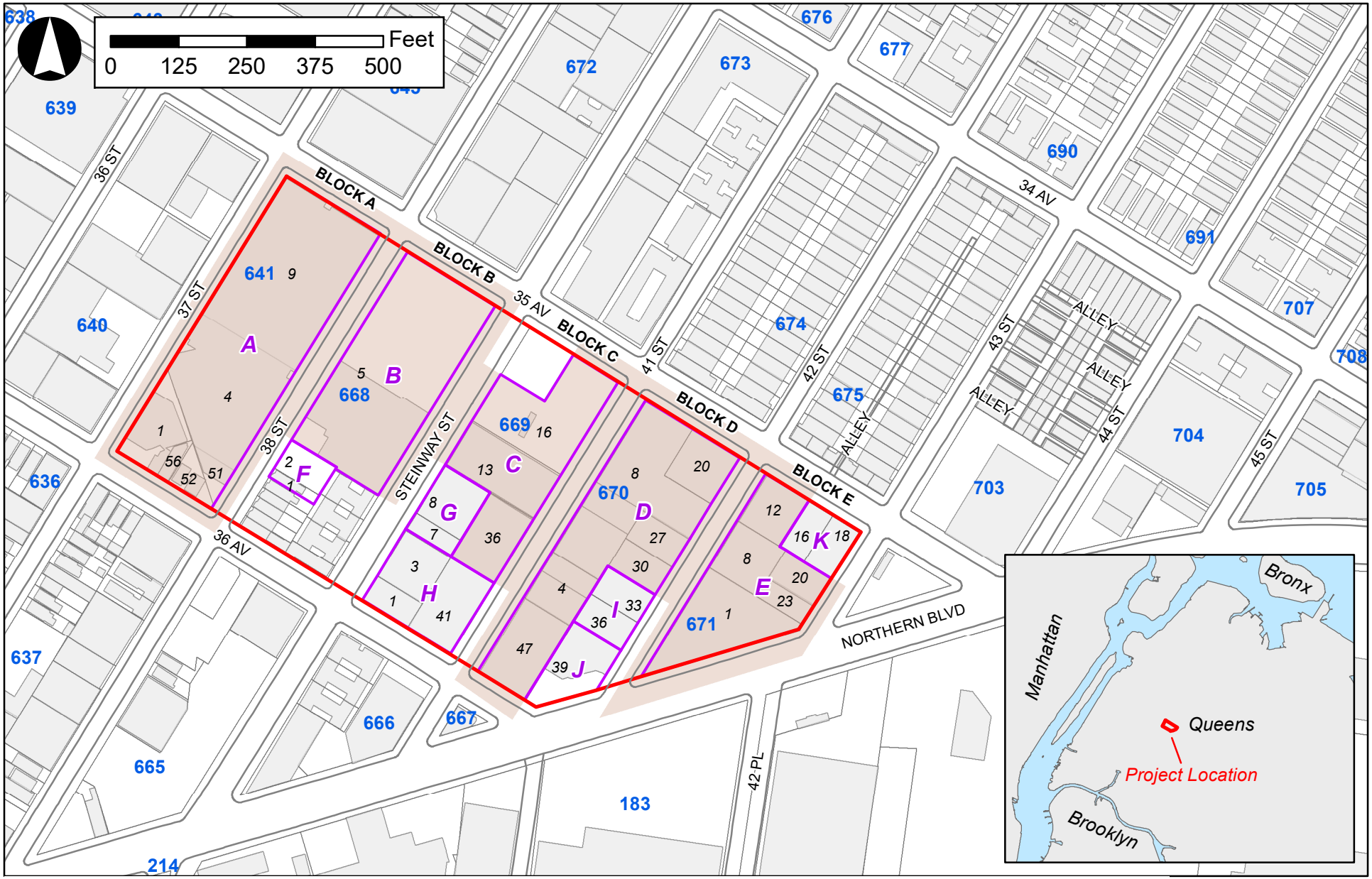
RE: **Transportation Planning Factors and Travel Demand Forecast**

This memorandum summarizes the transportation planning factors to be used for the analyses of traffic, parking, transit and pedestrian conditions for the proposed *Innovation QNS EIS*, in the Astoria neighborhood, Queens. Estimates of the Proposed Actions' peak travel demand are provided, along with a discussion of trip assignment methodologies and study area definitions.

THE PROPOSED ACTIONS

The Applicant (a joint venture between Kaufman Astoria Studios, Bedrock Real Estate Partners, and Silverstein Properties) is seeking a rezoning and other approvals by the City Planning Commission (CPC) to facilitate the redevelopment of the five (5) city blocks (Blocks A to E in **Figure 1**) bounded by 35th Avenue to the north, 43rd Street/Northern Boulevard to the east, 36th Avenue to the south and 37th Street to the west (the "Project Area") in the Astoria neighborhood of Queens, Community District 1. Of the 43 lots on the Project Area blocks, 21 are controlled by the Applicant while the remaining lots are controlled by others. The Applicant-controlled lots will be declared a Large Scale General Development (LSGD) with the Proposed Actions and will contain the Proposed Development: these lots are referred to as the "Development Site." The lots outside of the Development Site are not included in the Proposed Development but will be rezoned with the Proposed Actions: these lots are referred to as the "Additional Affected Area."

The Proposed Development, also known as the Innovation QNS project, would redevelop the Development Site with a series of mixed-use buildings and publicly accessible open space. The Innovation QNS project is intended to complement the mission of the existing Kaufman Arts District with the Development Site by creating a series of arts and cultural venues including a multi-purpose arts and culture center, a re-envisioned multiplex movie theater that will provide a state of the art cinematic experience, galleries, artists' workshops and tech and general office space. In addition to art and cultural



Source: NYCDCP (PLUTO 2020, Version VIII); DOITT (2020)

Legend

Project Area | A Projected Development Site | LSGD Area | Existing Buildings | 641 Blocks | 9 Lots

Innovation QNS

Figure 1
Project Location

venues, the project will include eating and drinking establishments, a grocery store and world market and other local retail, service and community facility uses to support the new residential population, the existing business and residential community and provide a strong anchor for the Steinway Street and 35th Avenue commercial corridors. Residential towers and lower rise buildings will house approximately 2,800 new residential dwelling units (DU's) offering a wide range of housing options for a varied population. Pursuant to the Mandatory Inclusionary Housing (MIH) program, 25% of the residential floor area would be dedicated to affordable units (approximately 711 DU's), a portion of which would be senior affordable housing units (subject to the availability of existing programs). The commercial space in the Proposed Development would also potentially include one or more Physical Culture Establishments (PCEs), i.e., a gym or fitness center. A series of outdoor spaces would link the blocks and will be programmed pursuant to ongoing community dialogue with art exhibits, children's play area adjacent to a day care center, covered outdoor seating serving the world market, performances and events. Parking will be provided in below grade parking facilities on each of the project blocks and on a surface parking lot on Block A.

In addition to the Proposed Development, which includes Sites A through E, the With Action condition includes new developments that would be facilitated on the Projected Development Sites not controlled by the Applicant (Sites F, G, H, I, J and K) as shown in **Figure 1**. As with the Development Site, under the Proposed Actions, these additional Projected Development Sites would be rezoned to mixed-use districts which would permit higher densities and a wider variety of uses than permitted under existing zoning. In particular, the proposed zoning districts would permit higher density residential uses (maximum FARs of 6.0 to 9.0). For the purposes of the RWCDS, each of the additional Projected Development Sites are assumed to contain mixed-use buildings with ground floor retail and residential space above the ground floor. Each building would contain parking as required by the proposed zoning, which is assumed to be located below-grade.

THE REASONABLE WORST CASE DEVELOPMENT SCENARIO (RWCDS)

In order to assess the potential effects of the Proposed actions, a RWCDS for both the "future without the proposed actions" (No-Action) and "future with the Proposed Actions" (With-Action) conditions is analyzed for an analysis year of 2032. The Project Area is largely underutilized; as the majority of the Project Area is zoned M1-1, which permits a maximum FAR of 1.0 and only permits low density manufacturing, automotive, and commercial uses, it is reasonable to assume that redevelopment of the active commercial and auto-related facilities on the majority of the properties in the Project Area would not occur under existing zoning. However, portions of the Applicant-controlled properties are feasible development sites under existing zoning since they contain vacant buildings and open parking areas for vehicular storage. The Applicant controls the properties in the Development Site with the purpose of transforming the area into a mixed-use district serving the nearby neighborhood, and would seek to make a return on those properties absent the Proposed Actions (the No Action condition), by redeveloping the underutilized parcels on Blocks C and D to the maximum extent feasible under the existing zoning.

Table 1 shows the total anticipated No-Action and With-Action land uses on the Projected Development Sites A through K that were considered for the purposes of the transportation analyses. As shown in **Table 1**, under the RWCDS, it is estimated that there would be a net increase of 3,643 DUs, 89,909 gross square feet (gsf) of local retail space, 50 seats of cinema space, 250,070 gsf of office space, 2.17 acres of publicly accessible open space (including approximately 0.23 acre of potential active open space at the southern end of Block A), and 107,720 gsf of community facility space, including 70,820 gsf of community center space, 5,000 gsf of medical office space, 10,000 gsf of daycare space and 21,900 gsf of arts and cultural center space. The RWCDS would also include a net increase of 30,000 gsf of physical cultural establishment (PCE) space and 933 parking spaces. It is also anticipated that bicycle parking (as required by the New York City Zoning Resolution) would be provided within the Proposed Development. In addition, it is estimated that there would be a net decrease of 32,736 gsf of destination retail space, 33,300 gsf of auto dealership space, and 150,715 gsf of industrial space, including 82,909 gsf of light industrial space and 67,806 gsf of warehouse space. As the specific community facility uses are not finalized at this time, the community facility components are analyzed as medical office, daycare, community center, and arts and cultural center space.

Table 1
2032 RWCDS No-Action and With-Action Scenario

Land Use	No-Action Condition	With-Action Condition	Net Increment
Residential			
Residential	7,512 gsf (9 DU)	3,104,308 gsf (3,652 DU)	+ 3,096,796 gsf (+ 3,643 DU)
Commercial			
Local Retail	70,006 gsf	159,915 gsf	+ 89,909 gsf
Destination Retail	32,736 gsf	0 gsf	- 32,736 gsf
Auto Dealership	33,300 gsf	0 gsf	- 33,300 gsf
Office	0 gsf	250,070 gsf	+ 250,070 gsf
Cinema	98,810 gsf (3,450 seats)	73,000 gsf (3,500 seats)	- 25,810 gsf (+ 50 seats)
Supermarket	30,000 gsf	30,000 gsf	+ 0 gsf
Physical Cultural Establishment (PCE)	0 gsf	*30,000 gsf*	*+ 30,000 gsf*
Total Commercial	**264,852 gsf**	***542,985 gsf***	***+ 278,133 gsf***
Community Facility			
Community Center	0 gsf	70,820 gsf	+ 70,820 gsf
Medical Office	0 gsf	5,000 gsf	+ 5,000 gsf
Daycare	0 gsf	10,000 gsf	+ 10,000 gsf
Arts & Cultural Center	0 gsf	21,900 gsf	+ 21,900 gsf
Total Community Facility	***0 gsf***	***107,720 gsf***	***+ 107,720 gsf***
Industrial			
Light Industrial	82,909 gsf	0 gsf	- 82,909 gsf
Warehouse	67,806 gsf	0 gsf	- 67,806 gsf
Total Industrial	***150,715 gsf***	***0 gsf***	***- 150,715 gsf***
Open Space			
Publicly Accessible Open Space	0 acres	2.17 acres[2]	+ 2.17 acres
Parking			
Parking Spaces[1]	700	1,633	+933

Notes:
[1]With Action parking includes 1,390 spaces on Applicant-controlled Sites A-E and 243 spaces on Sites F through K.
[2]Total publicly accessible open space in the Proposed Development, including approximately 0.23 acre (10,000 sf) of potential active open space at the southern end of Block A.

TRANSPORTATION PLANNING FACTORS

The trip generation rates, temporal and directional distributions, modal splits, vehicle occupancies and truck trip factors used to forecast travel demand for the RWCDS's land uses are summarized in **Table 2**. They were based on factors cited in the 2021 *City Environmental Quality Review (CEQR) Technical Manual;* 2015-2019 American Community Survey (ACS) journey-to-work data for Brooklyn census tracts in proximity to the Project Area (tracts 51, 55, 57, 59, 155, 157, and 159); 2012-2016 American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work data; data from surveys of the travel demand characteristics at existing office and retail uses; data provided by the New York City Department of Transportation (DOT); and factors developed for recent environmental reviews. Factors are shown for the weekday AM and PM peak hours (typical peak periods for commuter travel demand) and the weekday and Saturday midday peak hours (typical peak periods for retail demand).

Residential

The residential travel demand forecast was based on person and truck trip generation rates and temporal distributions from the *CEQR Technical Manual*. The directional in/out splits and taxi occupancy were based on data from the 2014 *Astoria Cove FEIS.* The modal splits and vehicle occupancy rates for residential uses were derived from 2015-2019 American Community Survey (ACS) journey-to-work data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159. The modal splits were adjusted to reflect the transportation characteristics of residents departing for work during the 7:00 AM – 9:00 AM peak period for commuter travel demand. As such, the auto modal split was based on the 2015-2019 ACS journey-to-work by the time of departure to go to work data set for the 7:00 AM – 9:00 AM peak period, while the public transit mode share from this data set was proportioned based on the overall 2015-2019 ACS journey-to-work data subway and bus modal splits. The taxi modal split was also based on the overall 2015-2019 ACS journey-to-work data.

Local Retail

The trip generation rates, temporal distributions, and truck trip generation rates used to forecast travel demand for local retail uses were based on data from the *CEQR Technical Manual*. The modal splits and vehicle occupancy rates were based on New York City Department of Transportation (NYCDOT) survey data for local retail uses. The directional splits were based on those cited in the 2014 *Astoria Cove FEIS*.

It should be noted that, consistent with CEQR Technical Manual guidance, the travel demand forecast reflects the fact that some local retail trip generation can be considered "linked trips" (i.e., internal

trips between uses on a site that do not use the street or sidewalk), "pass-by trips" (i.e., existing trips already present on the adjacent network that enter a site as an intermediate stop), or "diverted trips" (i.e., trips already on the network that alter their route to access a site). Under CEQR Technical Manual guidance, up to a 50 percent credit can be taken for linked, pass-by and/or diverted trips.

As shown in **Table 1**, under the Proposed Actions, a substantial amount of residential, non-retail commercial, and community facility uses would be developed on the Projected Development Sites. These proposed uses are expected to generate substantially more trips than would the proposed local retail uses, and it is anticipated that many of these trips would involve a stop at one or more local retail establishments within the Project Area. Furthermore, many of the proposed retail and non-retail uses would be accessed from the publicly accessible open spaces included as part of the Proposed Development. As these open spaces would provide an internal circulation function, it is expected that many trips would be considered linked trips as they would not occur on public streets or sidewalks. Lastly, given the numbers of existing trips in the Project Area and new trips that would be generated under the Proposed Actions, it is anticipated that there would be substantial numbers of pass-by and diverted trips. Consequently, the travel demand forecast for local retail uses reflects a 50 percent credit consistent with CEQR Technical Manual guidance.

Office

The trip generation rates, temporal distributions, and truck trip generation rates used to forecast travel demand for the office use were based on data from the *CEQR Technical Manual*. The modal and directional in/out splits and taxi vehicle occupancy rate were based on NYCDOT survey data for office uses in Long Island City, Queens and data cited in the *Dutch Kills Rezoning and Related Actions FEIS* (2008). The auto vehicle occupancy rate was based on 2012-2016 American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159.

Table 2
Transportation Planning Factors

Land Use:	Residential	Local Retail		Office		Cinema	Community Center	Supermarket	
Trip Generation:	(1)	(1)		(1)		(1)	(26)	(1)	
Weekday	8.18	329		18.0		3.26	54.6	256	
Saturday	9.08	358		3.9		6.25	17.24	300	
	per DU	per 1,000 sf		per 1000 sf		per seat	per 1,000 sf	per 1,000 sf	
Temporal Distribution:	(1)	(1)		(1)		(1)	(26)	(1)	
AM	9.3%	4.8%		12.4%		1.0%	6.1%	4.0%	
MD	5.6%	8.0%		11.0%		3.0%	6.7%	7.0%	
PM	8.5%	10.9%		10.5%		8.0%	8.0%	10.6%	
Saturday	8.4%	11.7%		14.1%		5.0%	11.8%	9.5%	
	(3)	(14)		(18)(6)		(4)	(13)	(25)	
Modal Splits:		Weekday	SAT	AM/PM/ SAT	MD			Weekday	SAT
Auto	13.4%	11.0%	8.0%	14.0%	2.0%	56.0%	5.0%	22.0%	8.0%
Taxi	2.9%	0.0%	0.0%	2.0%	1.0%	7.0%	1.0%	1.0%	1.0%
Subway	76.9%	4.0%	7.0%	74.0%	7.0%	18.0%	3.0%	12.0%	6.0%
Bus	2.8%	3.0%	4.0%	2.0%	7.0%	8.0%	6.0%	3.0%	5.0%
Walk/Other	4.0%	82.0%	81.0%	8.0%	83.0%	11.0%	85.0%	62.0%	80.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(1)	(1)		(1)		(1)	(26)	(1)	
In/Out Splits:	In Out	In	Out	In	Out	In Out	In Out	In	Out
AM	22% 78%	53%	47%	89%	11%	95% 5%	66% 34%	51%	49%
MD	50% 50%	50%	50%	48%	52%	62% 38%	54% 46%	51%	49%
PM	63% 37%	50%	50%	17%	83%	54% 46%	47% 53%	50%	50%
Saturday	51% 49%	50%	50%	50%	50%	56% 44%	54% 46%	50%	50%
Vehicle Occupancy:	(3)(7)	(14)		(5)(6)		(4)	(26)(13)	(2)(7)	
								Weekday	Weekend
Auto	1.13	1.40		1.12		2.52	1.80	1.98	2.35
Taxi	1.40	1.40		1.42		2.30	1.40	1.12	1.48
Truck Trip Generation:	(1)	(1)		(1)		(24)	(13)	(7)	
	Weekday Weekend	Weekday	Weekend	Weekday	Weekend	Weekday Weekend	Weekday Weekend	Weekday	Weekend
	0.06 0.02	0.35	0.04	0.32	0.01	0.02 0.00	0.29 0.29	0.35	0.04
	per DU	per 1,000 sf		per 1,000 sf		per seat	per 1,000 sf	per 1,000 sf	
	(1)	(1)		(1)		(24)	(13)	(7)	
AM	12.0%	8.0%		10.0%		12.0%	9.6%	8.0%	
MD	9.0%	11.0%		11.0%		11.0%	11.0%	11.0%	
PM	2.0%	2.0%		2.0%		1.0%	1.0%	2.0%	
Saturday	9.0%	11.0%		11.0%		5.0%	0.0%	4.0%	
	In Out	In	Out	In	Out	In Out	In Out	In	Out
All Periods	50.0% 50.0%	50.0%	50.0%	50.0%	50.0%	50.0% 50.0%	50.0% 50.0%	50.0%	50.0%

Table 2
Transportation Planning Factors (continued)

Land Use:	Medical Office	Daycare (Staff)	Daycare (Students)	Daycare (Parents)	PCE (Physical Cultural Establishment)	Open Space
Trip Generation:	(1)	(1)	(1)	(1)	(1)	(1)
Weekday	74.6	6	22	44	51.6	139
Saturday	37	0	0	0	50.4	196
	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per acre
Temporal Distribution:	(1)	(1)	(1)	(1)	(1)	(1)
AM	11.0%	25.0%	25.0%	25.0%	9.0%	3.0%
MD	12.6%	2.5%	0.0%	0.0%	7.4%	14.0%
PM	8.5%	25.0%	25.0%	25.0%	9.0%	14.0%
Saturday	16.6%	0.0%	0.0%	0.0%	12.6%	16.0%
	(9)	(5)	(15)	(15)	(16)	(10)
Modal Splits:						
Auto	23.0%	41.7%	15.0%	0.0%	4.0%	5.0%
Taxi	7.0%	0.2%	0.0%	0.0%	9.0%	0.0%
Subway	14.0%	32.5%	5.0%	6.0%	12.0%	5.0%
Bus	26.0%	9.5%	5.0%	6.0%	5.0%	5.0%
Walk/Other	30.0%	16.1%	75.0%	88.0%	70.0%	85.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(1)	(1)	(1)	(1)	(1)	(1)
In/Out Splits:	In Out	In Out	In Out	In Out	In Out	In Out
AM	62% 38%	100% 0%	100% 0%	50% 50%	57% 43%	59% 41%
MD	47% 53%	50% 50%	0% 0%	0% 0%	57% 43%	55% 45%
PM	35% 65%	0% 100%	0% 100%	50% 50%	52% 48%	55% 45%
Saturday	49% 51%	0% 0%	0% 0%	0% 0%	45% 55%	55% 45%
Vehicle Occupancy:	(9)	(5)(15)	(15)		(16)	(10)
Auto	1.58	1.12	1.00	N/A	1.40	2.80
Taxi	1.58	1.00	1.00	N/A	1.40	2.80
Truck Trip Generation:	(13)		(15)		(16)	(10)(11)
	Weekday Weekend		Weekday Weekend		Weekday Weekend	Weekday Weekend
	0.29 0.29	N/A	0.03 0.00	N/A	0.04 0.04	0.02 0.02
	per 1,000 sf		per 1,000 sf		per 1,000 sf	per acre
	(13)		(15)		(16)	(10)(11)
AM	9.6%	N/A	9.6%	N/A	8.0%	6.0%
MD	11.0%	N/A	11.0%	N/A	11.0%	6.0%
PM	1.0%	N/A	1.0%	N/A	1.0%	1.0%
Saturday	0.0%	N/A	0.0%	N/A	0.0%	6.0%
	In Out	In Out	In Out	In Out	In Out	In Out
All Periods	50.0% 50.0%	N/A N/A	50.0% 50.0%	N/A N/A	50.0% 50.0%	50.0% 50.0%

Table 2
Transportation Planning Factors (continued)

Land Use:	Destination Retail		Auto Dealership		Warehouse		Arts and Cultural Center		Light Industrial	
Trip Generation:	(1)		(8)(17)		(19)(20)		(12)		(17)	
Weekday	78.2		13		2.36		76		14.7	
Saturday	92.5		2.63		0.20		50.74		2.2	
	per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
Temporal Distribution:	(1)		(8)(17)		(19)		(12)		(17)	
AM	3.0%		1.0%		10.0%		3.0%		13.2%	
MD	9.0%		10.0%		9.0%		10.3%		11.0%	
PM	9.0%		9.0%		11.0%		10.2%		14.2%	
Saturday	11.0%		12.0%		33.0%		12.5%		10.7%	
	(2)		(17)		(5)		(12)		(5)	
Modal Splits:	Weekday	SAT								
Auto	37.4%	40.4%	100.0%		41.7%		36.0%		41.7%	
Taxi	0.0%	0.6%	0.0%		0.2%		12.0%		0.2%	
Subway	32.0%	21.3%	0.0%		32.5%		25.0%		32.5%	
Bus	7.5%	9.6%	0.0%		9.5%		25.0%		9.5%	
Walk/Other	23.1%	28.1%	0.0%		16.1%		2.0%		16.1%	
	100.0%	100.0%	100.0%		100.0%		100.0%		100.0%	
	(1)		(8)(17)		(19)		(12)		(17)	
In/Out Splits:	In	Out	In	Out	In	Out	In	Out	In	Out
AM	63%	37%	78%	22%	77%	23%	56%	44%	88%	12%
MD	53%	47%	50%	50%	53%	47%	14%	86%	50%	50%
PM	49%	51%	35%	65%	27%	73%	5%	95%	12%	88%
Saturday	52%	48%	50%	50%	64%	36%	25%	75%	47%	53%
Vehicle Occupancy:	(2)(6)		(17)		(5)(17)		(12)		(5)(17)	
	Weekday	SAT					Weekday	Weekend		
Auto	1.98	2.35	1.30		1.12		2.00	3.00	1.12	
Taxi	2.60	2.60	1.50		1.30		2.00	3.00	1.20	
Truck Trip Generation:	(6)		(17)		(19)(20)(21)		(12)		(17)	
	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
	0.35	0.35	0.15	0.15	0.91	0.08	0.35	0.02	0.67	0.67
	per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
	(6)		(17)		(19)(22)		(12)		(17)	
AM	7.7%		9.6%		9.9%		7.9%		14.0%	
MD	11.0%		11.0%		8.0%		14.7%		9.0%	
PM	1.0%		1.0%		7.0%		1.1%		1.0%	
Saturday	0.0%		11.0%		28.0%		14.7%		0.0%	
	In	Out	In	Out	In	Out	In	Out	In	Out
All Periods	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Table 2

Transportation Planning Factors (continued)

Notes :

(1) *2021 City Environmental Quality Review (CEQR) Technical Manual.*

(2) Based on data from a PHA survey conducted at Rego Park Center 2 on May 26, 2010 & June 5, 2010.

(3) Modal split and vehicle occupancy data based on 2015 -2019 ACS journey-to-work data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159. Modal split adjusted for 7-9 AM peak period.

(4) Based on data cited in Loews Elmhurst Multiplex FEIS (2000).

(5) Based on AASHTO CTPP Reverse journey-to-work 5-Year (2012-2016) data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159.

(6) Souce: *Dutch Kills Rezoning And Related Actions FEIS* (2008).

(7) Source: *Astoria Cove FEIS* (2014).

(8) Based on data provided by NYCDOT.

(9) Based on NYCDOT medical office trip generation and mode choice survey data.

(10) Source: *Hunter's Point South Rezoning and Related Actions FEIS* (2008).

(11) Assumes Saturday truck trip generation rates and temporal distributions are similar to those applied to the weekday midday.

(12) Source: *Industry City DEIS* (2019).

(13) Source: *Jamaica Plan FEIS* (2007).

(14) Based on NYCDOT Local Retail Mode Choice Surveys.

(15) Source: *Hunter's Point South Parcels F and G EAS* (2019).

(16) Source: *Spofford Campus FEIS* (2018).

(17) Source: *East New York Rezoning FEIS* (2016).

(18) Based on NYCDOT Office Mode Choice Surveys (employees only) for 41-21 27th St, LIC.

(19) Based on data from *ITE Trip Generation Handbook,* 10th Edtion, Land use code 150 (Warehousing).

(20) Trip generation rate includes a 1.51 adjustment factor per NYCDOT Trip Generation Survey.

(21) Adjusted as per the ratio between weekday and Saturday based on the information from *ITE Trip Generation Handbook, 10th Edition* , Land use code 150 (Warehousing).

(22) Based on NYCDOT Trip Generation Survey.

(23) Both inbound and outbound vehicle trips take place during the same peak hour.

(24) Source: *Lighthouse Point EAS* (2013).

(25) Based on NYCDOT Trip Generation Surveys.

(26) Based on data from ITE Trip Generation Manual, 10th Edition, Land Use Code 495 (Recreational Community Center). Assumes weekday midday in/out splits are similar to those applied to the Saturday.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Cinema

The trip generation rates and temporal distributions used to forecast travel demand for the cinema use were based on data from the *CEQR Technical Manual.* The modal splits and vehicle occupancies were based on data cited in the 2000 *Loews Elmhurst Multiplex FEIS*. The directional splits and truck trip generation rates were based on those cited in the 2013 *Lighthouse Point EAS*. With regard to the cinema use, it is important to note that the travel demand forecast assumes 100 percent occupancy of all seats. However, multiplex cinemas typically operate at substantially lower occupancy levels. Even when big hits are released (typically five to seven times per year), total occupancy will generally not exceed 60 percent, even on opening weekend, as the hit movie will not be showing on all of the screens at the cinema. The travel demand forecast should therefore be considered very conservative with respect to cinema demand.

Community Center

The trip generation rates, temporal distributions, directional in/out splits, and auto vehicle occupancy used to forecast travel demand for the community center use were based on data from the *ITE Trip Generation Handbook*, 10th Edition, Land use code 495 (recreational community center). The modal splits, taxi vehicle occupancy, and truck trip generation rates were based on those cited in the 2007 *Jamaica Plan FEIS*.

Supermarket

The trip generation and temporal distribution factors used to forecast supermarket travel demand were based on data from the *CEQR Technical Manual*. The modal splits were based on NYCDOT survey data. The vehicle occupancies were based on data from a survey conducted at Rego Park Center 2 in May and June 2010 and data cited in the 2014 *Astoria Cove FEIS.* The directional splits and truck trip generation rates were also based on those cited in the 2014 *Astoria Cove FEIS*. To reflect the mixed-use nature of the Proposed Development, it was assumed for the purposes of the travel demand forecast that 25 percent of all supermarket trips would be linked to other proposed uses on the site, consistent with *CEQR Technical Manual* guidance. It should be noted that although there is no incremental change in supermarket space within the Project Area, the supermarket would be located at Development Site C under the No-Action conditions and Development Site B under the With-Action conditions. As such, the relocation of these incremental trips within the Project Area were conservatively accounted for in the subsequent transportation analyses.

Medical Office

The factors used to forecast medical office travel demand were based on NYCDOT survey data for medical office uses. Truck trip generation rates for this use were based on those cited in the 2007 *Jamaica Plan FEIS*.

Daycare

The trip generation rates and temporal distributions used to forecast travel demand from daycare uses were based on data provided by NYCDOT. The modal splits and auto vehicle occupancy for the daycare staff were based on 2012-2016 American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159. The taxi vehicle occupancy for daycare staff was based on data cited in the 2019 *Hunter's Point South Parcels F and G EAS.* The modal splits, directional in/out splits, and vehicle occupancies for students and parents were also based on data cited in the 2019 *Hunter's Point South Parcels F and G EAS*. The truck trip generation rates and directional splits were also based on those cited in the 2019 *Hunter's Point South Parcels F and G EAS*. It should be noted that the inbound and outbound student vehicle trips occur during the same peak hour.

Physical Cultural Establishment (PCE)

The trip generation rates, temporal distributions and directional in/out splits for the PCE use were based on NYCDOT survey data. The modal splits, vehicle occupancy, and truck trip generation rates were based on data from the 2018 *Spofford Campus FEIS*.

Open Space

The factors used to forecast travel demand for the open space use are based on data from the 2008 *Hunter's Point South Rezoning and Related Actions FEIS* and the *CEQR Technical Manua*l.

Destination Retail

The trip generation rates and temporal distributions used to forecast travel demand for the destination retail use were based on data from the *CEQR Technical Manual.* The modal splits and auto vehicle occupancy were based on data from a survey conducted at Rego Park Center 2 in May and June 2010. The directional in/out splits, taxi vehicle occupancy, and truck trip generation rates were based on data from the 2008 *Dutch Kills Rezoning and Related Actions FEIS*.

Auto Dealership

The factors used to forecast travel demand for the auto dealership use are based on data from the 2016 *East New York Rezoning FEIS* and data provided by NYCDOT.

Warehouse

The trip generation rates, temporal distributions, and directional in/out splits used to forecast warehouse travel demand were based on data from the *ITE Trip Generation Handbook*, 10th Edition, Land use code 150 (warehousing). The modal splits and auto vehicle occupancy were based on 2012-2016 AASHTO CTPP reverse journey-to-work data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159. The taxi vehicle occupancy was based on data cited in the 2016 *East New York Rezoning FEIS*. Truck trip generation rates were based on data from *ITE Trip Generation Handbook*, 10th Edition, Land use code 150 (warehousing) and on NYCDOT survey data.

Arts and Cultural Center

The factors used to forecast travel demand for the arts and cultural center use are based on data from the 2019 *Industry City DEIS*.

Light Industrial

The factors used to forecast travel demand for the light industrial use are based on data from the 2016 *East New York Rezoning FEIS* and the 2012-2016 AASHTO CTPP reverse journey-to-work data for Queens census tracts 51, 55, 57, 59, 155, 157, and 159.

TRIP GENERATION

The net incremental change in person and vehicle trips expected to result from the RWCDS by the 2032 analysis year was derived based on the net change in land uses shown in **Table 1** and the transportation planning factors shown in **Table 2**. **Tables 3 and 4** show an estimate of the total net incremental change in peak hour person trips and vehicle trips (versus the No-Action condition) that would occur in 2032 with implementation of the Proposed Actions. As shown in **Table 3**, under the RWCDS, the Proposed Actions would generate a net increase of approximately 4,875 person trips in the weekday AM peak hour, 4,448 in the weekday midday, 6,194 in the weekday PM peak hour and 6,493 in the Saturday peak hour. As shown in **Table 4**, peak hour vehicle trips (including auto, truck, and taxi trips balanced to reflect that taxis would arrive or depart empty) would increase by a net total of approximately 614, 370, 583, and 578 (in and out combined) in the weekday AM, midday and PM peak hours, and the Saturday peak hour, respectively. Peak hour subway trips would increase by a net total of approximately 2,540, 1,312, 2,313, and 2,346 during these periods, respectively, while transit bus trips would increase by approximately 142, 162, 181, and 192, respectively. Lastly, walk-only trips would increase by 1,593, 2,615, 3,089, 3,372 trips during the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively. As a result, the total pedestrian trips (subway, bus, and walk-only trips combined) would increase by 4,275, 4,089, 5,583, and 5,910 trips during the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively.

LEVEL 1 SCREENING ASSESSMENT

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the proposed action. According to the *CEQR Technical Manual*, if a proposed action is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 assessment) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk,

then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

Table 3
RWCDS Travel Demand Forecast

Land Use:		Residential		Local Retail						Office		Cinema		Community Center	
Size/Units:		3,643	DU	89,909 gsf						250,070	gsf	50	seats	70,820	gsf
Peak Hour Person Trips:				Non-Linked		Diverted		Total							
	AM	2,771		718		428		1,146		558		2		236	
	MD	1,667		1,190		876		2,066		495		5		259	
	PM	2,532		1,618		1,146		2,764		472		13		309	
	Saturday	2,778		1,886		1,470		3,356		137		16		145	
Person Trips:															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	82	292	42	37	0	0	42	37	70	8	1	0	8	4
	Taxi	18	62	0	0	0	0	0	0	10	2	1	0	1	1
	Subway	466	1,661	15	14	0	0	15	14	366	46	0	0	5	2
	Bus	17	60	10	10	0	0	10	10	10	2	0	0	9	5
	Walk/Other	27	86	314	276	226	202	540	478	40	4	0	0	132	69
	Total	610	2,161	381	337	226	202	607	539	496	62	2	0	155	81
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
MD	**Auto**	111	112	65	65	0	0	65	65	4	6	3	1	7	7
	Taxi	25	25	0	0	0	0	0	0	2	2	0	0	1	1
	Subway	640	640	24	24	0	0	24	24	16	18	0	0	5	3
	Bus	24	24	18	18	0	0	18	18	16	18	0	0	8	8
	Walk/Other	33	33	488	488	438	438	926	926	199	214	1	0	118	101
	Total	833	834	595	595	438	438	1,033	1,033	237	258	4	1	139	120
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	213	125	90	90	0	0	90	90	12	55	4	3	8	8
	Taxi	46	28	0	0	0	0	0	0	2	8	1	0	1	1
	Subway	1,227	718	33	33	0	0	33	33	59	289	2	1	5	5
	Bus	44	27	24	24	0	0	24	24	2	8	0	1	9	9
	Walk/Other	67	37	662	662	573	573	1,235	1,235	6	31	1	0	123	140
	Total	1,597	935	809	809	573	573	1,382	1,382	81	391	8	5	146	163
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	191	183	74	74	0	0	74	74	10	10	4	4	3	2
	Taxi	41	40	0	0	0	0	0	0	2	2	1	1	0	0
	Subway	1,088	1,046	66	66	0	0	66	66	48	49	-1	2	1	1
	Bus	40	39	38	38	0	0	38	38	2	2	2	1	5	4
	Walk/Other	56	54	765	765	735	735	1,500	1,500	6	6	1	1	70	59
	Total	1,416	1,362	943	943	735	735	1,678	1,678	68	69	7	9	79	66
Vehicle Trips :															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto (Total)**	74	258	31	27	0	0	31	27	62	8	0	0	6	3
	Taxi Balanced	57	57	0	0	0	0	0	0	10	10	0	0	2	2
	Truck	12	12	0	0	0	0	0	0	4	4	0	0	1	1
	Total	143	327	31	27	0	0	31	27	76	22	0	0	9	6
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
MD	**Auto (Total)**	100	101	45	45	0	0	45	45	4	6	2	0	5	5
	Taxi Balanced	38	38	0	0	0	0	0	0	4	4	0	0	2	2
	Truck	8	8	1	1	0	0	1	1	4	4	0	0	1	1
	Total	146	147	46	46	0	0	46	46	12	14	2	0	8	8
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto (Total)**	187	111	65	65	0	0	65	65	10	49	2	1	6	6
	Taxi Balanced	54	54	0	0	0	0	0	0	8	8	0	0	2	2
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	241	165	65	65	0	0	65	65	18	57	2	1	8	8
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto (Total)**	168	162	52	52	0	0	52	52	8	8	2	1	2	1
	Taxi Balanced	61	61	0	0	0	0	0	0	4	4	2	2	0	0
	Truck	2	2	0	0	0	0	0	0	0	0	0	0	0	0
	Total	231	225	52	52	0	0	52	52	12	12	4	3	2	1

Notes: 50% credit applied to local retail trips to account for linked, pass-by, and diverted trips.

Table 3
RWCDS Travel Demand Forecast (continued)

Land Use:		Supermarket		Medical Office		Daycare (Staff)		Daycare (Students)		Daycare (Parents)		PCE (Physical Cultural Establishment)		Open Space	
Size/Units:		0	gsf	5,000	gsf	10,000	gsf	10,000	gsf	10,000	gsf	30,000	gsf	2.17	acre
Peak Hour Person Trips:															
	AM	0		41		15		55		110		139		10	
	MD	0		47		2		0		0		114		42	
	PM	0		32		15		55		110		139		42	
	Saturday	0		31		0		0		0		191		68	
Person Trips:															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	Auto	0	0	5	4	6	0	8	0	0	0	3	3	0	0
	Taxi	0	0	2	1	0	0	0	0	0	0	7	6	0	0
	Subway	0	0	4	2	6	0	3	0	3	3	9	7	0	0
	Bus	0	0	7	4	1	0	3	0	3	3	4	3	0	0
	Walk/Other	0	0	7	5	2	0	41	0	49	49	55	42	6	4
	Total	0	0	25	16	15	0	55	0	55	55	78	61	6	4
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
MD	Auto	0	0	5	5	1	1	0	0	0	0	3	2	0	0
	Taxi	0	0	2	2	0	0	0	0	0	0	6	4	0	0
	Subway	0	0	3	3	0	0	0	0	0	0	8	6	0	0
	Bus	0	0	6	6	0	0	0	0	0	0	3	3	0	0
	Walk/Other	0	0	7	8	0	0	0	0	0	0	45	34	24	18
	Total	0	0	23	24	1	1	0	0	0	0	65	49	24	18
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	Auto	0	0	3	4	0	6	0	8	0	0	3	3	0	0
	Taxi	0	0	1	1	0	0	0	0	0	0	6	6	0	0
	Subway	0	0	2	3	0	6	0	3	3	3	9	8	0	0
	Bus	0	0	3	5	0	1	0	3	3	3	3	3	0	0
	Walk/Other	0	0	3	7	0	2	0	41	49	49	52	46	23	19
	Total	0	0	12	20	0	15	0	55	55	55	73	66	23	19
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	Auto	0	0	3	4	0	0	0	0	0	0	3	4	0	0
	Taxi	0	0	1	1	0	0	0	0	0	0	8	9	0	0
	Subway	0	0	2	2	0	0	0	0	0	0	10	12	1	0
	Bus	0	0	4	4	0	0	0	0	0	0	4	5	1	0
	Walk/Other	0	0	5	5	0	0	0	0	0	0	60	76	35	31
	Total	0	0	15	16	0	0	0	0	0	0	85	106	37	31
Vehicle Trips :															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	Auto (Total)	0	0	3	3	5	0	8	8	0	0	2	2	0	0
	Taxi Balanced	0	0	2	2	0	0	0	0	0	0	9	9	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	5	5	5	0	8	8	0	0	11	11	0	0
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
MD	Auto (Total)	0	0	3	3	1	1	0	0	0	0	2	2	0	0
	Taxi Balanced	0	0	2	2	0	0	0	0	0	0	7	7	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	5	5	1	1	0	0	0	0	9	9	0	0
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	Auto (Total)	0	0	2	3	0	5	8	8	0	0	2	2	0	0
	Taxi Balanced	0	0	2	2	0	0	0	0	0	0	8	8	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	4	5	0	5	8	8	0	0	10	10	0	0
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	Auto (Total)	0	0	2	3	0	0	0	0	0	0	2	3	0	0
	Taxi Balanced	0	0	2	2	0	0	0	0	0	0	12	12	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	4	5	0	0	0	0	0	0	14	15	0	0

Notes: 25% credit applied to supermarket trips.

Table 3
RWCDS Travel Demand Forecast (continued)

Land Use:		Destination Retail		Auto Dealership		Warehouse		Arts and Cultural Center		Light Industrial		TOTAL	
Size/Units:		-32,736 gsf		-33,300 gsf		-67,806 gsf		21,900 gsf		-82,909 gsf			
Peak Hour Person Trips:													
	AM	-77		-4		-16		50		-161		4,875	
	MD	-230		-43		-14		171		-133		4,448	
	PM	-230		-39		-18		170		-172		6,194	
	Saturday	-333		-11		-4		139		-20		6,493	
Person Trips:													
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	Auto	-17	-11	-3	-1	-5	-2	9	8	-60	-8	149	334
	Taxi	0	0	0	0	0	0	3	3	0	0	42	75
	Subway	-16	-9	0	0	-4	-1	7	6	-48	-7	816	1,724
	Bus	-4	-2	0	0	-1	0	7	6	-14	-1	52	90
	Walk/Other	-11	-7	0	0	-2	-1	1	0	-22	-1	865	728
	Total	-48	-29	-3	-1	-12	-4	27	23	-144	-17	1,924	2,951
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
MD	Auto	-46	-40	-21	-22	-3	-3	9	52	-28	-28	110	158
	Taxi	0	0	0	0	0	0	3	18	0	0	39	52
	Subway	-39	-35	0	0	-2	-2	6	37	-22	-21	639	673
	Bus	-9	-8	0	0	-1	-1	6	37	-7	-7	64	98
	Walk/Other	-28	-25	0	0	-1	-1	0	3	-10	-10	1,314	1,301
	Total	-122	-108	-21	-22	-7	-7	24	147	-67	-66	2,166	2,282
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	Auto	-43	-45	-14	-25	-2	-6	3	58	-8	-63	269	221
	Taxi	0	0	0	0	0	0	1	19	0	0	58	63
	Subway	-36	-38	0	0	-2	-4	2	41	-7	-52	1,297	1,016
	Bus	-8	-9	0	0	0	-1	2	41	-1	-15	81	100
	Walk/Other	-25	-26	0	0	-1	-2	0	3	-1	-25	1,532	1,557
	Total	-112	-118	-14	-25	-5	-13	8	162	-17	-155	3237	2957
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	Auto	-70	-65	-5	-6	-2	-1	13	37	-3	-5	221	241
	Taxi	-1	-1	0	0	0	0	4	13	0	0	56	65
	Subway	-36	-34	0	0	-1	0	9	25	-4	-6	1,183	1,163
	Bus	-17	-15	0	0	0	0	9	26	0	0	88	104
	Walk/Other	-49	-45	0	0	0	0	1	2	-1	-1	1,684	1,688
	Total	-173	-160	-5	-6	-3	-1	36	103	-8	-12	3232	3261
Vehicle Trips :													
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	Auto (Total)	-9	-6	-2	-1	-4	-2	5	4	-53	-8	128	296
	Taxi Balanced	0	0	0	0	0	0	4	4	0	0	84	84
	Truck	0	0	0	0	-3	-3	0	0	-3	-3	11	11
	Total	-9	-6	-2	-1	-7	-5	9	8	-56	-11	223	391
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
MD	Auto (Total)	-23	-20	-16	-17	-3	-3	5	26	-27	-27	98	122
	Taxi Balanced	0	0	0	0	0	0	11	11	0	0	64	64
	Truck	-1	-1	0	0	-2	-2	1	1	-1	-1	11	11
	Total	-24	-21	-16	-17	-5	-5	17	38	-28	-28	173	197
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	Auto (Total)	-22	-23	-11	-19	-2	-5	2	29	-8	-56	241	176
	Taxi Balanced	0	0	0	0	0	0	11	11	0	0	85	85
	Truck	0	0	0	0	-2	-2	0	0	0	0	-2	-2
	Total	-22	-23	-11	-19	-4	-7	13	40	-8	-56	324	259
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	Auto (Total)	-30	-28	-4	-5	-2	-1	4	12	-3	-5	201	203
	Taxi Balanced	0	0	0	0	0	0	5	5	0	0	86	86
	Truck	0	0	0	0	-1	-1	0	0	0	0	1	1
	Total	-30	-28	-4	-5	-3	-2	9	17	-3	-5	288	290

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 4
Travel Demand Forecast Summary

Peak Hour	Vehicle Trips			Person Trips											
				Subway			Bus			Walk/Other			Total Pedestrian Trips[1]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	223	391	614	816	1,724	2,540	52	90	142	865	728	1,593	1,733	2,542	4,275
MD	173	197	370	639	673	1,312	64	98	162	1,314	1,301	2,615	2,017	2,072	4,089
PM	324	259	583	1,297	1,016	2,313	81	100	181	1,532	1,557	3,089	2,910	2,673	5,583
Saturday	288	290	578	1,183	1,163	2,346	88	104	192	1,684	1,688	3,372	2,955	2,955	5,910

Notes:
[1]Includes walk-only trips and pedestrians en route to/from nearby subway stations and bus stops.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Traffic

Based on *CEQR Technical Manual* guidelines, a quantified traffic analysis is typically required if a proposed action would result in 50 or more vehicle trip ends in a peak hour at one or more intersections. As shown in **Table 4**, under the RWCDS, the net number of incremental vehicle trips—614, 370, 583, and 578 in the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively—would exceed the 50-trip threshold in all four peak hours, and a Level 2 screening analysis is therefore warranted for these periods to determine which if any intersections would require quantified analysis.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and cited in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a proposed action is projected to result in fewer than 200 peak hour rail or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus route in one direction, or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus and/or subway analysis would be warranted. Transit analyses typically focus on the weekday AM and PM commuter peak hours, as it is during these periods that overall demand on the subway and bus systems is usually highest.

As shown in **Table 4**, the RWCDS is expected to generate approximately 2,540 and 2,313 incremental subway trips in the weekday AM and PM peak hours, respectively. As these numbers of trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold, a Level 2 screening analysis is warranted to determine which if any subway stations and routes would require quantified analysis. As also shown in **Table 4,** the Proposed Action is expected to generate 142 and 181 incremental bus trips in the weekday AM and PM peak hours, respectively. As these numbers of trips could potentially exceed the 50-trips per direction *CEQR Technical Manual* analysis threshold on one or more routes, a Level 2 screening analysis is also warranted for the bus mode to determine which if any bus routes would require quantified analysis.

Pedestrians

According to *CEQR Technical Manual* guidelines, a quantified analysis of pedestrian conditions is typically required if a proposed action would result in 200 or more peak hour pedestrian trips at any pedestrian element (sidewalk, corner area or crosswalk). As shown in **Table 4**, the RWCDS would generate an incremental demand of approximately 4,275, 4,089, 5,583, and 5,910 total pedestrian trips (including walk-only trips and pedestrians en route to and from nearby subway stations and bus stops) in the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively. As the numbers of trips in each of these periods would exceed the 200-trip threshold, a Level 2 screening analysis is warranted to determine which if any pedestrian elements would require quantified analysis.

LEVEL 2 SCREENING ASSESSMENT

Traffic

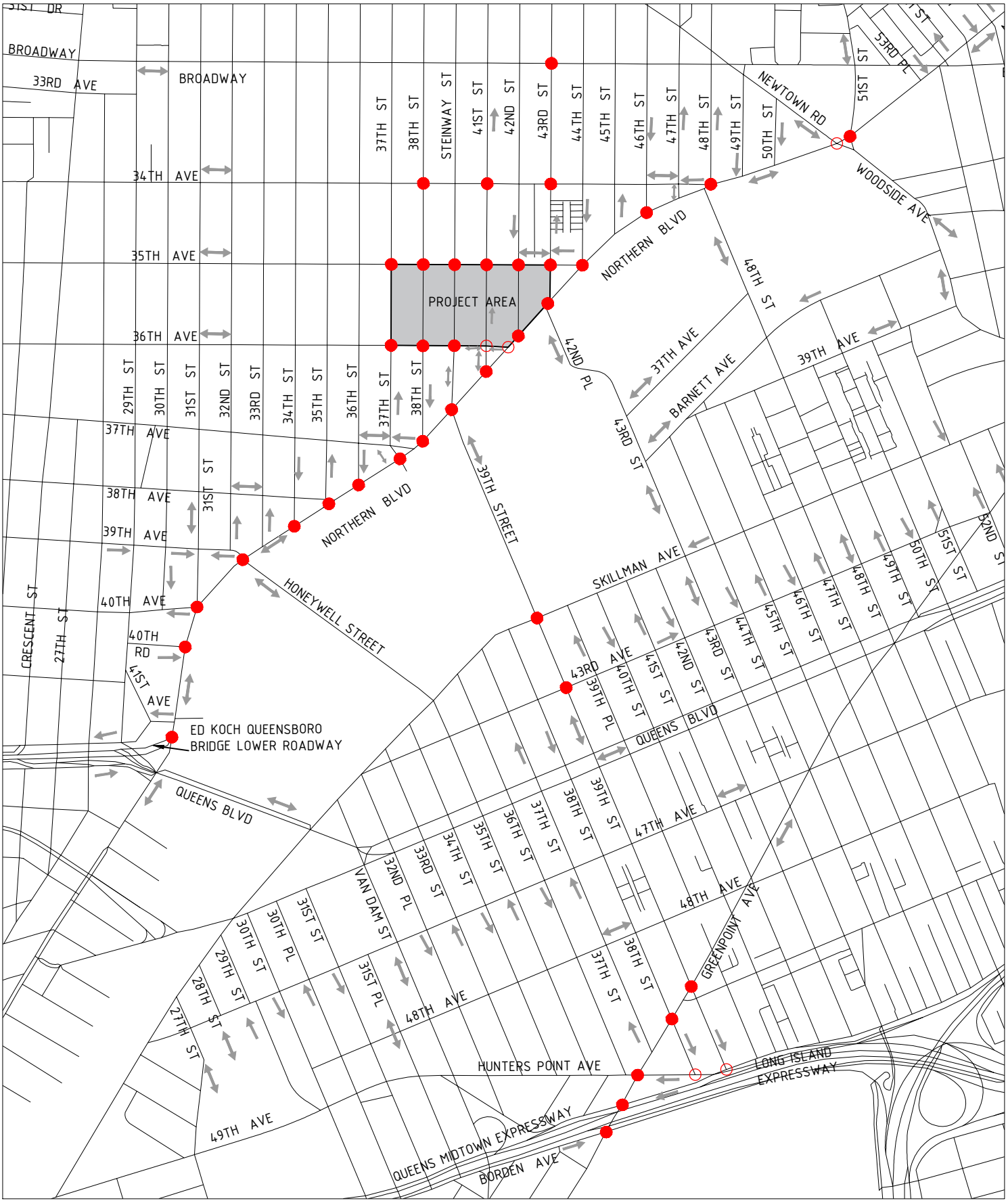
Area Street Network

As shown in **Figure 2**, the street network in proximity to the Project Area is comprised of an irregular grid pattern of collector and local streets. Most intersections in the study area are signalized.

The Project Area itself is bounded by 37th Street on the west, 43rd Street and Northern Boulevard on the east, 35th Avenue on the north and 36th Avenue on the south. **37th Street** and **43rd Street** are both one-way northbound local streets that typically operate with one moving lane and parking lanes along both curbs. **Northern Boulevard (NY 25A)** is a principal arterial that operates with three moving lanes in each direction in the vicinity of the Project Area. At its western end, it connects to the Ed Koch Queensboro Bridge to midtown Manhattan, and to the east, it connects to the Brooklyn-Queens Expressway (I-278). Northern Boulevard is a DOT-designated through truck route and is traversed by MTA Bus Q66 local buses (east of 42nd Street) and Q101 local buses (west of Steinway Street). It is also used by QM2, QM3, QM20 and QM32 express buses for access to/from the Ed Koch Queensboro Bridge. **35th Avenue** is a major collector that operates as a one-way westbound street between Northern Boulevard and 43rd Street and as a two-way street with parking along both curbs to the west of 43rd Street. **36th Avenue** is a minor arterial that also operates as a one-way westbound street between Northern Boulevard and 41st Street, and as a two-way street with parking along both curbs to the west of 41st Street.

Other study area corridors of note include Steinway Street, Broadway, 34th Avenue, 36th Street, Queens Boulevard and Greenpoint Avenue. **Steinway Street and Broadway** are both principal arterials that typically operate with one moving lane in each direction and parking along both curbs. Both are DOT-designated Local Truck Routes. Steinway Street is traversed by MTA Bus Q101 local buses while Broadway is traversed by Q104 local buses. **34th Avenue** is a two-way local street with one moving lane (striped as a shared bicycle lane) in each direction and parking along both curbs. **36th Street** is a one-way southbound local street with one moving lane and parking along both curbs. There is also a dedicated bicycle lane north of 34th Avenue.

Traffic Study Area



Legend

● Signalized Analysis Location ○ Unsignalized Analysis Location

Queens Boulevard (NY 25) is a principal arterial roadway that extends from the Ed Koch Queensboro Bridge to Jamaica, Queens. In the vicinity of the study area it typically operates with four to five moving lanes in each direction separated by a wide median that is used for parking. NYCT No. 7 trains on the Flushing Line operate on an elevated structure above this median area. Queens Boulevard is a DOT-designated Through Truck Route and is traversed by MTA Bus Q32 and Q60 local buses, along with express buses operating on eleven routes that enter Queens via the Ed Koch Queensboro Bridge. **Greenpoint Avenue** is a principal arterial that typically operates with one to two moving lanes including a shared bicycle lane in each direction, plus parking along both curbs. It is a DOT-designated Through Truck Route that provides access to the Queens Midtown/Long Island Expressway and is also traversed by NYC Transit B24 buses. En route to and from Greenpoint, Brooklyn via the Greenpoint Avenue Bridge over Newtown Creek.

Regional arteries providing access to the Project Area include the Brooklyn-Queens Expressway (I-278) and the Queens Midtown Expressway/Long Island Expressway (I-495). The **Brooklyn-Queens Expressway or BQE**, located approximately one mile to the east of the Project Area, traverses northern Brooklyn and Queens and connects to the Triborough Bridge to Manhattan and the Bronx. Northern Boulevard is the primary access corridor between the Project Area and the BQE. The **Queens Midtown Expressway**, located approximately 1.5 miles to the south of the Project Area, extends from the Queens-Midtown Tunnel to midtown Manhattan eastward to Queens Boulevard where it becomes the **Long Island Expressway or LIE** and continues for approximately 70 miles to Riverhead on Long Island. The combination of 39th Avenue and Greenpoint Avenue provides the primary access route between the Project Area and the Queens Midtown Expressway and LIE.

Traffic Assignment and Analyzed Intersections

As shown in **Table 4** and discussed above, the RWCDS is expected to result in a net incremental increase of approximately 610, 457, 689, and 569 vehicle trips during the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively. As these traffic volumes would exceed 50 trips in each peak hour (the *CEQR Technical Manual* Level 1 screening threshold for a detailed analysis), an assignment of net increment traffic volumes was prepared for each period to help identify individual intersections for analysis (a Level 2 screening assessment).

The assignments of auto and taxi trips to the street network in proximity to the Project Area were based on the anticipated origins and destinations of vehicle trips associated with the different land uses projected under the RWCDS. The origins/destinations for residential uses were based on 2012-2016 American Community Survey (ACS) journey-to-work data, while those for the office/daycare (staff), warehouse, and light industrial uses were based on 2012-2016 ACS reverse journey-to-work data. The origins/destinations of trips generated by local retail, community center, daycare (students) and physical cultural establishment uses, which are typically local trips within the surrounding neighborhood, were based on the population density within a 0.5-mile radius of the Project Area. Similarly, origins/destinations for the cinema, supermarket, medical office, destination retail, auto dealership, and arts and cultural center uses were based on population density in proximity to the Project Area and

surrounding neighborhoods within a two-mile radius. **Table 5** shows the directional distributions of auto and taxi trips by land use based on the origin/destination data. Using these distributions, auto and taxi trips were first assigned to various portals on the periphery of Astoria, and from there via the most direct route to the Project Area. As the RWCDS includes on-site accessory parking, auto trips were assigned directly to the proposed parking garage entrances on 37th Street and 38th Street for Projected Development Site A, 38th Street for Projected Development Site B, 41st Street for Projected Development Sites C and D, and 43rd Street for Projected Development Site E. Similarly, vehicle trips for the non-applicant controlled sites (Sites F - K) were assigned to their respective frontages. Although some drivers may park at off-site public parking facilities, assigning all trips to the Project Area can be considered a conservative approach with respect to the traffic impact analysis as it concentrates project traffic at analyzed intersections in proximity to the site rather than dispersing it to outlying parking facilities.

Table 5
Directional Distributions of Auto/Taxi Trips by Land Use

Land Use	Queens				Manhattan	Bronx	Brooklyn	Long Island	Staten Island/NJ	Upstate NY/CT
	N	S	E	W						
Residential[1]	8.9 %	6.3%	26.9%	8.0%	12.4%	8.1%	7.6%	11.5%	2.8%	7.6%
Office/Daycare Staff/ Warehouse / Lt. Industrial[2]	6.5 %	4.2%	36.8%	5.1%	0.7%	3.2%	6.0%	20.8%	12.3%	4.4%
Local Retail/ Community Center/ Daycare (Students)/ Physical Cultural Establishment [3]	29.0%	41.9%	11.8%	17.3%	----	----	----	----	----	----
Cinema/Supermarket/ Medical Office/ Destination Retail/ Auto Dealership/ Arts & Cultural Center[4]	21.8%	20.3%	24.4%	33.5%	----	----	----	----	----	----

Notes:
[1] Based on 2012-2016 ACS journey-to-work data.
[2] Based on 2012-2016 ACS reverse journey-to-work 5-Year data for Queens Census Tracts 51, 55, 57, 59, 155, 157, and 159.
[3] Based on population density within 0.5-mile of the Project Area.
[4] Based on population density within two miles of the Project Area.

It should be noted that under the Proposed Actions the existing cinema use would be relocated from Projected Development Site A to Projected Development Site D, and expanded from 3,450 seats to 3,500 seats. As such, the traffic assignments also take into account the relocation of the existing cinema demand from Site A to Site D.

Taxi trips were generally assigned to the building frontages. Truck trips were assigned to Northern Boulevard and Astoria Boulevard, which are the primary DOT-designated Through Truck Routes in proximity to the Project Area, and to Broadway, which is a DOT-designated Local Truck Route. From these designated truck routes, truck trips were assigned to the proposed loading berths on 37th Street for Projected Development Site A, 38th Street for Projected Development Site B, 41st Street for Project Development Site C, 42nd Street for Projected Development Site D, and 42nd Street and 43rd Street for

Projected Development Site E. Similarly, truck trips for the non-applicant controlled sites (Sites F – K) were assigned to their respective frontages.

Representative intersections most likely to be used by concentrations of action-generated vehicles traveling to and from the Project Area were then identified for detailed analysis based on the preliminary assignments. Existing bottleneck locations and prevailing travel patterns in the study area were also taken into consideration. **Figure 2** shows the locations of 42 intersections (37 signalized and five unsignalized) selected for detailed analysis pending further consultation with DCP and DOT.[1] Most of the analyzed intersections are located along corridors providing direct access to the Project Area, including Northern Boulevard (19 intersections), 35th Avenue (seven intersections), 36th Avenue (five intersections), and 34th Avenue (four intersections). Analyzed intersections are also located along corridors connecting the Project Area to the Long Island Expressway and Queens Midtown Tunnel, including Greenpoint Avenue (five intersections), 39th Street (four intersections) and 38th Street (two intersections). There is also one analyzed intersection along Broadway. The intersections selected for analysis are listed below:

<u>Signalized Intersections</u>

1. Broadway @ 43rd Street
2. 34th Avenue @ 38th Street
3. 34th Avenue @ 41st Street
4. 34th Avenue @ 43rd Street
5. 35th Avenue @ 37th Street
6. 35th Avenue @ 38th Street
7. 35th Avenue @ Steinway Street
8. 35th Avenue @ 41st Street
9. 35th Avenue @ 42nd Street
10. 35th Avenue @ 43rd Street
11. 36th Avenue @ 37th Street
12. 36th Avenue @ 38th Street
13. 36th Avenue @ Steinway Street
14. Northern Boulevard @ Ed Koch Queensboro Bridge Lower Roadway
15. Northern Boulevard @ 40th Road
16. Northern Boulevard @ 31st Street/40th Avenue
17. Northern Boulevard @ 39th Avenue/Honeywell Street
18. Northern Boulevard @ 34th Street
19. Northern Boulevard @ 35th Street/38th Avenue
20. Northern Boulevard @ 36th Street
21. Northern Boulevard @ 37th Street
22. Northern Boulevard @ 38th Street
23. Northern Boulevard @ 39th Street/Steinway Street

[1] Refer to the **Appendix** for the assignment of net incremental peak hour vehicle trips.

24. Northern Boulevard @ 41st Street
25. Northern Boulevard @ 42nd Street
26. Northern Boulevard @ 43rd Street/42nd Place
27. Northern Boulevard @ 44th Street
28. Northern Boulevard @ 46th Street
29. Northern Boulevard @ 48th Street/34th Avenue
30. Northern Boulevard @ 51st Street
31. Skillman Avenue @ 39th Street
32. 43rd Avenue @ 39th Street
33. Greenpoint Avenue @ Borden Avenue (EB)
34. Greenpoint Avenue @ Borden Avenue (WB)
35. Greenpoint Avenue @ Hunters Point Avenue
36. Greenpoint Avenue @38th Street
37. Greenpoint Avenue @ 39th Street

Unsignalized Intersections

38. 36th Avenue @ 41st Street
39. Northern Boulevard @ 36th Avenue
40. Northern Boulevard @ Newtown Road
41. Hunters Point Avenue @ 38th Street
42. Hunters Point Avenue @ 39th Street

Traffic Analysis Peak Hours

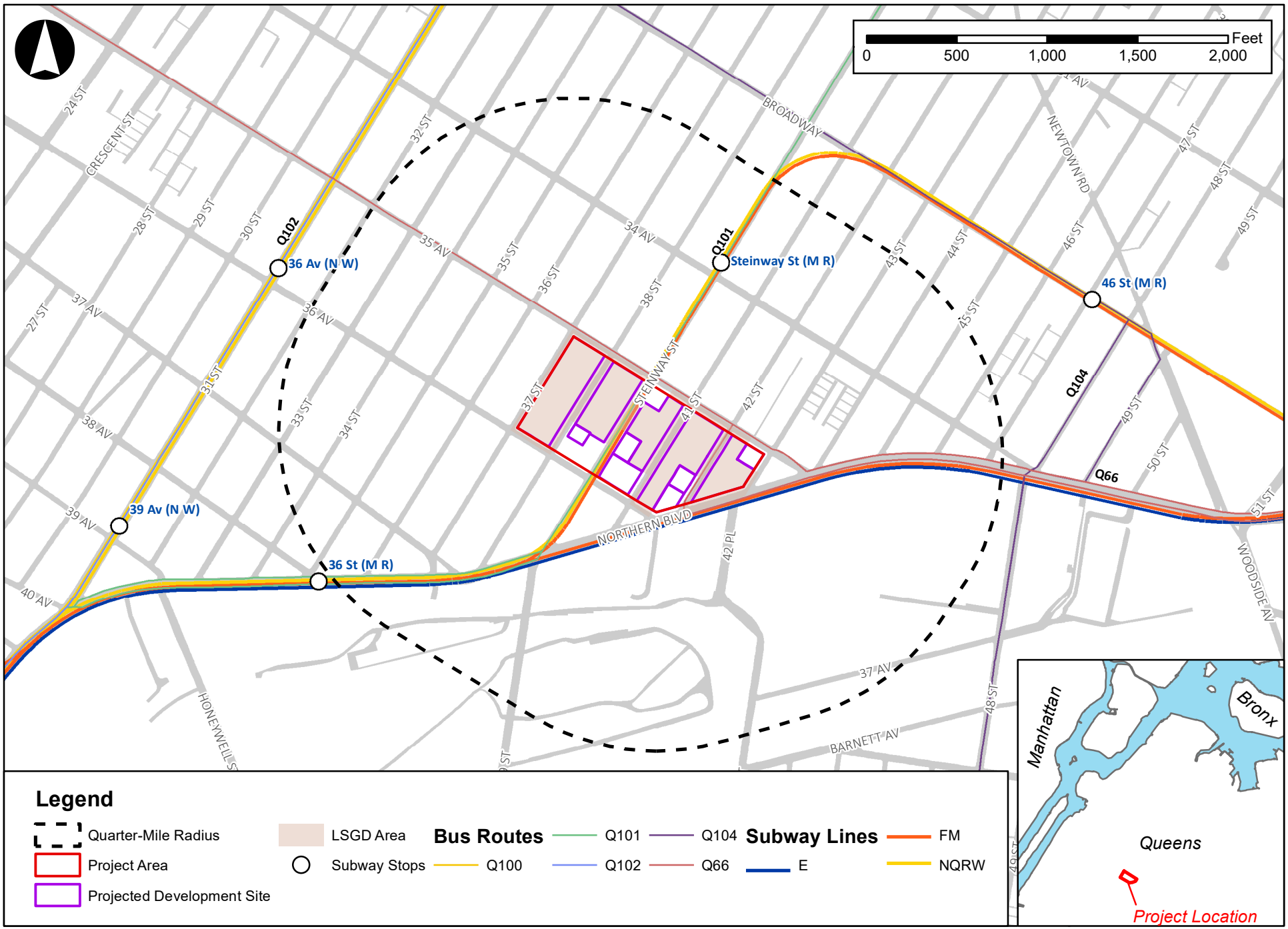
As discussed above, detailed traffic analyses would be required one or more intersections during the weekday AM, midday and PM peak hours, and Saturday peak hour. The traffic impact analysis will therefore focus on all four of these peak periods. The specific peak hours for analysis will determined based on automatic traffic recorder (ATR) count data that will be collected in proximity to the Project Area as part of the data collection program for the EIS transportation analyses.

Transit

Subway Stations

As discussed previously, according to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, if a proposed action would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed subway analysis would be warranted. As shown in **Table 4**, the RWCDS is expected to generate a net total of approximately 2,540 and 2,313 incremental subway trips in the weekday AM and PM peak hours, respectively.

Three NYCT subway stations located in proximity to the Project Area are expected to be used by project-generated demand (see **Figure 3**). Two of these stations are served by M trains (weekdays only) and R trains operating on the Queens Boulevard Line—the 36th Street station located below Northern



Source: NYCDCP (PLUTO 2020, Version VIII); DOITT (2020)

Innovation QNS

Figure 3
Project Area Transit Services

Boulevard, and the Steinway Street station located below Steinway Street. The third station, the 36th Avenue station, is located on an elevated structure above 31st Street and is served by N trains (at all times) and W trains (weekdays only) operating on the Astoria Line.

Incremental subway trips generated by the Proposed Actions were assigned to the three stations serving the Project Area based on census origin/destination data and each station's proximity to individual projected development sites. Subway riders expected to use M and R trains were distributed between the Steinway Street and 36th Street stations based on proximity, while riders traveling via N and W trains were assigned to the 36th Avenue station. The numbers of peak hour trips assigned to each station are shown in **Table 6**. As shown in **Table 6**, it is estimated that the new subway demand would likely exceed the 200-trip *CEQR Technical Manual* analysis threshold in the AM and PM peak hours at all three of the stations serving the Project Area. Therefore, the Steinway Street, 36th Street and 36th Avenue stations were all selected for detailed analysis. Key circulation elements (e.g., stairs and fare arrays) expected to be used by concentrations of new demand from the Proposed Action will be analyzed.

Table 6

Net Incremental Peak Hour Subway Trips by Station

Station	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Steinway Street (M, R)	430	872	1,302	657	527	1,184
36th Street (M, R)	108	218	326	165	132	297
36th Avenue (N, W)	278	634	912	657	527	832
Total	816	1,724	2,540	1,297	1,016	2,313

Subway Line Haul

As discussed above, the Project Area is currently served by a total of four NYCT subway routes, including the M, N, R and W. As the Proposed Action's RWCDS is expected to generate 200 or more new peak hour subway trips in one direction on one or more of these lines, an analysis of subway line haul conditions will be included in the EIS. The analysis will use subway service and ridership data provided by NYCT to assess existing, future No-Action, and future With-Action conditions at the maximum load points during the weekday AM and PM peak hours.

Bus

As shown in **Figure 3**, four MTA Bus Company local bus services operate within approximately ¼-mile of the Project Area—the Q66, Q101, Q102, and Q104. These services and the principal corridors on which they operate in proximity to the Project Area are listed in **Table 7**.

Table 7
Bus Routes Serving the Project Area

Route	Operating Agency	Route Endpoints	Corridors Served in Proximity to the Rezoning Area
Q66	MTA Bus	Flushing, Queens – Long Island City	35th Avenue
Q101	MTA Bus	East Midtown – Steinway	Steinway Street
Q102	MTA Bus	Astoria – Roosevelt Island	31st Street
Q104	MTA Bus	Sunnyside – Long Island City	Broadway/48th Street

Bus Assignment and Analyzed Routes

As shown in **Table 4**, the Proposed Action's RWCDS is expected to generate a net total of approximately 142 and 181 incremental trips by local bus during the weekday AM and PM peak hours, respectively. These bus trips were assigned to each route based on proximity to individual projected development sites and current ridership patterns. **Table 8** shows the anticipated numbers of new riders expected on each local bus route in the AM and PM peak hours. According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a proposed action is projected to result in fewer than 50 peak hour trips being assigned to a single bus route (in one direction), as this level of new demand is considered unlikely to result in significant adverse impacts. As shown in **Table 8**, the Q66 bus route is expected to experience more than 50 new trips in the eastbound direction in each peak hour. Therefore, a detailed analysis of local bus conditions along the Q66 bus route is warranted in the EIS for both the AM and PM peak hours.

Table 8
Net Incremental Bus Trips by Route

Route	Direction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Q66	EB	3	50	**53**	5	56	**61**
	WB	29	6	35	43	6	49
Q101	NB	4	7	11	8	9	17
	SB	4	8	12	8	8	16
Q102	NB	3	5	8	5	6	11
	SB	4	6	10	5	6	11
Q104	EB	3	3	6	5	3	8
	WB	2	5	7	2	6	8
Total		52	90	142	81	100	181

Notes:
Bold - denotes greater than 50 incremental trips per direction.

CITYWIDE FERRY SERVICE

Based on *CEQR Technical Manual* guidance, a quantified analysis of conditions on CWFS routes and landings is typically required if a proposed action would generate 25 or more peak hour ferry trips in a single direction on a single route or 50 or more at a ferry landing. As there are no ferry landings proximate to the Project Site, the Proposed Actions are not expected to generate appreciable numbers

of new trips on the CWFS. Therefore, a detailed analysis of CWFS conditions under the Proposed Actions is not warranted and not included in the EIS.

PEDESTRIANS

Under *CEQR Technical Manual* guidelines, detailed pedestrian analyses are generally warranted if a proposed action is projected to result in 200 or more new peak hour pedestrians at any sidewalk, corner reservoir area or crosswalk. As shown in **Table 4**, the Proposed Actions are expected to generate approximately 1,593 walk-only trips in the weekday AM peak hour, 2,615 in the weekday midday peak hour, 3,089 in the weekday PM peak hour, and 3,372 in the Saturday peak hour. Persons en route to and from subway station entrances and bus stops would add approximately 2,682, 1,474, 2,494, and 2,538 additional pedestrian trips to sidewalks and crosswalks in proximity to the Project Area during these same periods, respectively. In the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to the projected development sites and nearby subway station entrances and bus stops. In the weekday midday and Saturday peak hours, pedestrian trips would tend to be more dispersed, as people travel throughout the area for lunch, shopping and/or errands.

Given the numbers of incremental pedestrian trips that would be generated, a detailed analysis of pedestrian conditions under the Proposed Action is warranted. The specific peak hours for analysis will determined based on pedestrian counts that will be conducted in proximity to the Project Area as part of the data collection program for the EIS transportation analyses.

Based on a preliminary assignment of incremental peak hour pedestrian trips, a total of 138 pedestrian elements (40 sidewalks, 33 crosswalks and 65 corner areas) were selected for analysis. As shown in **Figure 4,** these elements, which are listed below, are primarily located in the immediate proximity of the Project Area, along Northern Boulevard, 36th Avenue and 36th and Steinway Streets which connect the Project Area to nearby subway station entrances, and along 41st, 42nd and 43rd Streets.

<u>Sidewalks</u>

- North sidewalks along 34th Avenue between Steinway Street and 42nd Street
- North sidewalks along 36th Avenue between 31st Street and Northern Boulevard
- South sidewalks along 36th Avenue between 31st Street and 33rd Street
- East sidewalk along 31st Street between 36th Avenue and 37th Avenue
- West sidewalk along 31st Street between 35th Avenue and 36th Avenue
- East sidewalk along 36th Street between 37th Avenue and Northern Boulevard
- North sidewalk along Northern Boulevard between 36th Avenue and 42nd Street
- South sidewalk along Northern Boulevard between 36th Street and 37th Street
- North sidewalks along 35th Avenue between 37th Street and 41st Street
- South sidewalks along 35th Avenue between 37th Street and 43rd Street
- East sidewalk along 37th Street between 35th Avenue and 36th Avenue

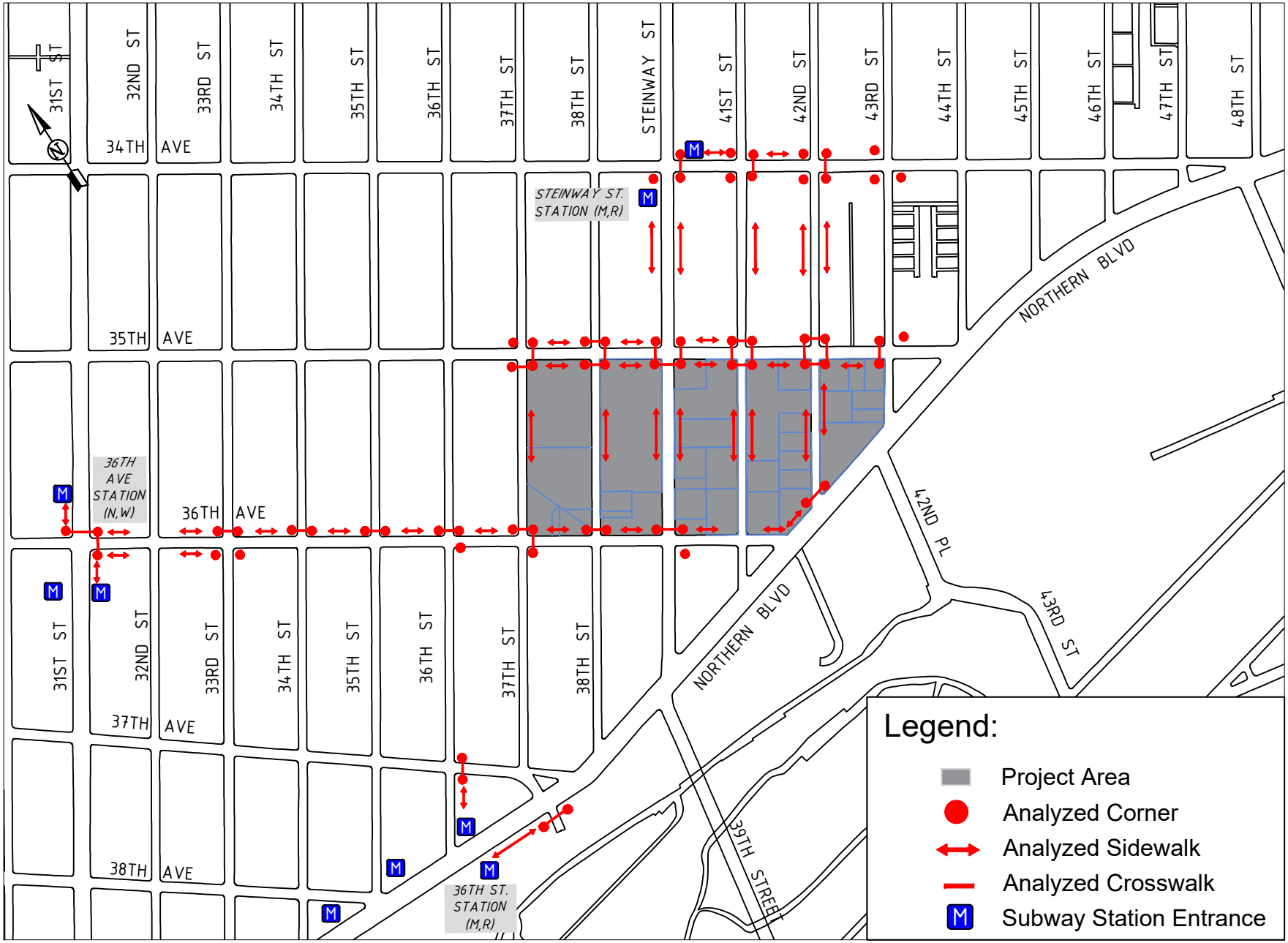


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Figure 4

Analyzed Pedestrian Elements

- East sidewalk along 38th Street between 35th Avenue and 36th Avenue
- East sidewalks along Steinway Street between 34th Avenue and 36th Avenue
- West sidewalks along Steinway Street between 34th Avenue and 36th Avenue
- East sidewalks along 41st Street between 34th Avenue and 36th Avenue
- West sidewalk along 41st Street between 35th Avenue and 36th Avenue
- East sidewalks along 42nd Street between 34th Avenue and Northern Boulevard
- West sidewalks along 42nd Street between 34th Avenue and Northern Boulevard

Crosswalks

- North and east crosswalks of 36th Avenue and 31st Street
- North crosswalk of 36th Avenue and 33rd Street
- North crosswalk of 36th Avenue and 34th Street
- North crosswalk of 36th Avenue and 35th Street
- North crosswalk of 36th Avenue and 36th Street
- North and east crosswalks of 36th Avenue and 37th Street
- North crosswalk of 36th Avenue and 38th Street
- North crosswalk of 36th Avenue and Steinway Street
- East crosswalk of 37th Avenue and 36th Street
- South crosswalk of Northern Boulevard and 37th Street
- East and south crosswalks of 35th Avenue and 37th Street
- North, east, and south crosswalks of 35th Avenue and 38th Street
- East, south, and west crosswalks of 35th Avenue and Steinway Street
- North, east, south, and west crosswalks of 35th Avenue and 41st Street
- North, east, south, and west crosswalks of 35th Avenue and 42nd Street
- West crosswalk of 35th Avenue and 43rd Street
- East crosswalk of 34th Avenue and Steinway Street
- East crosswalk of 34th Avenue and 41st Street
- East crosswalk of 34th Avenue and 42nd Street
- North crosswalk of Northern Boulevard and 42nd Street

Corners

- Northeast, southeast, and northwest corners of 36th Avenue and 31st Street
- Northeast, southeast, southwest, and and northwest corners of 36th Avenue and 33rd Street
- Northeast and northwest corners of 36th Avenue and 34th Street
- Northeast and northwest corners of 36th Avenue and 35th Street
- Northeast, southeast and northwest corners of 36th Avenue and 36th Street
- Northeast, southeast, and northwest corners of 36th Avenue and 37th Street
- Northeast and northwest corners of 36th Avenue and 38th Street
- Northeast, southeast and northwest corners of 36th Avenue and Steinway Street
- Northeast and northwest corners of Northern Boulevard and 42nd Street

- Northeast and southeast corners of 37th Avenue and 36th Street
- Southeast and southwest corners of Northern Boulevard and 37th Street
- Northeast, southeast, southwest, and northwest corners of 35th Avenue and 37th Street
- Northeast, southeast, southwest, and northwest corners of 35th Avenue and 38th Street
- Northeast, southeast, southwest, and northwest corners of 35th Avenue and Steinway Street
- Northeast, southeast, southwest, and northwest corners of 35th Avenue and 41st Street
- Northeast, southeast, southwest, and northwest corners of 35th Avenue and 42nd Street
- Northeast, southwest, and northwest corners of 35th Avenue and 43rd Street
- Northeast, southeast, and southwest corners of 34th Avenue and Steinway Street
- Northeast, southeast, northwest and southwest corners of 34th Avenue and 41st Street
- Northeast, southeast, southwest, and northwest corners of 34th Avenue and 42nd Street
- Southeast, southwest, and northwest corners of 34th Avenue and 43rd Street

VEHICULAR AND PEDESTRIAN SAFETY

Under *CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations with five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, crash trends will be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips.

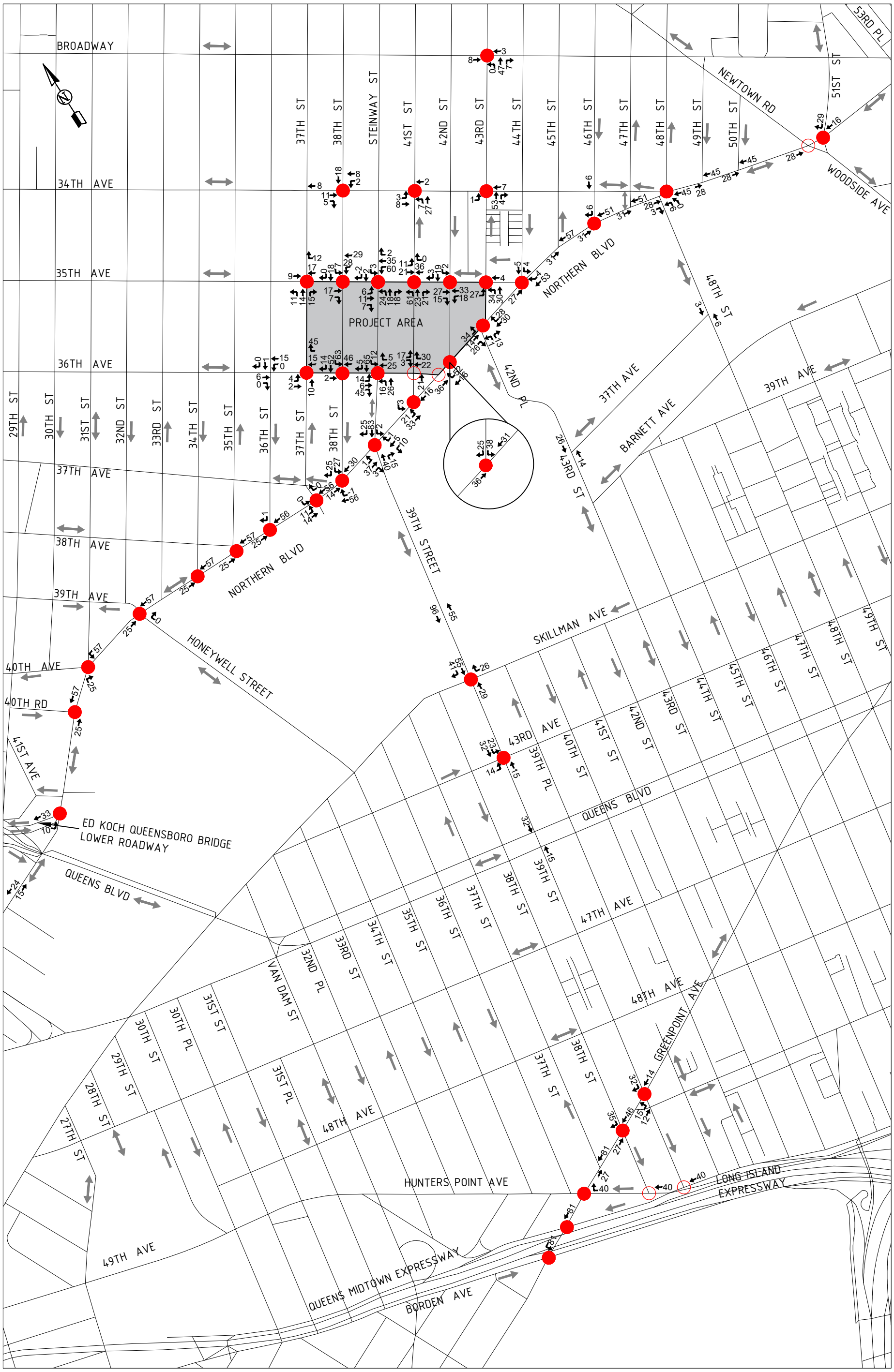
PARKING

Parking demand from office, retail and community facility uses typically peaks in the midday period and declines during the late afternoon and evening. By contrast, cinema parking demand typically peaks in the evening and parking demand from residential uses peaks overnight. Therefore, some of the spaces used by residents would be available to accommodate commercial and community facility demand during daytime hours. A parking demand forecast will be provided in the EIS to document the ability of the proposed on-site accessory parking on the Projected Development Site to accommodate all of the projected demand from the With Action RWCDS, and assess the potential for a significant parking shortfall.

APPENDIX

TRAFFIC ASSIGNMENTS OF NET INCREMENTAL PEAK HOUR VEHICLE TRIPS

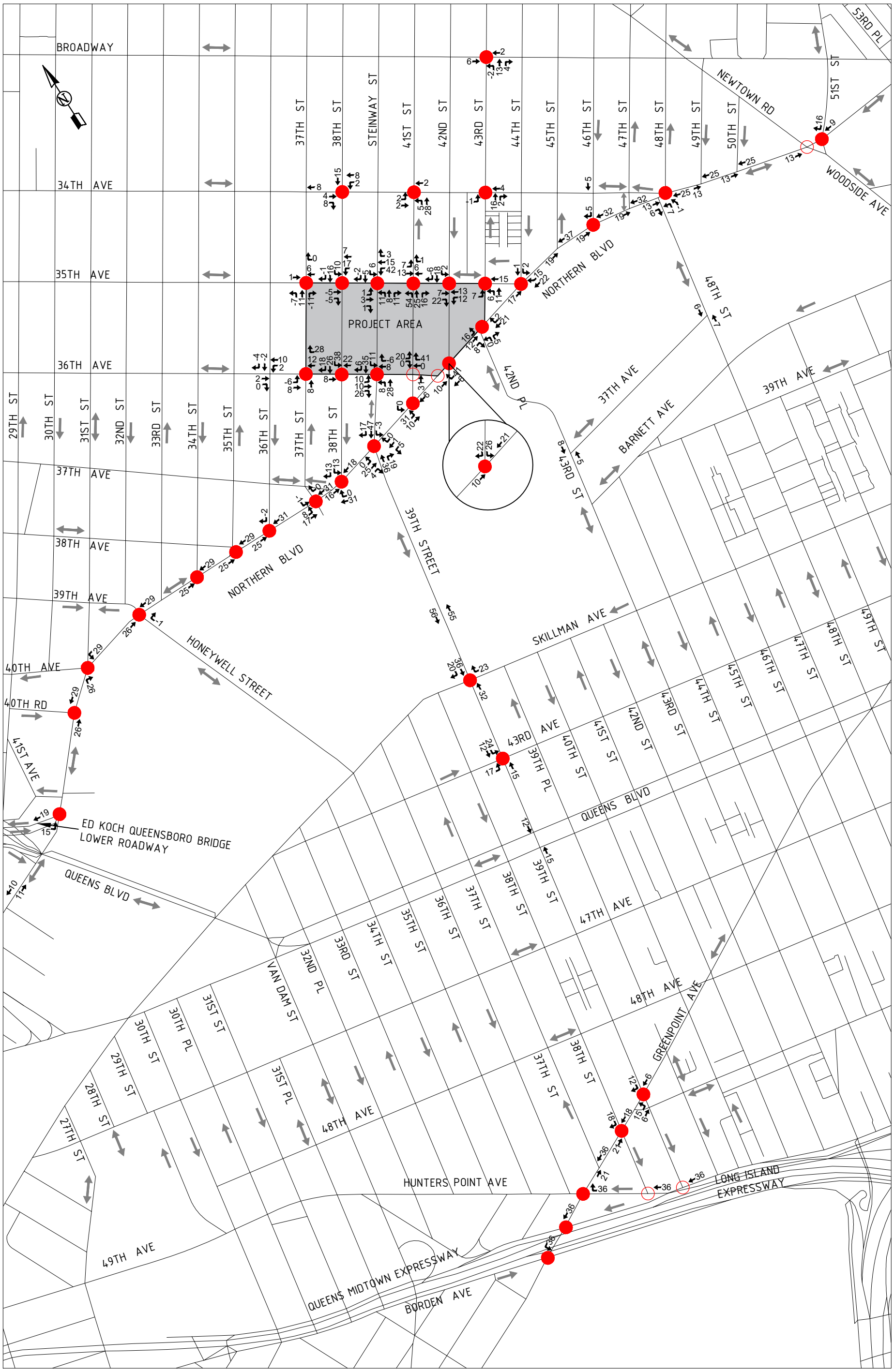
AM Peak Hour Project Increment Traffic Volumes



Legend

● Signalized Analysis Location ○ Unsignalized Analysis Location 2 = Weekday AM Peak Hour Volume

Midday Peak Hour Project Increment Traffic Volumes



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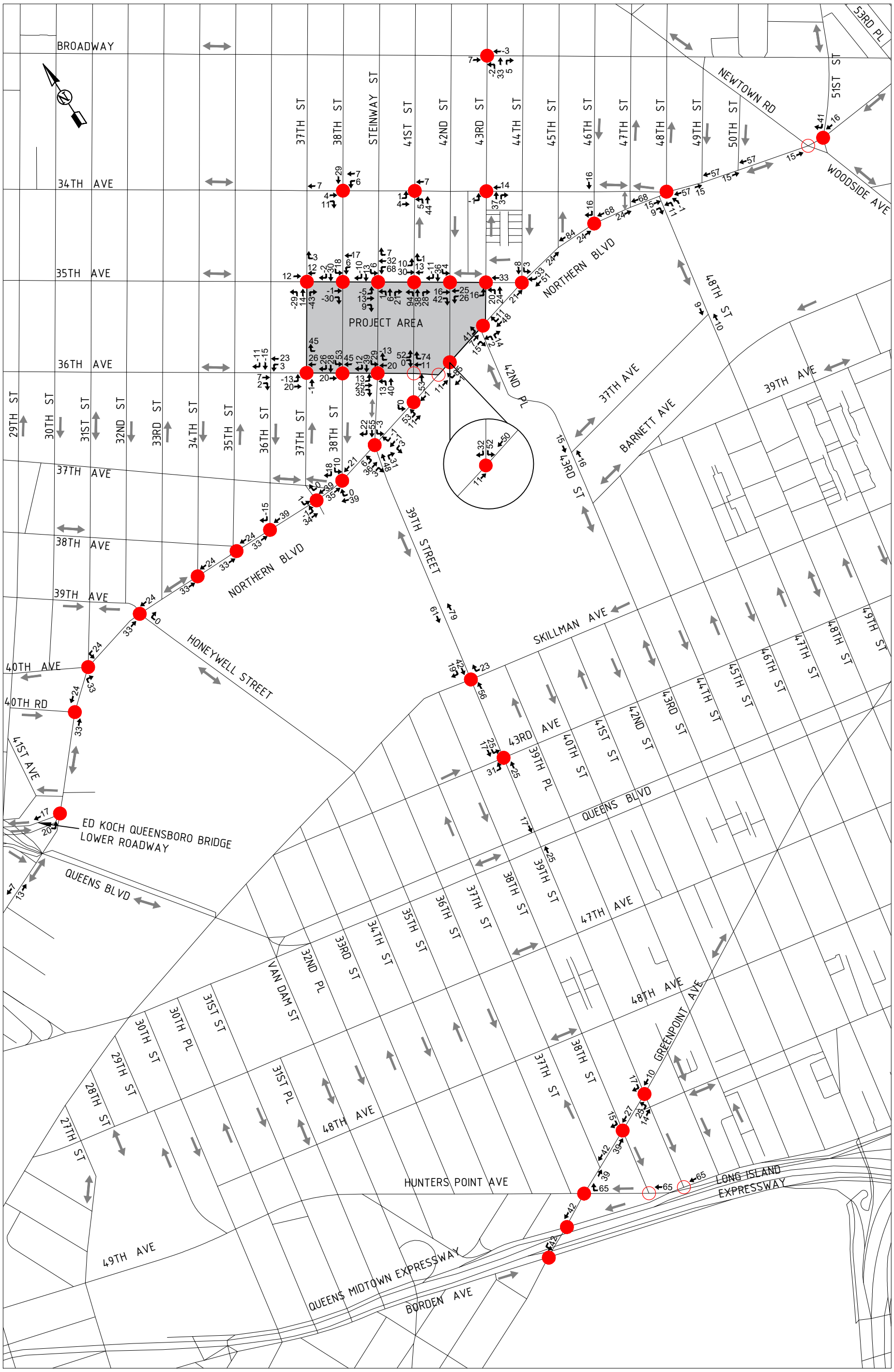
● Signalized Analysis Location ○ Unsignalized Analysis Location 2 = Weekday MD Peak Hour Volume

PM Peak Hour Project Increment Traffic Volumes



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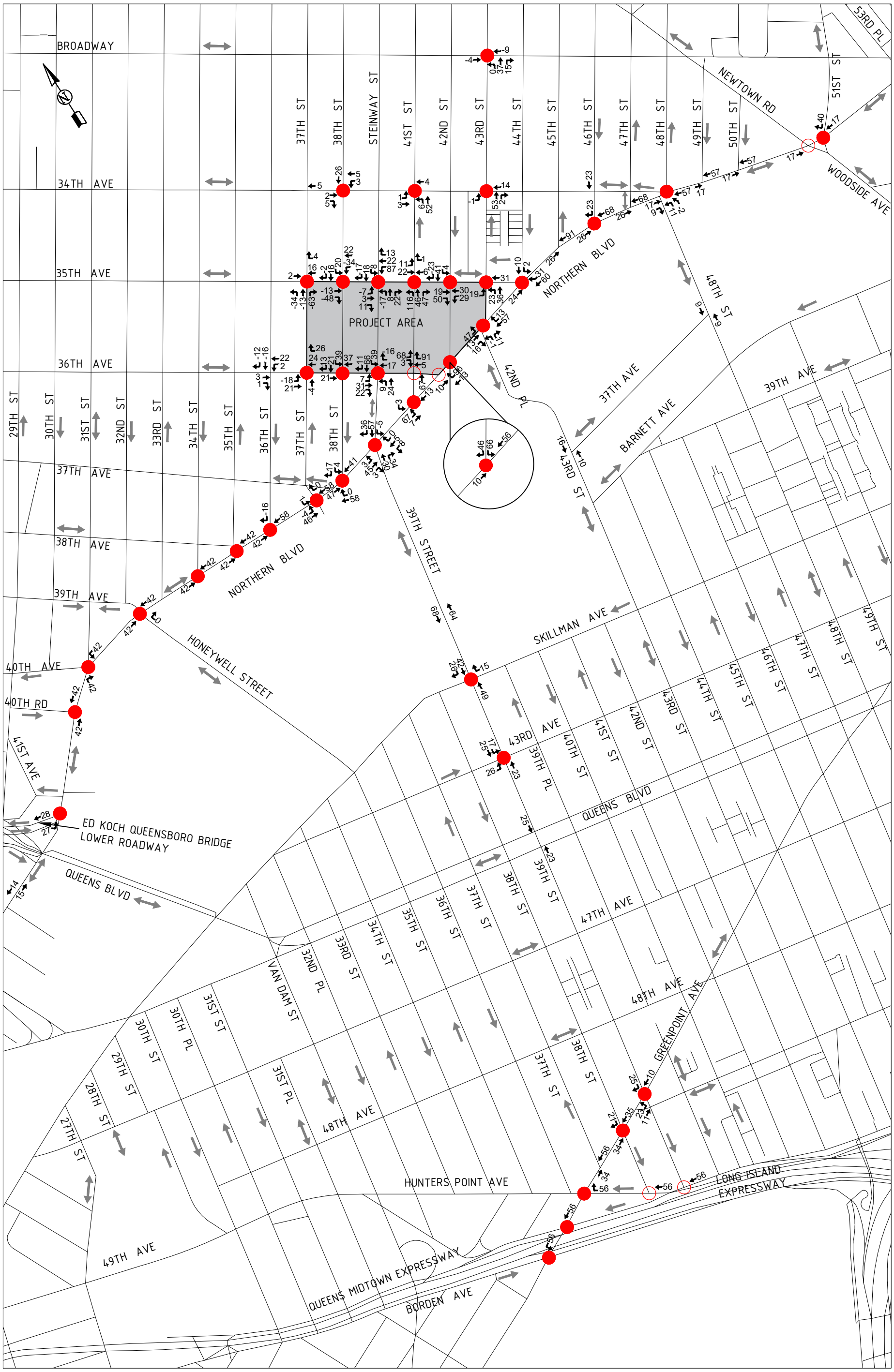
● Signalized Analysis Location ○ Unsignalized Analysis Location 2 = Weekday PM Peak Hour Volume

Saturday Peak Hour Project Increment Traffic Volumes



Legend

● Signalized Analysis Location ○ Unsignalized Analysis Location 2 = Saturday Peak Hour Volume

TABLE D-1
EXISTING INTERSECTION LEVEL OF SERVICE ANALYSIS

	Existing AM Peak Hour					Existing Midday Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized																				
Broadway (EB-WB) &	EB	LT	0.39	10.1	B	EB	LT	0.56	14.7	B	EB	LT	0.61	13.9	B	EB	LT	0.75	21.1	C
43rd Street (NB)	WB	TR	0.61	13.8	B	WB	TR	0.59	15.2	B	WB	TR	0.62	13.7	B	WB	TR	0.69	18.0	B
	NB	LTR	1.05	91.5	F *	NB	LTR	1.03	89.2	F *	NB	LTR	1.05	89.9	F *	NB	LTR	1.05	93.5	F *
34th Avenue (EB-WB) &	EB	TR	0.39	10.6	B	EB	TR	0.46	11.5	B	EB	TR	0.59	14.1	B	EB	TR	0.55	12.9	B
38th Street (SB)	WB	LT	0.51	12.4	B	WB	LT	0.56	13.2	B	WB	LT	0.45	11.3	B	WB	LT	0.47	11.5	B
	SB	LTR	0.55	21.9	C	SB	LTR	0.58	22.6	C	SB	LTR	0.56	22.0	C	SB	LTR	0.56	22.2	C
34th Avenue (EB-WB) &	EB	LT	0.29	9.5	A	EB	LT	0.46	11.8	B	EB	LT	0.54	13.2	B	EB	LT	0.60	14.3	B
41st Street (NB)	WB	TR	0.50	12.1	B	WB	TR	0.50	12.1	B	WB	TR	0.57	13.4	B	WB	TR	0.54	12.8	B
	NB	LTR	0.33	22.8	C	NB	LTR	0.35	18.4	B	NB	LTR	0.53	24.6	C	NB	LTR	0.37	22.1	C
34th Avenue (EB-WB) &	EB	LT	0.27	9.3	A	EB	LT	0.44	11.5	B	EB	LT	0.47	11.6	B	EB	LT	0.54	13.1	B
43rd Street (NB)	WB	TR	0.59	13.9	B	WB	TR	0.52	12.3	B	WB	TR	0.55	12.9	B	WB	TR	0.55	12.9	B
	NB	LTR	0.60	23.5	C	NB	LTR	0.62	30.4	C	NB	LTR	0.75	34.3	C	NB	LTR	0.71	32.4	C
35th Avenue (EB-WB) &	EB	LT	0.41	13.1	B	EB	LT	0.40	12.5	B	EB	LT	0.44	13.0	B	EB	LT	0.41	12.5	B
37th Street (NB)	WB	TR	0.59	10.2	B	WB	TR	0.45	8.3	A	WB	TR	0.49	8.5	A	WB	TR	0.49	8.8	A
	NB	LTR	0.45	16.5	B	NB	LTR	0.34	21.6	C	NB	LTR	0.44	15.5	B	NB	LTR	0.28	19.5	B
35th Avenue (EB-WB) &	EB	TR	0.40	8.8	A	EB	TR	0.42	7.6	A	EB	TR	0.47	8.4	A	EB	TR	0.47	8.1	A
38th Street (SB)	WB	LT	0.59	21.8	C	WB	LT	0.43	13.1	B	WB	LT	0.41	12.6	B	WB	LT	0.44	13.2	B
	SB	LTR	0.50	24.8	C	SB	LTR	0.54	22.7	C	SB	LTR	0.64	23.4	C	SB	LTR	0.51	22.4	C
35th Avenue (EB-WB) &	EB	LTR	0.34	15.6	B	EB	LTR	0.91	62.3	E *	EB	LTR	0.94	64.8	E *	EB	LTR	0.80	44.9	D
Steinway Street (NB-SB)	WB	LTR	0.44	19.7	B	WB	LTR	0.53	30.3	C	WB	LTR	0.64	33.7	C	WB	LTR	0.57	30.9	C
	NB	LTR	0.46	14.4	B	NB	LTR	0.43	13.1	B	NB	LTR	0.44	13.2	B	NB	LTR	0.57	15.6	B
	SB	LTR	0.86	48.7	D	SB	LTR	0.40	12.6	B	SB	LTR	0.45	13.4	B	SB	LTR	0.40	12.6	B
35th Avenue (EB-WB) &	EB	LT	0.32	14.8	B	EB	LT	0.32	9.7	A	EB	LT	0.44	11.2	B	EB	LT	0.33	9.8	A
41st Street (NB)	WB	TR	0.38	5.1	A	WB	TR	0.29	4.7	A	WB	TR	0.40	8.2	A	WB	TR	0.36	5.9	A
	NB	LTR	0.24	16.5	B	NB	LTR	0.29	17.1	B	NB	LTR	0.35	18.0	B	NB	LTR	0.20	15.9	B
35th Avenue (EB-WB) &	EB	TR	0.25	6.7	A	EB	TR	0.34	7.1	A	EB	TR	0.41	8.0	A	EB	TR	0.33	6.9	A
42nd Street (SB)	WB	LT	0.37	7.4	A	WB	LT	0.29	5.5	A	WB	LT	0.30	8.4	A	WB	LT	0.32	5.9	A
	SB	LTR	0.39	16.2	B	SB	LTR	0.36	15.8	B	SB	LTR	0.48	17.9	B	SB	LTR	0.48	17.7	B
35th Avenue (EB-WB) &	EB	L	0.15	6.6	A	EB	L	0.24	7.1	A	EB	L	0.35	7.9	A	EB	L	0.22	6.2	A
43rd Street (NE)	WB	TR	0.36	11.0	B	WB	TR	0.29	11.3	B	WB	TR	0.29	13.8	B	WB	TR	0.32	11.1	B
	NE	LT	0.36	8.1	A	NE	LT	0.31	12.2	B	NE	LT	0.44	15.4	B	NE	LT	0.40	13.1	B
36th Avenue (EB-WB) &	EB	LT	0.30	9.6	A	EB	LT	0.41	10.8	B	EB	LT	0.47	11.6	B	EB	LT	0.32	9.6	A
37th Street (NB)	WB	TR	0.54	9.4	A	WB	TR	0.39	5.4	A	WB	TR	0.27	11.6	B	WB	TR	0.39	5.7	A
	NB	LTR	0.33	17.4	B	NB	LTR	0.29	16.7	B	NB	LTR	0.41	18.3	B	NB	LTR	0.25	16.4	B
36th Avenue (EB-WB) &	EB	TR	0.26	6.9	A	EB	TR	0.36	5.8	A	EB	TR	0.41	4.6	A	EB	TR	0.33	5.9	A
38th Street (SB)	WB	LT	0.48	8.6	A	WB	LT	0.36	8.1	A	WB	LT	0.28	5.7	A	WB	LT	0.35	7.4	A
	SB	LTR	0.62	27.3	C	SB	LTR	0.51	24.9	C	SB	LTR	0.56	19.4	B	SB	LTR	0.50	22.9	C
36th Avenue (EB-WB) &	EB	LTR	0.42	32.3	C	EB	LTR	0.74	43.1	D	EB	LTR	0.92	69.9	E *	EB	LTR	0.79	49.9	D
Steinway Street (NB-SB)	WB	LTR	0.57	42.3	D	WB	LTR	0.41	37.4	D	WB	LTR	0.45	38.6	D	WB	LTR	0.45	38.5	D
	NB	LTR	0.30	21.3	C	NB	LTR	0.36	3.0	A	NB	LTR	0.32	14.7	B	NB	LTR	0.42	3.0	A
	SB	LTR	0.40	2.4	A	SB	LTR	0.33	11.7	B	SB	LTR	0.31	11.4	B	SB	LTR	0.39	12.4	B
Northern Boulevard (EB-WB) &	EB	LT	0.31	15.9	B	EB	LT	0.41	17.4	B	EB	LT	0.47	18.4	B	EB	LT	0.43	17.7	B
Queensboro Bridge (SB)	WB	T	0.23	39.8	D	WB	T	0.35	26.8	C	WB	T	0.44	34.9	C	WB	T	0.36	20.8	C
	WB	R	1.05	49.6	D *	WB	R	0.99	65.2	E *	WB	R	0.99	39.5	D *	WB	R	1.05	76.5	E *
	SB	L	0.81	40.2	D	SB	L	0.72	36.2	D	SB	L	0.95	52.7	D *	SB	L	0.82	40.2	D
Northern Boulevard (EB-WB) &	EB	TR	0.69	32.2	C	EB	TR	0.62	21.8	C	EB	TR	0.83	16.7	B	EB	TR	0.71	26.2	C
40th Road (SB) &	WB	L	0.08	7.9	A	WB	L	0.03	7.2	A	WB	L	-	-		WB	L	0.05	6.7	A
Driveway (NB)	WB	T	0.91	15.4	B *	WB	T	0.67	14.8	B	WB	T	0.62	13.2	B	WB	T	0.78	17.4	B
	NB	LTR	-	-		NB	LTR	0.02	37.1	D	NB	LTR	0.04	37.3	D	NB	LTR	-	-	
	SB	LTR	0.60	52.9	D	SB	LTR	0.65	55.0	E *	SB	LTR	0.88	78.2	E *	SB	LTR	0.65	54.6	D
Northern Boulevard (EB-WB) &	EB	L	0.58	49.0	D	EB	L	0.69	43.4	D	EB	L	0.41	47.0	D	EB	L	0.45	36.0	D
40th Avenue &	EB	T	0.75	14.4	B	EB	T	0.72	25.0	C	EB	T	0.88	12.9	B	EB	T	0.69	18.6	B
31st Street (SB)	WB	T	0.86	8.0	A	WB	T	0.58	8.1	A	WB	T	0.53	6.3	A	WB	T	0.67	10.2	B
	WB	R	0.03	0.0	A	WB	R	0.18	0.3	A	WB	R	0.19	0.3	A	WB	R	0.16	0.2	A
	SB	TR	0.36	35.0	D	SB	TR	0.40	35.7	D	SB	TR	0.46	36.8	D	SB	TR	0.46	36.9	D
Northern Boulevard (EB-WB) &	EB	LTR	0.73	9.6	A	EB	LTR	0.59	9.0	A	EB	LTR	0.94	8.0	A *	EB	LTR	0.67	8.0	A
39th Avenue &	WB	TR	0.85	9.2	A	WB	TR	0.52	12.0	B	WB	TR	0.54	37.1	D	WB	TR	0.60	13.1	B
Honeywell Street (NB)	NB	L	0.42	41.4	D	NB	L	0.59	48.4	D	NB	L	0.54	44.8	D	NB	L	0.96	84.2	F *
	NB	TR	0.92	75.5	E *	NB	TR	1.05	112.3	F *	NB	TR	1.05	105.6	F *	NB	TR	0.98	88.3	F *
Northern Boulevard (EB-WB) &	EB	T	0.43	7.5	A	EB	T	0.41	10.8	B	EB	T	0.81	31.0	C	EB	T	0.45	11.2	B
34th Street (SB)	WB	T	0.76	1.4	A	WB	T	0.46	11.8	B	WB	T	0.51	13.6	B	WB	T	0.57	14.2	B
	SB	LR	0.27	38.4	D	SB	LR	0.48	45.6	D	SB	LR	0.42	42.1	D	SB	LR	0.39	42.4	D

Intersections	Existing AM Peak Hour					Existing Midday Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Northern Boulevard (EB-WB) &	EB	L	1.01	112.8	F *	EB	L	0.28	4.3	A	EB	L	0.53	6.2	A	EB	L	0.41	9.4	A
35th Street &	EB	T	0.40	11.8	B	EB	T	0.40	1.6	A	EB	T	0.75	2.8	A	EB	T	0.45	1.6	A
38th Avenue (SB)	WB	TR	0.93	8.7	A *	WB	TR	0.56	9.7	A	WB	TR	0.58	9.2	A	WB	TR	0.63	9.8	A
	SB	LTR	0.57	46.7	D	SB	LTR	0.88	75.0	E *	SB	LTR	0.95	85.3	F *	SB	LTR	0.52	46.7	D
Northern Boulevard (EB-WB) &	EB	T	0.49	12.3	B	EB	T	0.49	10.6	B	EB	T	0.84	13.8	B	EB	T	0.49	6.8	A
36th Street (SB)	WB	T	0.89	4.2	A	WB	T	0.49	7.8	A	WB	T	0.54	11.0	B	WB	T	0.60	5.5	A
	SB	LR	0.21	37.0	D	SB	LR	0.21	38.5	D	SB	LR	0.22	37.1	D	SB	LR	0.17	37.8	D
Northern Boulevard (EB-WB) &	EB	L	0.80	69.5	E *	EB	L	0.24	3.6	A	EB	L	0.32	2.6	A	EB	L	0.35	6.2	A
37th Street (SB) &	EB	TR	0.48	16.1	B	EB	TR	0.55	3.0	A	EB	TR	0.82	3.8	A	EB	TR	0.54	2.3	A
Standard Lane (NB)	WB	LT	0.89	8.7	A	WB	LT	0.51	6.6	A	WB	LT	0.55	9.4	A	WB	LT	0.65	5.9	A
	NB	LTR	-	-		NB	LTR	0.02	31.9	C	NB	LTR	0.02	34.0	C	NB	LTR	-	-	
	SB	LTR	0.66	52.2	D	SB	LTR	0.69	50.7	D	SB	LTR	0.95	87.0	F *	SB	LTR	0.66	48.6	D
Northern Boulevard (EB-WB) &	EB	T	0.56	18.2	B	EB	T	0.56	7.1	A	EB	T	0.96	23.5	C *	EB	T	0.58	8.6	A
38th Street (SB)	WB	T	0.95	13.6	B *	WB	T	0.52	2.8	A	WB	T	0.58	13.9	B	WB	T	0.62	2.8	A
	SB	LR	0.80	59.1	E *	SB	LR	0.64	59.3	E *	SB	LR	0.63	50.5	D	SB	LR	0.63	58.8	E *
Northern Boulevard (EB-WB) &	EB	L	0.67	52.7	D	EB	L	0.38	14.6	B	EB	L	0.54	7.9	A	EB	L	0.84	52.3	D
39th Street (NB) &	EB	TR	0.74	22.7	C	EB	TR	0.86	18.2	B	EB	TR	1.05	39.6	D *	EB	TR	0.81	15.2	B
Steinway Street (SB)	WB	L	1.05	36.9	D *	WB	L	1.00	89.3	F *	WB	L	1.05	149.8	F *	WB	L	0.88	51.9	D
	WB	TR	1.05	29.7	C *	WB	TR	1.01	42.5	D *	WB	TR	0.96	38.9	D *	WB	TR	0.72	5.5	A
	NB	L	0.69	57.3	E *	NB	L	0.27	35.5	D	NB	L	0.52	49.1	D	NB	L	0.23	34.2	C
	NB	TR	1.04	108.6	F *	NB	TR	0.98	82.5	F *	NB	TR	1.05	107.5	F *	NB	TR	0.95	72.4	E *
	SB	LTR	1.05	121.4	F *	SB	LTR	1.05	119.3	F *	SB	LTR	1.05	128.4	F *	SB	LTR	1.05	114.6	F *
Northern Boulevard (EB-WB) &	EB	L	0.85	73.0	E *	EB	L	0.14	6.2	A	EB	L	0.28	3.9	A	EB	L	0.16	5.8	A
41st Street (SB)	EB	T	0.43	11.2	B	EB	T	0.50	6.4	A	EB	T	0.82	6.6	A	EB	T	0.51	5.4	A
	WB	TR	1.04	30.8	C *	WB	TR	0.52	11.5	B	WB	TR	0.50	13.5	B	WB	TR	0.63	11.5	B
	SB	LR	0.23	37.8	D	SB	LR	0.32	40.2	D	SB	LR	0.41	41.2	D	SB	LR	0.30	39.8	D
Northern Boulevard (EB-WB) &	EB	TR	0.49	15.8	B	EB	TR	0.51	10.1	B	EB	TR	0.93	16.1	B *	EB	TR	0.52	10.4	B
42nd Street (SB)/	WB	L	0.10	1.7	A	WB	L	0.08	16.1	B	WB	L	0.21	13.1	B	WB	L	0.14	16.1	B
Driveway (NB)	WB	T	1.05	33.7	C *	WB	T	0.49	21.6	C	WB	T	0.55	10.8	B	WB	T	0.58	25.5	C
	NB	LTR	0.28	39.4	D	NB	LTR	0.53	53.5	D	NB	LTR	0.51	45.3	D	NB	LTR	0.73	67.9	E *
	SB	LTR	0.76	53.6	D	SB	LTR	1.01	103.9	F *	SB	LTR	0.77	60.7	E *	SB	LTR	1.05	112.3	F *
Northern Boulevard (EB-WB) &	EB	LTR	0.73	17.3	B	EB	LTR	0.75	24.5	C	EB	LTR	1.05	41.1	D *	EB	LTR	0.77	23.6	C
43rd Street &	WB	L	0.55	5.4	A	WB	L	0.81	38.5	D	WB	L	1.05	107.5	F *	WB	L	0.95	58.0	E *
42nd Place (NB)	WB	TR	1.02	20.9	C *	WB	TR	0.51	11.0	B	WB	TR	0.93	33.8	C *	WB	TR	0.80	16.1	B
	NB	LTR	0.84	62.8	E *	NB	LTR	0.92	77.0	E *	NB	LTR	0.97	82.9	F *	NB	LTR	1.05	106.7	F *
Northern Boulevard (EB-WB) &	EB	L	0.22	15.0	B	EB	L	0.12	4.2	A	EB	L	0.06	1.7	A	EB	L	0.15	4.4	A
44th Street (SB) &	EB	TR	0.43	6.7	A	EB	TR	0.57	5.3	A	EB	TR	0.92	4.9	A *	EB	TR	0.59	5.0	A
35th Avenue	WB	TR	1.05	27.2	C *	WB	TR	0.62	16.5	B	WB	TR	0.60	19.7	B	WB	TR	0.71	18.6	B
	SB	LTR	0.67	55.9	E *	SB	LTR	0.68	56.7	E *	SB	LTR	0.97	96.6	F *	SB	LTR	1.05	118.6	F *
Northern Boulevard (EB-WB) &	EB	T	0.39	14.3	B	EB	T	0.57	6.0	A	EB	T	0.85	7.2	A	EB	T	0.59	5.9	A
46th Street (SB)	WB	T	1.05	27.0	C *	WB	T	0.55	3.0	A	WB	T	0.54	10.3	B	WB	T	0.67	2.3	A
	SB	LR	0.60	48.9	D	SB	LR	0.45	43.8	D	SB	LR	0.34	38.8	D	SB	LR	0.47	44.2	D
Northern Boulevard (EB-WB) &	EB	TR	0.66	11.3	B	EB	TR	0.92	24.7	C *	EB	TR	1.05	39.8	D *	EB	TR	1.03	46.0	D *
48th Street (NB) &	WB	L	0.62	8.4	A	WB	L	0.98	91.9	F *	WB	L	1.05	117.3	F *	WB	L	1.05	94.8	F *
34th Avenue	WB	TR	1.05	28.1	C *	WB	TR	1.05	45.0	D *	WB	TR	1.05	46.6	D *	WB	TR	1.05	36.0	D *
	NB	L	0.88	75.8	E *	NB	L	0.94	89.6	F *	NB	L	1.05	122.6	F *	NB	L	1.05	118.8	F *
	NB	TR	0.47	44.8	D	NB	TR	0.87	75.5	E *	NB	TR	1.05	115.3	F *	NB	TR	1.01	103.1	F *
Northern Boulevard (EB-WB) &	EB	L	0.92	95.8	F *	EB	L	0.61	31.4	C	EB	L	1.05	73.0	E *	EB	L	0.70	32.2	C
51st Street (SB) &	EB	TR	0.65	35.1	D	EB	TR	0.85	42.0	D	EB	TR	1.05	37.3	D *	EB	TR	0.82	34.6	C
Woodside Avenue (NB)	WB	L	0.25	15.2	B	WB	L	0.27	18.1	B	WB	L	0.33	29.6	C	WB	L	0.25	17.7	B
	WB	TR	1.05	67.3	E *	WB	TR	0.61	22.3	C	WB	TR	0.63	27.8	C	WB	TR	0.66	23.7	C
	NB	LTR	1.05	108.5	F *	NB	LTR	1.05	105.9	F *	NB	LTR	1.05	98.7	F *	NB	LTR	1.05	106.0	F *
	SB	LT	0.43	37.2	D	SB	LT	0.35	35.1	D	SB	LT	0.43	31.8	C	SB	LT	0.47	37.6	D
	SB	R	1.05	99.9	F *	SB	R	0.75	52.1	D	SB	R	0.57	36.9	D	SB	R	1.03	99.6	F *
Skillman Avenue (WB) &	WB	LT	0.52	14.8	B	WB	LT	0.26	12.0	B	WB	LT	0.30	12.3	B	WB	LT	0.30	12.4	B
39th Street (NB-SB)	WB	R	0.25	12.8	B	WB	R	0.16	11.6	B	WB	R	0.16	11.6	B	WB	R	0.21	12.1	B
	NB	LT	0.71	18.9	B	NB	LT	0.70	26.8	C	NB	LT	0.75	20.5	C	NB	LT	0.67	26.7	C
	SB	T	0.62	15.8	B	SB	T	0.65	24.4	C	SB	T	0.70	12.9	B	SB	T	0.60	24.0	C
	SB	R	0.76	21.8	C	SB	R	0.35	16.3	B	SB	R	0.32	8.4	A	SB	R	0.20	15.9	B
43rd Avenue (EB) &	EB	LT	0.22	11.7	B	EB	LT	0.24	11.8	B	EB	LT	0.37	13.0	B	EB	LT	0.09	10.8	B
39th Street (NB-SB)	EB	R	0.06	10.8	B	EB	R	0.07	10.8	B	EB	R	0.06	10.7	B	EB	R	0.12	11.3	B
	NB	TR	0.64	19.4	B	NB	TR	0.65	19.9	B	NB	TR	0.63	19.1	B	NB	TR	0.79	25.8	C
	SB	LT	1.05	72.6	E *	SB	LT	1.03	59.3	E *	SB	LT	1.05	76.1	E *	SB	LT	1.05	70.9	E *
Greenpoint Avenue (EB-WB) &	EB	LTR	0.30	32.8	C	EB	LTR	0.47	33.5	C	EB	LTR	0.56	26.4	C	EB	LTR	0.56	35.6	D
39th Street (NB-SB)	WB	LT	0.34	15.7	B	WB	LT	0.21	13.8	B	WB	LT	0.17	13.4	B	WB	LT	0.23	14.0	B
	WB	R	0.06	12.3	B	WB	R	0.03	12.0	B	WB	R	0.06	12.3	B	WB	R	0.01	11.8	B
	NB	LTR	0.32	29.5	C	NB	LTR	0.24	28.1	C	NB	LTR	0.18	27.1	C	NB	LTR	0.15	26.7	C
	SB	LTR	0.58	36.9	D	SB	LTR	0.56	35.9	D	SB	LTR	0.64	38.6	D	SB	LTR	0.63	38.1	D

Intersections	Existing AM Peak Hour					Existing Midday Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Greenpoint Avenue (EB-WB) &	EB	TR	0.34	7.7	A	EB	TR	0.50	18.9	B	EB	TR	0.61	35.0	D	EB	TR	0.54	18.8	B
38th Street (SB)	WB	LT	0.57	27.5	C	WB	LT	0.42	18.8	B	WB	LT	0.29	16.8	B	WB	LT	0.43	18.7	B
	SB	LTR	0.57	36.2	D	SB	LTR	0.48	33.6	C	SB	LTR	0.54	35.2	D	SB	LTR	0.39	31.1	C
Greenpoint Avenue (EB-WB) &	EB	LT	0.29	4.3	A	EB	LT	0.32	17.8	B	EB	LT	0.30	7.8	A	EB	LT	0.49	21.4	C
Hunters Point Avenue (NW-SE)	WB	TR	0.77	29.7	C	WB	TR	0.66	23.6	C	WB	TR	0.50	18.2	B	WB	TR	0.59	20.3	C
	SE	LTR	0.88	58.5	E *	SE	LTR	0.86	49.7	D	SE	LTR	0.75	41.3	D	SE	LTR	0.82	45.9	D
	NW	LTR	1.05	77.6	E *	NW	LTR	1.05	79.2	E *	NW	LTR	0.92	47.2	D *	NW	LTR	1.05	79.4	E *
Greenpoint Avenue (NE-SW) &	WB	LTR	0.91	28.1	C *	WB	LTR	0.75	24.7	C	WB	LTR	0.65	24.3	C	WB	LTR	0.74	24.3	C
Queens Midtown Expressway (WB)	NE	LT	0.33	16.6	B	NE	LT	0.24	5.4	A	NE	LT	0.33	7.7	A	NE	LT	0.30	5.1	A
	SW	TR	0.66	26.0	C	SW	TR	0.60	20.8	C	SW	TR	0.51	21.3	C	SW	TR	0.56	20.0	C
Greenpoint Avenue (NE-SW) &	EB	LTR	1.01	66.4	E *	EB	LTR	0.90	40.3	D *	EB	LTR	0.95	48.1	D *	EB	LTR	1.00	56.6	E *
Borden Avenue (EB)	NE	T	0.38	36.2	D	NE	T	0.41	31.7	C	NE	T	0.64	52.2	D	NE	T	0.53	34.3	C
	NE	R	1.05	101.1	F *	NE	R	1.05	90.0	F *	NE	R	1.05	108.8	F *	NE	R	1.05	95.2	F *
	SW	L	1.05	81.0	F *	SW	L	1.05	70.3	E *	SW	L	1.00	69.9	E *	SW	L	1.03	63.3	E *
	SW	T	0.83	23.0	C	SW	T	0.60	10.8	B	SW	T	0.69	23.2	C	SW	T	0.45	9.2	A
Unsignalized																				
36th Avenue (EB-WB) &	EB	LR	-	7.4	A	EB	LR	-	7.8	A	EB	LR	-	8.2	A	EB	LR	-	7.4	A
41st Street (NB)	WB	LTR	-	8.6	A	WB	LTR	-	8.3	A	WB	LTR	-	8.8	A	WB	LTR	-	8.4	A
(All-Way Stop Controlled)	NB	LT	-	8.0	A	NB	LT	-	8.0	A	NB	LT	-	8.4	A	NB	LT	-	7.9	A
Northern Boulevard (EB-WB) &	EB	L	0.02	13.0	B	EB	L	0.02	10.9	B	EB	L	0.04	12.0	B	EB	L	0.01	10.9	B
36th Avenue (NB-SB) & Driveway (NB)	WB	L	0.00	0.0	A	WB	L	0.01	9.1	A	WB	L	0.01	11.2	B	WB	L	0.01	9.4	A
	NB	LTR	0.01	9.0	A	NB	LTR	0.04	10.6	B	NB	LTR	0.04	10.5	B	NB	LTR	0.01	9.1	A
Northern Boulevard (EB-WB) &	EB	L	0.19	0.0	A	EB	L	0.02	0.7	A	EB	L	0.01	0.3	A	EB	L	0.02	0.7	A
Newtown Road (SB)	SB	R	0.03	13.0	B	SB	R	0.04	10.3	B	SB	R	0.03	10.6	B	SB	R	0.05	11.6	B
Hunters Point Avenue (WB) &	SB	R	0.04	13.8	B	SB	R	0.02	11.9	B	SB	R	0.04	12.4	B	SB	R	0.04	12.9	B
38th Street (SB)																				
Queens Midtown Expressway (WB) &	SB	R	0.07	14.0	B	SB	R	0.05	11.9	B	SB	R	0.08	12.3	B	SB	R	0.03	12.9	B
39th Street (SB)																				

* Denotes congested lane group.

TABLE D-2
NO ACTION INTERSECTION LEVEL OF SERVICE ANALYSIS

	Existing AM Peak Hour					No-Action AM Peak Hour					Existing Midday Peak Hour					No-Action Midday Peak Hour					Existing PM Peak Hour					No-Action PM Peak Hour					Existing SAT Peak Hour					No-Action SAT Peak Hour				
Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized																																						
Broadway (EB-WB) &	EB	LT	0.39	10.1	B	EB	LT	0.45	11.0	B	EB	LT	0.56	14.7	B	EB	LT	0.64	16.8	B	EB	LT	0.61	13.9	B	EB	LT	0.82	26.1	C	EB	LT	0.75	21.1	C	EB	LT	0.86	29.1	C
43rd Street (NB)	WB	TR	0.61	13.8	B	WB	TR	0.65	15.0	B	WB	TR	0.59	15.2	B	WB	TR	0.63	16.4	B	WB	TR	0.62	13.7	B	WB	TR	0.79	23.3	C	WB	TR	0.69	18.0	B	WB	TR	0.77	21.7	C
	NB	LTR	1.05	91.5	F *	NB	LTR	1.20	139.1	F *	NB	LTR	1.03	89.2	F *	NB	LTR	1.27	173.4	F *	NB	LTR	1.05	89.9	F *	NB	LTR	0.96	56.1	E *	NB	LTR	1.05	93.5	F *	NB	LTR	1.32	191.1	F *
34th Avenue (EB-WB) &	EB	TR	0.39	10.6	B	EB	TR	0.48	11.9	B	EB	TR	0.46	11.5	B	EB	TR	0.53	12.9	B	EB	TR	0.59	14.1	B	EB	TR	0.71	17.8	B	EB	TR	0.55	12.9	B	EB	TR	0.65	15.6	B
38th Street (SB)	WB	LT	0.51	12.4	B	WB	LT	0.63	15.1	B	WB	LT	0.56	13.2	B	WB	LT	0.66	15.8	B	WB	LT	0.45	11.3	B	WB	LT	0.56	13.2	B	WB	LT	0.47	11.5	B	WB	LT	0.58	13.7	B
	SB	LTR	0.55	21.9	C	SB	LTR	0.60	23.3	C	SB	LTR	0.58	22.6	C	SB	LTR	0.65	25.4	C	SB	LTR	0.56	22.0	C	SB	LTR	0.67	25.9	C	SB	LTR	0.56	22.2	C	SB	LTR	0.69	27.3	C
34th Avenue (EB-WB) &	EB	LT	0.29	9.5	A	EB	LT	0.34	10.1	B	EB	LT	0.46	11.8	B	EB	LT	0.52	13.0	B	EB	LT	0.54	13.2	B	EB	LT	0.62	15.1	B	EB	LT	0.60	14.3	B	EB	LT	0.67	16.2	B
41st Street (NB)	WB	TR	0.50	12.1	B	WB	TR	0.56	13.3	B	WB	TR	0.50	12.1	B	WB	TR	0.57	13.6	B	WB	TR	0.57	13.4	B	WB	TR	0.64	15.3	B	WB	TR	0.54	12.8	B	WB	TR	0.60	14.2	B
	NB	LTR	0.33	22.8	C	NB	LTR	0.38	21.9	C	NB	LTR	0.35	18.4	B	NB	LTR	0.40	18.4	B	NB	LTR	0.53	24.6	C	NB	LTR	0.59	27.0	C	NB	LTR	0.37	22.1	C	NB	LTR	0.48	22.6	C
34th Avenue (EB-WB) &	EB	LT	0.27	9.3	A	EB	LT	0.33	9.9	A	EB	LT	0.44	11.5	B	EB	LT	0.53	13.3	B	EB	LT	0.47	11.6	B	EB	LT	0.54	13.1	B	EB	LT	0.54	13.1	B	EB	LT	0.62	15.1	B
43rd Street (NB)	WB	TR	0.59	13.9	B	WB	TR	0.65	15.4	B	WB	TR	0.52	12.3	B	WB	TR	0.64	15.3	B	WB	TR	0.55	12.9	B	WB	TR	0.65	15.3	B	WB	TR	0.55	12.9	B	WB	TR	0.65	15.3	B
	NB	LTR	0.60	23.5	C	NB	LTR	0.72	31.1	C	NB	LTR	0.62	30.4	C	NB	LTR	0.73	36.7	D	NB	LTR	0.75	34.3	C	NB	LTR	0.89	47.9	D	NB	LTR	0.71	32.4	C	NB	LTR	0.85	44.7	D
35th Avenue (EB-WB) &	EB	LT	0.41	13.1	B	EB	LT	0.47	14.2	B	EB	LT	0.40	12.5	B	EB	LT	0.47	13.6	B	EB	LT	0.44	13.0	B	EB	LT	0.53	14.7	B	EB	LT	0.41	12.5	B	EB	LT	0.50	14.0	B
37th Street (NB)	WB	TR	0.59	10.2	B	WB	TR	0.65	11.6	B	WB	TR	0.45	8.3	A	WB	TR	0.52	9.7	A	WB	TR	0.49	8.5	A	WB	TR	0.57	10.3	B	WB	TR	0.49	8.8	A	WB	TR	0.59	10.7	B
	NB	LTR	0.45	16.5	B	NB	LTR	0.55	18.4	B	NB	LTR	0.34	21.6	C	NB	LTR	0.52	24.3	C	NB	LTR	0.44	15.5	B	NB	LTR	0.90	40.4	D *	NB	LTR	0.28	19.5	B	NB	LTR	0.75	31.1	C
35th Avenue (EB-WB) &	EB	TR	0.40	8.8	A	EB	TR	0.46	9.4	A	EB	TR	0.42	7.6	A	EB	TR	0.55	9.7	A	EB	TR	0.47	8.4	A	EB	TR	0.76	16.1	B	EB	TR	0.47	8.1	A	EB	TR	0.80	19.2	B
38th Street (SB)	WB	LT	0.59	21.8	C	WB	LT	0.70	24.9	C	WB	LT	0.43	13.1	B	WB	LT	0.60	17.0	B	WB	LT	0.41	12.6	B	WB	LT	0.72	22.3	C	WB	LT	0.44	13.2	B	WB	LT	1.08	86.9	F *
	SB	LTR	0.50	24.8	C	SB	LTR	0.58	24.3	C	SB	LTR	0.54	22.7	C	SB	LTR	0.64	23.7	C	SB	LTR	0.64	23.4	C	SB	LTR	0.79	27.6	C	SB	LTR	0.51	22.4	C	SB	LTR	0.69	25.1	C
35th Avenue (EB-WB) &	EB	LTR	0.34	15.6	B	EB	LTR	0.38	16.8	B	EB	LTR	0.91	62.3	E *	EB	LTR	1.30	190.9	F *	EB	LTR	0.94	64.8	E *	EB	LTR	1.46	255.8	F *	EB	LTR	0.80	44.9	D	EB	LTR	1.42	239.6	F *
Steinway Street (NB-SB)	WB	LTR	0.44	19.7	B	WB	LTR	0.53	21.9	C	WB	LTR	0.53	30.3	C	WB	LTR	0.69	37.6	D	WB	LTR	0.64	33.7	C	WB	LTR	0.82	46.3	D	WB	LTR	0.57	30.9	C	WB	LTR	0.86	52.1	D
	NB	LTR	0.46	14.4	B	NB	LTR	0.54	15.9	B	NB	LTR	0.43	13.1	B	NB	LTR	0.53	15.2	B	NB	LTR	0.44	13.2	B	NB	LTR	0.61	17.2	B	NB	LTR	0.57	15.6	B	NB	LTR	0.79	24.8	C
	SB	LTR	0.86	48.7	D	SB	LTR	0.94	60.6	E *	SB	LTR	0.40	12.6	B	SB	LTR	0.46	13.6	B	SB	LTR	0.45	13.4	B	SB	LTR	0.54	15.4	B	SB	LTR	0.40	12.6	B	SB	LTR	0.49	14.2	B
35th Avenue (EB-WB) &	EB	LT	0.32	14.8	B	EB	LT	0.35	14.9	B	EB	LT	0.32	9.7	A	EB	LT	0.37	10.2	B	EB	LT	0.44	11.2	B	EB	LT	0.50	12.3	B	EB	LT	0.33	9.8	A	EB	LT	0.39	10.5	B
41st Street (NB)	WB	TR	0.38	5.1	A	WB	TR	0.42	5.8	A	WB	TR	0.29	4.7	A	WB	TR	0.32	5.5	A	WB	TR	0.40	8.2	A	WB	TR	0.48	9.4	A	WB	TR	0.36	5.9	A	WB	TR	0.44	7.5	A
	NB	LTR	0.24	16.5	B	NB	LTR	0.34	18.2	B	NB	LTR	0.29	17.1	B	NB	LTR	0.42	19.5	B	NB	LTR	0.35	18.0	B	NB	LTR	0.45	20.1	C	NB	LTR	0.20	15.9	B	NB	LTR	0.39	19.0	B
35th Avenue (EB-WB) &	EB	TR	0.25	6.7	A	EB	TR	0.30	7.1	A	EB	TR	0.34	7.1	A	EB	TR	0.47	8.9	A	EB	TR	0.41	8.0	A	EB	TR	0.54	9.9	A	EB	TR	0.33	6.9	A	EB	TR	0.50	9.1	A
42nd Street (SB)	WB	LT	0.37	7.4	A	WB	LT	0.39	7.2	A	WB	LT	0.29	5.5	A	WB	LT	0.30	5.4	A	WB	LT	0.30	8.4	A	WB	LT	0.33	8.2	A	WB	LT	0.32	5.9	A	WB	LT	0.35	6.2	A
	SB	LTR	0.39	16.2	B	SB	LTR	0.44	17.0	B	SB	LTR	0.36	15.8	B	SB	LTR	0.44	17.2	B	SB	LTR	0.48	17.9	B	SB	LTR	0.67	23.7	C	SB	LTR	0.48	17.7	B	SB	LTR	0.67	23.5	C
35th Avenue (EB-WB) &	EB	L	0.15	6.6	A	EB	L	0.20	6.8	A	EB	L	0.24	7.1	A	EB	L	0.37	8.0	A	EB	L	0.35	7.9	A	EB	L	0.52	10.1	B	EB	L	0.22	6.2	A	EB	L	0.38	7.0	A
43rd Street (NE)	WB	TR	0.36	11.0	B	WB	TR	0.44	11.3	B	WB	TR	0.29	11.3	B	WB	TR	0.34	11.7	B	WB	TR	0.29	13.8	B	WB	TR	0.37	14.3	B	WB	TR	0.32	11.1	B	WB	TR	0.39	11.7	B
	NE	LT	0.36	8.1	A	NE	LT	0.38	8.7	A	NE	LT	0.31	12.2	B	NE	LT	0.34	12.2	B	NE	LT	0.44	15.4	B	NE	LT	0.49	15.9	B	NE	LT	0.40	13.1	B	NE	LT	0.45	14.4	B
36th Avenue (EB-WB) &	EB	LT	0.30	9.6	A	EB	LT	0.37	10.5	B	EB	LT	0.41	10.8	B	EB	LT	0.51	12.4	B	EB	LT	0.47	11.6	B	EB	LT	0.62	15.0	B	EB	LT	0.32	9.6	A	EB	LT	0.46	11.7	B
37th Street (NB)	WB	TR	0.54	9.4	A	WB	TR	0.61	10.1	B	WB	TR	0.39	5.4	A	WB	TR	0.46	6.4	A	WB	TR	0.27	11.6	B	WB	TR	0.36	11.4	B	WB	TR	0.39	5.7	A	WB	TR	0.49	7.6	A
	NB	LTR	0.33	17.4	B	NB	LTR	0.37	17.9	B	NB	LTR	0.29	16.7	B	NB	LTR	0.34	17.0	B	NB	LTR	0.41	18.3	B	NB	LTR	0.49	19.3	B	NB	LTR	0.25	16.4	B	NB	LTR	0.33	17.4	B
36th Avenue (EB-WB) &	EB	TR	0.26	6.9	A	EB	TR	0.31	7.2	A	EB	TR	0.36	5.8	A	EB	TR	0.42	6.0	A	EB	TR	0.41	4.6	A	EB	TR	0.48	4.4	A	EB	TR	0.33	5.9	A	EB	TR	0.38	6.0	A
38th Street (SB)	WB	LT	0.48	8.6	A	WB	LT	0.55	9.4	A	WB	LT	0.36	8.1	A	WB	LT	0.43	7.9	A	WB	LT	0.28	5.7	A	WB	LT	0.35	9.2	A	WB	LT	0.35	7.4	A	WB	LT	0.43	8.0	A
	SB	LTR	0.62	27.3	C	SB	LTR	0.68	27.4	C	SB	LTR	0.51	24.9	C	SB	LTR	0.58	25.2	C	SB	LTR	0.56	19.4	B	SB	LTR	0.67	22.4	C	SB	LTR	0.50	22.9	C	SB	LTR	0.63	21.0	C
36th Avenue (EB-WB) &	EB	LTR	0.42	32.3	C	EB	LTR	0.56	37.9	D	EB	LTR	0.74	43.1	D	EB	LTR	0.94	70.2	E *	EB	LTR	0.92	69.9	E *	EB	LTR	1.28	189.3	F *	EB	LTR	0.79	49.9	D	EB	LTR	1.23	167.4	F *
Steinway Street (NB-SB)	WB	LTR	0.57	42.3	D	WB	LTR	0.69	47.9	D	WB	LTR	0.41	37.4	D	WB	LTR	0.57	42.4	D	WB	LTR	0.45	38.6	D	WB	LTR	0.71	50.2	D	WB	LTR	0.45	38.5	D	WB	LTR	0.76	53.3	D
	NB	LTR	0.30	21.3	C	NB	LTR	0.34	21.5	C	NB	LTR	0.36	3.0	A	NB	LTR	0.40	2.7	A	NB	LTR	0.32	14.7	B	NB	LTR	0.38	16.0	B	NB	LTR	0.42	3.0	A	NB	LTR	0.49	2.9	A
	SB	LTR	0.40	2.4	A	SB	LTR	0.43	2.5	A	SB	LTR	0.33	11.7	B	SB	LTR	0.39	12.6	B	SB	LTR	0.31	11.4	B	SB	LTR	0.39	12.5	B	SB	LTR	0.39	12.4	B	SB	LTR	0.47	13.8	B
Northern Boulevard (EB-WB) &	EB	LT	0.31	15.9	B	EB	LT	0.34	16.2	B	EB	LT	0.41	17.4	B	EB	LT	0.44	17.9	B	EB	LT	0.47	18.4	B	EB	LT	0.51	19.1	B	EB	LT	0.43	17.7	B	EB	LT	0.46	18.3	B
Queensboro Bridge (SB)	WB	T	0.23	39.8	D	WB	T	0.26	39.7	D	WB	T	0.35	26.8	C	WB	T	0.37	26.2	C	WB	T	0.44	34.9	C	WB	T	0.46	35.5	D	WB	T	0.36	20.8	C	WB	T	0.38	19.8	B
	WB	R	1.05	49.6	D *	WB	R	1.11	70.9	E *	WB	R	0.99	65.2	E *	WB	R	1.05	82.9	F *	WB	R	0.99	39.5	D *	WB	R	1.07	61.4	E *	WB	R	1.05	76.5	E *	WB	R	1.12	104.3	F *
	SB	L	0.81	40.2	D	SB	L	0.86	43.2	D	SB	L	0.72	36.2	D	SB	L	0.78	38.5	D	SB	L	0.95	52.7	D *	SB	L	1.02	69.7	E *	SB	L	0.82	40.2	D	SB	L	0.89	45.9	D
Northern Boulevard (EB-WB) &	EB	TR	0.69	32.2	C	EB	TR	0.73	34.0	C	EB	TR	0.62	21.8	C	EB	TR	0.67	24.3	C	EB	TR	0.83	16.7	B	EB	TR	0.89	20.0	C	EB	TR	0.71	26.2	C	EB	TR	0.77	29.3	C
40th Road (SB) &	WB	L	0.08	7.9	A	WB	L	0.09	8.5	A	WB	L	0.03	7.2	A	WB	L	0.03	7.2	A	WB	L	-	-		WB	L	-	-		WB	L	0.05	6.7	A	WB	L	0.06	7.0	A
Driveway (NB)	WB	T	0.91	15.4	B *	WB	T	0.96	21.2	C *	WB	T	0.67	14.8	B	WB	T	0.71	15.6	B	WB	T	0.62	13.2	B	WB	T	0.67	16.6	B	WB	T	0.78	17.4	B	WB	T	0.84	18.9	B
	NB	LTR	-	-		NB	LTR	-	-		NB	LTR	0.02	37.1	D	NB	LTR	0.02	37.1	D	NB	LTR	0.04	37.3	D	NB	LTR	0.04	37.3	D	NB	LTR	-	-		NB	LTR	-	-	
	SB	LTR	0.60	52.9	D	SB	LTR	0.63	54.2	D	SB	LTR	0.65	55.0	E *	SB	LTR	0.67	56.7	E *	SB	LTR	0.88	78.2	E *	SB	LTR	0.93	86.0	F *	SB	LTR	0.65	54.6	D	SB	LTR	0.67	55.9	E *
Northern Boulevard (EB-WB) &	EB	L	0.58	49.0	D	EB	L	0.63	50.2	D	EB	L	0.69	43.4	D	EB	L	0.74	46.6	D	EB	L	0.41	47.0	D	EB	L	0.45	48.2	D	EB	L	0.45	36.0	D	EB	L	0.50	37.1	D
40th Avenue &	EB	T	0.75	14.4	B	EB	T	0.79	14.5	B	EB	T	0.72	25.0	C	EB	T	0.77	24.9	C	EB	T	0.88	12.9	B	EB	T	0.94	16.2	B *	EB	T	0.69	18.6	B	EB	T	0.75	17.6	B
31st Street (SB)	WB	T	0.86	8.0	A	WB	T	0.90	8.5	A *	WB	T	0.58	8.1	A	WB	T	0.61	7.6	A	WB	T	0.53	6.3	A	WB	T	0.57	5.7	A	WB	T	0.67	10.2	B	WB	T	0.72	10.1	B
	WB	R	0.03	0.0	A	WB	R	0.04	0.0	A	WB	R	0.18	0.3	A	WB	R	0.19	0.3	A	WB	R	0.19	0.3	A	WB	R	0.20	0.3	A	WB	R	0.16	0.2	A	WB	R	0.16	0.2	A
	SB	TR	0.36	35.0	D	SB	TR	0.39	35.6	D	SB	TR	0.40	35.7	D	SB	TR	0.42	36.1	D	SB	TR	0.46	36.8	D	SB	TR	0.48	37.3	D	SB	TR	0.46	36.9	D	SB	TR	0.49	37.5	D

Intersections	Existing AM Peak Hour					No-Action AM Peak Hour					Existing Midday Peak Hour					No-Action Midday Peak Hour					Existing PM Peak Hour					No-Action PM Peak Hour					Existing SAT Peak Hour					No-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Northern Boulevard (EB-WB) &	EB	LTR	0.73	9.6	A	EB	LTR	0.78	11.5	B	EB	LTR	0.59	9.0	A	EB	LTR	0.64	11.0	B	EB	LTR	0.94	8.0	A *	EB	LTR	1.03	26.6	C *	EB	LTR	0.67	8.0	A	EB	LTR	0.73	10.5	B
39th Avenue &	WB	TR	0.85	9.2	A	WB	TR	0.94	13.4	B *	WB	TR	0.52	12.0	B	WB	TR	0.58	12.2	B	WB	TR	0.54	37.1	D	WB	TR	0.61	38.6	D	WB	TR	0.60	13.1	B	WB	TR	0.66	14.8	B
Honeywell Street (NB)	NB	L	0.42	41.4	D	NB	L	0.47	43.0	D	NB	L	0.59	48.4	D	NB	L	0.67	53.3	D	NB	L	0.54	44.8	D	NB	L	0.62	48.8	D	NB	L	0.96	84.2	F *	NB	L	1.07	115.0	F *
	NB	TR	0.92	75.5	E *	NB	TR	0.97	86.5	F *	NB	TR	1.05	112.3	F *	NB	TR	1.13	138.0	F *	NB	TR	1.05	105.6	F *	NB	TR	1.15	138.4	F *	NB	TR	0.98	88.3	F *	NB	TR	1.05	107.1	F *
Northern Boulevard (EB-WB) &	EB	T	0.43	7.5	A	EB	T	0.47	7.8	A	EB	T	0.41	10.8	B	EB	T	0.46	11.7	B	EB	T	0.81	31.0	C	EB	T	0.90	34.8	C *	EB	T	0.45	11.2	B	EB	T	0.50	12.1	B
34th Street (SB)	WB	T	0.76	1.4	A	WB	T	0.83	0.6	A	WB	T	0.46	11.8	B	WB	T	0.51	12.6	B	WB	T	0.51	13.6	B	WB	T	0.57	12.6	B	WB	T	0.57	14.2	B	WB	T	0.63	14.1	B
	SB	LR	0.27	38.4	D	SB	LR	0.33	39.7	D	SB	LR	0.48	45.6	D	SB	LR	0.56	48.4	D	SB	LR	0.42	42.1	D	SB	LR	0.48	43.7	D	SB	LR	0.39	42.4	D	SB	LR	0.43	43.6	D
Northern Boulevard (EB-WB) &	EB	L	1.01	112.8	F *	EB	L	1.41	263.8	F *	EB	L	0.28	4.3	A	EB	L	0.35	6.9	A	EB	L	0.53	6.2	A	EB	L	0.67	9.9	A	EB	L	0.41	9.4	A	EB	L	0.51	15.9	B
35th Street &	EB	T	0.40	11.8	B	EB	T	0.44	11.8	B	EB	T	0.40	1.6	A	EB	T	0.46	2.1	A	EB	T	0.75	2.8	A	EB	T	0.84	3.8	A	EB	T	0.45	1.6	A	EB	T	0.50	2.2	A
38th Avenue (SB)	WB	TR	0.93	8.7	A *	WB	TR	1.02	20.7	C *	WB	TR	0.56	9.7	A	WB	TR	0.62	10.1	B	WB	TR	0.58	9.2	A	WB	TR	0.65	11.8	B	WB	TR	0.63	9.8	A	WB	TR	0.70	11.4	B
	SB	LTR	0.57	46.7	D	SB	LTR	0.75	57.8	E *	SB	LTR	0.88	75.0	E *	SB	LTR	1.11	135.7	F *	SB	LTR	0.95	85.3	F *	SB	LTR	1.27	195.4	F *	SB	LTR	0.52	46.7	D	SB	LTR	0.75	61.3	E *
Northern Boulevard (EB-WB) &	EB	T	0.49	12.3	B	EB	T	0.55	12.7	B	EB	T	0.49	10.6	B	EB	T	0.56	11.7	B	EB	T	0.84	13.8	B	EB	T	0.94	17.4	B *	EB	T	0.49	6.8	A	EB	T	0.56	8.0	A
36th Street (SB)	WB	T	0.89	4.2	A	WB	T	0.97	7.4	A *	WB	T	0.49	7.8	A	WB	T	0.54	8.1	A	WB	T	0.54	11.0	B	WB	T	0.59	11.4	B	WB	T	0.60	5.5	A	WB	T	0.64	6.4	A
	SB	LR	0.21	37.0	D	SB	LR	0.23	37.5	D	SB	LR	0.21	38.5	D	SB	LR	0.25	39.4	D	SB	LR	0.22	37.1	D	SB	LR	0.30	38.8	D	SB	LR	0.17	37.8	D	SB	LR	0.26	39.6	D
Northern Boulevard (EB-WB) &	EB	L	0.80	69.5	E *	EB	L	1.18	186.4	F *	EB	L	0.24	3.6	A	EB	L	0.34	5.3	A	EB	L	0.32	2.6	A	EB	L	0.51	4.0	A	EB	L	0.35	6.2	A	EB	L	0.63	20.2	C
37th Street (SB) &	EB	TR	0.48	16.1	B	EB	TR	0.53	16.4	B	EB	TR	0.55	3.0	A	EB	TR	0.62	3.3	A	EB	TR	0.82	3.8	A	EB	TR	0.91	4.8	A *	EB	TR	0.54	2.3	A	EB	TR	0.59	2.4	A
Standard Lane (NB)	WB	LT	0.89	8.7	A	WB	LT	0.97	12.3	B *	WB	LT	0.51	6.6	A	WB	LT	0.56	6.8	A	WB	LT	0.55	9.4	A	WB	LT	0.60	9.6	A	WB	LT	0.65	5.9	A	WB	LT	0.69	6.3	A
	NB	LTR	-	-		NB	LTR	-	-		NB	LTR	0.02	31.9	C	NB	LTR	0.02	31.9	C	NB	LTR	0.02	34.0	C	NB	LTR	0.02	34.0	C	NB	LTR	-	-		NB	LTR	-	-	
	SB	LTR	0.66	52.2	D	SB	LTR	0.69	54.3	D	SB	LTR	0.69	50.7	D	SB	LTR	0.72	52.7	D	SB	LTR	0.95	87.0	F *	SB	LTR	1.02	103.2	F *	SB	LTR	0.66	48.6	D	SB	LTR	0.70	51.1	D
Northern Boulevard (EB-WB) &	EB	T	0.56	18.2	B	EB	T	0.62	17.7	B	EB	T	0.56	7.1	A	EB	T	0.63	7.1	A	EB	T	0.96	23.5	C *	EB	T	1.05	43.6	D *	EB	T	0.58	8.6	A	EB	T	0.64	8.7	A
38th Street (SB)	WB	T	0.95	13.6	B *	WB	T	1.03	31.3	C *	WB	T	0.52	2.8	A	WB	T	0.58	4.0	A	WB	T	0.58	13.9	B	WB	T	0.64	15.0	B	WB	T	0.62	2.8	A	WB	T	0.67	4.1	A
	SB	LR	0.80	59.1	E *	SB	LR	0.84	62.7	E *	SB	LR	0.64	59.3	E *	SB	LR	0.69	61.8	E *	SB	LR	0.63	50.5	D	SB	LR	0.71	53.0	D	SB	LR	0.63	58.8	E *	SB	LR	0.72	63.9	E *
Northern Boulevard (EB-WB) &	EB	L	0.67	52.7	D	EB	L	0.95	116.7	F *	EB	L	0.38	14.6	B	EB	L	0.48	19.4	B	EB	L	0.54	7.9	A	EB	L	0.66	9.1	A	EB	L	0.84	52.3	D	EB	L	1.05	105.0	F *
39th Street (NB) &	EB	TR	0.74	22.7	C	EB	TR	0.81	25.4	C	EB	TR	0.86	18.2	B	EB	TR	0.96	28.2	C *	EB	TR	1.05	39.6	D *	EB	TR	1.16	83.8	F *	EB	TR	0.81	15.2	B	EB	TR	0.90	20.9	C *
Steinway Street (SB)	WB	L	1.05	36.9	D *	WB	L	1.13	69.8	E *	WB	L	1.00	89.3	F *	WB	L	1.60	321.4	F *	WB	L	1.05	149.8	F *	WB	L	1.38	259.5	F *	WB	L	0.88	51.9	D	WB	L	1.43	241.5	F *
	WB	TR	1.05	29.7	C *	WB	TR	1.12	60.3	E *	WB	TR	1.01	42.5	D *	WB	TR	1.09	66.9	E *	WB	TR	0.96	38.9	D *	WB	TR	1.03	56.3	E *	WB	TR	0.72	5.5	A	WB	TR	0.78	6.8	A
	NB	L	0.69	57.3	E *	NB	L	0.87	73.5	E *	NB	L	0.27	35.5	D	NB	L	0.39	36.7	D	NB	L	0.52	49.1	D	NB	L	0.70	55.4	E *	NB	L	0.23	34.2	C	NB	L	0.32	35.4	D
	NB	TR	1.04	108.6	F *	NB	TR	1.07	115.4	F *	NB	TR	0.98	82.5	F *	NB	TR	1.14	127.1	F *	NB	TR	1.05	107.5	F *	NB	TR	1.34	214.2	F *	NB	TR	0.95	72.4	E *	NB	TR	1.17	136.1	F *
	SB	LTR	1.05	121.4	F *	SB	LTR	1.27	197.0	F *	SB	LTR	1.05	119.3	F *	SB	LTR	1.26	191.0	F *	SB	LTR	1.05	128.4	F *	SB	LTR	1.29	204.7	F *	SB	LTR	1.05	114.6	F *	SB	LTR	1.33	214.3	F *
Northern Boulevard (EB-WB) &	EB	L	0.85	73.0	E *	EB	L	0.55	27.7	C	EB	L	0.14	6.2	A	EB	L	0.18	7.0	A	EB	L	0.28	3.9	A	EB	L	0.44	5.1	A	EB	L	0.16	5.8	A	EB	L	0.28	7.1	A
41st Street (SB)	EB	T	0.43	11.2	B	EB	T	0.48	11.0	B	EB	T	0.50	6.4	A	EB	T	0.56	7.2	A	EB	T	0.82	6.6	A	EB	T	0.91	9.3	A *	EB	T	0.51	5.4	A	EB	T	0.57	6.3	A
	WB	TR	1.04	30.8	C *	WB	TR	1.12	57.8	E *	WB	TR	0.52	11.5	B	WB	TR	0.57	10.9	B	WB	TR	0.50	13.5	B	WB	TR	0.55	13.3	B	WB	TR	0.63	11.5	B	WB	TR	0.69	10.7	B
	SB	LR	0.23	37.8	D	SB	LR	0.25	38.1	D	SB	LR	0.32	40.2	D	SB	LR	0.35	40.8	D	SB	LR	0.41	41.2	D	SB	LR	0.45	42.0	D	SB	LR	0.30	39.8	D	SB	LR	0.33	40.3	D
Northern Boulevard (EB-WB) &	EB	TR	0.49	15.8	B	EB	TR	0.54	16.0	B	EB	TR	0.51	10.1	B	EB	TR	0.57	10.7	B	EB	TR	0.93	16.1	B *	EB	TR	1.03	32.7	C *	EB	TR	0.52	10.4	B	EB	TR	0.59	10.9	B
42nd Street (SB) &	WB	L	0.10	1.7	A	WB	L	0.12	1.6	A	WB	L	0.08	16.1	B	WB	L	0.10	17.4	B	WB	L	0.21	13.1	B	WB	L	0.26	11.5	B	WB	L	0.14	16.1	B	WB	L	0.18	16.0	B
Driveway (NB)	WB	T	1.05	33.7	C *	WB	T	1.13	64.5	E *	WB	T	0.49	21.6	C	WB	T	0.56	25.2	C	WB	T	0.55	10.8	B	WB	T	0.65	12.9	B	WB	T	0.58	25.5	C	WB	T	0.66	27.3	C
	NB	LTR	0.28	39.4	D	NB	LTR	0.30	39.8	D	NB	LTR	0.53	53.5	D	NB	LTR	0.56	55.1	E *	NB	LTR	0.51	45.3	D	NB	LTR	0.54	46.6	D	NB	LTR	0.73	67.9	E *	NB	LTR	0.78	73.6	E *
	SB	LTR	0.76	53.6	D	SB	LTR	0.81	57.7	E *	SB	LTR	1.01	103.9	F *	SB	LTR	1.09	128.6	F *	SB	LTR	0.77	60.7	E *	SB	LTR	0.87	68.8	E *	SB	LTR	1.05	112.3	F *	SB	LTR	1.16	147.1	F *
Northern Boulevard (EB-WB) &	EB	LTR	0.73	17.3	B	EB	LTR	0.85	22.8	C	EB	LTR	0.75	24.5	C	EB	LTR	0.84	30.3	C	EB	LTR	1.05	41.1	D *	EB	LTR	1.16	84.0	F *	EB	LTR	0.77	23.6	C	EB	LTR	0.88	31.3	C
43rd Street &	WB	L	0.55	5.4	A	WB	L	0.65	6.8	A	WB	L	0.81	38.5	D	WB	L	1.03	86.3	F *	WB	L	1.05	107.5	F *	WB	L	1.14	126.8	F *	WB	L	0.95	58.0	E *	WB	L	1.27	162.7	F *
42nd Place (NB)	WB	TR	1.02	20.9	C *	WB	TR	1.09	52.0	D *	WB	TR	0.51	11.0	B	WB	TR	0.58	11.2	B	WB	TR	0.93	33.8	C *	WB	TR	1.10	76.1	E *	WB	TR	0.80	16.1	B	WB	TR	0.92	20.6	C *
	NB	LTR	0.84	62.8	E *	NB	LTR	0.88	68.0	E *	NB	LTR	0.92	77.0	E *	NB	LTR	0.99	92.4	F *	NB	LTR	0.97	82.9	F *	NB	LTR	1.04	103.0	F *	NB	LTR	1.05	106.7	F *	NB	LTR	1.15	139.5	F *
Northern Boulevard (EB-WB) &	EB	L	0.22	15.0	B	EB	L	0.22	15.9	B	EB	L	0.12	4.2	A	EB	L	0.16	4.1	A	EB	L	0.06	1.7	A	EB	L	0.08	1.6	A	EB	L	0.15	4.4	A	EB	L	0.21	4.7	A
44th Street (SB) &	EB	TR	0.43	6.7	A	EB	TR	0.47	9.1	A	EB	TR	0.57	5.3	A	EB	TR	0.64	5.0	A	EB	TR	0.92	4.9	A *	EB	TR	1.01	14.6	B *	EB	TR	0.59	5.0	A	EB	TR	0.66	4.7	A
35th Avenue	WB	TR	1.05	27.2	C *	WB	TR	1.13	65.1	E *	WB	TR	0.62	16.5	B	WB	TR	0.69	16.8	B	WB	TR	0.60	19.7	B	WB	TR	0.70	20.7	C	WB	TR	0.71	18.6	B	WB	TR	0.80	19.6	B
	SB	LTR	0.67	55.9	E *	SB	LTR	0.82	71.2	E *	SB	LTR	0.68	56.7	E *	SB	LTR	0.94	92.7	F *	SB	LTR	0.97	96.6	F *	SB	LTR	1.25	193.1	F *	SB	LTR	1.05	118.6	F *	SB	LTR	1.44	271.1	F *
Northern Boulevard (EB-WB) &	EB	T	0.39	14.3	B	EB	T	0.45	15.6	B	EB	T	0.57	6.0	A	EB	T	0.64	6.4	A	EB	T	0.85	7.2	A	EB	T	0.94	10.6	B *	EB	T	0.59	5.9	A	EB	T	0.66	6.1	A
46th Street (SB)	WB	T	1.05	27.0	C *	WB	T	1.13	62.8	E *	WB	T	0.55	3.0	A	WB	T	0.61	3.9	A	WB	T	0.54	10.3	B	WB	T	0.63	10.5	B	WB	T	0.67	2.3	A	WB	T	0.76	3.6	A
	SB	LR	0.60	48.9	D	SB	LR	0.87	70.6	E *	SB	LR	0.45	43.8	D	SB	LR	0.69	55.6	E *	SB	LR	0.34	38.8	D	SB	LR	0.57	45.9	D	SB	LR	0.47	44.2	D	SB	LR	0.63	50.1	D
Northern Boulevard (EB-WB) &	EB	TR	0.66	11.3	B	EB	TR	0.79	15.7	B	EB	TR	0.92	24.7	C *	EB	TR	1.06	56.2	E *	EB	TR	1.05	39.8	D *	EB	TR	1.22	107.2	F *	EB	TR	1.03	46.0	D *	EB	TR	1.20	112.8	F *
48th Street (NB) &	WB	L	0.62	8.4	A	WB	L	0.87	24.3	C	WB	L	0.98	91.9	F *	WB	L	1.18	162.2	F *	WB	L	1.05	117.3	F *	WB	L	1.13	137.4	F *	WB	L	1.05	94.8	F *	WB	L	1.10	97.0	F *
34th Avenue	WB	TR	1.05	28.1	C *	WB	TR	1.10	51.8	D *	WB	TR	1.05	45.0	D *	WB	TR	1.16	83.4	F *	WB	TR	1.05	46.6	D *	WB	TR	1.18	97.1	F *	WB	TR	1.05	36.0	D *	WB	TR	1.19	91.4	F *
	NB	L	0.88	75.8	E *	NB	L	1.32	217.4	F *	NB	L	0.94	89.6	F *	NB	L	1.60	343.6	F *	NB	L	1.05	122.6	F *	NB	L	1.50	299.7	F *	NB	L	1.05	118.8	F *	NB	L	1.63	355.8	F *
	NB	TR	0.47	44.8	D	NB	TR	0.48	45.4	D	NB	TR	0.87	75.5	E *	NB	TR	0.91	83.5	F *	NB	TR	1.05	115.3	F *	NB	TR	1.09	128.6	F *	NB	TR	1.01	103.1	F *	NB	TR	1.05	113.6	F *

Intersections	Existing AM Peak Hour					No-Action AM Peak Hour					Existing Midday Peak Hour					No-Action Midday Peak Hour					Existing PM Peak Hour					No-Action PM Peak Hour					Existing SAT Peak Hour					No-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Northern Boulevard (EB-WB) &	EB	L	0.92	95.8	F *	EB	L	0.79	60.1	E *	EB	L	0.61	31.4	C	EB	L	0.63	27.1	C	EB	L	1.05	73.0	E *	EB	L	1.12	103.9	F *	EB	L	0.70	32.2	C	EB	L	0.73	28.5	C
51st Street (SB) &	EB	TR	0.65	35.1	D	EB	TR	0.73	36.5	D	EB	TR	0.85	42.0	D	EB	TR	0.93	46.5	D *	EB	TR	1.05	37.3	D *	EB	TR	1.14	71.8	E *	EB	TR	0.82	34.6	C	EB	TR	0.90	39.2	D *
Woodside Avenue (NB)	WB	L	0.25	15.2	B	WB	L	0.26	14.9	B	WB	L	0.27	18.1	B	WB	L	0.27	18.2	B	WB	L	0.33	29.6	C	WB	L	0.29	29.1	C	WB	L	0.25	17.7	B	WB	L	0.26	18.0	B
	WB	TR	1.05	67.3	E *	WB	TR	1.13	96.9	F *	WB	TR	0.61	22.3	C	WB	TR	0.66	24.2	C	WB	TR	0.63	27.8	C	WB	TR	0.69	29.3	C	WB	TR	0.66	23.7	C	WB	TR	0.73	26.2	C
	NB	LTR	1.05	108.5	F *	NB	LTR	1.20	161.2	F *	NB	LTR	1.05	105.9	F *	NB	LTR	1.19	158.0	F *	NB	LTR	1.05	98.7	F *	NB	LTR	1.19	150.5	F *	NB	LTR	1.05	106.0	F *	NB	LTR	1.22	167.2	F *
	SB	LT	0.43	37.2	D	SB	LT	0.48	39.9	D	SB	LT	0.35	35.1	D	SB	LT	0.40	37.6	D	SB	LT	0.43	31.8	C	SB	LT	0.47	34.2	C	SB	LT	0.47	37.6	D	SB	LT	0.52	40.5	D
	SB	R	1.05	99.9	F *	SB	R	1.18	147.3	F *	SB	R	0.75	52.1	D	SB	R	0.86	66.8	E *	SB	R	0.57	36.9	D	SB	R	0.70	44.6	D	SB	R	1.03	99.6	F *	SB	R	1.22	167.4	F *
Skillman Avenue (WB) &	WB	LT	0.52	14.8	B	WB	LT	0.54	15.1	B	WB	LT	0.26	12.0	B	WB	LT	0.27	12.1	B	WB	LT	0.30	12.3	B	WB	LT	0.31	12.4	B	WB	LT	0.30	12.4	B	WB	LT	0.31	12.5	B
39th Street (NB-SB)	WB	R	0.25	12.8	B	WB	R	0.35	14.1	B	WB	R	0.16	11.6	B	WB	R	0.27	12.9	B	WB	R	0.16	11.6	B	WB	R	0.32	13.5	B	WB	R	0.21	12.1	B	WB	R	0.35	13.9	B
	NB	LT	0.71	18.9	B	NB	LT	0.75	20.5	C	NB	LT	0.70	26.8	C	NB	LT	0.84	34.8	C	NB	LT	0.75	20.5	C	NB	LT	1.03	62.2	E *	NB	LT	0.67	26.7	C	NB	LT	0.75	28.4	C
	SB	T	0.62	15.8	B	SB	T	0.72	16.7	B	SB	T	0.65	24.4	C	SB	T	0.78	28.2	C	SB	T	0.70	12.9	B	SB	T	0.84	14.8	B	SB	T	0.60	24.0	C	SB	T	0.74	29.5	C
	SB	R	0.76	21.8	C	SB	R	0.82	20.0	B	SB	R	0.35	16.3	B	SB	R	0.38	16.6	B	SB	R	0.32	8.4	A	SB	R	0.33	7.9	A	SB	R	0.20	15.9	B	SB	R	0.23	16.9	B
43rd Avenue (EB) &	EB	LT	0.22	11.7	B	EB	LT	0.23	11.8	B	EB	LT	0.24	11.8	B	EB	LT	0.26	12.0	B	EB	LT	0.37	13.0	B	EB	LT	0.41	13.4	B	EB	LT	0.09	10.8	B	EB	LT	0.11	10.9	B
39th Street (NB-SB)	EB	R	0.06	10.8	B	EB	R	0.07	10.8	B	EB	R	0.07	10.8	B	EB	R	0.07	10.8	B	EB	R	0.06	10.7	B	EB	R	0.06	10.7	B	EB	R	0.12	11.3	B	EB	R	0.13	11.4	B
	NB	TR	0.64	19.4	B	NB	TR	0.66	20.0	C	NB	TR	0.65	19.9	B	NB	TR	0.69	21.1	C	NB	TR	0.63	19.1	B	NB	TR	0.68	20.6	C	NB	TR	0.79	25.8	C	NB	TR	0.84	29.2	C
	SB	LT	1.05	72.6	E *	SB	LT	1.38	202.4	F *	SB	LT	1.03	59.3	E *	SB	LT	1.48	241.2	F *	SB	LT	1.05	76.1	E *	SB	LT	1.57	289.6	F *	SB	LT	1.05	70.9	E *	SB	LT	1.72	350.2	F *
Greenpoint Avenue (EB-WB) &	EB	LTR	0.30	32.8	C	EB	LTR	0.29	33.4	C	EB	LTR	0.47	33.5	C	EB	LTR	0.50	34.7	C	EB	LTR	0.56	26.4	C	EB	LTR	0.59	27.9	C	EB	LTR	0.56	35.6	D	EB	LTR	0.58	36.9	D
39th Street (NB-SB)	WB	LT	0.34	15.7	B	WB	LT	0.36	15.9	B	WB	LT	0.21	13.8	B	WB	LT	0.21	13.9	B	WB	LT	0.17	13.4	B	WB	LT	0.18	13.5	B	WB	LT	0.23	14.0	B	WB	LT	0.24	14.1	B
	WB	R	0.06	12.3	B	WB	R	0.06	12.4	B	WB	R	0.03	12.0	B	WB	R	0.03	12.0	B	WB	R	0.06	12.3	B	WB	R	0.06	12.3	B	WB	R	0.01	11.8	B	WB	R	0.01	11.8	B
	NB	LTR	0.32	29.5	C	NB	LTR	0.33	29.7	C	NB	LTR	0.24	28.1	C	NB	LTR	0.25	28.2	C	NB	LTR	0.18	27.1	C	NB	LTR	0.18	27.2	C	NB	LTR	0.15	26.7	C	NB	LTR	0.16	26.8	C
	SB	LTR	0.58	36.9	D	SB	LTR	0.66	40.2	D	SB	LTR	0.56	35.9	D	SB	LTR	0.61	37.5	D	SB	LTR	0.64	38.6	D	SB	LTR	0.70	41.3	D	SB	LTR	0.63	38.1	D	SB	LTR	0.69	40.6	D
Greenpoint Avenue (EB-WB) &	EB	TR	0.34	7.7	A	EB	TR	0.35	11.9	B	EB	TR	0.50	18.9	B	EB	TR	0.52	19.7	B	EB	TR	0.61	35.0	D	EB	TR	0.65	36.5	D	EB	TR	0.54	18.8	B	EB	TR	0.58	19.6	B
38th Street (SB)	WB	LT	0.57	27.5	C	WB	LT	0.63	27.4	C	WB	LT	0.42	18.8	B	WB	LT	0.45	18.7	B	WB	LT	0.29	16.8	B	WB	LT	0.32	17.6	B	WB	LT	0.43	18.7	B	WB	LT	0.47	19.1	B
	SB	LTR	0.57	36.2	D	SB	LTR	0.61	37.9	D	SB	LTR	0.48	33.6	C	SB	LTR	0.50	34.2	C	SB	LTR	0.54	35.2	D	SB	LTR	0.55	35.6	D	SB	LTR	0.39	31.1	C	SB	LTR	0.43	32.0	C
Greenpoint Avenue (EB-WB) &	EB	LT	0.29	4.3	A	EB	LT	0.43	7.7	A	EB	LT	0.32	17.8	B	EB	LT	0.33	18.1	B	EB	LT	0.30	7.8	A	EB	LT	0.32	8.0	A	EB	LT	0.49	21.4	C	EB	LT	0.55	22.9	C
Hunters Point Avenue (NW-SE)	WB	TR	0.77	29.7	C	WB	TR	0.95	49.5	D *	WB	TR	0.66	23.6	C	WB	TR	0.71	25.8	C	WB	TR	0.50	18.2	B	WB	TR	0.53	18.9	B	WB	TR	0.59	20.3	C	WB	TR	0.64	22.2	C
	SE	LTR	0.88	58.5	E *	SE	LTR	0.72	35.5	D	SE	LTR	0.86	49.7	D	SE	LTR	1.18	137.3	F *	SE	LTR	0.75	41.3	D	SE	LTR	0.87	54.4	D	SE	LTR	0.82	45.9	D	SE	LTR	0.91	57.9	E *
	NW	LTR	1.05	77.6	E *	NW	LTR	0.97	49.3	D *	NW	LTR	1.05	79.2	E *	NW	LTR	1.12	104.5	F *	NW	LTR	0.92	47.2	D *	NW	LTR	0.98	58.4	E *	NW	LTR	1.05	79.4	E *	NW	LTR	1.13	109.0	F *
Greenpoint Avenue (NE-SW) &	WB	LTR	0.91	28.1	C *	WB	LTR	0.95	30.3	C *	WB	LTR	0.75	24.7	C	WB	LTR	0.78	25.8	C	WB	LTR	0.65	24.3	C	WB	LTR	0.67	24.9	C	WB	LTR	0.74	24.3	C	WB	LTR	0.77	25.3	C
Queens Midtown Expressway (WB)	NE	LT	0.33	16.6	B	NE	LT	0.34	16.6	B	NE	LT	0.24	5.4	A	NE	LT	0.25	5.4	A	NE	LT	0.33	7.7	A	NE	LT	0.34	7.8	A	NE	LT	0.30	5.1	A	NE	LT	0.31	5.1	A
	SW	TR	0.66	26.0	C	SW	TR	0.71	28.2	C	SW	TR	0.60	20.8	C	SW	TR	0.63	21.5	C	SW	TR	0.51	21.3	C	SW	TR	0.53	21.2	C	SW	TR	0.56	20.0	C	SW	TR	0.60	20.7	C
Greenpoint Avenue (NE-SW) &	EB	LTR	1.01	66.4	E *	EB	LTR	1.05	78.1	E *	EB	LTR	0.90	40.3	D *	EB	LTR	0.93	44.7	D *	EB	LTR	0.95	48.1	D *	EB	LTR	0.98	55.5	E *	EB	LTR	1.00	56.6	E *	EB	LTR	1.04	67.4	E *
Borden Avenue (EB)	NE	T	0.38	36.2	D	NE	T	0.40	36.6	D	NE	T	0.41	31.7	C	NE	T	0.42	32.0	C	NE	T	0.64	52.2	D	NE	T	0.67	53.4	D	NE	T	0.53	34.3	C	NE	T	0.55	34.9	C
	NE	R	1.05	101.1	F *	NE	R	1.10	114.6	F *	NE	R	1.05	90.0	F *	NE	R	1.10	104.5	F *	NE	R	1.05	108.8	F *	NE	R	1.10	123.3	F *	NE	R	1.05	95.2	F *	NE	R	1.10	109.9	F *
	SW	L	1.05	81.0	F *	SW	L	1.12	107.2	F *	SW	L	1.05	70.3	E *	SW	L	1.11	89.6	F *	SW	L	1.00	69.9	E *	SW	L	1.04	82.3	F *	SW	L	1.03	63.3	E *	SW	L	1.09	83.8	F *
	SW	T	0.83	23.0	C	SW	T	0.86	24.0	C	SW	T	0.60	10.8	B	SW	T	0.63	10.8	B	SW	T	0.69	23.2	C	SW	T	0.72	23.8	C	SW	T	0.45	9.2	A	SW	T	0.47	9.0	A
Unsignalized																																								
36th Avenue (EB-WB) &	EB	LR	-	7.4	A	EB	LR	-	7.4	A	EB	LR	-	7.8	A	EB	LR	-	8.3	A	EB	LR	-	8.2	A	EB	LR	-	9.1	A	EB	LR	-	7.4	A	EB	LR	-	7.9	A
41st Street (NB)	WB	LTR	-	8.6	A	WB	LTR	-	8.8	A	WB	LTR	-	8.3	A	WB	LTR	-	8.9	A	WB	LTR	-	8.8	A	WB	LTR	-	10.2	B	WB	LTR	-	8.4	A	WB	LTR	-	9.5	A
(All-Way Stop Controlled)	NB	LT	-	8.0	A	NB	LT	-	7.9	A	NB	LT	-	8.0	A	NB	LT	-	8.2	A	NB	LT	-	8.4	A	NB	LT	-	9.1	A	NB	LT	-	7.9	A	NB	LT	-	8.3	A
Northern Boulevard (EB-WB) &	EB	L	0.02	13.0	B	EB	L	0.02	15.6	C	EB	L	0.02	10.9	B	EB	L	0.02	11.8	B	EB	L	0.04	12.0	B	EB	L	0.05	13.3	B	EB	L	0.01	10.9	B	EB	L	0.02	12.0	B
36th Avenue (NB-SB) & Driveway (NB)	WB	L	0.00	0.0	A	WB	L	0.00	0.0	A	WB	L	0.01	9.1	A	WB	L	0.01	9.4	A	WB	L	0.01	11.2	B	WB	L	0.01	11.7	B	WB	L	0.01	9.4	A	WB	L	0.01	9.8	A
	NB	LTR	0.01	9.0	A	NB	LTR	0.01	9.0	A	NB	LTR	0.04	10.6	B	NB	LTR	0.04	10.5	B	NB	LTR	0.04	10.5	B	NB	LTR	0.05	11.6	B	NB	LTR	0.01	9.1	A	NB	LTR	0.01	9.2	A
Northern Boulevard (EB-WB) &	EB	L	0.19	0.0	A	EB	L	0.21	0.0	A	EB	L	0.02	0.7	A	EB	L	0.02	0.7	A	EB	L	0.01	0.3	A	EB	L	0.01	0.3	A	EB	L	0.02	0.7	A	EB	L	0.02	0.7	A
Newtown Road (SB)	SB	R	0.03	13.0	B	SB	R	0.03	12.9	B	SB	R	0.04	10.3	B	SB	R	0.05	10.1	B	SB	R	0.03	10.6	B	SB	R	0.03	10.6	B	SB	R	0.05	11.6	B	SB	R	0.05	11.6	B
Hunters Point Avenue (WB) &	SB	R	0.04	13.8	B	SB	R	0.04	14.2	B	SB	R	0.02	11.9	B	SB	R	0.02	12.1	B	SB	R	0.04	12.4	B	SB	R	0.04	12.9	B	SB	R	0.04	12.9	B	SB	R	0.05	13.4	B
38th Street (SB)																																								
Queens Midtown Expressway (WB) &	SB	R	0.07	14.0	B	SB	R	0.08	14.4	B	SB	R	0.05	11.9	B	SB	R	0.05	12.2	B	SB	R	0.08	12.3	B	SB	R	0.08	12.7	B	SB	R	0.03	12.9	B	SB	R	0.03	13.4	B
39th Street (SB)																																								

* Denotes congested lane group.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline

TABLE D-3

WITH-ACTION INTERSECTION LEVEL OF SERVICE ANALYSIS

	No-Action AM Peak Hour					With-Action AM Peak Hour					No-Action Midday Peak Hour					With-Action Midday Peak Hour					No-Action PM Peak Hour					With-Action PM Peak Hour					No-Action SAT Peak Hour					With-Action SAT Peak Hour				
Intersections	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized																																							
Broadway (EB-WB) &	EB	LT	0.45	11.0	B	EB	LT	0.46	11.2	B	EB	LT	0.64	16.8	B	EB	LT	0.66	17.3	B	EB	LT	0.82	26.1	C	EB	LT	0.83	27.3	C	EB	LT	0.86	29.1	C	EB	LT	0.86	28.8	C
43rd Street (NB)	WB	TR	0.65	15.0	B	WB	TR	0.66	15.3	B	WB	TR	0.63	16.4	B	WB	TR	0.64	16.7	B	WB	TR	0.79	23.3	C	WB	TR	0.79	23.5	C	WB	TR	0.77	21.7	C	WB	TR	0.77	21.5	C
	NB	LTR	1.20	139.1	F	NB	LTR	1.52	264.5	F *	NB	LTR	1.27	173.4	F	NB	LTR	1.36	211.2	F *	NB	LTR	0.96	56.1	E	NB	LTR	1.10	89.7	F *	NB	LTR	1.32	191.1	F	NB	LTR	1.58	301.7	F *
34th Avenue (EB-WB) &	EB	TR	0.48	11.9	B	EB	TR	0.51	12.5	B	EB	TR	0.53	12.9	B	EB	TR	0.56	13.5	B	EB	TR	0.71	17.8	B	EB	TR	0.75	19.7	B	EB	TR	0.65	15.6	B	EB	TR	0.67	16.1	B
38th Street (SB)	WB	LT	0.63	15.1	B	WB	LT	0.65	15.7	B	WB	LT	0.66	15.8	B	WB	LT	0.68	16.5	B	WB	LT	0.56	13.2	B	WB	LT	0.59	14.0	B	WB	LT	0.58	13.7	B	WB	LT	0.59	14.1	B
	SB	LTR	0.60	23.3	C	SB	LTR	0.67	26.1	C	SB	LTR	0.65	25.4	C	SB	LTR	0.74	29.8	C	SB	LTR	0.67	25.9	C	SB	LTR	0.78	32.0	C	SB	LTR	0.69	27.3	C	SB	LTR	0.80	34.1	C
34th Avenue (EB-WB) &	EB	LT	0.34	10.1	B	EB	LT	0.38	10.6	B	EB	LT	0.52	13.0	B	EB	LT	0.54	13.4	B	EB	LT	0.62	15.1	B	EB	LT	0.64	15.8	B	EB	LT	0.67	16.2	B	EB	LT	0.69	16.9	B
41st Street (NB)	WB	TR	0.56	13.3	B	WB	TR	0.58	13.7	B	WB	TR	0.57	13.6	B	WB	TR	0.59	14.0	B	WB	TR	0.64	15.3	B	WB	TR	0.67	16.2	B	WB	TR	0.60	14.2	B	WB	TR	0.63	14.9	B
	NB	LTR	0.38	21.9	C	NB	LTR	0.49	20.8	C	NB	LTR	0.40	18.4	B	NB	LTR	0.52	17.2	B	NB	LTR	0.59	27.0	C	NB	LTR	0.73	24.3	C	NB	LTR	0.48	22.6	C	NB	LTR	0.64	18.6	B
34th Avenue (EB-WB) &	EB	LT	0.33	9.9	A	EB	LT	0.34	10.1	B	EB	LT	0.53	13.3	B	EB	LT	0.52	13.3	B	EB	LT	0.54	13.1	B	EB	LT	0.54	13.1	B	EB	LT	0.62	15.1	B	EB	LT	0.62	15.0	B
43rd Street (NB)	WB	TR	0.65	15.4	B	WB	TR	0.67	16.0	B	WB	TR	0.64	15.3	B	WB	TR	0.65	15.5	B	WB	TR	0.65	15.3	B	WB	TR	0.67	16.0	B	WB	TR	0.65	15.3	B	WB	TR	0.67	15.9	B
	NB	LTR	0.72	31.1	C	NB	LTR	0.91	47.2	D	NB	LTR	0.73	36.7	D	NB	LTR	0.81	37.8	D	NB	LTR	0.89	47.9	D	NB	LTR	1.03	71.8	E *	NB	LTR	0.85	44.7	D	NB	LTR	1.03	71.4	E *
35th Avenue (EB-WB) &	EB	LT	0.47	14.2	B	EB	LT	0.50	14.8	B	EB	LT	0.47	13.6	B	EB	LT	0.48	13.7	B	EB	LT	0.53	14.7	B	EB	LT	0.56	15.3	B	EB	LT	0.50	14.0	B	EB	LT	0.51	14.2	B
37th Street (NB)	WB	TR	0.65	11.6	B	WB	TR	0.73	11.9	B	WB	TR	0.52	9.7	A	WB	TR	0.55	10.0	A	WB	TR	0.57	10.3	B	WB	TR	0.62	10.6	B	WB	TR	0.59	10.7	B	WB	TR	0.66	11.8	B
	NB	LTR	0.55	18.4	B	NB	LTR	0.76	25.3	C	NB	LTR	0.52	24.3	C	NB	LTR	0.55	25.1	C	NB	LTR	0.90	40.4	D	NB	LTR	0.78	28.6	C	NB	LTR	0.75	31.1	C	NB	LTR	0.50	22.5	C
35th Avenue (EB-WB) &	EB	TR	0.46	9.4	A	EB	TR	0.54	10.6	B	EB	TR	0.55	9.7	A	EB	TR	0.53	9.2	A	EB	TR	0.76	16.1	B	EB	TR	0.68	11.8	B	EB	TR	0.80	19.2	B	EB	TR	0.63	10.7	B
38th Street (SB)	WB	LT	0.70	24.9	C	WB	LT	0.88	27.2	C	WB	LT	0.60	17.0	B	WB	LT	0.70	21.2	C	WB	LT	0.72	22.3	C	WB	LT	0.76	24.3	C	WB	LT	1.08	86.9	F	WB	LT	0.78	25.0	C
	SB	LTR	0.58	24.3	C	SB	LTR	0.67	27.0	C	SB	LTR	0.64	23.7	C	SB	LTR	0.76	28.6	C	SB	LTR	0.79	27.6	C	SB	LTR	1.00	57.3	E *	SB	LTR	0.69	25.1	C	SB	LTR	0.86	36.1	D
35th Avenue (EB-WB) &	EB	LTR	0.38	16.8	B	EB	LTR	0.49	18.9	B	EB	LTR	1.30	190.9	F	EB	LTR	1.38	226.5	F *	EB	LTR	1.46	255.8	F	EB	LTR	1.60	318.6	F *	EB	LTR	1.42	239.6	F	EB	LTR	1.54	291.1	F *
Steinway Street (NB-SB)	WB	LTR	0.53	21.9	C	WB	LTR	0.92	45.6	D	WB	LTR	0.69	37.6	D	WB	LTR	1.14	126.3	F *	WB	LTR	0.82	46.3	D	WB	LTR	1.71	364.8	F *	WB	LTR	0.86	52.1	D	WB	LTR	1.88	439.7	F *
	NB	LTR	0.54	15.9	B	NB	LTR	0.87	33.7	C	NB	LTR	0.53	15.2	B	NB	LTR	0.65	18.6	B	NB	LTR	0.61	17.2	B	NB	LTR	0.71	21.0	C	NB	LTR	0.79	24.8	C	NB	LTR	0.85	29.6	C
	SB	LTR	0.94	60.6	E	SB	LTR	1.06	93.5	F *	SB	LTR	0.46	13.6	B	SB	LTR	0.51	14.8	B	SB	LTR	0.54	15.4	B	SB	LTR	0.59	16.8	B	SB	LTR	0.49	14.2	B	SB	LTR	0.54	15.3	B
35th Avenue (EB-WB) &	EB	LT	0.35	14.9	B	EB	LT	0.44	14.8	B	EB	LT	0.37	10.2	B	EB	LT	0.42	11.0	B	EB	LT	0.50	12.3	B	EB	LT	0.60	14.7	B	EB	LT	0.39	10.5	B	EB	LT	0.48	12.0	B
41st Street (NB)	WB	TR	0.42	5.8	A	WB	TR	0.49	5.9	A	WB	TR	0.32	5.5	A	WB	TR	0.34	5.0	A	WB	TR	0.48	9.4	A	WB	TR	0.53	8.6	A	WB	TR	0.44	7.5	A	WB	TR	0.47	6.5	A
	NB	LTR	0.34	18.2	B	NB	LTR	0.82	39.9	D	NB	LTR	0.42	19.5	B	NB	LTR	0.89	49.5	D	NB	LTR	0.45	20.1	C	NB	LTR	1.21	141.2	F *	NB	LTR	0.39	19.0	B	NB	LTR	1.27	166.2	F *
35th Avenue (EB-WB) &	EB	TR	0.30	7.1	A	EB	TR	0.42	8.6	A	EB	TR	0.47	8.9	A	EB	TR	0.64	12.9	B	EB	TR	0.54	9.9	A	EB	TR	0.80	18.0	B	EB	TR	0.50	9.1	A	EB	TR	0.79	18.3	B
42nd Street (SB)	WB	LT	0.39	7.2	A	WB	LT	0.52	9.9	A	WB	LT	0.30	5.4	A	WB	LT	0.37	5.6	A	WB	LT	0.33	8.2	A	WB	LT	0.48	10.3	B	WB	LT	0.35	6.2	A	WB	LT	0.52	8.4	A
	SB	LTR	0.44	17.0	B	SB	LTR	0.52	18.9	B	SB	LTR	0.44	17.2	B	SB	LTR	0.51	19.0	B	SB	LTR	0.67	23.7	C	SB	LTR	0.82	34.8	C	SB	LTR	0.67	23.5	C	SB	LTR	0.77	29.0	C
35th Avenue (EB-WB) &	EB	L	0.20	6.8	A	EB	L	0.31	6.9	A	EB	L	0.37	8.0	A	EB	L	0.44	9.9	A	EB	L	0.52	10.1	B	EB	L	0.64	12.6	B	EB	L	0.38	7.0	A	EB	L	0.51	10.0	B
43rd Street (NE)	WB	TR	0.44	11.3	B	WB	TR	0.45	11.4	B	WB	TR	0.34	11.7	B	WB	TR	0.37	11.8	B	WB	TR	0.37	14.3	B	WB	TR	0.44	15.5	B	WB	TR	0.39	11.7	B	WB	TR	0.45	12.0	B
	NE	LT	0.38	8.7	A	NE	LT	0.60	11.9	B	NE	LT	0.34	12.2	B	NE	LT	0.70	27.5	C	NE	LT	0.49	15.9	B	NE	LT	0.78	18.3	B	NE	LT	0.45	14.4	B	NE	LT	0.82	23.0	C
36th Avenue (EB-WB) &	EB	LT	0.37	10.5	B	EB	LT	0.43	11.6	B	EB	LT	0.51	12.4	B	EB	LT	0.52	12.8	B	EB	LT	0.62	15.0	B	EB	LT	0.64	15.6	B	EB	LT	0.46	11.7	B	EB	LT	0.44	11.4	B
37th Street (NB)	WB	TR	0.61	10.1	B	WB	TR	0.88	23.8	C	WB	TR	0.46	6.4	A	WB	TR	0.59	8.7	A	WB	TR	0.36	11.4	B	WB	TR	0.59	14.7	B	WB	TR	0.49	7.6	A	WB	TR	0.66	10.5	B
	NB	LTR	0.37	17.9	B	NB	LTR	0.40	18.4	B	NB	LTR	0.34	17.0	B	NB	LTR	0.37	17.3	B	NB	LTR	0.49	19.3	B	NB	LTR	0.50	19.7	B	NB	LTR	0.33	17.4	B	NB	LTR	0.32	17.6	B
36th Avenue (EB-WB) &	EB	TR	0.31	7.2	A	EB	TR	0.32	7.2	A	EB	TR	0.42	6.0	A	EB	TR	0.44	6.1	A	EB	TR	0.48	4.4	A	EB	TR	0.52	4.5	A	EB	TR	0.38	6.0	A	EB	TR	0.42	6.3	A
38th Street (SB)	WB	LT	0.55	9.4	A	WB	LT	0.62	10.6	B	WB	LT	0.43	7.9	A	WB	LT	0.47	8.6	A	WB	LT	0.35	9.2	A	WB	LT	0.43	9.8	A	WB	LT	0.43	8.0	A	WB	LT	0.49	8.4	A
	SB	LTR	0.68	27.4	C	SB	LTR	1.04	70.0	E *	SB	LTR	0.58	25.2	C	SB	LTR	0.83	35.0	C	SB	LTR	0.67	22.4	C	SB	LTR	0.98	44.4	D	SB	LTR	0.63	21.0	C	SB	LTR	0.84	33.1	C
36th Avenue (EB-WB) &	EB	LTR	0.56	37.9	D	EB	LTR	1.02	96.4	F *	EB	LTR	0.94	70.2	E	EB	LTR	1.27	180.3	F *	EB	LTR	1.28	189.3	F	EB	LTR	1.83	427.7	F *	EB	LTR	1.23	167.4	F	EB	LTR	1.67	357.3	F *
Steinway Street (NB-SB)	WB	LTR	0.69	47.9	D	WB	LTR	0.85	63.3	E *	WB	LTR	0.57	42.4	D	WB	LTR	0.60	44.0	D	WB	LTR	0.71	50.2	D	WB	LTR	0.76	54.7	D	WB	LTR	0.76	53.3	D	WB	LTR	0.79	56.2	E
	NB	LTR	0.34	21.5	C	NB	LTR	0.43	24.2	C	NB	LTR	0.40	2.7	A	NB	LTR	0.46	2.9	A	NB	LTR	0.38	16.0	B	NB	LTR	0.46	18.3	B	NB	LTR	0.49	2.9	A	NB	LTR	0.56	4.6	A
	SB	LTR	0.43	2.5	A	SB	LTR	0.56	5.2	A	SB	LTR	0.39	12.6	B	SB	LTR	0.48	14.3	B	SB	LTR	0.39	12.5	B	SB	LTR	0.55	15.8	B	SB	LTR	0.47	13.8	B	SB	LTR	0.70	20.3	C
Northern Boulevard (EB-WB) &	EB	LT	0.34	16.2	B	EB	LT	0.36	16.5	B	EB	LT	0.44	17.9	B	EB	LT	0.45	18.1	B	EB	LT	0.51	19.1	B	EB	LT	0.52	19.4	B	EB	LT	0.46	18.3	B	EB	LT	0.48	18.6	B
Queensboro Bridge (SB)	WB	T	0.26	39.7	D	WB	T	0.30	40.2	D	WB	T	0.37	26.2	C	WB	T	0.39	26.0	C	WB	T	0.46	35.5	D	WB	T	0.47	35.8	D	WB	T	0.38	19.8	B	WB	T	0.41	19.8	B
	WB	R	1.11	70.9	E	WB	R	1.13	82.6	F *	WB	R	1.05	82.9	F	WB	R	1.08	91.1	F *	WB	R	1.07	61.4	E	WB	R	1.09	69.5	E *	WB	R	1.12	104.3	F	WB	R	1.15	114.7	F *
	SB	L	0.86	43.2	D	SB	L	0.87	43.9	D	SB	L	0.78	38.5	D	SB	L	0.79	39.2	D	SB	L	1.02	69.7	E	SB	L	1.04	75.1	E *	SB	L	0.89	45.9	D	SB	L	0.92	49.0	D
Northern Boulevard (EB-WB) &	EB	TR	0.73	34.0	C	EB	TR	0.74	34.7	C	EB	TR	0.67	24.3	C	EB	TR	0.68	25.2	C	EB	TR	0.89	20.0	C	EB	TR	0.91	21.2	C	EB	TR	0.77	29.3	C	EB	TR	0.80	30.6	C
40th Road (SB) &	WB	L	0.09	8.5	A	WB	L	0.09	8.5	A	WB	L	0.03	7.2	A	WB	L	0.03	6.9	A	WB	L	-	-		WB	L	-	-		WB	L	0.06	7.0	A	WB	L	0.06	6.7	A
Driveway (NB)	WB	T	0.96	21.2	C	WB	T	1.00	27.9	C	WB	T	0.71	15.6	B	WB	T	0.73	15.7	B	WB	T	0.67	16.6	B	WB	T	0.68	17.3	B	WB	T	0.84	18.9	B	WB	T	0.86	19.4	B
	NB	LTR	-	-		NB	LTR	-	-		NB	LTR	0.02	37.1	D	NB	LTR	0.02	37.1	D	NB	LTR	0.04	37.3	D	NB	LTR	0.04	37.3	D	NB	LTR	-	-		NB	LTR	-	-	
	SB	LTR	0.63	54.2	D	SB	LTR	0.63	54.2	D	SB	LTR	0.67	56.7	E	SB	LTR	0.67	56.7	E	SB	LTR	0.93	86.0	F	SB	LTR	0.93	86.0	F	SB	LTR	0.67	55.9	E	SB	LTR	0.67	55.9	E
Northern Boulevard (EB-WB) &	EB	L	0.63	50.2	D	EB	L	0.63	49.9	D	EB	L	0.74	46.6	D	EB	L	0.74	46.6	D	EB	L	0.45	48.2	D	EB	L	0.45	48.3	D	EB	L	0.50	37.1	D	EB	L	0.50	36.9	D
40th Avenue &	EB	T	0.79	14.5	B	EB	T	0.81	14.8	B	EB	T	0.77	24.9	C	EB	T	0.80	25.1	C	EB	T	0.94	16.2	B	EB	T	0.96	18.2	B	EB	T	0.75	17.6	B	EB	T	0.78	17.4	B
31st Street (SB)	WB	T	0.90	8.5	A	WB	T	0.94	9.9	A	WB	T	0.61	7.6	A	WB	T	0.63	7.6	A	WB	T	0.57	5.7	A	WB	T	0.58	5.8	A	WB	T	0.72	10.1	B	WB	T	0.75	10.2	B
	WB	R	0.04	0.0	A	WB	R	0.04	0.0	A	WB	R	0.19	0.3	A	WB	R	0.19	0.3	A	WB	R	0.20	0.3	A	WB	R	0.20	0.3	A	WB	R	0.16	0.2	A	WB	R	0.16	0.2	A
	SB	TR	0.39	35.6	D	SB	TR	0.39	35.6	D	SB	TR	0.42	36.1	D	SB	TR	0.42	36.1	D	SB	TR	0.48	37.3	D	SB	TR	0.48	37.3	D	SB	TR	0.49	37.5	D	SB	TR	0.49	37.5	D

Intersections	No-Action AM Peak Hour					With-Action AM Peak Hour					No-Action Midday Peak Hour					With-Action Midday Peak Hour					No-Action PM Peak Hour					With-Action PM Peak Hour					No-Action SAT Peak Hour					With-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Northern Boulevard (EB-WB) &	EB	LTR	0.78	11.5	B	EB	LTR	0.81	12.6	B	EB	LTR	0.64	11.0	B	EB	LTR	0.66	11.9	B	EB	LTR	1.03	26.6	C	EB	LTR	1.06	34.2	C	EB	LTR	0.73	10.5	B	EB	LTR	0.76	11.8	B
39th Avenue &	WB	TR	0.94	13.4	B	WB	TR	0.98	17.3	B	WB	TR	0.58	12.2	B	WB	TR	0.60	12.2	B	WB	TR	0.61	38.6	D	WB	TR	0.62	38.9	D	WB	TR	0.66	14.8	B	WB	TR	0.69	15.5	B
Honeywell Street (NB)	NB	L	0.47	43.0	D	NB	L	0.47	43.0	D	NB	L	0.67	53.3	D	NB	L	0.67	53.3	D	NB	L	0.62	48.8	D	NB	L	0.62	48.8	D	NB	L	1.07	115.0	F	NB	L	1.07	115.0	F
	NB	TR	0.97	86.5	F	NB	TR	0.97	86.5	F	NB	TR	1.13	138.0	F	NB	TR	1.13	136.8	F	NB	TR	1.15	138.4	F	NB	TR	1.15	138.4	F	NB	TR	1.05	107.1	F	NB	TR	1.05	107.1	F
Northern Boulevard (EB-WB) &	EB	T	0.47	7.8	A	EB	T	0.49	7.9	A	EB	T	0.46	11.7	B	EB	T	0.48	12.0	B	EB	T	0.90	34.8	C	EB	T	0.92	35.9	D	EB	T	0.50	12.1	B	EB	T	0.52	12.5	B
34th Street (SB)	WB	T	0.83	0.6	A	WB	T	0.87	0.8	A	WB	T	0.51	12.6	B	WB	T	0.53	12.8	B	WB	T	0.57	12.6	B	WB	T	0.58	13.1	B	WB	T	0.63	14.1	B	WB	T	0.65	14.4	B
	SB	LR	0.33	39.7	D	SB	LR	0.33	39.7	D	SB	LR	0.56	48.4	D	SB	LR	0.56	48.4	D	SB	LR	0.48	43.7	D	SB	LR	0.48	43.7	D	SB	LR	0.43	43.6	D	SB	LR	0.43	43.6	D
Northern Boulevard (EB-WB) &	EB	L	1.41	263.8	F	EB	L	1.67	377.8	F *	EB	L	0.35	6.9	A	EB	L	0.36	7.6	A	EB	L	0.67	9.9	A	EB	L	0.70	10.6	B	EB	L	0.51	15.9	B	EB	L	0.54	18.7	B
35th Street &	EB	T	0.44	11.8	B	EB	T	0.46	11.9	B	EB	T	0.46	2.1	A	EB	T	0.47	2.1	A	EB	T	0.84	3.8	A	EB	T	0.86	4.0	A	EB	T	0.50	2.2	A	EB	T	0.53	2.3	A
38th Avenue (SB)	WB	TR	1.02	20.7	C	WB	TR	1.06	32.5	C	WB	TR	0.62	10.1	B	WB	TR	0.64	9.9	A	WB	TR	0.65	11.8	B	WB	TR	0.67	12.2	B	WB	TR	0.70	11.4	B	WB	TR	0.72	11.5	B
	SB	LTR	0.75	57.8	E	SB	LTR	0.75	57.8	E	SB	LTR	1.11	135.7	F	SB	LTR	1.11	135.7	F	SB	LTR	1.27	195.4	F	SB	LTR	1.27	195.4	F	SB	LTR	0.75	61.3	E	SB	LTR	0.75	61.3	E
Northern Boulevard (EB-WB) &	EB	T	0.55	12.7	B	EB	T	0.57	12.9	B	EB	T	0.56	11.7	B	EB	T	0.57	11.6	B	EB	T	0.94	17.4	B	EB	T	0.96	18.9	B	EB	T	0.56	8.0	A	EB	T	0.59	7.9	A
36th Street (SB)	WB	T	0.97	7.4	A	WB	T	1.00	12.7	B	WB	T	0.54	8.1	A	WB	T	0.56	8.0	A	WB	T	0.59	11.4	B	WB	T	0.61	11.2	B	WB	T	0.64	6.4	A	WB	T	0.68	6.9	A
	SB	LR	0.23	37.5	D	SB	LR	0.24	37.5	D	SB	LR	0.25	39.4	D	SB	LR	0.25	39.3	D	SB	LR	0.30	38.8	D	SB	LR	0.24	37.6	D	SB	LR	0.26	39.6	D	SB	LR	0.20	38.4	D
Northern Boulevard (EB-WB) &	EB	L	1.18	186.4	F	EB	L	1.62	366.8	F *	EB	L	0.34	5.3	A	EB	L	0.41	6.7	A	EB	L	0.51	4.0	A	EB	L	0.54	4.3	A	EB	L	0.63	20.2	C	EB	L	0.66	24.1	C
37th Street (SB) &	EB	TR	0.53	16.4	B	EB	TR	0.54	16.6	B	EB	TR	0.62	3.3	A	EB	TR	0.63	3.3	A	EB	TR	0.91	4.8	A	EB	TR	0.93	5.4	A	EB	TR	0.59	2.4	A	EB	TR	0.63	2.6	A
Standard Lane (NB)	WB	LT	0.97	12.3	B	WB	LT	1.00	18.8	B	WB	LT	0.56	6.8	A	WB	LT	0.58	6.9	A	WB	LT	0.60	9.6	A	WB	LT	0.63	9.8	A	WB	LT	0.69	6.3	A	WB	LT	0.73	6.5	A
	NB	LTR	-	-		NB	LTR	-	-		NB	LTR	0.02	31.9	C	NB	LTR	0.02	31.9	C	NB	LTR	0.02	34.0	C	NB	LTR	-	-		NB	LTR	-	-		NB	LTR	-	-	
	SB	LTR	0.69	54.3	D	SB	LTR	0.71	55.9	E	SB	LTR	0.72	52.7	D	SB	LTR	0.72	53.1	D	SB	LTR	1.02	103.2	F	SB	LTR	1.05	113.4	F *	SB	LTR	0.70	51.1	D	SB	LTR	0.71	51.8	D
Northern Boulevard (EB-WB) &	EB	T	0.62	17.7	B	EB	T	0.63	17.4	B	EB	T	0.63	7.1	A	EB	T	0.64	7.0	A	EB	T	1.05	43.6	D	EB	T	1.07	50.9	D	EB	T	0.64	8.7	A	EB	T	0.67	8.8	A
38th Street (SB)	WB	T	1.03	31.3	C	WB	T	1.05	40.0	D	WB	T	0.58	4.0	A	WB	T	0.59	4.5	A	WB	T	0.64	15.0	B	WB	T	0.66	15.0	B	WB	T	0.67	4.1	A	WB	T	0.70	5.1	A
	SB	LR	0.84	62.7	E	SB	LR	1.03	89.3	F *	SB	LR	0.69	61.8	E	SB	LR	0.78	66.7	E	SB	LR	0.71	53.0	D	SB	LR	0.80	52.5	D	SB	LR	0.72	63.9	E	SB	LR	0.80	67.5	E
Northern Boulevard (EB-WB) &	EB	L	0.95	116.7	F	EB	L	0.98	124.4	F *	EB	L	0.48	19.4	B	EB	L	0.48	20.1	C	EB	L	0.66	9.1	A	EB	L	0.71	7.0	A	EB	L	1.05	105.0	F	EB	L	1.12	127.2	F *
39th Street (NB) &	EB	TR	0.81	25.4	C	EB	TR	0.85	27.2	C	EB	TR	0.96	28.2	C	EB	TR	1.00	36.0	D	EB	TR	1.16	83.8	F	EB	TR	1.20	100.2	F *	EB	TR	0.90	20.9	C	EB	TR	0.96	27.4	C
Steinway Street (SB)	WB	L	1.13	69.8	E	WB	L	1.17	87.0	F *	WB	L	1.60	321.4	F	WB	L	1.82	415.2	F *	WB	L	1.38	259.5	F	WB	L	1.43	280.5	F *	WB	L	1.43	241.5	F	WB	L	1.78	390.7	F *
	WB	TR	1.12	60.3	E	WB	TR	1.12	63.2	E	WB	TR	1.09	66.9	E	WB	TR	1.10	68.3	E	WB	TR	1.03	56.3	E	WB	TR	1.04	56.7	E	WB	TR	0.78	6.8	A	WB	TR	0.78	7.0	A
	NB	L	0.87	73.5	E	NB	L	0.87	71.8	E	NB	L	0.39	36.7	D	NB	L	0.39	36.2	D	NB	L	0.70	55.4	E	NB	L	0.70	50.0	D	NB	L	0.32	35.4	D	NB	L	0.32	34.7	C
	NB	TR	1.07	115.4	F	NB	TR	1.32	212.0	F *	NB	TR	1.14	127.1	F	NB	TR	1.34	209.6	F *	NB	TR	1.34	214.2	F	NB	TR	1.72	377.6	F *	NB	TR	1.17	136.1	F	NB	TR	1.40	229.8	F *
	SB	LTR	1.27	197.0	F	SB	LTR	1.83	434.3	F *	SB	LTR	1.26	191.0	F	SB	LTR	1.55	313.3	F *	SB	LTR	1.29	204.7	F	SB	LTR	1.63	338.5	F *	SB	LTR	1.33	214.3	F	SB	LTR	1.69	362.3	F *
Northern Boulevard (EB-WB) &	EB	L	0.55	27.7	C	EB	L	1.04	99.1	F *	EB	L	0.18	7.0	A	EB	L	0.37	7.5	A	EB	L	0.44	5.1	A	EB	L	0.78	10.8	B	EB	L	0.28	7.1	A	EB	L	0.87	15.4	B
41st Street (SB)	EB	T	0.48	11.0	B	EB	T	0.50	11.1	B	EB	T	0.56	7.2	A	EB	T	0.57	7.6	A	EB	T	0.91	9.3	A	EB	T	0.92	10.3	B	EB	T	0.57	6.3	A	EB	T	0.58	6.8	A
	WB	TR	1.12	57.8	E	WB	TR	1.13	62.9	E *	WB	TR	0.57	10.9	B	WB	TR	0.58	11.0	B	WB	TR	0.55	13.3	B	WB	TR	0.55	12.9	B	WB	TR	0.69	10.7	B	WB	TR	0.70	10.9	B
	SB	LR	0.25	38.1	D	SB	LR	0.26	38.3	D	SB	LR	0.35	40.8	D	SB	LR	0.35	40.8	D	SB	LR	0.45	42.0	D	SB	LR	0.45	42.0	D	SB	LR	0.33	40.3	D	SB	LR	0.33	40.4	D
Northern Boulevard (EB-WB) &	EB	TR	0.54	16.0	B	EB	TR	0.56	15.5	B	EB	TR	0.57	10.7	B	EB	TR	0.58	10.6	B	EB	TR	1.03	32.7	C	EB	TR	1.04	34.5	C	EB	TR	0.59	10.9	B	EB	TR	0.60	10.9	B
42nd Street (SB) &	WB	L	0.12	1.6	A	WB	L	0.13	1.6	A	WB	L	0.10	17.4	B	WB	L	0.10	17.5	B	WB	L	0.26	11.5	B	WB	L	0.26	11.5	B	WB	L	0.18	16.0	B	WB	L	0.18	15.8	B
Driveway (NB)	WB	T	1.13	64.5	E	WB	T	1.15	73.0	E *	WB	T	0.56	25.2	C	WB	T	0.57	25.9	C	WB	T	0.65	12.9	B	WB	T	0.68	13.5	B	WB	T	0.66	27.3	C	WB	T	0.70	28.0	C
	NB	LTR	0.30	39.8	D	NB	LTR	0.31	40.0	D	NB	LTR	0.56	55.1	E	NB	LTR	0.56	55.6	E	NB	LTR	0.54	46.6	D	NB	LTR	0.55	47.4	D	NB	LTR	0.78	73.6	E	NB	LTR	0.76	70.2	E
	SB	LTR	0.81	57.7	E	SB	LTR	1.07	108.7	F *	SB	LTR	1.09	128.6	F	SB	LTR	1.35	225.0	F *	SB	LTR	0.87	68.8	E	SB	LTR	1.21	159.2	F *	SB	LTR	1.16	147.1	F	SB	LTR	1.70	369.8	F *
Northern Boulevard (EB-WB) &	EB	LTR	0.85	22.8	C	EB	LTR	1.61	141.1	F *	EB	LTR	0.84	30.3	C	EB	LTR	0.91	35.7	D	EB	LTR	1.16	84.0	F	EB	LTR	1.39	187.8	F *	EB	LTR	0.88	31.3	C	EB	LTR	1.28	158.7	F *
43rd Street &	WB	L	0.65	6.8	A	WB	L	0.74	8.4	A	WB	L	1.03	86.3	F	WB	L	1.10	108.1	F *	WB	L	1.14	126.8	F	WB	L	1.14	118.5	F	WB	L	1.27	162.7	F	WB	L	1.50	253.4	F *
42nd Place (NB)	WB	TR	1.09	52.0	D	WB	TR	1.14	72.4	E *	WB	TR	0.58	11.2	B	WB	TR	0.60	11.4	B	WB	TR	1.10	76.1	E	WB	TR	1.17	104.7	F *	WB	TR	0.92	20.6	C	WB	TR	0.98	25.6	C
	NB	LTR	0.88	68.0	E	NB	LTR	0.93	76.5	E *	NB	LTR	0.99	92.4	F	NB	LTR	1.01	98.6	F *	NB	LTR	1.04	103.0	F	NB	LTR	1.10	121.2	F *	NB	LTR	1.15	139.5	F	NB	LTR	1.19	154.7	F *
Northern Boulevard (EB-WB) &	EB	L	0.22	15.9	B	EB	L	0.22	11.0	B	EB	L	0.16	4.1	A	EB	L	0.17	4.0	A	EB	L	0.08	1.6	A	EB	L	0.10	1.9	A	EB	L	0.21	4.7	A	EB	L	0.26	3.6	A
44th Street (SB) &	EB	TR	0.47	9.1	A	EB	TR	0.49	12.4	B	EB	TR	0.64	5.0	A	EB	TR	0.65	4.8	A	EB	TR	1.01	14.6	B	EB	TR	1.03	19.6	B	EB	TR	0.66	4.7	A	EB	TR	0.67	4.0	A
35th Avenue	WB	TR	1.13	65.1	E	WB	TR	1.17	80.8	F *	WB	TR	0.69	16.8	B	WB	TR	0.72	17.3	B	WB	TR	0.70	20.7	C	WB	TR	0.76	22.5	C	WB	TR	0.80	19.6	B	WB	TR	0.87	21.6	C
	SB	LTR	0.82	71.2	E	SB	LTR	0.93	89.6	F *	SB	LTR	0.94	92.7	F	SB	LTR	1.04	121.4	F *	SB	LTR	1.25	193.1	F	SB	LTR	1.44	271.0	F *	SB	LTR	1.44	271.1	F	SB	LTR	1.67	372.7	F *
Northern Boulevard (EB-WB) &	EB	T	0.45	15.6	B	EB	T	0.47	16.8	B	EB	T	0.64	6.4	A	EB	T	0.65	6.3	A	EB	T	0.94	10.6	B	EB	T	0.96	11.7	B	EB	T	0.66	6.1	A	EB	T	0.67	5.8	A
46th Street (SB)	WB	T	1.13	62.8	E	WB	T	1.16	76.7	E *	WB	T	0.61	3.9	A	WB	T	0.63	4.0	A	WB	T	0.63	10.5	B	WB	T	0.67	10.6	B	WB	T	0.76	3.6	A	WB	T	0.81	3.9	A
	SB	LR	0.87	70.6	E	SB	LR	0.89	74.6	E	SB	LR	0.69	55.6	E	SB	LR	0.71	57.1	E	SB	LR	0.57	45.9	D	SB	LR	0.65	49.5	D	SB	LR	0.63	50.1	D	SB	LR	0.72	55.8	E *
Northern Boulevard (EB-WB) &	EB	TR	0.79	15.7	B	EB	TR	0.83	19.9	B	EB	TR	1.06	56.2	E	EB	TR	1.09	68.3	E *	EB	TR	1.22	107.2	F	EB	TR	1.25	122.3	F *	EB	TR	1.20	112.8	F	EB	TR	1.23	127.9	F *
48th Street (NB) &	WB	L	0.87	24.3	C	WB	L	0.91	30.5	C	WB	L	1.18	162.2	F	WB	L	1.20	171.5	F *	WB	L	1.13	137.4	F	WB	L	1.13	134.8	F	WB	L	1.10	97.0	F	WB	L	1.10	97.1	F
34th Avenue	WB	TR	1.10	51.8	D	WB	TR	1.13	65.4	E *	WB	TR	1.16	83.4	F	WB	TR	1.20	104.0	F *	WB	TR	1.18	97.1	F	WB	TR	1.25	126.2	F *	WB	TR	1.19	91.4	F	WB	TR	1.24	111.3	F *
	NB	L	1.32	217.4	F	NB	L	1.35	229.8	F *	NB	L	1.60	343.6	F	NB	L	1.65	365.3	F *	NB	L	1.50	299.7	F	NB	L	1.56	325.5	F *	NB	L	1.63	355.8	F	NB	L	1.68	376.8	F *
	NB	TR	0.48	45.4	D	NB	TR	0.48	45.4	D	NB	TR	0.91	83.5	F	NB	TR	0.91	83.5	F	NB	TR	1.09	128.6	F	NB	TR	1.09	128.6	F	NB	TR	1.05	113.6	F	NB	TR	1.05	113.6	F
Northern Boulevard (EB-WB) &	EB	L	0.79	60.1	E	EB	L	0.79	60.2	E	EB	L	0.63	27.1	C	EB	L	0.63	27.3	C	EB	L	1.12	103.9	F	EB	L	1.14	115.0	F *	EB	L	0.73	28.5	C	EB	L	0.74	28.8	C
51st Street (SB) &	EB	TR	0.73	36.5	D	EB	TR	0.75	37.6	D	EB	TR	0.93	46.5	D	EB	TR	0.94	47.2	D	EB	TR	1.14	71.8	E	EB	TR	1.15	76.0	E	EB	TR	0.90	39.2	D	EB	TR	0.92	40.0	D
Woodside Avenue (NB)	WB	L	0.26	14.9	B	WB	L	0.27	15.3	B	WB	L	0.27	18.2	B	WB	L	0.27	18.5	B	WB	L	0.29	29.1	C	WB	L	0.29	29.1	C	WB	L	0.26	18.0	B	WB	L	0.26	18.4	B
	WB	TR	1.13	96.9	F	WB	TR	1.14	101.8	F *	WB	TR	0.66	24.2	C	WB	TR	0.67	24.4	C	WB	TR	0.69	29.3	C	WB	TR	0.70	29.8	C	WB	TR	0.73	26.2	C	WB	TR	0.74	26.6	C
	NB	LTR	1.20	161.2	F	NB	LTR	1.20	161.2	F	NB	LTR	1.19	158.0	F	NB	LTR	1.19	158.0	F	NB	LTR	1.19	150.5	F	NB	LTR	1.19	150.5	F	NB	LTR	1.22	167.2	F	NB	LTR	1.22	167.2	F
	SB	LT	0.48	39.9	D	SB	LT	0.48	39.9	D	SB	LT	0.40	37.6	D	SB	LT	0.40	37.6	D	SB	LT	0.47	34.2	C	SB	LT	0.47	34.2	C	SB	LT	0.52	40.5	D	SB	LT	0.52	40.5	D
	SB	R	1.18	147.3	F	SB	R	1.26	179.6	F *	SB	R	0.86	66.8	E	SB	R	0.92	76.4	E *	SB	R	0.70	44.6	D	SB	R	0.83	55.3	E *	SB	R	1.22	167.4	F	SB	R	1.37	229.3	F *

Intersections	No-Action AM Peak Hour					With-Action AM Peak Hour					No-Action Midday Peak Hour					With-Action Midday Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Skillman Avenue (WB) &	WB	LT	0.54	15.1	B	WB	LT	0.54	15.1	B	WB	LT	0.27	12.1	B	WB	LT	0.27	12.1	B
39th Street (NB-SB)	WB	R	0.35	14.1	B	WB	R	0.42	15.4	B	WB	R	0.27	12.9	B	WB	R	0.33	13.7	B
	NB	LT	0.75	20.5	C	NB	LT	0.89	31.6	C	NB	LT	0.84	34.8	C	NB	LT	0.97	54.5	D
	SB	T	0.72	16.7	B	SB	T	0.81	16.5	B	SB	T	0.78	28.2	C	SB	T	0.85	32.2	C
	SB	R	0.82	20.0	B	SB	R	0.90	19.7	B	SB	R	0.38	16.6	B	SB	R	0.42	18.0	B
43rd Avenue (EB) &	EB	LT	0.23	11.8	B	EB	LT	0.25	12.0	B	EB	LT	0.26	12.0	B	EB	LT	0.28	12.2	B
39th Street (NB-SB)	EB	R	0.07	10.8	B	EB	R	0.07	10.8	B	EB	R	0.07	10.8	B	EB	R	0.07	10.8	B
	NB	TR	0.66	20.0	C	NB	TR	0.69	21.2	C	NB	TR	0.69	21.1	C	NB	TR	0.72	22.3	C
	SB	LT	1.38	202.4	F	SB	LT	1.65	315.6	F *	SB	LT	1.48	241.2	F	SB	LT	1.71	339.4	F *
Greenpoint Avenue (EB-WB) &	EB	LTR	0.29	33.4	C	EB	LTR	0.35	37.3	D	EB	LTR	0.50	34.7	C	EB	LTR	0.54	36.6	D
39th Street (NB-SB)	WB	LT	0.36	15.9	B	WB	LT	0.38	16.3	B	WB	LT	0.21	13.9	B	WB	LT	0.22	14.0	B
	WB	R	0.06	12.4	B	WB	R	0.06	12.4	B	WB	R	0.03	12.0	B	WB	R	0.03	12.0	B
	NB	LTR	0.33	29.7	C	NB	LTR	0.33	29.7	C	NB	LTR	0.25	28.2	C	NB	LTR	0.25	28.2	C
	SB	LTR	0.66	40.2	D	SB	LTR	0.76	46.6	D	SB	LTR	0.61	37.5	D	SB	LTR	0.64	38.8	D
Greenpoint Avenue (EB-WB) &	EB	TR	0.35	11.9	B	EB	TR	0.39	14.6	B	EB	TR	0.52	19.7	B	EB	TR	0.56	21.4	C
38th Street (SB)	WB	LT	0.63	27.4	C	WB	LT	0.71	27.9	C	WB	LT	0.45	18.7	B	WB	LT	0.48	19.1	B
	SB	LTR	0.61	37.9	D	SB	LTR	0.70	42.0	D	SB	LTR	0.50	34.2	C	SB	LTR	0.55	35.8	D
Greenpoint Avenue (EB-WB) &	EB	LT	0.43	7.7	A	EB	LT	0.52	11.6	B	EB	LT	0.33	18.1	B	EB	LT	0.34	18.1	B
Hunters Point Avenue (NW-SE)	WB	TR	0.95	49.5	D	WB	TR	1.10	90.3	F *	WB	TR	0.71	25.8	C	WB	TR	0.76	28.7	C
	SE	LTR	0.72	35.5	D	SE	LTR	0.75	38.0	D	SE	LTR	1.18	137.3	F	SE	LTR	1.23	161.5	F *
	NW	LTR	0.97	49.3	D	NW	LTR	1.01	58.4	E *	NW	LTR	1.12	104.5	F	NW	LTR	1.17	122.2	F *
Greenpoint Avenue (NE-SW) &	WB	LTR	0.95	30.3	C	WB	LTR	0.95	30.3	C	WB	LTR	0.78	25.8	C	WB	LTR	0.78	25.8	C
Queens Midtown Expressway (WB)	NE	LT	0.34	16.6	B	NE	LT	0.34	16.6	B	NE	LT	0.25	5.4	A	NE	LT	0.25	5.4	A
	SW	TR	0.71	28.2	C	SW	TR	0.78	28.6	C	SW	TR	0.63	21.5	C	SW	TR	0.66	22.1	C
Greenpoint Avenue (NE-SW) &	EB	LTR	1.05	78.1	E	EB	LTR	1.05	78.1	E	EB	LTR	0.93	44.7	D	EB	LTR	0.93	44.7	D
Borden Avenue (EB)	NE	T	0.40	36.6	D	NE	T	0.40	36.6	D	NE	T	0.42	32.0	C	NE	T	0.42	32.0	C
	NE	R	1.10	114.6	F	NE	R	1.10	114.6	F	NE	R	1.10	104.5	F	NE	R	1.10	104.5	F
	SW	L	1.12	107.2	F	SW	L	1.23	150.9	F *	SW	L	1.11	89.6	F	SW	L	1.16	107.4	F *
	SW	T	0.86	24.0	C	SW	T	0.86	23.1	C	SW	T	0.63	10.8	B	SW	T	0.63	10.6	B
Unsignalized																				
36th Avenue (EB-WB) &	EB	LR	-	7.4	A	EB	LR	-	7.8	A	EB	LR	-	8.3	A	EB	LR	-	8.9	A
41st Street (NB)	WB	LTR	-	8.8	A	WB	LTR	-	9.5	A	WB	LTR	-	8.9	A	WB	LTR	-	9.6	A
(All-Way Stop Controlled)	NB	LT	-	7.9	A	NB	LT	-	8.3	A	NB	LT	-	8.2	A	NB	LT	-	8.8	A
Northern Boulevard (EB-WB) &	EB	L	0.02	15.6	C	EB	L	0.03	18.6	C	EB	L	0.02	11.8	B	EB	L	0.02	12.6	B
36th Avenue (NB-SB) & Driveway (NB)	WB	L	0.00	0.0	A	WB	L	0.00	0.0	A	WB	L	0.01	9.4	A	WB	L	0.01	9.4	A
	NB	LTR	0.01	9.0	A	NB	LTR	0.01	9.0	A	NB	LTR	0.04	10.5	B	NB	LTR	0.04	10.5	B
Northern Boulevard (EB-WB) &	EB	L	0.21	0.0	A	EB	L	0.22	0.0	A	EB	L	0.02	0.7	A	EB	L	0.02	0.8	A
Newtown Road (SB)	SB	R	0.03	12.9	B	SB	R	0.03	12.9	B	SB	R	0.05	10.1	B	SB	R	0.05	10.2	B
Hunters Point Avenue (WB) &	SB	R	0.04	14.2	B	SB	R	0.04	14.5	B	SB	R	0.02	12.1	B	SB	R	0.02	12.3	B
38th Street (SB)																				
Queens Midtown Expressway (WB) &	SB	R	0.08	14.4	B	SB	R	0.08	14.8	B	SB	R	0.05	12.2	B	SB	R	0.05	12.5	B
39th Street (SB)																				

Intersections	No-Action PM Peak Hour					With-Action PM Peak Hour					No-Action SAT Peak Hour					With-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Skillman Avenue (WB) &	WB	LT	0.31	12.4	B	WB	LT	0.31	12.4	B	WB	LT	0.31	12.5	B	WB	LT	0.31	12.5	B
39th Street (NB-SB)	WB	R	0.32	13.5	B	WB	R	0.38	14.4	B	WB	R	0.35	13.9	B	WB	R	0.38	14.4	B
	NB	LT	1.03	62.2	E	NB	LT	1.29	159.8	F *	NB	LT	0.75	28.4	C	NB	LT	0.88	36.2	D
	SB	T	0.84	14.8	B	SB	T	0.91	15.1	B	SB	T	0.74	29.5	C	SB	T	0.81	34.0	C
	SB	R	0.33	7.9	A	SB	R	0.37	7.6	A	SB	R	0.23	16.9	B	SB	R	0.28	18.3	B
43rd Avenue (EB) &	EB	LT	0.41	13.4	B	EB	LT	0.45	13.9	B	EB	LT	0.11	10.9	B	EB	LT	0.14	11.1	B
39th Street (NB-SB)	EB	R	0.06	10.7	B	EB	R	0.06	10.7	B	EB	R	0.13	11.4	B	EB	R	0.13	11.4	B
	NB	TR	0.68	20.6	C	NB	TR	0.73	22.5	C	NB	TR	0.84	29.2	C	NB	TR	0.88	33.5	C
	SB	LT	1.57	289.6	F	SB	LT	1.82	397.7	F *	SB	LT	1.72	350.2	F	SB	LT	2.03	483.1	F *
Greenpoint Avenue (EB-WB) &	EB	LTR	0.59	27.9	C	EB	LTR	0.66	30.7	C	EB	LTR	0.58	36.9	D	EB	LTR	0.66	40.0	D
39th Street (NB-SB)	WB	LT	0.18	13.5	B	WB	LT	0.19	13.6	B	WB	LT	0.24	14.1	B	WB	LT	0.25	14.3	B
	WB	R	0.06	12.3	B	WB	R	0.06	12.3	B	WB	R	0.01	11.8	B	WB	R	0.01	11.8	B
	NB	LTR	0.18	27.2	C	NB	LTR	0.18	27.2	C	NB	LTR	0.16	26.8	C	NB	LTR	0.16	26.8	C
	SB	LTR	0.70	41.3	D	SB	LTR	0.75	44.1	D	SB	LTR	0.69	40.6	D	SB	LTR	0.75	44.4	D
Greenpoint Avenue (EB-WB) &	EB	TR	0.65	36.5	D	EB	TR	0.71	39.6	D	EB	TR	0.58	19.6	B	EB	TR	0.63	21.7	C
38th Street (SB)	WB	LT	0.32	17.6	B	WB	LT	0.36	18.7	B	WB	LT	0.47	19.1	B	WB	LT	0.52	19.5	B
	SB	LTR	0.55	35.6	D	SB	LTR	0.59	36.8	D	SB	LTR	0.43	32.0	C	SB	LTR	0.48	33.4	C
Greenpoint Avenue (EB-WB) &	EB	LT	0.32	8.0	A	EB	LT	0.32	8.1	A	EB	LT	0.55	22.9	C	EB	LT	0.60	24.9	C
Hunters Point Avenue (NW-SE)	WB	TR	0.53	18.9	B	WB	TR	0.59	19.8	B	WB	TR	0.64	22.2	C	WB	TR	0.72	25.8	C
	SE	LTR	0.87	54.4	D	SE	LTR	0.96	72.2	E *	SE	LTR	0.91	57.9	E	SE	LTR	0.97	70.9	E *
	NW	LTR	0.98	58.4	E	NW	LTR	1.05	77.9	E *	NW	LTR	1.13	109.0	F	NW	LTR	1.19	133.4	F *
Greenpoint Avenue (NE-SW) &	WB	LTR	0.67	24.9	C	WB	LTR	0.67	24.9	C	WB	LTR	0.77	25.3	C	WB	LTR	0.77	25.3	C
Queens Midtown Expressway (WB)	NE	LT	0.34	7.8	A	NE	LT	0.34	7.8	A	NE	LT	0.31	5.1	A	NE	LT	0.31	5.1	A
	SW	TR	0.53	21.2	C	SW	TR	0.56	21.4	C	SW	TR	0.60	20.7	C	SW	TR	0.64	21.4	C
Greenpoint Avenue (NE-SW) &	EB	LTR	0.98	55.5	E	EB	LTR	0.98	55.5	E	EB	LTR	1.04	67.4	E	EB	LTR	1.04	67.4	E
Borden Avenue (EB)	NE	T	0.67	53.4	D	NE	T	0.67	53.4	D	NE	T	0.55	34.9	C	NE	T	0.55	34.9	C
	NE	R	1.10	123.3	F	NE	R	1.10	123.3	F	NE	R	1.10	109.9	F	NE	R	1.10	109.9	F
	SW	L	1.04	82.3	F	SW	L	1.10	100.9	F *	SW	L	1.09	83.8	F	SW	L	1.17	111.3	F *
	SW	T	0.72	23.8	C	SW	T	0.72	23.2	C	SW	T	0.47	9.0	A	SW	T	0.47	8.7	A
Unsignalized																				
36th Avenue (EB-WB) &	EB	LR	-	9.1	A	EB	LR	-	11.2	B	EB	LR	-	7.9	A	EB	LR	-	9.8	A
41st Street (NB)	WB	LTR	-	10.2	B	WB	LTR	-	13.0	B	WB	LTR	-	9.5	A	WB	LTR	-	12.5	B
(All-Way Stop Controlled)	NB	LT	-	9.1	A	NB	LT	-	10.6	B	NB	LT	-	8.3	A	NB	LT	-	9.8	A
Northern Boulevard (EB-WB) &	EB	L	0.05	13.3	B	EB	L	0.05	14.8	B	EB	L	0.02	12.0	B	EB	L	0.02	13.4	B
36th Avenue (NB-SB) & Driveway (NB)	WB	L	0.01	11.7	B	WB	L	0.01	11.7	B	WB	L	0.01	9.8	A	WB	L	0.01	9.9	A
	NB	LTR	0.05	11.6	B	NB	LTR	0.05	11.7	B	NB	LTR	0.01	9.2	A	NB	LTR	0.01	9.2	A
Northern Boulevard (EB-WB) &	EB	L	0.01	0.3	A	EB	L	0.01	0.4	A	EB	L	0.02	0.7	A	EB	L	0.02	0.8	A
Newtown Road (SB)	SB	R	0.03	10.6	B	SB	R	0.03	10.7	B	SB	R	0.05	11.6	B	SB	R	0.05	11.6	B
Hunters Point Avenue (WB) &	SB	R	0.04	12.9	B	SB	R	0.05	13.3	B	SB	R	0.05	13.4	B	SB	R	0.05	13.8	B
38th Street (SB)																				
Queens Midtown Expressway (WB) &	SB	R	0.08	12.7	B	SB	R	0.09	13.2	B	SB	R	0.03	13.4	B	SB	R	0.03	13.8	B
39th Street (SB)																				

* Denotes a significant adverse impact.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline