Town of North Hempstead
Presentation to Greater Council (GC) 11/10/2021
Manhasset - Park Avenue at Nassau Ave Intersection
Proposed Redesign and Traffic Safety Study

GC notes:

This furthers the long proposed safety concerns at Park/Nassau Aves where we have a major pedestrian crossing of LIRR commuters to & from the platform entrance. Currently, the "V" shape intersection requires two pedestrian roadway crossings; The proposed redesign reduces it to a safer 'one roadway pedestrian crossing' intersection.

While focus is the Park/Nassau intersection redesign, the study and proposed changes include the adjacent intersections of Park/Onderdonk and Park/Munsey Place as these intersections do not meet current vehicular/ pedestrian safety standards.

Feedback from immediate affected area residents and commercial properties is encouraged on these proposed changes/ alternatives .

May 20, 2021

Victor Thomas
Commissioner of Public Works
Town of North Hempstead
285 Denton Avenue
New Hyde Park, NY 11040

Re: Park Avenue, Manhasset
Traffic Safety Study from Plandome Road to Munsey Place
Addendum No. 2
de Bruin No. 6269

Dear Victor,

In accordance with your e-mail of May 5, 2021 we offer this assessment of fire truck maneuverability through the project area. Firehouses are all located west of the project area so analysis has been performed for the fire truck heading east on Park Avenue.

Vehicle sweep path analysis software (Autoturn) was used to determine whether the Manhasset-Lakeville Tower Ladder truck can safely navigate the proposed alternate geometries at Nassau Avenue and at Onderdonk Avenue. This is the Department's largest vehicle and would present the greatest challenge to any changes in roadway geometry.

A summary of impacts is shown in the table below and drawings depicting the truck turning movements are shown on the following pages.

Issue	**Impacts**
Access to #57 Nassau Ave	The eastbound firetruck can make the turns from Park Avenue onto Nassau Avenue under both Alternate 1 and Alternate 2 designs. To get to the front of #57 Nassau, the truck would pull east on Nassau and then back up to the property.
Turning at Park Avenue and Onderdonk	Under Existing Conditions, Alternate 1 (with bump out), and Alternate 2, the fire truck can make the turn from Park onto southbound Onderdonk. In all cases the truck will encroach into the northbound lane on Onderdonk. In the Existing Condition and Alternate 1 with the bump out, the truck encroaches slightly on the westbound lane on Park.

Issue	Impacts
Turning at Munsey Place	Under Existing Conditions, Alternate 1 (with bump out), and Alternate 2, the fire truck can make the turn from Park onto southbound Munsey. In all cases the truck will encroach into the northbound lane on Munsey. With the bump out the truck comes very close to the east curb line of Munsey. In all cases the truck encroaches slightly on the westbound lane on Park.

In summary, the addition of bump-outs and other proposed changes to street geometry have very little impact on the maneuverability of the fire trucks and other emergency vehicles through Park Ave and its adjoining streets.

Summary of Project Status / Recommendations
Our original report, dated July 17, 2020,assessed traffic safety issues for Park Avenue from Plandome Road to Munsey Place and made recommendations for improvements. An addendum report, issued November 5, 2020 assessed the differences between Design Alternate No. 1 and No. 2 at Nassau Avenue for – Parking, Vehicle Movement, Pedestrian Movement, and access to adjacent properties. Copies of these reports are attached for your convenience.

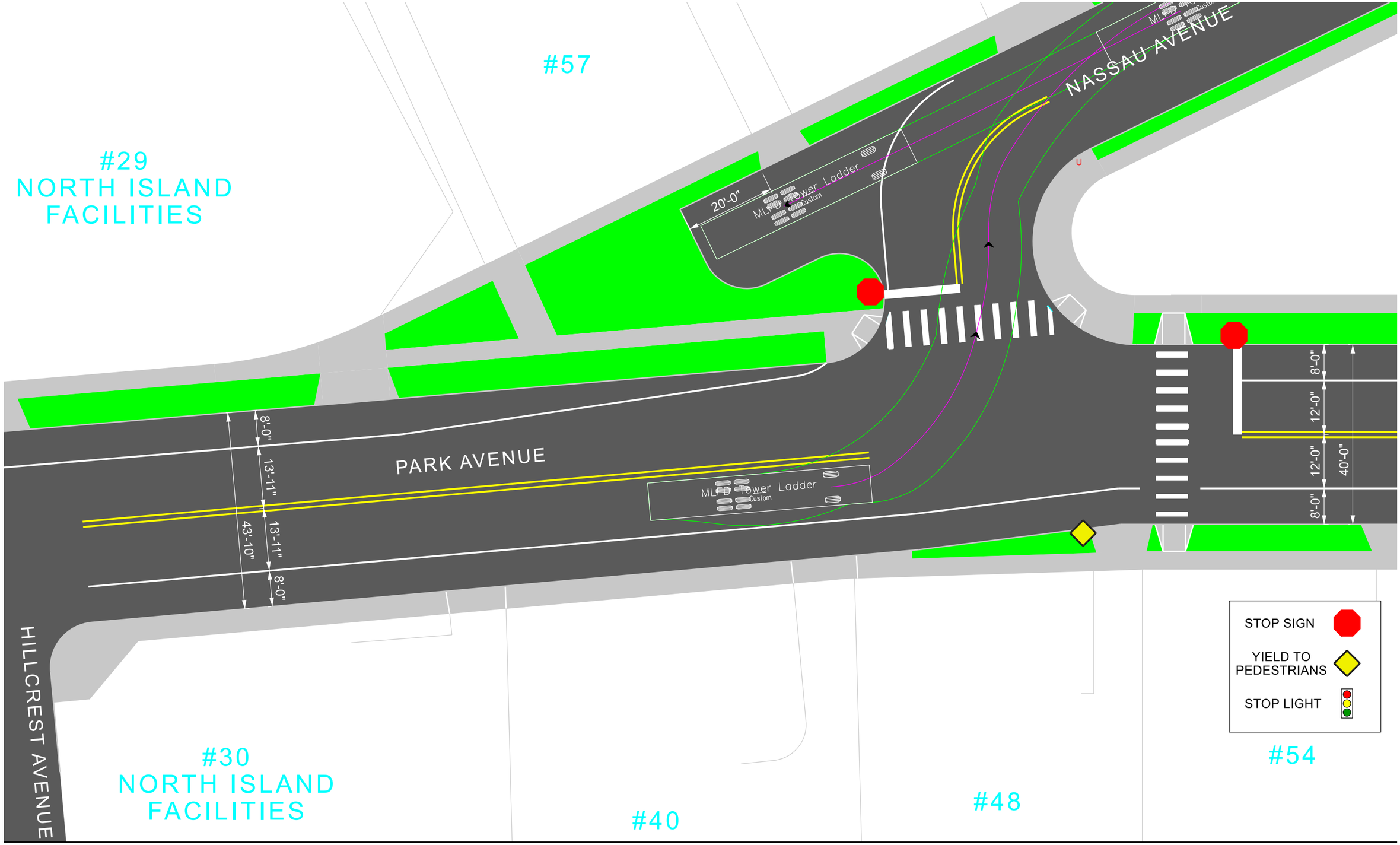
This second addendum has addressed fire truck movement at the three (3) intersections in the project.

In our opinion the Alternative 2 Design at all intersections is the preferred improvement for enhancing vehicle and pedestrian safety on Park Avenue. It has the one drawback of the loss of four (4) on street parking spaces in the vicinity of Nassau Avenue. Our recommendation is that the Town move forward with the implementation of Alternative 2 as depicted on the attached drawings.

Thank you for the opportunity to present this work. We are available at your convenience to discuss it.

Sincerely yours,

Robert W. de Bruin, P.E.



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TOWN
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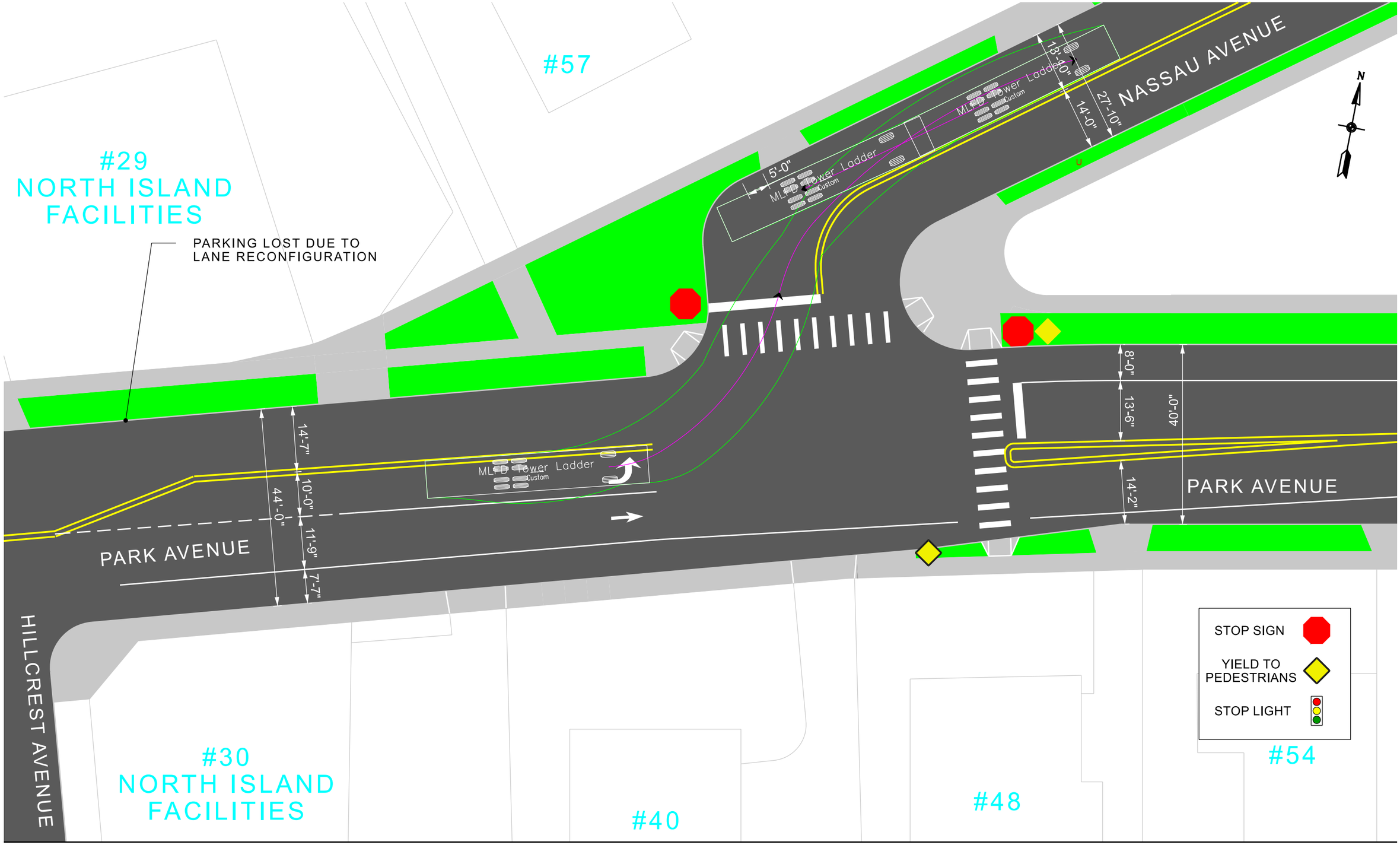
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE - ALTERNATIVE 1
FIRE TRUCK PATH

SCALE: 1'=20' SHEET 1



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TRAFFIC STUDY OF PARK AVENUE
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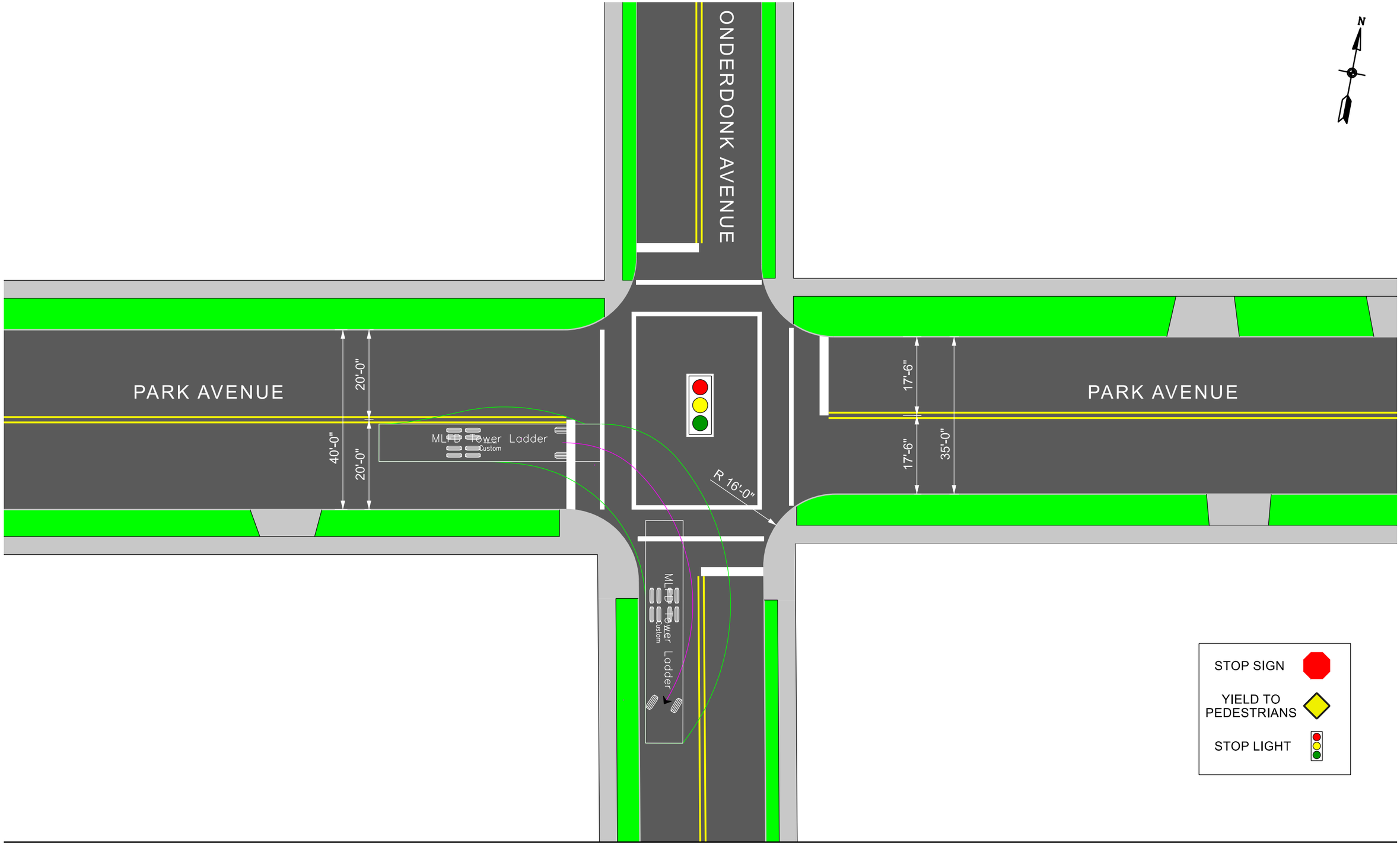
NASSAU AVENUE - ALTERNATIVE 2
FIRE TRUCK PATH

SCALE: 1'=20' SHEET 2



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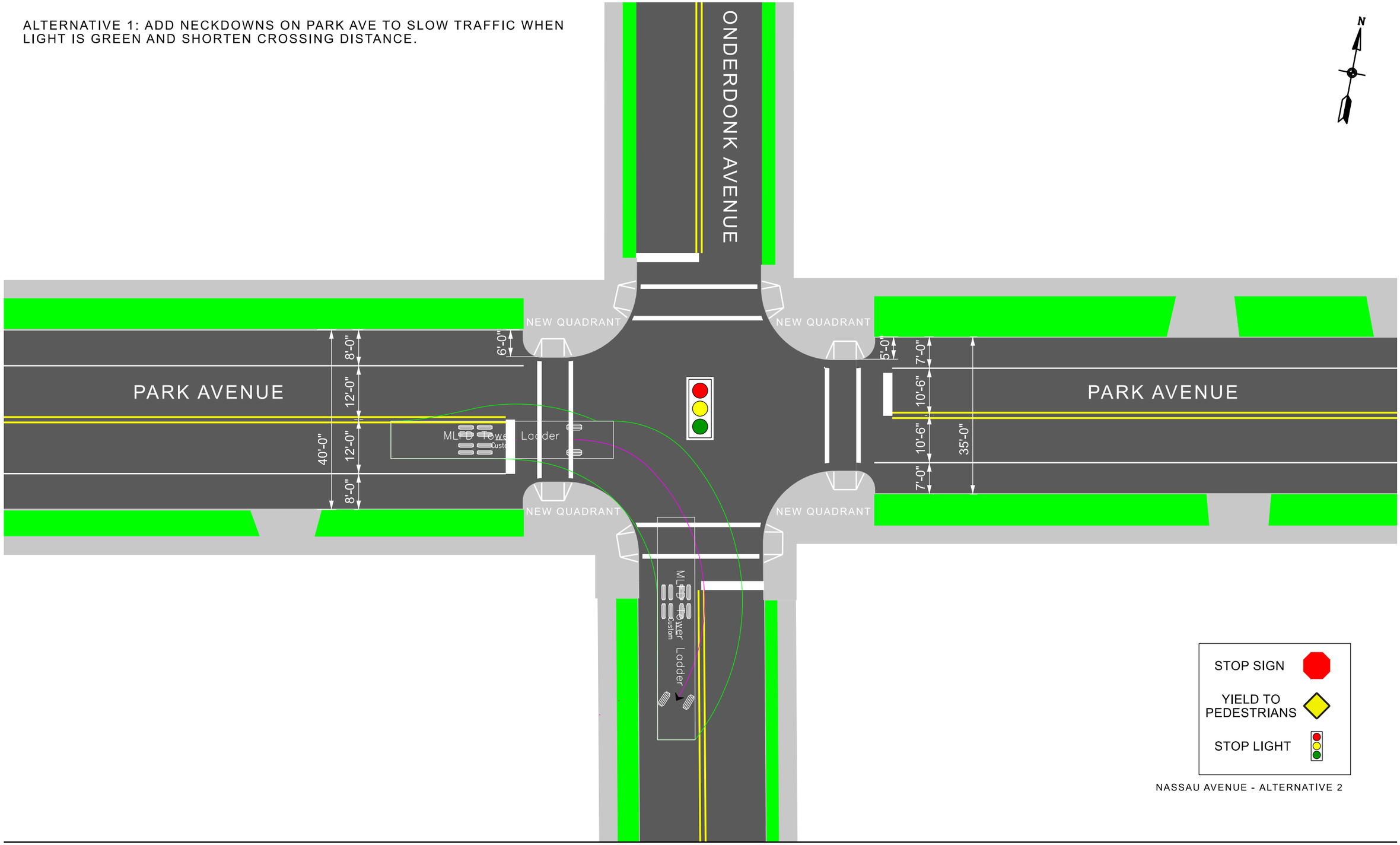
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

ONDERDONK AVENUE - EXISTING CONDITIONS FIRE TRUCK PATH

SCALE: 1'=20' SHEET 3

ALTERNATIVE 1: ADD NECKDOWNS ON PARK AVE TO SLOW TRAFFIC WHEN LIGHT IS GREEN AND SHORTEN CROSSING DISTANCE.



NASSAU AVENUE - ALTERNATIVE 2

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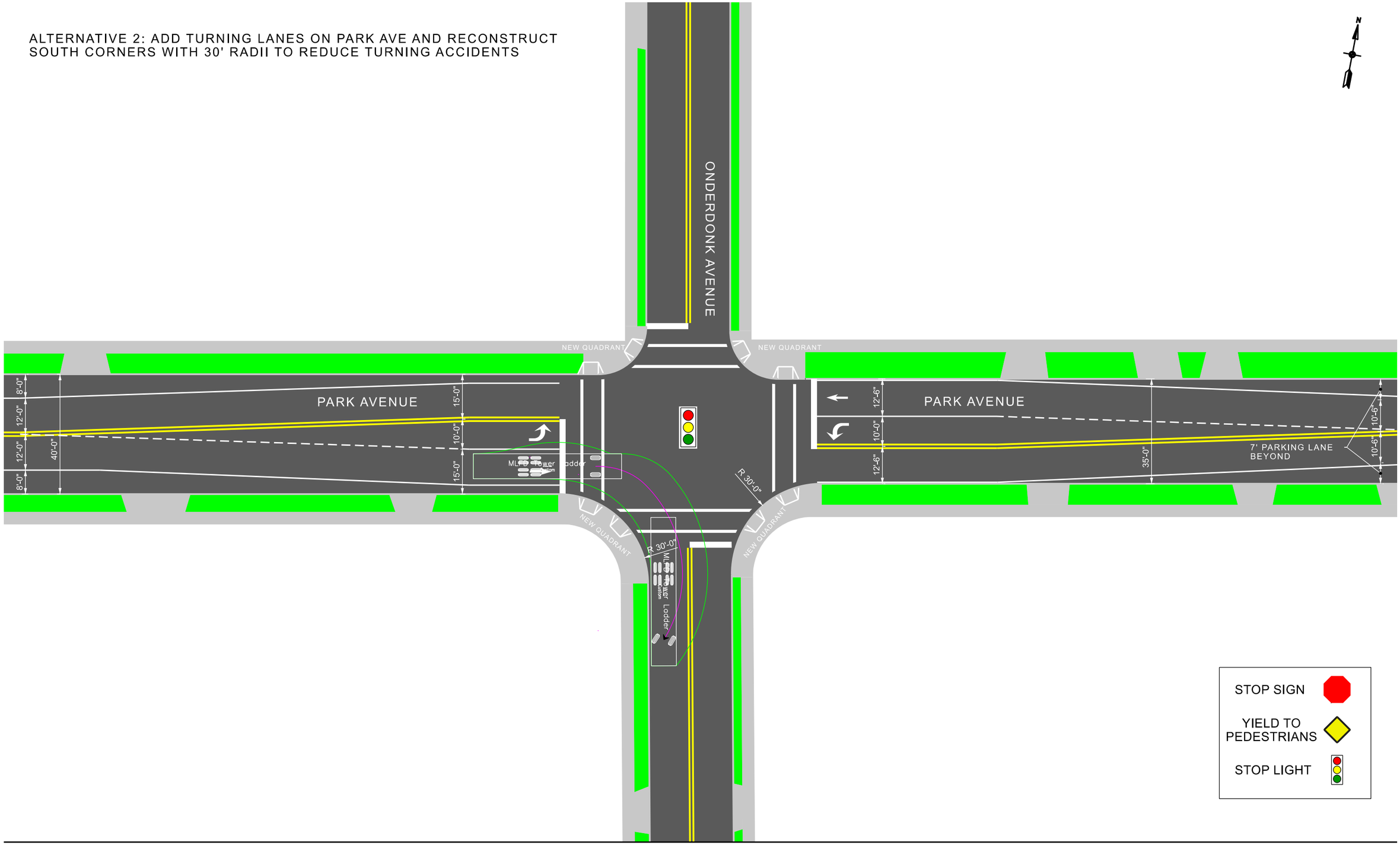
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

ONDERDONK AVENUE - ALTERNATIVE 1
FIRE TRUCK PATH

SCALE: 1'=20' SHEET 4

ALTERNATIVE 2: ADD TURNING LANES ON PARK AVE AND RECONSTRUCT SOUTH CORNERS WITH 30' RADII TO REDUCE TURNING ACCIDENTS



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TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
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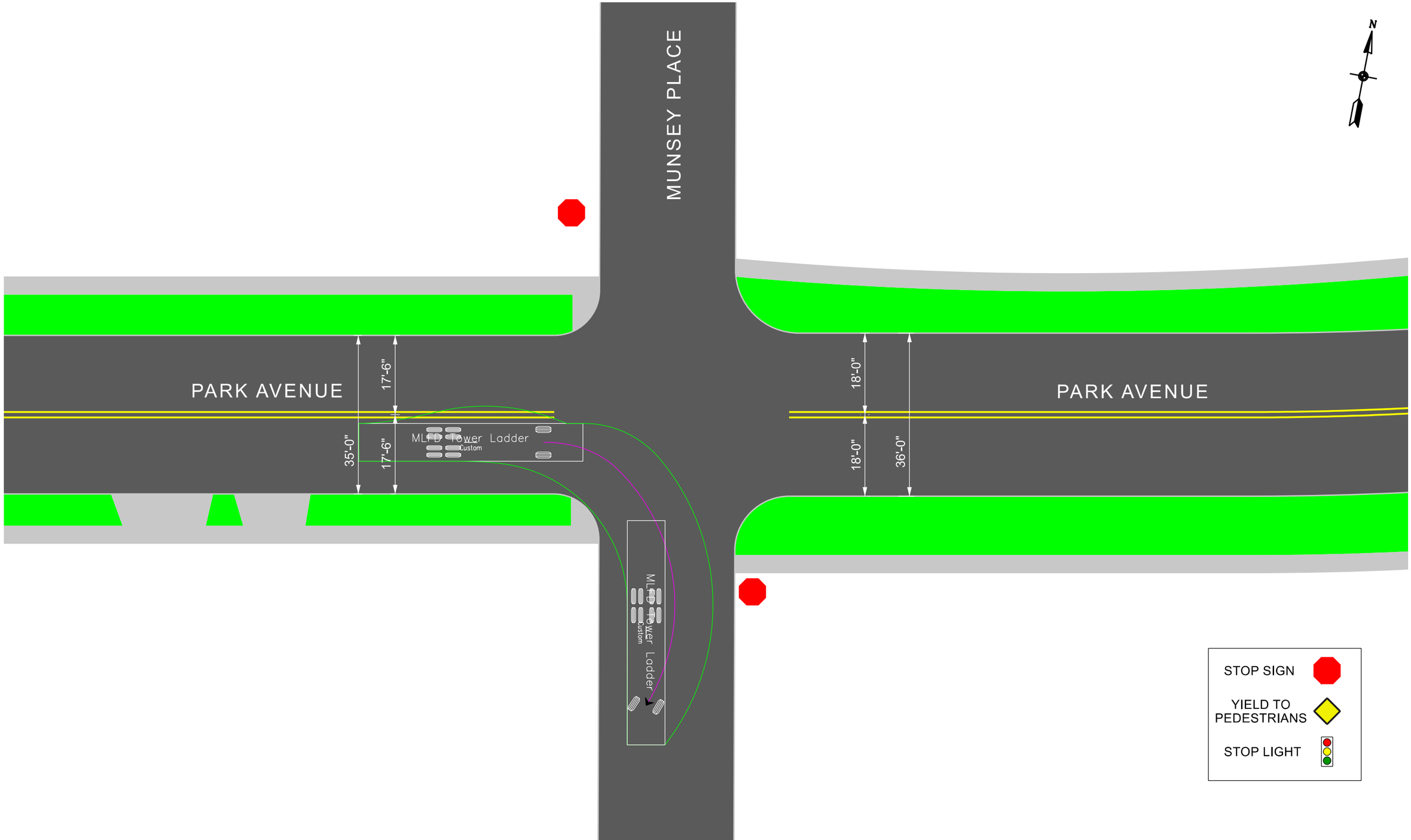
ONDERDONK AVENUE - ALTERNATIVE 2
FIRE TRUCK PATH

SCALE: 1'=30' SHEET 5



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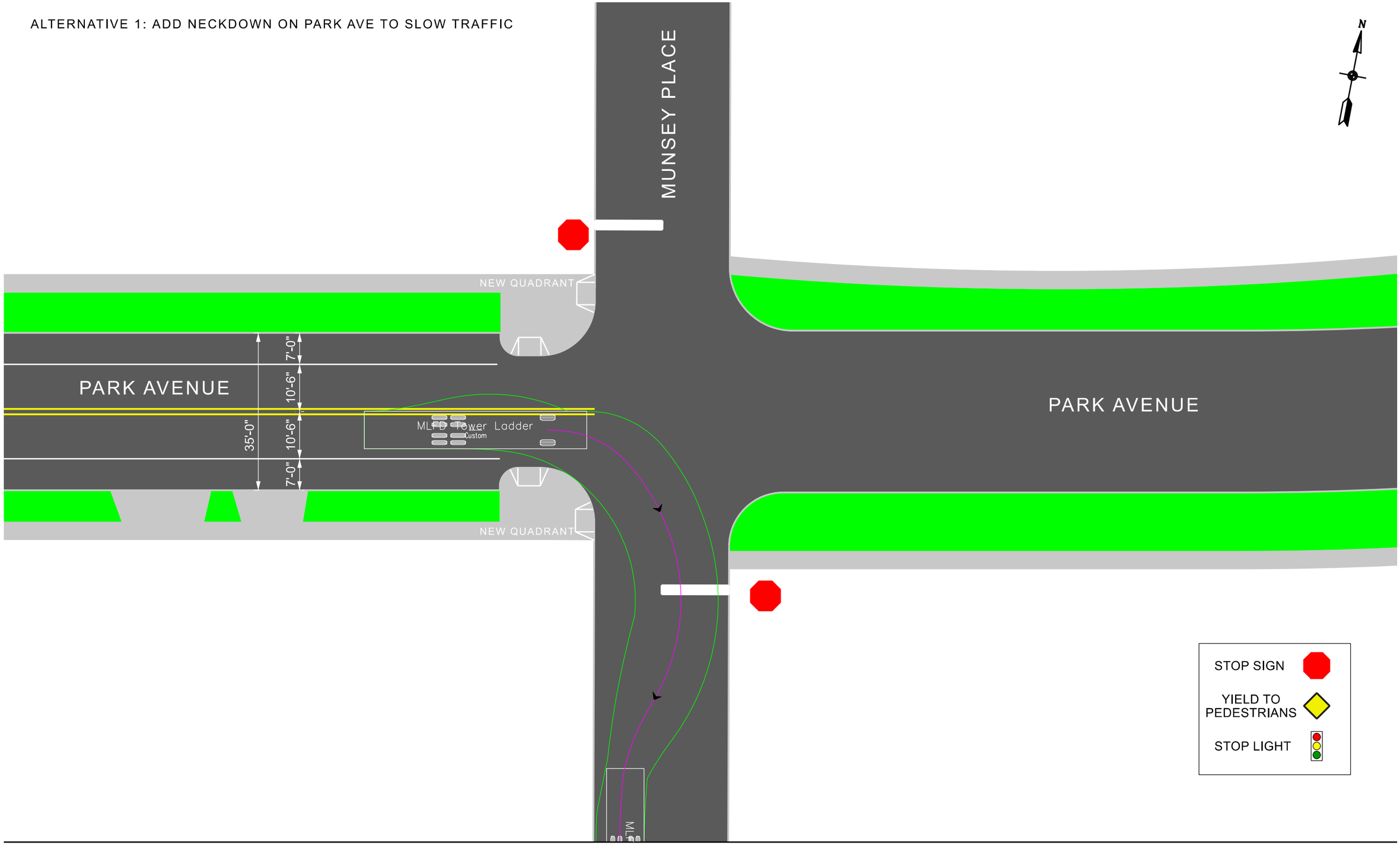
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

MUNSEY PLACE - EXISTING CONDITIONS
FIRE TRUCK PATH

SCALE: 1'=20' SHEET 6

ALTERNATIVE 1: ADD NECKDOWN ON PARK AVE TO SLOW TRAFFIC



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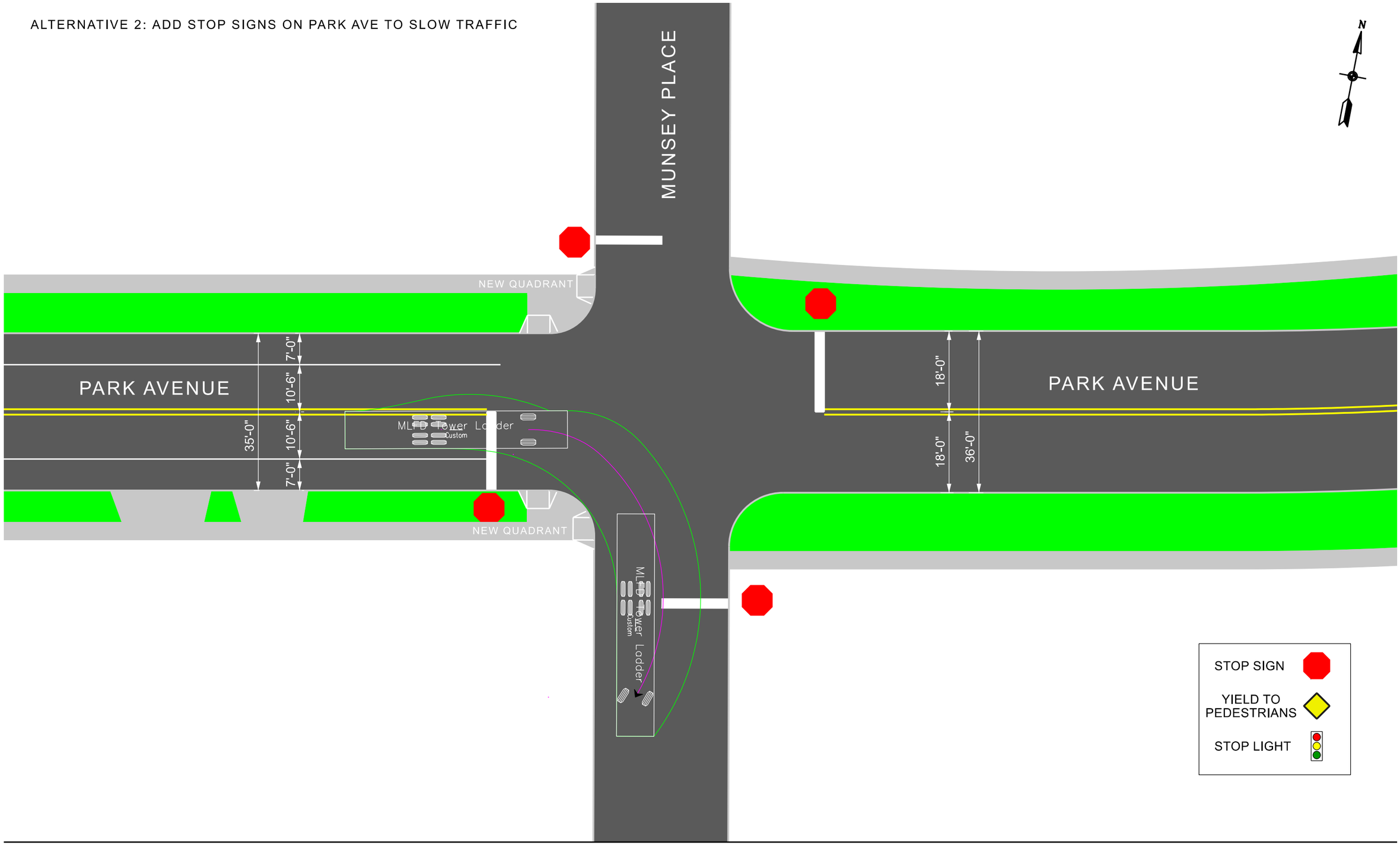
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

MUNSEY PLACE - ALTERNATIVE 1
FIRE TRUCK PATH

SCALE: 1'=20' SHEET 7

ALTERNATIVE 2: ADD STOP SIGNS ON PARK AVE TO SLOW TRAFFIC



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TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

MUNSEY PLACE - ALTERNATIVE 2
FIRE TRUCK PATH

SCALE: 1'=20' SHEET 8

ATTACHMENTS

Original Report – July 17th, 2020

Addenda No. 1 – November 5th 2020

July 17, 2020

Victor Thomas
Acting Commissioner of Public Works
Town of North Hempstead
285 Denton Avenue
New Hyde Park, NY 11040

Re: Park Avenue, Manhasset
Traffic Safety Study from Plandome Road to Munsey Place
de Bruin No. 6260

Dear Victor,

In accordance with our proposal of February 4, 2020 we are pleased to submit this report of our findings concerning the traffic safety of Park Avenue from Plandome Road to Munsey Place. The attached drawings provide graphic descriptions of the work presented here.

Traffic and Safety Findings
The area of the study covers a distance of 0.31 miles and includes three (3) intersections – Park and Nassau, Park and Onderdonk, and Park and Munsey.

The AADT of this corridor is +/-11,500 between Plandome and Nassau, +/- 8,000 for the rest of Park, and +/- 5,500 on Nassau. AADTs were determined using StreetLight Data. StreetLight Data is a "big data" company that tracks vehicle movement throughout the US by extracting data from mobile phones and vehicle GPS devices.

The average speed of vehicles in the corridor were also determined by StreetLight Data. A review of this data indicates that approximately 5% to 10% of the traffic has an average speed in excess of 30 mph.

A review of morning and evening turning movements (also done with StreetLight Data) shows the following:

- The morning rush hour (6:00 a.m. to 10:00 a.m.) at Park and Nassau has about 400 vehicles heading eastbound and about 3,000 vehicles westbound. The westbound vehicles are a 50/50 split coming from Park and Nassau.

- The evening rush hour (3:00 p.m. to 7:00 p.m.) at Park and Nassau has about 2,800 vehicles heading eastbound splitting 57% to Park and 43% to Nassau. Westbound evening rush hour totals about 1,200 vehicles with 2/3rd from Park and 1/3rd from Nassau.
- The morning rush hour at Onderdonk sees a total of approximately 2,500 vehicles from all four directions. About 69% of these vehicles go straight through the intersection, 24% make left turns and the remaining 7% make right turns. The predominant straight movement is west on Park (45% of all vehicles) and the predominant left turn movement is westbound on Park to southbound on Onderdonk (15% of all vehicles).
- The evening rush hour at Onderdonk sees a total of approximately 3,900 vehicles from all four directions. About 67% of these vehicles go straight through the intersection, 14% make left turns and the remaining 19% make right turns. The predominant straight movement is east on Park (35% of all vehicles). The predominant left turn movements are evenly split between turning westbound on Park and southbound on Onderdonk, a total of 13% of all traffic. There are major right turn movements from northbound Onderdonk onto eastbound Park (500 vehicles) and from eastbound Park on to southbound Onderdonk (200 vehicles).

We reviewed 4 years of NYSDOT accident data for the corridor (2015 to 2018) and found that the total accident rate was 6.50 accidents per Million Vehicle Mile (Acc/MVM). This is more than double the New York State average of 2.72 Acc/MVM for comparable roads. The high accident numbers are generated in the area just west of Nassau Avenue where traffic from Park and Nassau merge, and at the intersection with Onderdonk Avenue. Of these accidents, 85% involved collisions between motor vehicles and the other 15% involved collisions with pedestrians and fixed objects such as trees, curbing and signage.

The high rate of accidents makes it clear that the Town's concern about this section of Park Avenue is warranted.

<u>Underlying Causes</u>
By definition, accidents will happen. Factors that contribute to high accident rates include:

- Poor physical condition of the road - slippery or failing pavements.
- Roadway geometry or obstructions that impede sight distance.
- Roadway geometry that does not effectively channelize traffic, making it clear to the vehicle operators where they, and others, belong.
- Roadway geometry that encourages excessive speed.

This section of Park measures up as follows:

- Physical condition of the road is not a problem.
- Site distance at the westbound leg of Nassau at Park is not good, but the presence of stop signs on both approaches mitigates this issue.
- Channelization is a problem throughout.
    - Between Nassau and Onderdonk the curb to curb width is 40' and east of Onderdonk it is 35'. The parking lanes are not delineated, effectively providing 17.5' and 20' driving lanes when there are no cars parked, which is most of the

day. Excessively wide lanes provide opportunities for dangerous maneuvers, such as passing around slow or turning vehicles, and inattentive driving.
    - At Onderdonk there is a significant amount of turning movement all occurring from the same lane as through traffic. This arrangement leads to unexpected stops and a high number of rear end collisions as well as poor visibility around turning cars.
    - At Nassau, the eastbound traffic can bear left onto Nassau or head straight on Park from the same lane. The movement bearing left is not controlled and requires negotiating with the westbound traffic from Park.
    - Traffic from Nassau and Park heading westbound must merge into the same lane and be aware of cars parked on the north side of the street as well as vehicles entering the north side of the roadway from two (2) driveways.
    - The sidewalk for pedestrian traffic on the north side of Park is interrupted at Nassau forcing pedestrians to cross Nassau at an effectively mid-block, unprotected location to continue their journey.
- Geometry and Speed
    - As noted above, the excessively wide driving lanes permit high speeds.
    - The absence of traffic control at Munsey Place allows for high speeds at this intersection, where accident data indicates that vehicles coming out of Munsey misjudge the speed of cars on Park.

Solutions

The solutions depicted in the attached drawings are aimed at the following goals:

- Improve channelization and reduce throughout the corridor using pavement markings to properly delineate driving, parking and turning lanes.
- Provide greater separation between Plandome Road and Nassau Boulevard and changing the angle of the intersection with Nassau to reduce confusion in this section for both vehicles and pedestrians.
- Improve turning movements at Onderdonk Avenue with the addition of turning lanes on Park and enlarged curb return radii on the south side of Park.
- Reduce speed in the corridor by the addition of stop signs as traffic control at Munsey.

All of these improvements are based on guidance from the NYSDOT PIES (Post Implementation Evaluation System) Reduction Report which assesses the impact of improvements on accident rates. Based on these reports, channelization, highly visible pavement markings, geometry improvements and the addition of traffic control should drive significant improvements in safety.

Costs

A Conceptual Cost Estimate for the work depicted on the attached drawings follows. The estimated cost is on the order of $250,000.

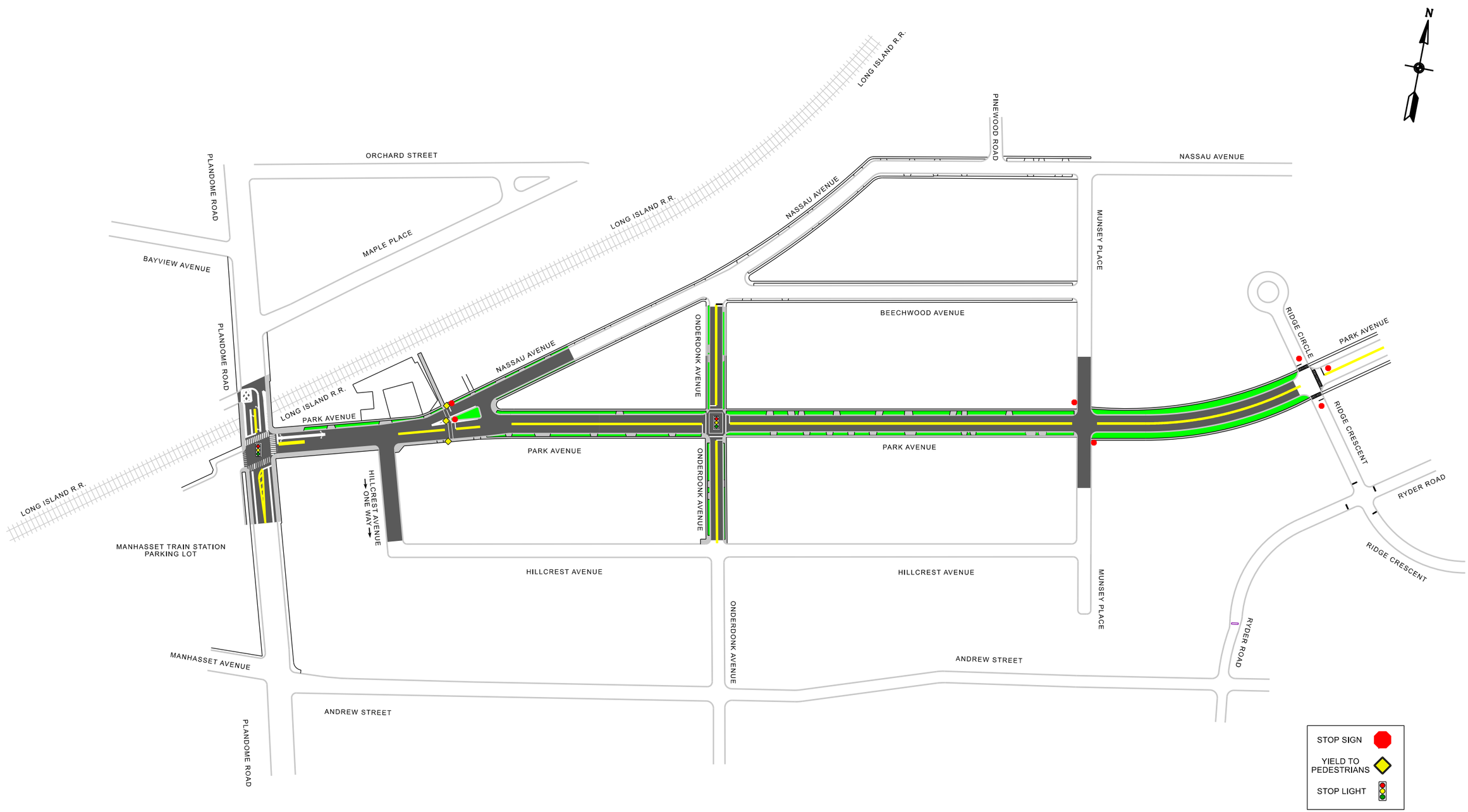
Thank you for the opportunity to present this work. We are available at your convenience to discuss it.

Sincerely yours,

Robert W. de Bruin, P.E.

PARK AVENUE, MANHASSET
TRAFFIC SAFETY IMPROVEMENTS

LOCATION	WBS	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL COST
Nassau	Removals	Remove trees on traffic island	EA	2	$ 300.00	$ 600.00
Nassau	Removals	Sawcut existing pavement	LF	313	$ 5.00	$ 1,565.00
Nassau	Removals	Remove curbs around island and on N side, excavate within sawcut lines and up to N curbline	CY	197	$ 30.00	$ 5,910.00
Nassau	Drainage	Construct new catch basin on Nassau and move existing basin on Park to align with new curb	EA	2	$ 6,500.00	$ 13,000.00
Nassau	Drainage	Construct new manhole for drainage connection	EA	1	$ 7,200.00	$ 7,200.00
Nassau	Drainage	New Drainage Pipe	LF	115	$ 60.00	$ 6,900.00
Nassau	Concrete	Curb in new geometry	LF	346	$ 30.00	$ 10,380.00
Nassau	Concrete	New sidewalks and corner quadrants behind curbs	SF	2,170	$ 15.00	$ 32,550.00
Nassau	Pavement	Pave intersection up to sawcut lines	TON	250	$ 125.00	$ 31,250.00
Nassau	Lawn	Sod lawn areas	SY	2,287	$ 15.00	$ 34,305.00
Nassau Total						**$ 143,660.00**
Onderdonk	Removals	Sawcut existing pavement	LF	200	$ 5.00	$ 1,000.00
Onderdonk	Removals	Excavate and remove existing corner quadrants	CY	58	$ 30.00	$ 1,740.00
Onderdonk	Removals	Relocate/reconstruct existing CBs along new curbline	EA	2	$ 6,500.00	$ 13,000.00
Onderdonk	Concrete	Curb in new geometry	LF	159	$ 25.00	$ 3,975.00
Onderdonk	Concrete	New corner quadrants behind curbs	SF	1,258	$ 10.00	$ 12,580.00
Onderdonk	Pavement	Repave asphalt near new curbs	TON	41	$ 125.00	$ 5,125.00
Onderdonk	Signs	Lane Use Signs	EA	2	$ 500.00	$ 1,000.00
Onderdonk Total						**$ 38,420.00**
Munsey	Removals	Sawcut existing pavement	LF	67	$ 5.00	$ 335.00
Munsey	Concrete	Excavate and remove existing corner quadrants	CY	17	$ 30.00	$ 510.00
Munsey	Concrete	Curb in new geometry	LF	53	$ 25.00	$ 1,325.00
Munsey	Concrete	New corner quadrants behind curbs	SF	425	$ 10.00	$ 4,250.00
Munsey	Pavement	Repave asphalt near new curbs	TON	8	$ 125.00	$ 1,000.00
Munsey	Signs	Add new stop signs	EA	2	$ 500.00	$ 1,000.00
Munsey Total						**$ 8,420.00**
All	Pavement Marking	Double Yellow (in 4" lengths)	LF	3,240	$ 2.00	$ 6,480.00
All	Pavement Marking	Parking Lane (in 4" lengths)	LF	2,156	$ 2.00	$ 4,312.00
All	Pavement Marking	Stop Bars (in 4" lengths)	LF	1,089	$ 2.00	$ 2,178.00
All	Pavement Marking	Crosswalks (in 4" lengths)	LF	1,563	$ 2.00	$ 3,126.00
All	Pavement Marking	Dashed Lines (in 4" lengths)	LF	101	$ 2.00	$ 201.00
All Total						**$ 16,297.00**
Grand Total						**$ 206,797.00**
				Contingency	**20%**	**$ 41,359.40**
				Budget		**$ 249,000.00**



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TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE FROM PLANDOME ROAD TO MUNSEY PLACE MANHASSET

OVERALL SITE PLAN EXISTING CONDITIONS

SCALE: 1'=200' SHEET 1

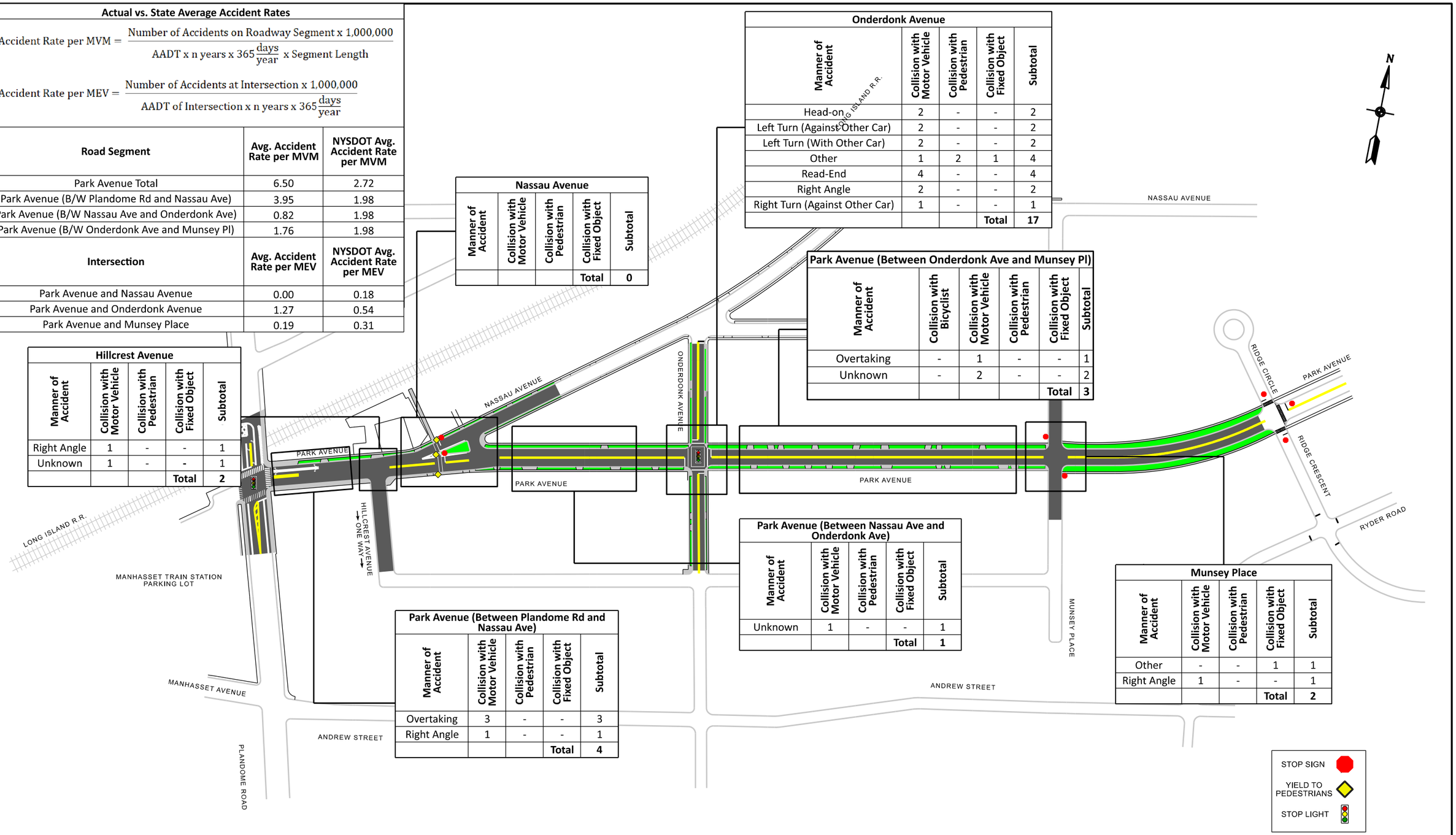
Actual vs. State Average Accident Rates

$$\text{Accident Rate per MVM} = \frac{\text{Number of Accidents on Roadway Segment x 1,000,000}}{\text{AADT x n years x 365}\frac{\text{days}}{\text{year}}\text{ x Segment Length}}$$

$$\text{Accident Rate per MEV} = \frac{\text{Number of Accidents at Intersection x 1,000,000}}{\text{AADT of Intersection x n years x 365}\frac{\text{days}}{\text{year}}}$$

Road Segment	Avg. Accident Rate per MVM	NYSDOT Avg. Accident Rate per MVM
Park Avenue Total	6.50	2.72
Park Avenue (B/W Plandome Rd and Nassau Ave)	3.95	1.98
Park Avenue (B/W Nassau Ave and Onderdonk Ave)	0.82	1.98
Park Avenue (B/W Onderdonk Ave and Munsey Pl)	1.76	1.98

Intersection	Avg. Accident Rate per MEV	NYSDOT Avg. Accident Rate per MEV
Park Avenue and Nassau Avenue	0.00	0.18
Park Avenue and Onderdonk Avenue	1.27	0.54
Park Avenue and Munsey Place	0.19	0.31



Hillcrest Avenue

Manner of Accident	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
Right Angle	1	-	-	1
Unknown	1	-	-	1
			Total	2

Nassau Avenue

Manner of Accident	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
			Total	0

Onderdonk Avenue

Manner of Accident	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
Head-on	2	-	-	2
Left Turn (Against Other Car)	2	-	-	2
Left Turn (With Other Car)	2	-	-	2
Other	1	2	1	4
Read-End	4	-	-	4
Right Angle	2	-	-	2
Right Turn (Against Other Car)	1	-	-	1
			Total	17

Park Avenue (Between Onderdonk Ave and Munsey Pl)

Manner of Accident	Collision with Bicyclist	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
Overtaking	-	1	-	-	1
Unknown	-	2	-	-	2
				Total	3

Park Avenue (Between Nassau Ave and Onderdonk Ave)

Manner of Accident	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
Unknown	1	-	-	1
			Total	1

Park Avenue (Between Plandome Rd and Nassau Ave)

Manner of Accident	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
Overtaking	3	-	-	3
Right Angle	1	-	-	1
			Total	4

Munsey Place

Manner of Accident	Collision with Motor Vehicle	Collision with Pedestrian	Collision with Fixed Object	Subtotal
Other	-	-	1	1
Right Angle	1	-	-	1
			Total	2

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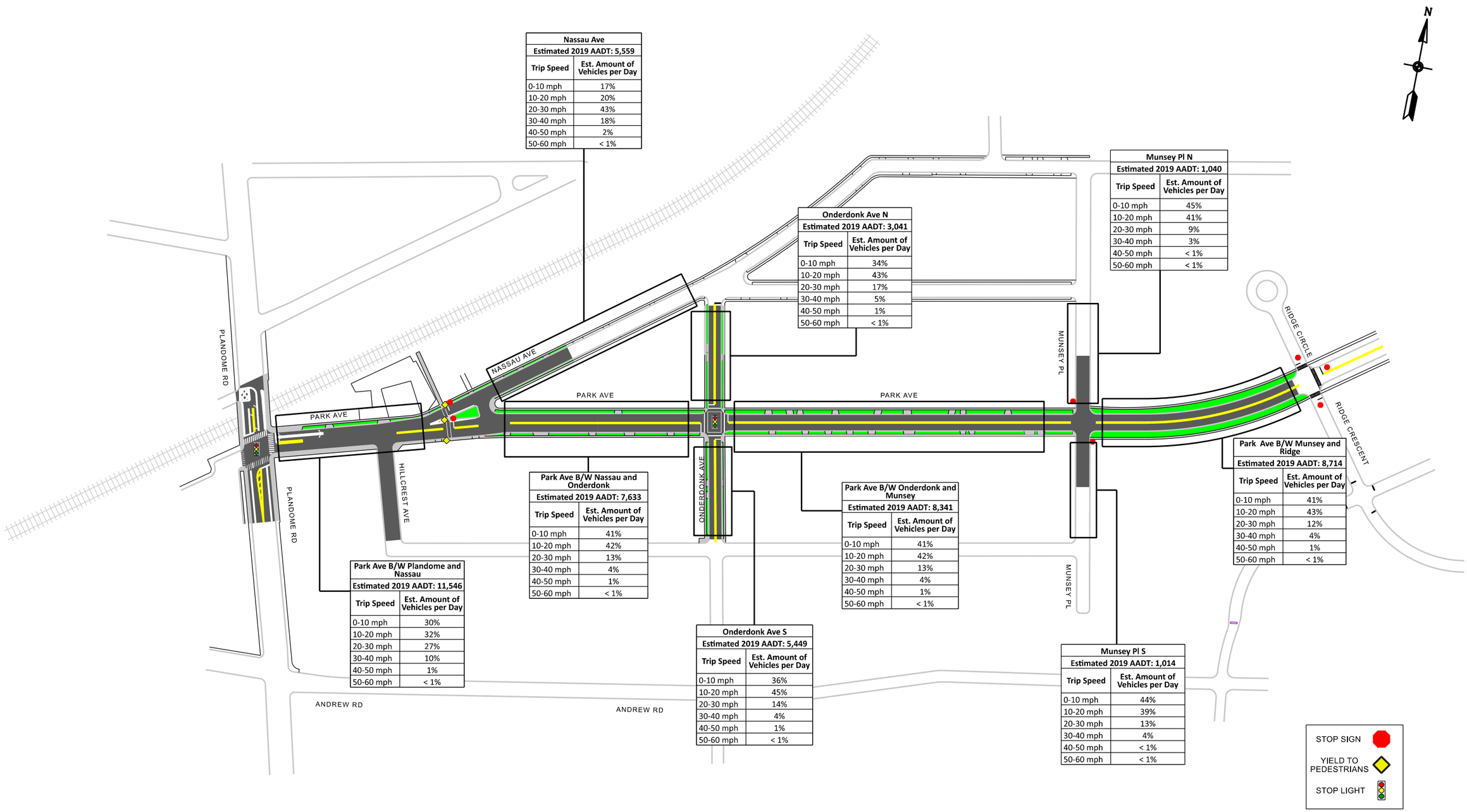
TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE FROM PLANDOME ROAD TO MUNSEY PLACE MANHASSET

OVERALL SITE PLAN
ACCIDENT DATA

SCALE: 1'=200' SHEET 2



Nassau Ave	
Estimated 2019 AADT: 5,559	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	17%
10-20 mph	20%
20-30 mph	43%
30-40 mph	18%
40-50 mph	2%
50-60 mph	< 1%

Onderdonk Ave N	
Estimated 2019 AADT: 3,041	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	34%
10-20 mph	43%
20-30 mph	17%
30-40 mph	5%
40-50 mph	1%
50-60 mph	< 1%

Munsey Pl N	
Estimated 2019 AADT: 1,040	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	45%
10-20 mph	41%
20-30 mph	9%
30-40 mph	3%
40-50 mph	< 1%
50-60 mph	< 1%

Park Ave B/W Nassau and Onderdonk	
Estimated 2019 AADT: 7,633	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	41%
10-20 mph	42%
20-30 mph	13%
30-40 mph	4%
40-50 mph	1%
50-60 mph	< 1%

Park Ave B/W Onderdonk and Munsey	
Estimated 2019 AADT: 8,341	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	41%
10-20 mph	42%
20-30 mph	13%
30-40 mph	4%
40-50 mph	1%
50-60 mph	< 1%

Park Ave B/W Munsey and Ridge	
Estimated 2019 AADT: 8,714	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	41%
10-20 mph	43%
20-30 mph	12%
30-40 mph	4%
40-50 mph	1%
50-60 mph	< 1%

Park Ave B/W Plandome and Nassau	
Estimated 2019 AADT: 11,546	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	30%
10-20 mph	32%
20-30 mph	27%
30-40 mph	10%
40-50 mph	1%
50-60 mph	< 1%

Onderdonk Ave S	
Estimated 2019 AADT: 5,449	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	36%
10-20 mph	45%
20-30 mph	14%
30-40 mph	4%
40-50 mph	1%
50-60 mph	< 1%

Munsey Pl S	
Estimated 2019 AADT: 1,014	
Trip Speed	Est. Amount of Vehicles per Day
0-10 mph	44%
10-20 mph	39%
20-30 mph	13%
30-40 mph	4%
40-50 mph	< 1%
50-60 mph	< 1%

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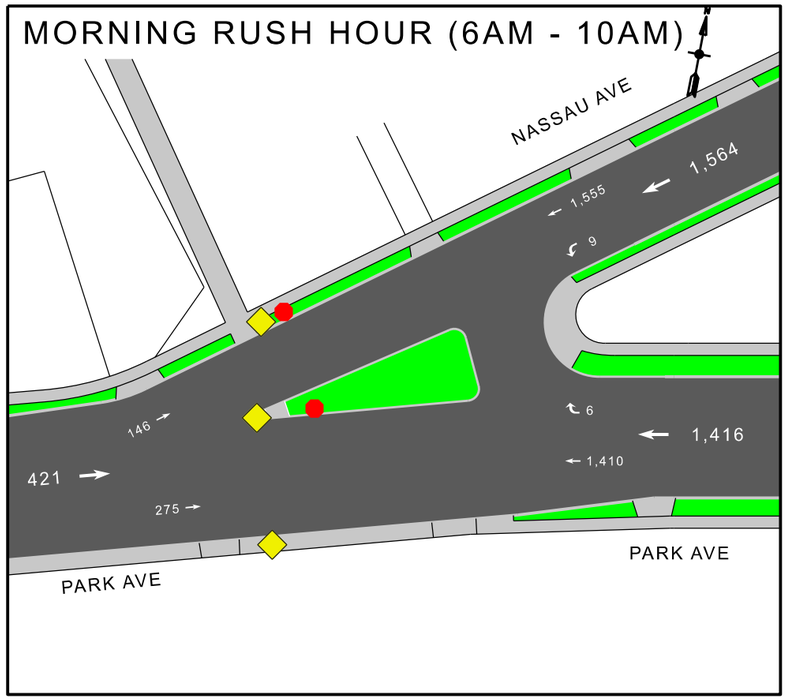
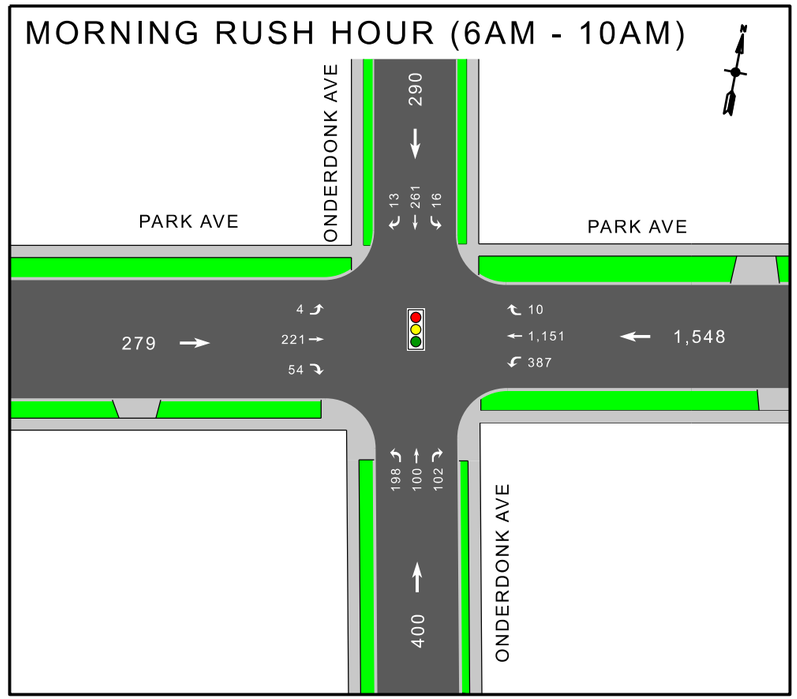
TOWN OF NORTH HEMPSTEAD

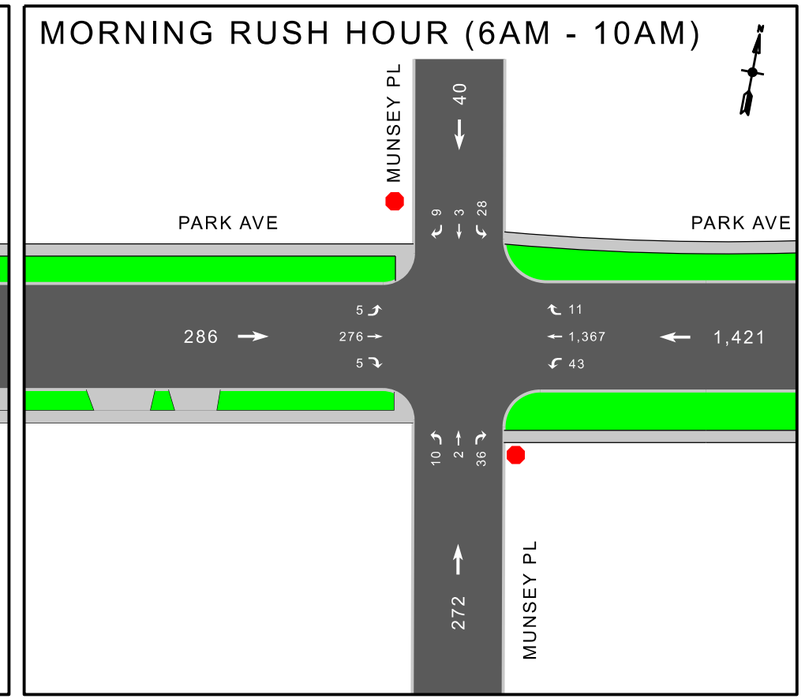
TRAFFIC STUDY OF PARK AVENUE FROM PLANDOME ROAD TO MUNSEY PLACE MANHASSET

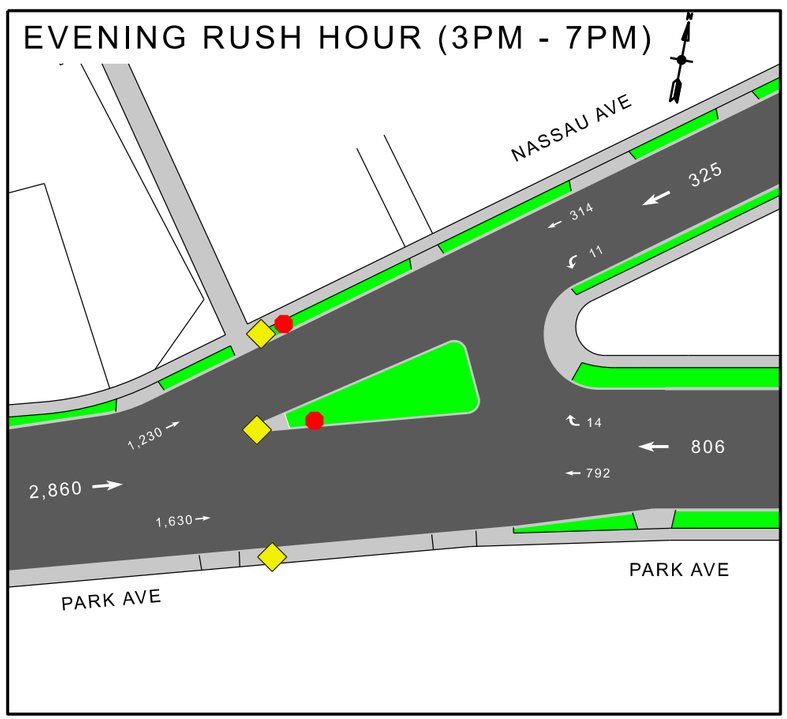
OVERALL SITE PLAN TRAFFIC VOLUME AND SPEEDS

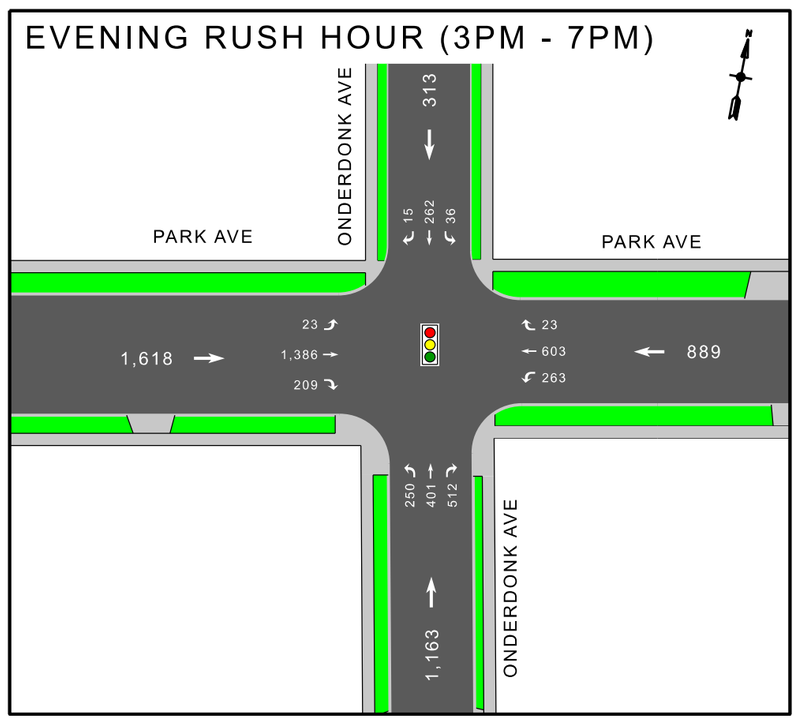
SCALE: 1'=200' SHEET 3

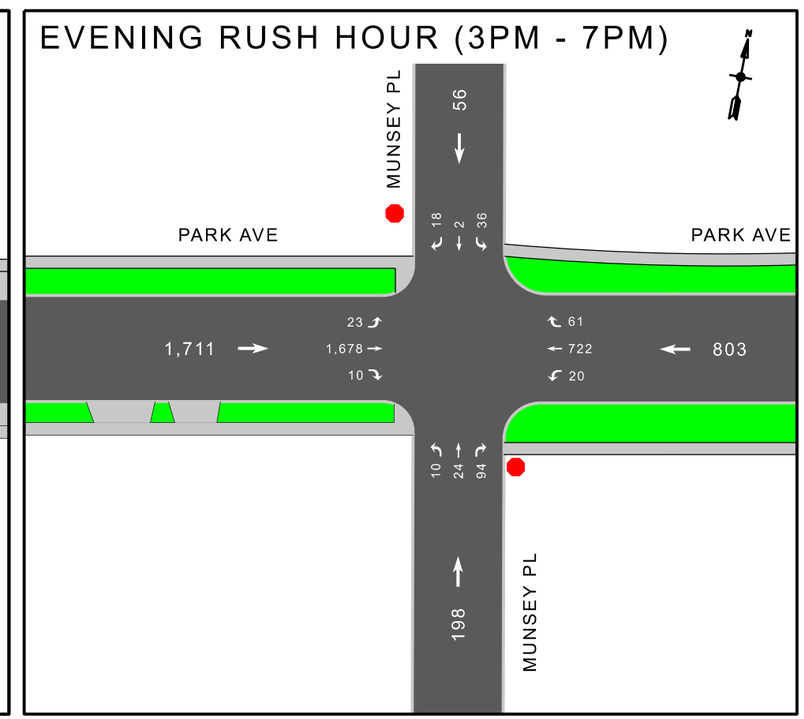












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TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

OVERALL SITE PLAN
TURNING MOVEMENTS

SCALE: 1'=50' SHEET 4

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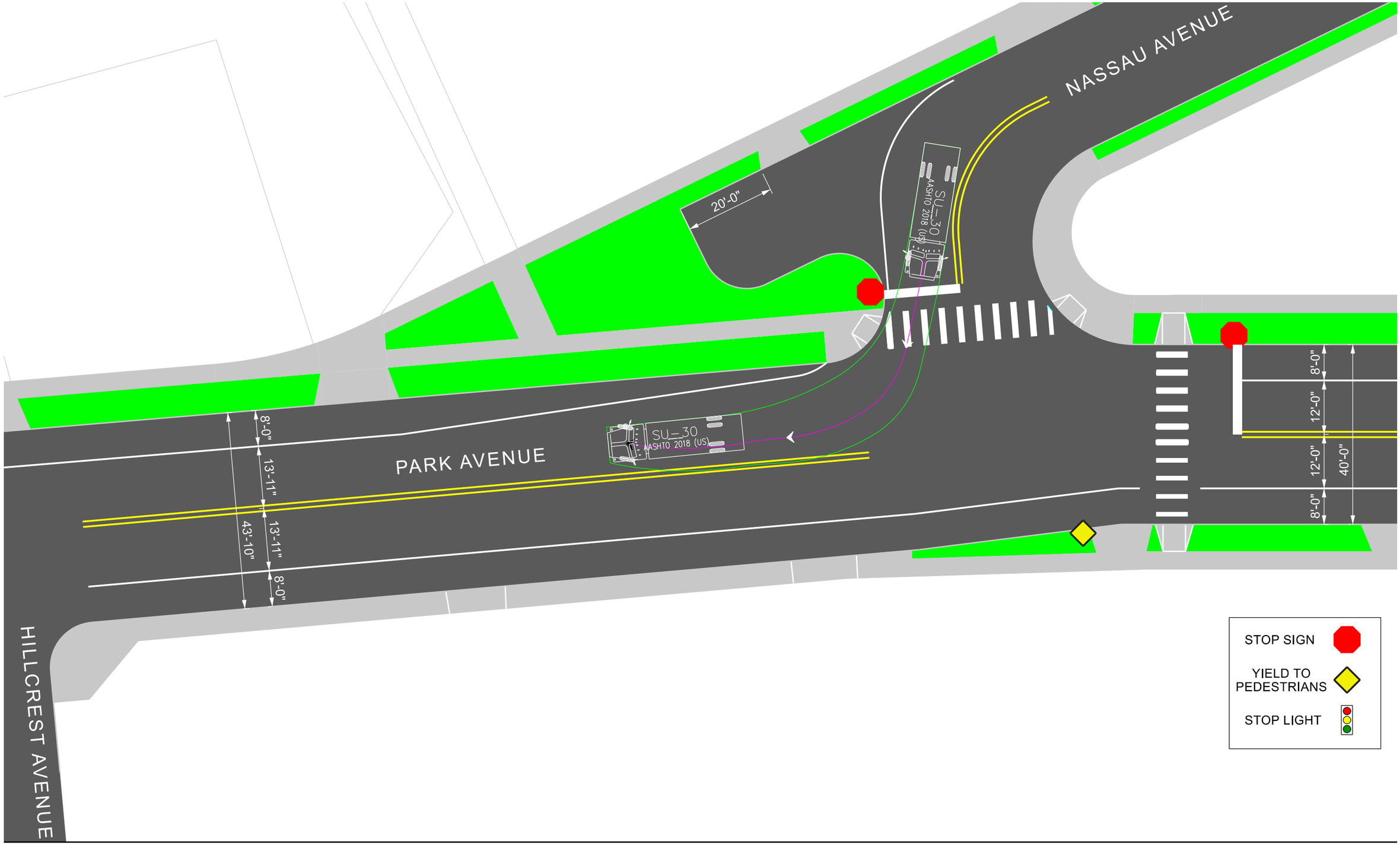
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE
EXISTING CONDITIONS

SCALE: 1'=20' SHEET 5



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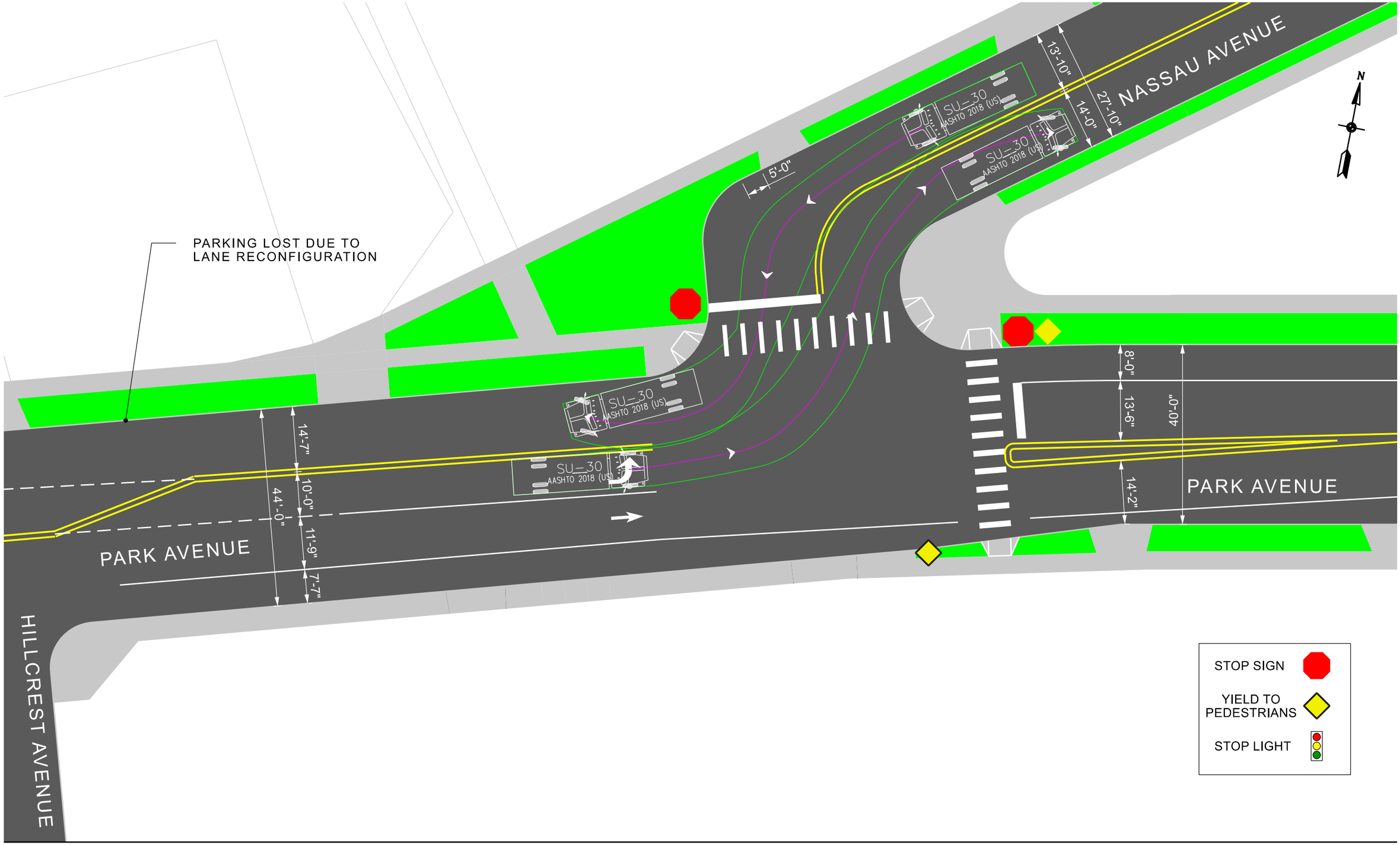
TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE - ALTERNATIVE 1

SCALE: 1'=20' SHEET 6



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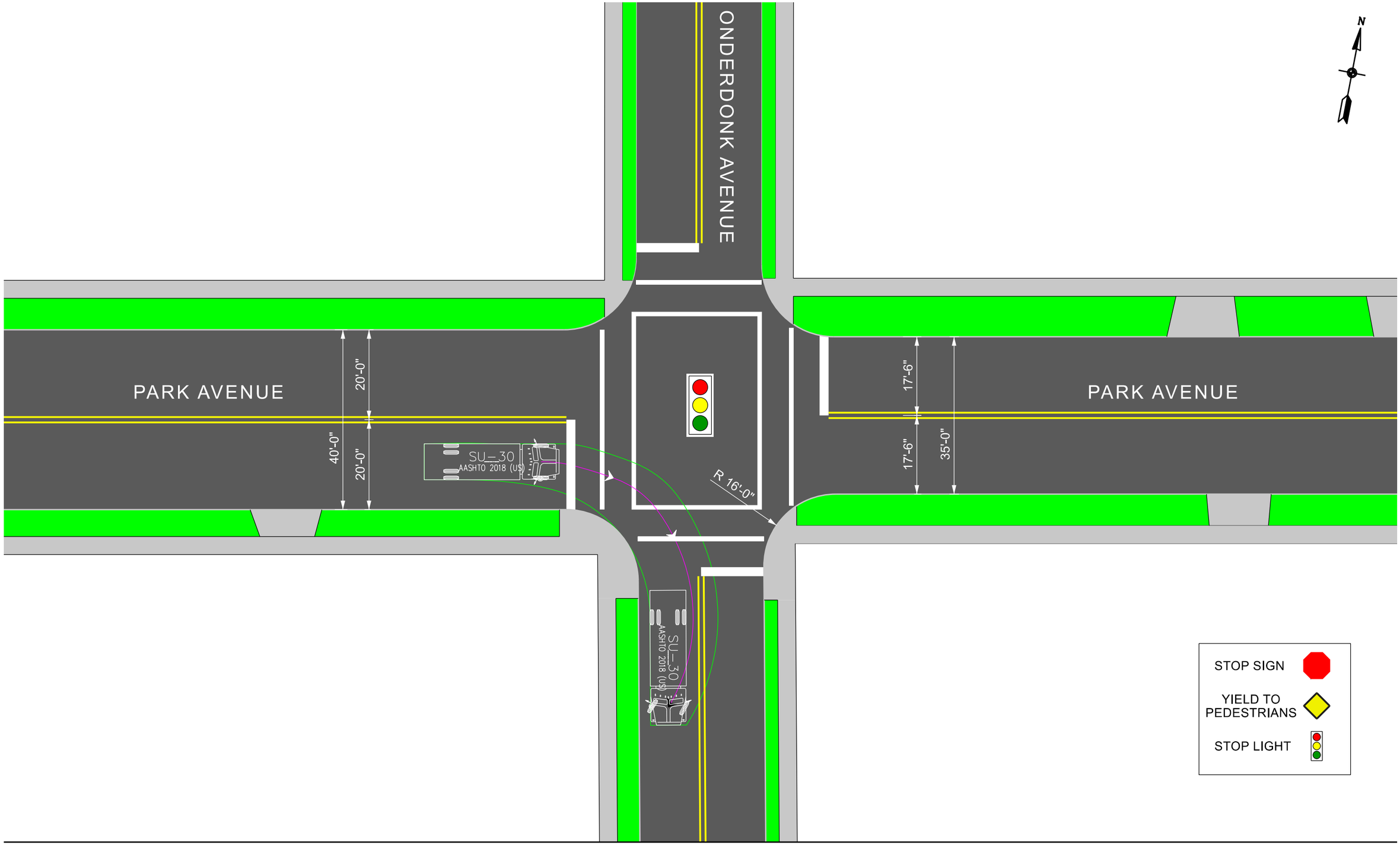
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE - ALTERNATIVE 2

SCALE: 1'=20' SHEET 7



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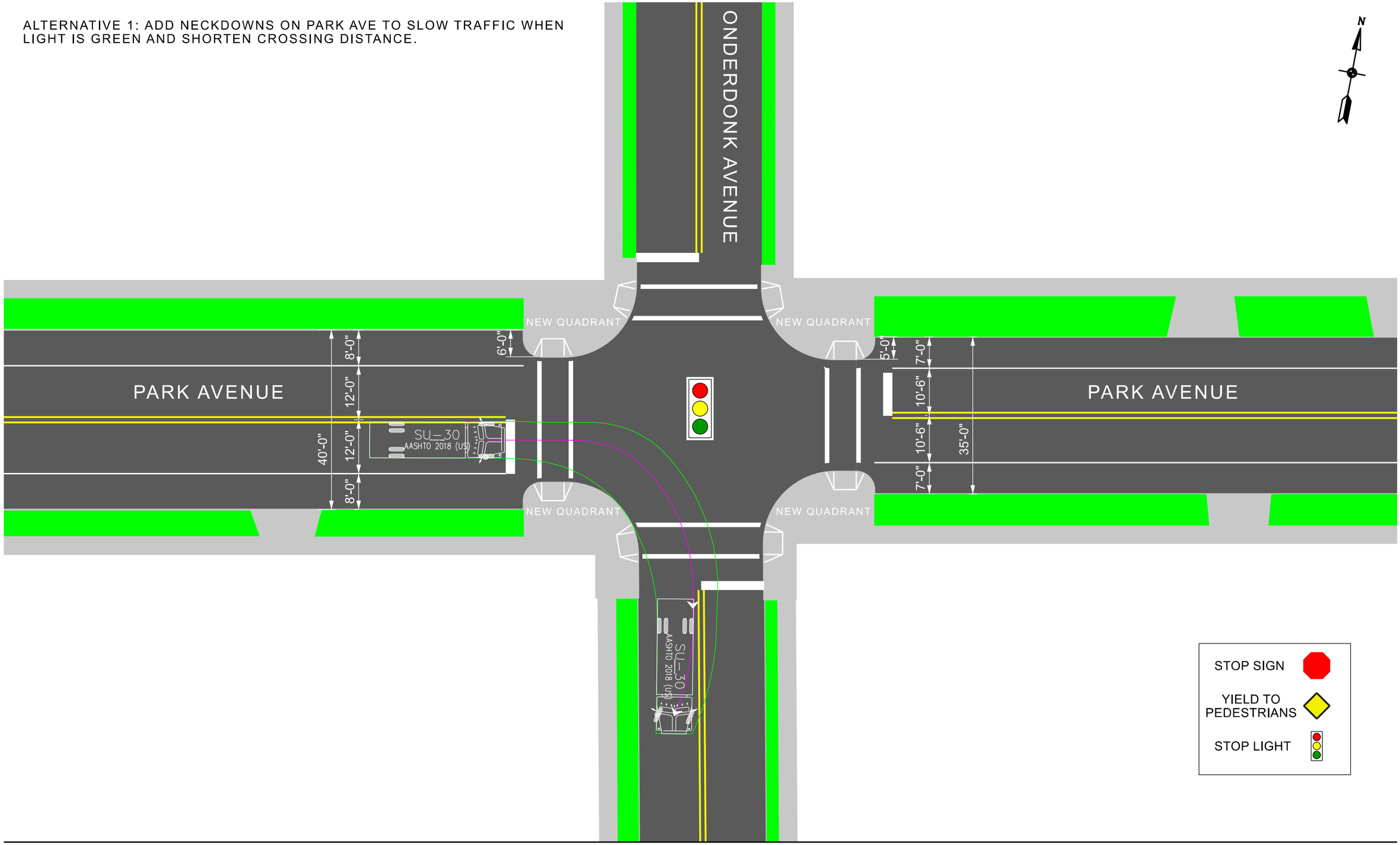
TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

ONDERDONK AVENUE
EXISTING CONDITIONS

SCALE: 1'=20' SHEET 8

ALTERNATIVE 1: ADD NECKDOWNS ON PARK AVE TO SLOW TRAFFIC WHEN LIGHT IS GREEN AND SHORTEN CROSSING DISTANCE.



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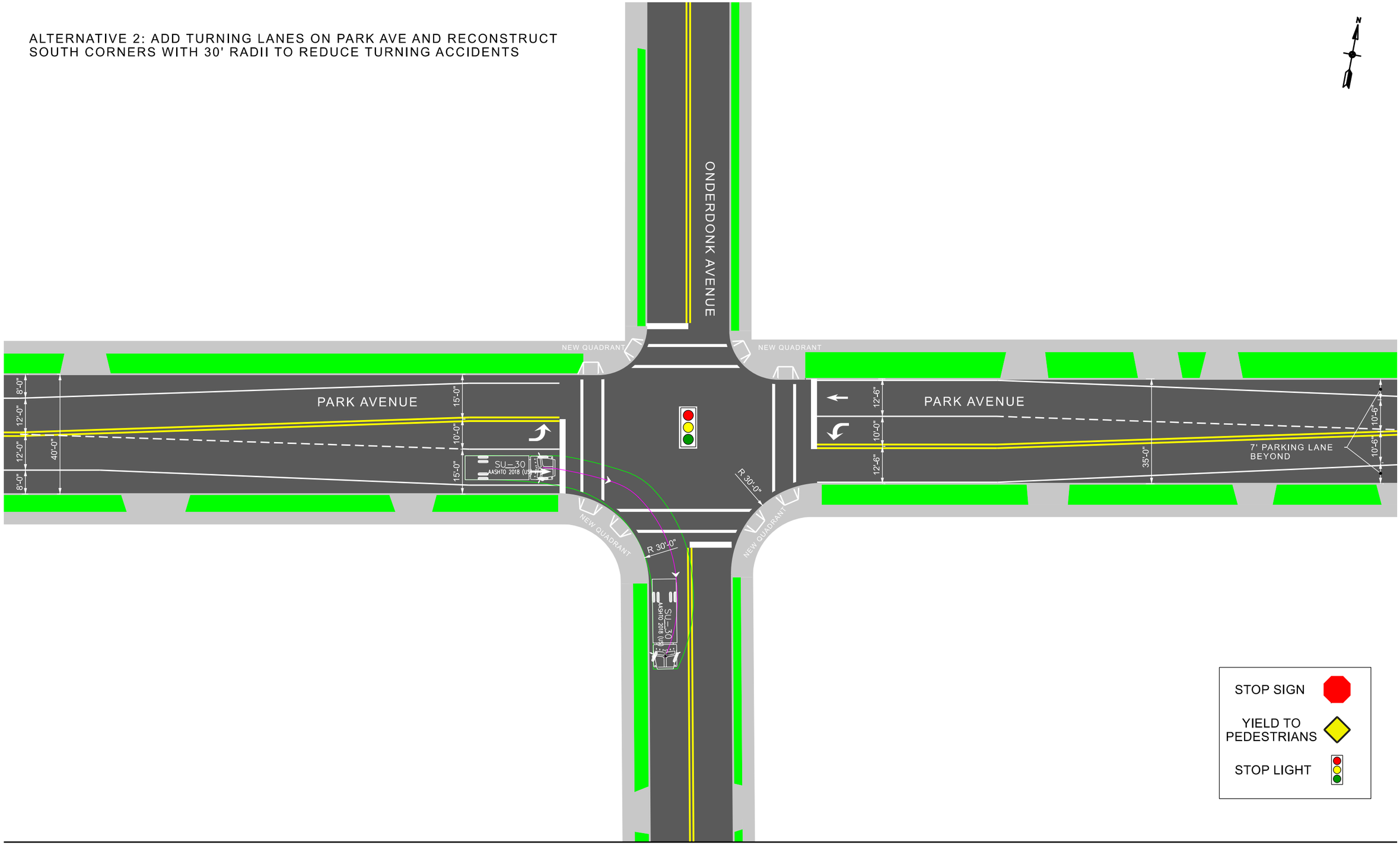
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

ONDERDONK AVENUE - ALTERNATIVE 1

SCALE: 1'=20' SHEET 9

ALTERNATIVE 2: ADD TURNING LANES ON PARK AVE AND RECONSTRUCT SOUTH CORNERS WITH 30' RADII TO REDUCE TURNING ACCIDENTS



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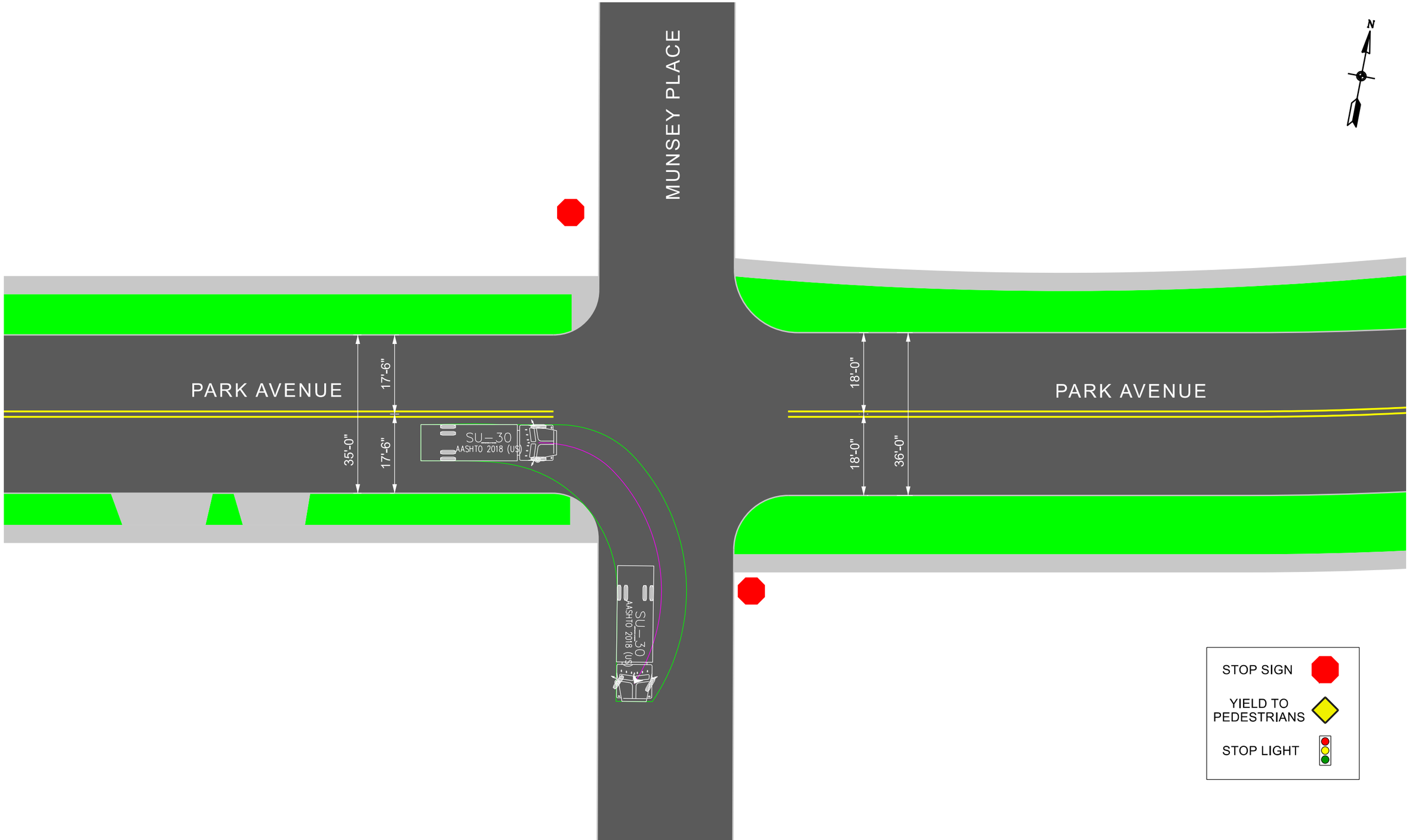
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

ONDERDONK AVENUE - ALTERNATIVE 2

SCALE: 1'=30' SHEET 10



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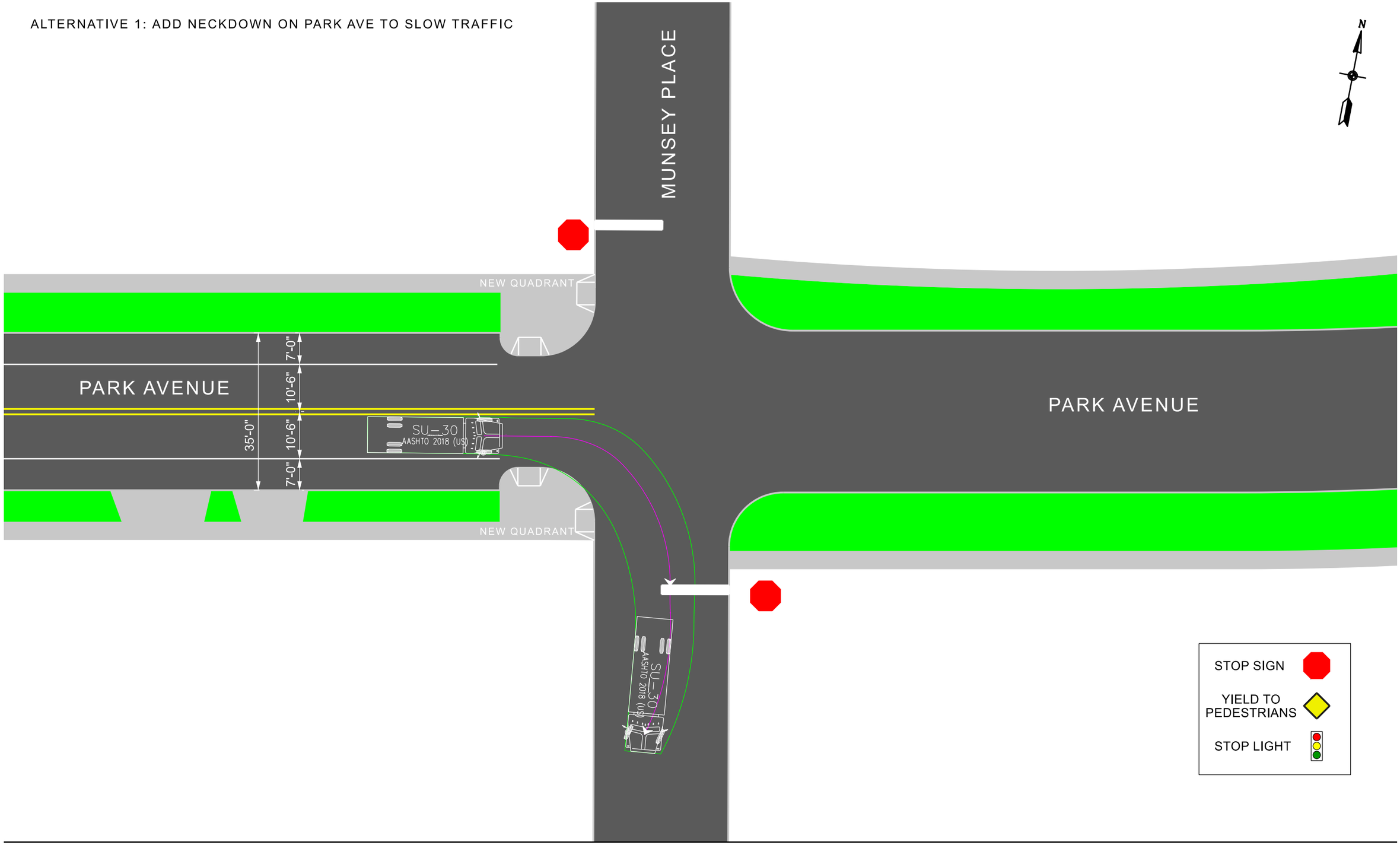
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

MUNSEY PLACE
EXISTING CONDITIONS

SCALE: 1'=20' SHEET 11

ALTERNATIVE 1: ADD NECKDOWN ON PARK AVE TO SLOW TRAFFIC



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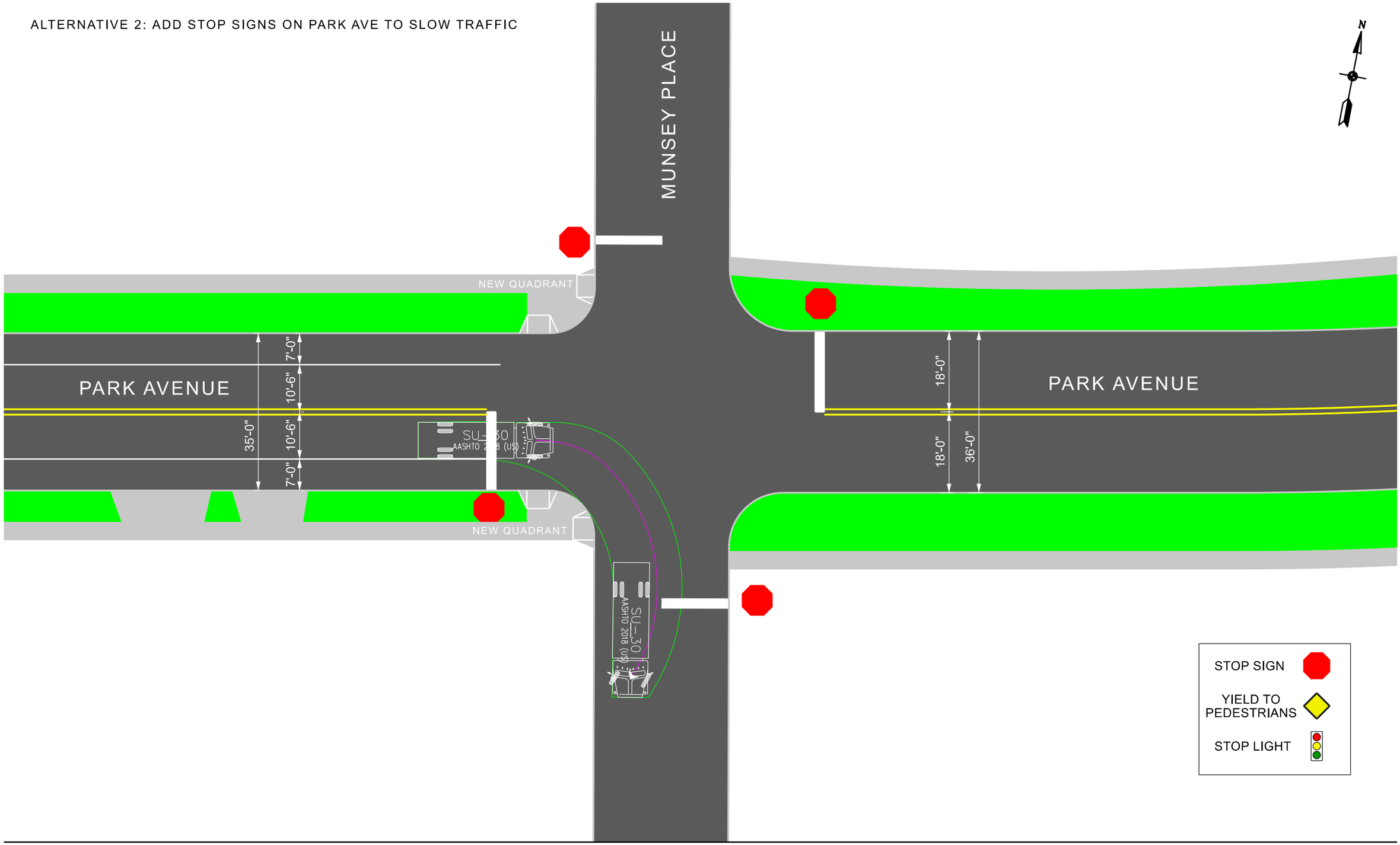
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

MUNSEY PLACE - ALTERNATIVE 1

SCALE: 1'=20' SHEET 12

ALTERNATIVE 2: ADD STOP SIGNS ON PARK AVE TO SLOW TRAFFIC



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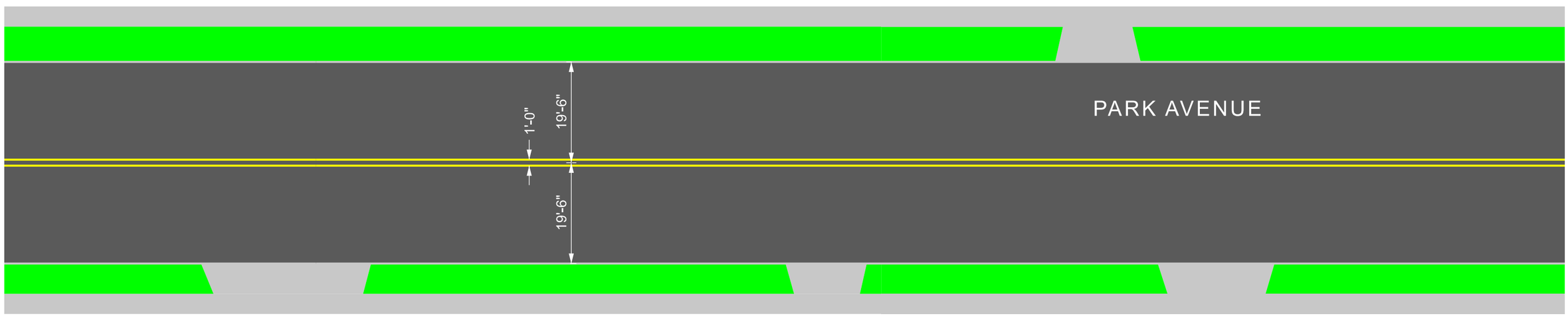
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

MUNSEY PLACE - ALTERNATIVE 2

SCALE: 1'=20' SHEET 13



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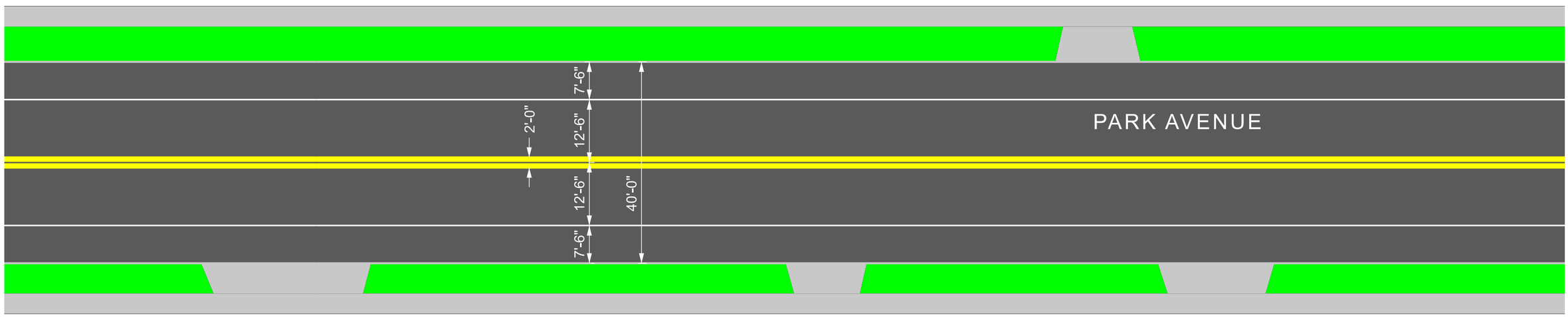
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

PARK AVENUE
EXISTING CONDITIONS

SCALE: 1'=20' SHEET 14

ALTERNATIVE 1 - DOUBLE YELLOW LANE LINE IS PAINTED EXTRA WIDE, REDUCING THE APPARENT WIDTH OF THE TRAVEL LANE TO SLOW TRAFFIC



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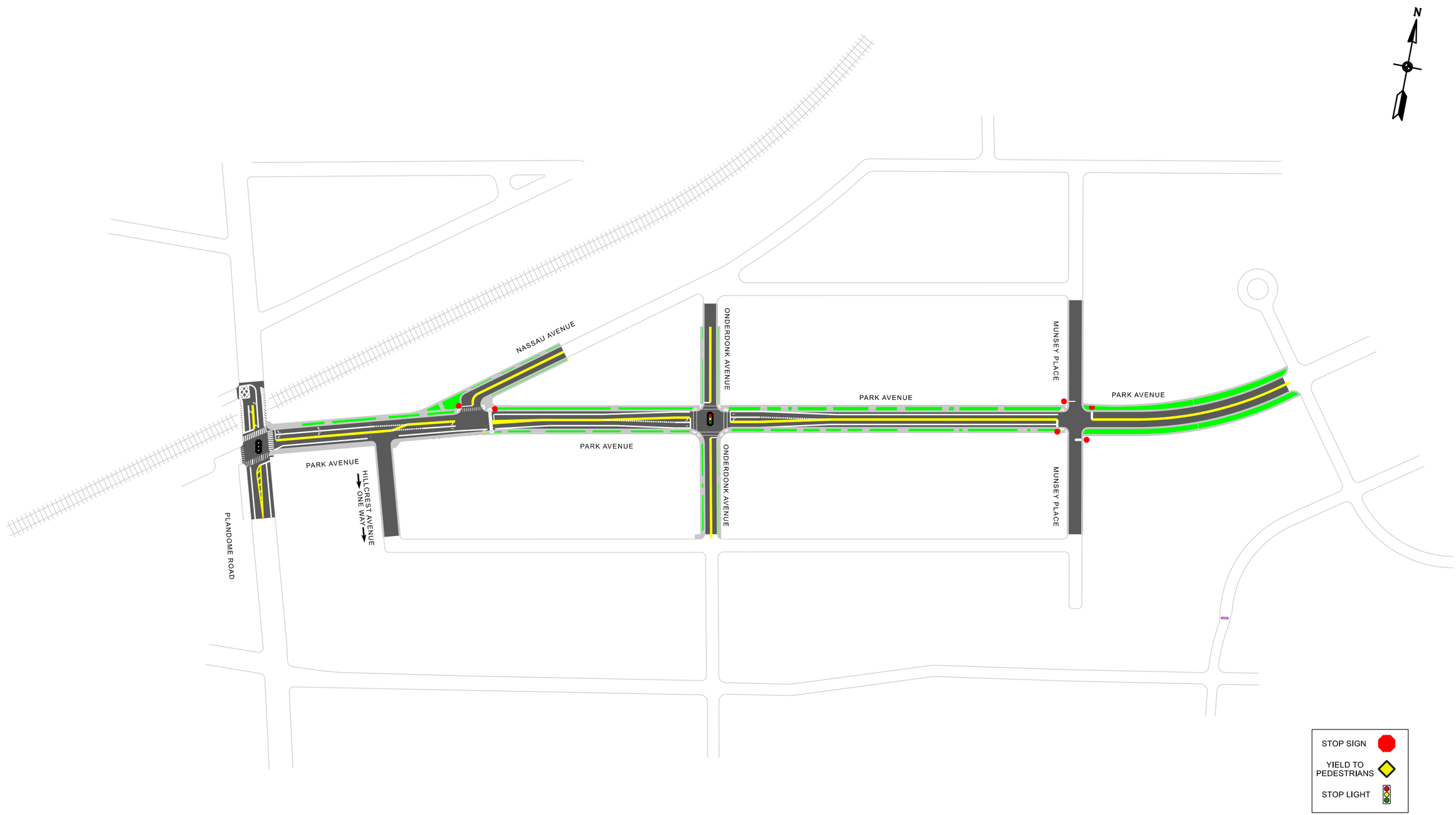
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

PARK AVENUE - ALTERNATIVE 1

SCALE: 1'=20' SHEET 15



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TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

OVERALL SITE PLAN
PROPOSED CONDITIONS

SCALE: 1'=200' SHEET 16

November 5, 2020

Victor Thomas
Acting Commissioner of Public Works
Town of North Hempstead
285 Denton Avenue
New Hyde Park, NY 11040

Re: Park Avenue, Manhasset
Traffic Safety Study from Plandome Road to Munsey Place
de Bruin No. 6260

Dear Victor,

In accordance with your e-mail of October 29, 2020 we offer this assessment of the differences between the two alternatives presented for the intersection of Park Avenue and Nassau Avenue. Please see the attached drawings for reference. These drawing are presented at a smaller scale than the originals to help visualize impacts to adjacent properties.

Issue	Impacts
Parking	There are currently 22 parking spaces within the project limits. Alternative 1 reduces parking to 21 spaces; Alternative 2 reduces parking to 18 spaces.
Vehicle Movement	Both Alternatives eliminate the diagonally crossing traffic pattern that produces confusion. They will both slow traffic on Nassau Avenue in both directions, which will be an improvement for cars coming out of house nos. 57, 63 and 69 on Nassau Avenue. Alternative 2 will provide better traffic flow than Alternative 1 because of the dedicated left turn lane from eastbound Park to eastbound Nassau. The dedicated turn lane will reduce the likelihood of rear end collisions with left turning vehicles.
Pedestrian Movement	Alternative 2 provides better pedestrian safety than Alternative 1. The dedicated turn lane provides better visibility of pedestrians crossing

Issue	Impacts
	Nassau. On the east side of Nassau there is a 6' wide refuge space in the middle of Park that makes crossing Park safer.
Impacts on individual properties are described below. Impacts that we believe will be received positively by the property owner are in **GREEN** and those that we believe will be received negatively are in **RED**	
#19 Park Ave.	No impacts
#29 Park Ave.	In both Alternatives, the east entrance to the parking field is crossing two sidewalks – the one on Nassau and the one on Park. **Both Alternatives move the east entrance from Nassau to Park and eliminate the temptation of making a dangerous turn from Park into this driveway.** **Alternative 2 eliminates two (2) on-street parking spaces.**
#57 Nassau Ave.	**Both Alternatives create additional green space south of the sidewalk.** **Alternative 1 provides a better refuge for a car backing out of the driveway.**
#63 Nassau Ave.	**Alternative 2 adds one (1) on street parking space.**
#30 Park Ave.	Exiting the driveway to go eastbound will function similarly to existing conditions for both Alternatives. In the existing condition you cross one (1) lane of traffic when heading westbound from the driveway. This condition remains in Alternative 1. **In Alternative 2 you will cross one lane of traffic and the turning lane.**
#40 Park Avenue	Exiting the driveway to go eastbound will function similarly to existing conditions for both Alternatives. **Exiting westbound for Alternative 1 will require you to be aware of westbound traffic coming out of Nassau Avenue as well as westbound traffic on Park**. **Exiting westbound for Alternative 2 will require you to be aware of westbound traffic coming out of Nassau Avenue as well as westbound traffic on Park, and the eastbound turning lane traffic on Park.**
#48 Park	No significant impact on driveway movements. **One (1) on-street parking space is lost in Alternative 2.**
#54 Park	No significant impact on driveway movements.

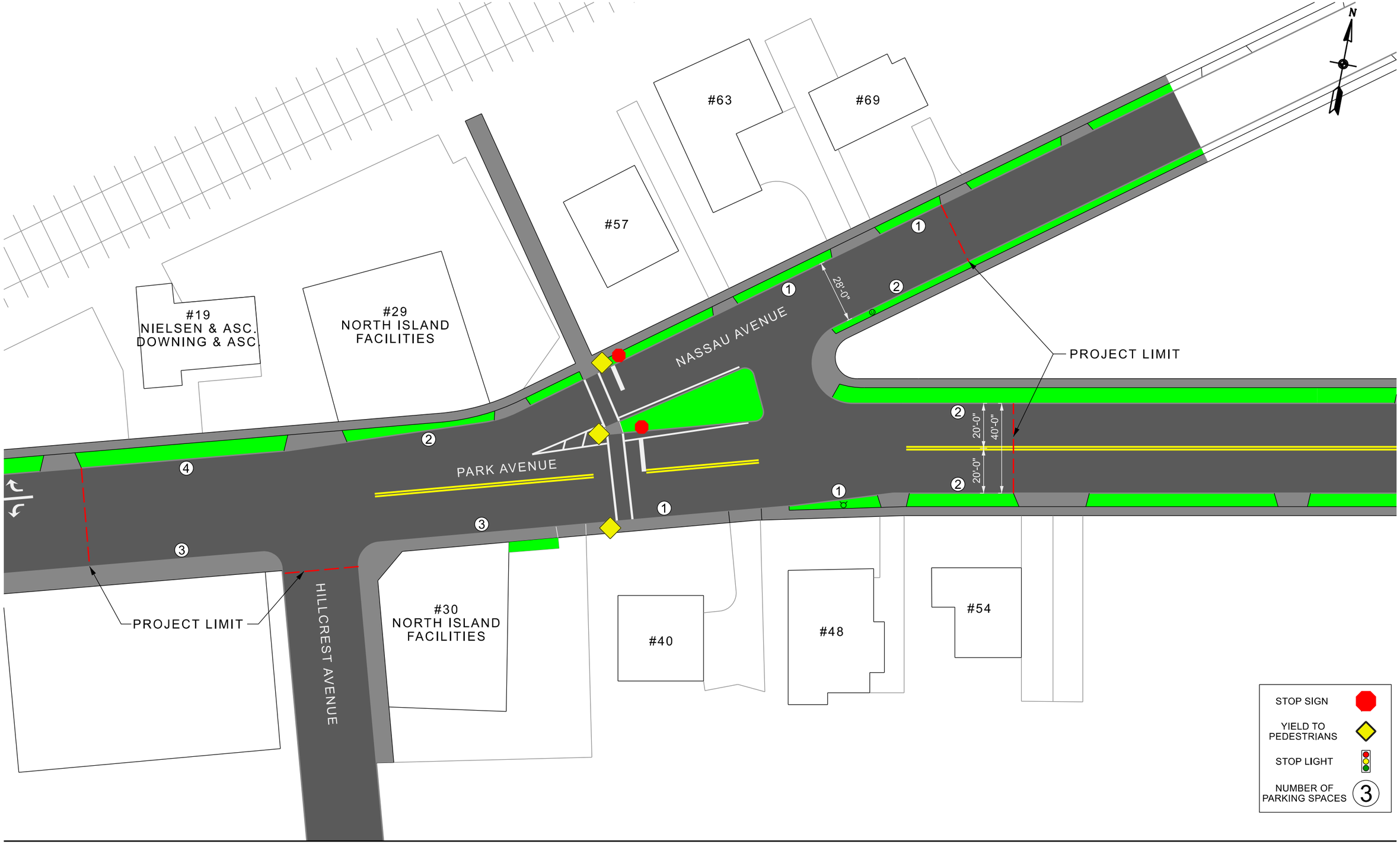
Issue	Impacts
	Two (2) on-street parking spaces are lost in Alternative 2.

In summary, Alternative 2 has the most negative impact for on street parking but the greater positive impact on safety for both vehicles and pedestrians.

Thank you for the opportunity to present this work. We are available at your convenience to discuss it.

Sincerely yours,

Robert W. de Bruin, P.E.



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TOWN OF NORTH HEMPSTEAD

TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE
EXISTING CONDITIONS

SCALE: 1"=40' SHEET 5

#63

#69

#57

#19
NIELSEN & ASC.
DOWNING & ASC.

#29
NORTH ISLAND
FACILITIES

NASSAU AVENUE

PROJECT LIMIT

20'-0"

PARK AVENUE

13'-11"

13'-11"

43'-10"

8'-0" (TYP.)

12'-0"

12'-0"

40'-0"

PROJECT LIMIT

HILLCREST AVENUE

#30
NORTH ISLAND
FACILITIES

#40

#48

#54

STOP SIGN

YIELD TO PEDESTRIANS

STOP LIGHT

NUMBER OF PARKING SPACES (3)

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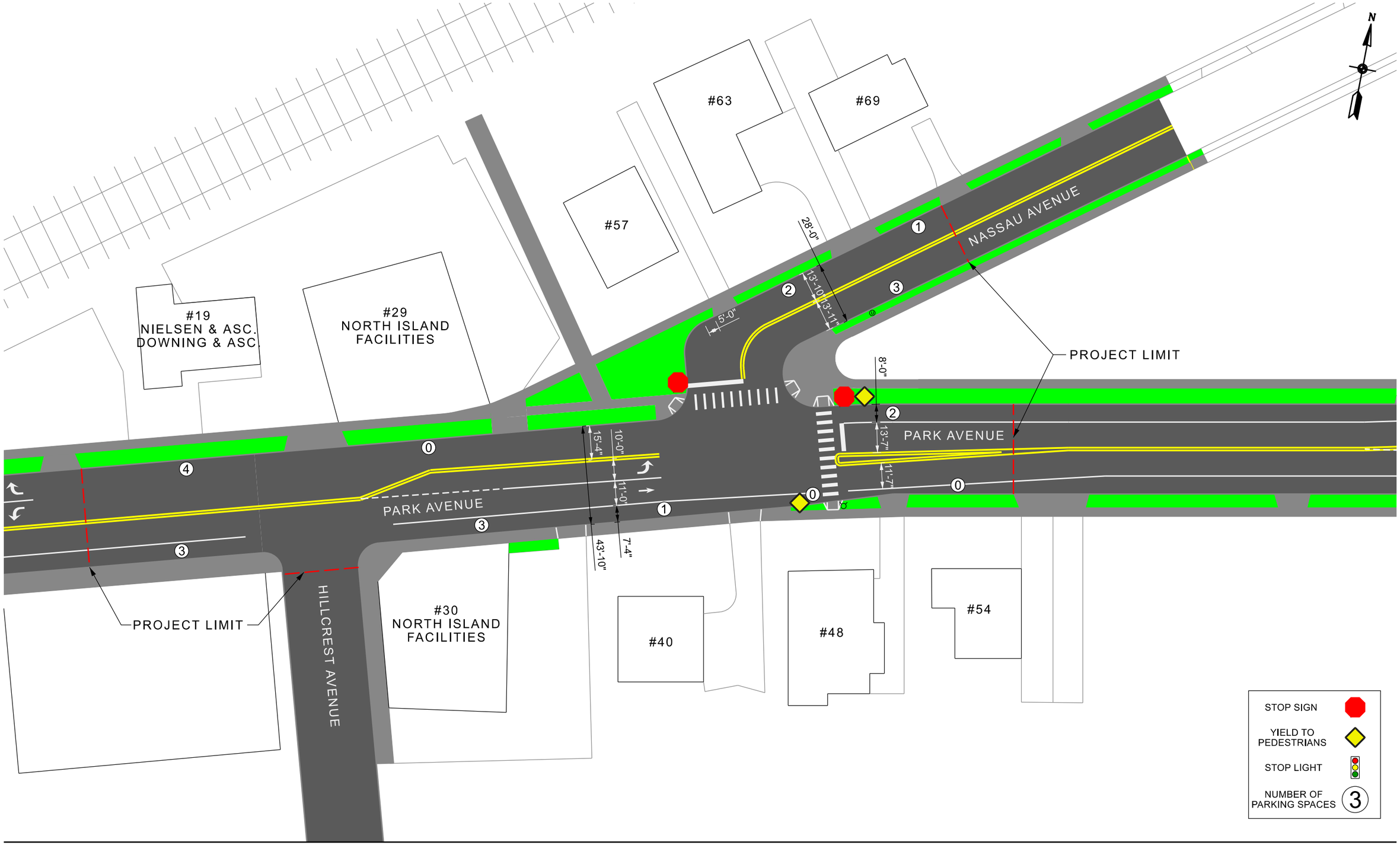
TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE - ALTERNATIVE 1

SCALE: 1"=40' SHEET 6



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TRAFFIC STUDY OF PARK AVENUE
FROM PLANDOME ROAD TO MUNSEY PLACE
MANHASSET

NASSAU AVENUE - ALTERNATIVE 2

SCALE: 1"=40' SHEET 7