

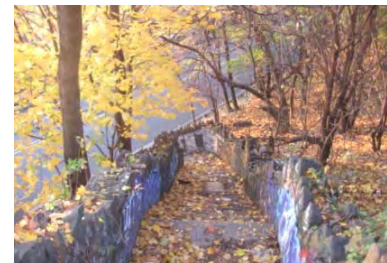
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# Jersey City/Hoboken Connectivity Study

Final Report

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*Prepared For:*



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## Executive Summary

The project team, composed of Eng-Wong, Taub & Associates(Prime Consultant), Howard/Stein-Hudson (Stakeholder Outreach), Stump Hausman Partnership (Travel Demand Modeling), and AKRF (Environmental Justice and Civil Engineering), was retained by Hudson County to prepare the *Jersey City/Hoboken Connectivity Study*. The study was funded through the North Jersey Transportation Planning Authority’s Subregional Studies Program with financing by the Federal Transit Administration and the Federal Highway Administration of the U.S. Department of Transportation.

The study area is in the vicinity of the border between the southwestern section of Hoboken and Jersey City (see Figure ES-1). The Palisade Cliffs divide the study area into two sections, one part is on the cliffs and one part is at the foot of the cliffs. The portion of the study area atop the Palisades is in Jersey City and is bounded by Palisade Avenue to the west, Franklin Street to the north, Paterson Plank Road to the east, and New York Avenue to the south. This area is in the Heights neighborhood of Jersey City and is an older residential neighborhood. The portion of the study area at the foot of the Palisades is in both Hoboken and Jersey City and is bound by Paterson Plank Road (in Jersey City) to the west, 2nd Street (in Hoboken) to the north, Willow Avenue (in Hoboken) to the east, and 18th Street (in Jersey City) to the south.

Figure ES-1  
Study Area



The primary goal of this project is to identify recommendations to improve the connectivity of the street network between Jersey City and Hoboken within the study area for all modes of travel while working

within the existing constraints of a limited transportation network. The specific goals for the study are as follows:

- Improve the connectivity of the street network ,
- Improve vehicular mobility for local *and* regional traffic ,
- Enhance non-automotive modes of travel and transit, and
- Ensure a fair, meaningful, and effective public outreach and participation in the planning process.

Based on a review of existing field conditions, an estimation of future development traffic growth, public open house input, Technical Advisory Committee input, and the results of a travel survey, several key study area issues were identified including:

- An oversaturated roadway network,
- Closely spaced, multi-leg intersections with difficult roadway geometries,
- A challenging pedestrian environment, and
- A disconnected bicycle network.

After testing numerous alternatives and various improvement packages, the resulting recommendations fall under the following categories:

- Short Term -- lower cost, easiest to implement
- Medium-Term – mid-level cost, may require additional study and/or design, more complicated to implement
- Long Term – highest cost, require additional study and/or design, will take the longest to implement

Each of the recommendations is listed in the Short Term, Medium Term, and Long Term Recommendations Matrices (see Tables ES-1, ES-2, and ES-3). The Recommendations Matrices list the type of improvement, recommended action, beneficial result of that action, implementing agency to help facilitate the next steps toward implementation, and additional notes regarding further study needed. Each recommendation is numbered for easy reference. Copies of drawings showing some of the recommendations can be found in Appendix D.

Table ES-1  
Recommendations Matrix – Short Term Improvements

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
1	JC+H		X			Pedestrian Signals: Install pedestrian count-down signals at all signalized intersections	Improves pedestrian safety; encourages walking; reduces auto use	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Pedestrian signals should be the
2	JC+H		X			Install Pedestrian signal pushbutton instructions	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
3	JC+H		X			Install "Stop for Pedestrian" stanchion signs at busy crosswalks	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
4	JC+H	X	X	X	X	Repaint Stop bars, and Other Pavement Markings	Improves safety for all modes		Operational Improvement.
5	JC+H	X	X	X	X	Install high visibility crosswalks at all intersections (could be zebra, ladder, stamped, etc.)	Improves safety for all modes		Operational Improvement. High visibility crosswalks should be the same in Jersey City and Hoboken
6	JC+H		X			Realign existing crosswalks to be at right angles to the curb to shorten the crossing distance	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement. In many cases pedestrian signals may need to be relocated so they are in the sight line of the crosswalk

Table ES-1  
 Recommendations Matrix – Short Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
7	JC+H		X			Repair/replace cracked or missing sidewalks	Improves pedestrian safety; encourages walking; reduces auto use	Jersey City DPW, Hoboken DT&P, Hudson County DR&PP	Operational Improvement.
8	JC+H		X			Institute a regular sidewalk maintenance program	Improves pedestrian safety; encourages walking; reduces auto use		Policy & Operational Improvement
9	JC+H		X			Reposition street furniture and sign poles to provide a clear sidewalk for pedestrians	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
10	JC+H		X			Conduct regular maintenance to trim back shrubbery so that sidewalks are clear for pedestrians	Improves pedestrian safety; encourages walking; reduces auto use		Policy & Operational Improvement
11	JC+H		X			Install landscaping/streetscaping enhancements to make the sidewalks more pedestrian-friendly	Encourages walking; reduces auto use		Operational Improvement.
12	JC+H			X		Conduct regular street cleaning to clear debris from bicycle paths	Improves bicycle safety. encourages bicycle use		Policy & Operational Improvement



Table ES-1  
 Recommendations Matrix – Short Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
13	JC+H			X		Require developers to include bicycle facilities in their projects	Encourages bicycle use; reduces auto congestion	Jersey City HEDC and Hoboken DCD	Policy/Legislative Improvement
14	JC+H			X		Recommend that new businesses with a delivery component use bicycles for deliveries	Encourages bicycle use; reduces auto congestion		Policy/Legislative Improvement
15	JC+H	X	X	X	X	Update zoning codes and redevelopment plans to include accommodations to improve the differentiation of street space between automobiles, bicyclists, and pedestrians.	Improves safety for all modes		Policy/Legislative Improvement
16	JC+H		X			For new developments, where possible require a minimum 5 to 6 foot sidewalk	Improves pedestrian safety; encourages walking; reduces auto usage		Policy/Legislative Improvement
17	JC+H	X	X	X	X	Increased enforcement and education of the City's bicycle regulations	Safer roadways and bicycle paths	Jersey City PD and Hoboken PD	Enforcement/Policy Improvement
18	JC+H		X	X	X	Increased enforcement and education of the City's parking regulations	Keeps sidewalks, crosswalks, bicycle lane/paths, bus stops, etc. clear		Enforcement/Policy Improvement
19	JC+H	X	X	X	X	Hudson County should adopt a Complete Streets Policy similar to Jersey City and Hoboken	Improves safety for all modes; encourages multi-modal transportation usage	Hudson County Freeholders	Policy/Legislative Improvement

Table ES-1  
Recommendations Matrix – Short Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
20	JC+H			X	X	Install bicycle racks on buses that do not already have them	Encourages transit and bicycle use; reduces auto congestion	NJT	Operational Improvement.
21	JC+H				X	Provide bus timetable signage at bus stops	Encourages transit; reduces auto congestion		Operational Improvement.
22	H	X				At the light rail crossing at Paterson Plank Road, adjust the signal phasing so that after signal pre-emption is triggered by the light rail the signal will randomize the phase rather than return to the same phase (i.e., southbound left turn).	Reduces auto congestion		Operational Improvement. Further study would be needed.
23	JC+H		X			Install pedestrian lighting at railroad underpasses	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
24	JC		X			Add pedestrian lighting along the Ravine Road/New York Avenue underpass	Improves pedestrian safety; encourages walking; reduces auto use		Hudson County DE, and Hudson County DR&PP Operational Improvement.

LEGEND

Jersey City DPW	Jersey City Department of Public Works
Hoboken DT&P	Hoboken Department of Transportation and Parking
Hudson County DR&PP	Hudson County Department of Roads and Public Property
Hudson County DE	Hudson County Division of Engineering
Jersey City DE	Jersey City Division of Engineering
Jersey City HEDC	Jersey City Department of Housing, Economic Development & Commerce
Hoboken DCD	Hoboken Department of Community Development
Jersey City PD	Jersey City Police Department
Hoboken PD	Hoboken Police Department
NJT	New Jersey Transit

Table ES-2  
 Recommendations Matrix – Medium Term Improvements

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Buses				
1	JC+H	X	X	X	X	Design travel lanes to be a minimum of 10 feet wide to a maximum of 11 feet wide	Slows traffic; provides a friendlier pedestrian/bicycle environment	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed
2	JC+H	X				Modify lane markings and restripe as shown in drawings in Appendix D	Improves traffic flow		Operational Improvement. Further design is needed
3	JC+H		X	X		Investigate the use of “daylighting” poles at corners	Improves visibility for pedestrians and bicyclists		Operational Improvement. Further study is needed. If funding is available, permanent daylighting
4	JC+H		X			Install pedestrian scale lighting	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement. Lighting design is needed

Table ES-2  
Recommendations Matrix – Medium Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
5	JC+H	X	X	X	X	Install new traffic signals at: Observer Highway with Harrison and Jackson Streets and at Newark Ave. with Harrison and Jackson Streets	Improves traffic circulation; will help reduce upstream traffic queues on New York Avenue/Ravine Road	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. A signal warrant analysis is needed and signal design is needed
6A	JC+H	X	X	X	X	Change Marin Boulevard to one-way northbound from 18th St. to Observer Hwy.	Improves safety by reducing conflicts between modes; improves traffic circulation		Operational Improvement. Further design is needed
6B	JC+H	X	X	X	X	Change Grove St. to one-way southbound from Observer Hwy. to 18th St.	Improves safety by reducing conflicts between modes; improves traffic circulation		Operational Improvement. Further design is needed
6C	JC+H	X	X	X	X	Change Newark Ave. to one-way southwestbound from Marin Blvd. to Jackson St.	Improves safety by reducing conflicts between modes; improves traffic circulation		Operational Improvement. Further design is needed

Table ES-2  
Recommendations Matrix – Medium Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
7	JC+H	X	X	X	X	Change signal phasing at 18th St. with Grove St. and Marin Blvd; Observer Hwy with Marin Blvd and Monroe St.; Newark Ave. with Grove St., and Observer Hwy/Paterson Ave. and Monroe St. One phase can be removed due to street direction changes.	Improves traffic circulation; will help reduce upstream traffic queues and allow more pedestrian crossing time	Jersey City DE, Jersey City DPW, Hoboken DT&P, & Hudson County DE	Operational Improvement. Signal design is needed. Automated Red Light Enforcement Technology has been approved for the intersection of 18th St. and Jersey Ave. but has not yet been installed.
8	H	X	X	X	X	Change Paterson Ave. to one way northwestbound from Monroe Street to Harrison Street	Improve safety by reducing conflicts between modes; improve traffic circulation		Operational Improvement. Further design is needed
9	H		X			At the dual right turn at Observer Hwy. and Marin Blvd. consider installing a pedestrian/bicycle actuated traffic signal that detects when pedestrians and/or bicyclists are present	Improves pedestrian safety; encourages walking; reduces auto use	Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed
10	H		X	X		Open Madison St. between Observer Hwy. and Newark Ave. to bicyclist and pedestrians	Provides an additional, safer north/south travel connection for bicyclists and pedestrians		Operational Improvement. Further design is needed
11	JC		X			Install pedestrian refuge island on the eastbound approach of 18th St. at Marin Boulevard	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement. Further design is needed
12	JC		X			At the channelized right turn at 18th St. and Marin Blvd. install a pedestrian actuated traffic signal to stop right-turning vehicles when pedestrians are present	Improves pedestrian safety; encourages walking; reduces auto use	Jersey City DE and Jersey City DPW	Operational Improvement. Signal design is needed

Table ES-2  
Recommendations Matrix – Medium Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
13	JC	X	X	X	X	Close 14th St. between Jersey Ave. and Coles St. and move the southbound stop bar closer to the intersection	Provides additional roadway capacity for traffic; improves intersection safety	Jersey City DE, Jersey City DPW, NJDOT, PANY&NJ, NJ Turnpike	Operational Improvement. Further design is needed
14	JC	X	X	X	X	Remove the northbound left turn movement at Jersey Ave. and 14th St.	Reduces conflicts for southbound approach; improves intersection safety		Operational Improvement. Further design is needed
15	H			X		Install a Class I bicycle lane (lane physically separated from motor vehicles) on Observer Hwy. from Marin Blvd. east as proposed for the Observer Hwy. project and also on Madison Ave. between Observer Hwy. and Newark Ave. to connect with the existing bicycle route on Madison Avenue	Improves bicycle safety; encourages bicycle use; reduces auto use	Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed

Table ES-2  
Recommendations Matrix – Medium Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
16	JC+H			X		Install Class II bicycle lanes (lane set aside on the street exclusively for bicycles) on Marin Boulevard northbound between 18th St. and Observer Hwy, on Grove St. southbound between Newark Ave. and 18th St. on Newark Ave between Jackson and Grove Streets, and on Paterson Ave. between Observer Hwy. and Harrison St.	Improves bicycle safety; encourages bicycle use; reduces auto use	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed
17	JC+H			X		Install sharrows (shared-lane markings - Class III bicycle lane) on 18th Street, on Jersey Ave., Coles St., Hoboken Ave. Observer Hwy between Madison St. and Harrison, on Harrison between Paterson Ave. and Observer Hwy. and on Paterson Avenue from Harrison St. north.	Improves bicycle safety; encourages bicycle use; reduces auto use		Operational Improvement. Further design is needed
18	JC+H			X		Investigate the use of bicycle boxes as shown in Appendix D Figures	Improves bicycle safety; encourages bicycle use; reduces auto use		Operational Improvement. Further study and design is needed

LEGEND

Jersey City DPW	Jersey City Department of Public Works
Hoboken DT&P	Hoboken Department of Transportation and Parking
Hudson County DR&PP	Hudson County Department of Roads and Public Property
Hudson County DE	Hudson County Division of Engineering
Jersey City DE	Jersey City Division of Engineering

Table ES-3  
Recommendations Matrix – Long Term Improvements

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
1	JC	X				Realign Hoboken Avenue so that it is perpendicular to Coles St.	Creates a safer intersection	Jersey City DE and Jersey City DPW	Capital Improvement. Further study and design is needed
2A	JC+H	X				Construct a connector road from the intersection of Hoboken Avenue and Coles Street to Paterson Plank Road near Hope St.	Provides an alternate route for traffic; reduces congestion	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DR&PP, NJDOT, PANY&NJ, NJ Turnpike	Capital Improvement. Further study and design is needed
2B	JC+H		X			Construct a nine foot sidewalk on either side of the connector roadway from the intersection of Hoboken Avenue and Coles Street to Paterson Plank Road near Hope St.	Provides a new walking path between Hoboken and Jersey City; encourages walking; reduces auto use		Capital Improvement. Further study and design is needed
2C	JC+H			X		Construct a five foot bike lane on either side of the connector roadway from the intersection of Hoboken Avenue and Coles Street to Paterson Plank Road near Hope St.	Provides a new bicycle path between Hoboken and Jersey City; encourages bicycling; reduces auto use		Capital Improvement. Further study and design is needed
3A	JC+H	X				Construct an exit ramp from I-78 eastbound to Hoboken Ave.	Provides an alternate route for traffic; reduces congestion		Capital Improvement. Further study and design is needed
3B	JC+H	X				Either construct an entrance ramp from Hoboken Ave. to I-78 westbound or from Coles St. to I-78 westbound	Provides an alternate route for traffic; reduces congestion		Capital Improvement. Further study and design is needed



Table ES-3  
Recommendations Matrix – Long Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
4	JC+H	X				Construct an entrance ramp from Coles St. to Route 1&9 southbound	Reduces conflicts for southbound approach; improves intersection safety	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DR&PP, NJDOT, PANY&NJ, NJ Turnpike	Capital Improvement. Further study and design is needed
5	JC	X	X	X	X	Construct a light rail station along 18th Street	Encourages transit use by future residents of the proposed developments in that vicinity by providing a transit stop within a short walking distance also provides a transit connection to the existing retail and potential future retail in that vicinity	NJT	Capital Improvement. Further study and design is needed

**LEGEND**

Jersey City DPW	Jersey City Department of Public Works
Hoboken DT&P	Hoboken Department of Transportation and Parking
Hudson County DR&PP	Hudson County Department of Roads and Public Property
Hudson County DE	Hudson County Division of Engineering
Jersey City DE	Jersey City Division of Engineering
NJT	New Jersey Transit

## Introduction

The project team, composed of Eng-Wong, Taub & Associates (Prime Consultant), Howard/Stein-Hudson (Stakeholder Outreach), Stump Hausman Partnership (Travel Demand Modeling), and AKRF (Environmental Justice and Civil Engineering), was retained by Hudson County to prepare the *Jersey City/Hoboken Connectivity Study*. The study was funded through the North Jersey Transportation Planning Authority's Subregional Studies Program with financing by the Federal Transit Administration and the Federal Highway Administration of the U.S. Department of Transportation.

## Project Purpose

The primary goal of this project is to identify recommendations to improve the connectivity of the street network between Jersey City and Hoboken within the study area for all modes of travel. Whether one stands atop the Palisades Cliff or along the Hudson River waterfront, the neighborhood offers commercial, residential, and institutional vibrancy. The lack of connectivity, however, impedes the safe and efficient flow of traffic – auto, bicycle, bus, and pedestrian – to and from home, school, work, and other destinations. The anticipated continuation of redevelopment in the area will only exacerbate the problem.

In many developed areas, the challenge always lies in the intricacy of integrating vehicular and pedestrian traffic in a safe and efficient manner with the least amount of conflicts. In this area there is the added challenge of the topography and other environmental challenges in the vicinity of the Palisades. In addition to those challenges, both Jersey City and Hoboken are preparing redevelopment plans for the area east of the Palisade Cliffs in the vicinity of the border between Hoboken and Jersey City. The redevelopment area is currently a low-density commercial area which, when redeveloped, will become a residential neighborhood consistent with the character of adjacent neighborhoods.

Currently, the street grids of Jersey City and Hoboken in the study area are in conflict with each other. The area is often congested due to heavy traffic volumes and poor roadway geometry. Access between the top of the Palisade Cliffs and the Hudson River waterfront area is constrained due to the limited number of roadways between the two areas. Another constraint is the support trestle and embankment for NJ Transit commuter rail, which impedes the expansion or relocation of existing right-of-way.

The good news is that there are opportunities for low-cost, high-impact improvements as well as capital-intensive improvements that may warrant real consideration. The challenge has been to identify improvements that balance the needs of all modes of travel and meet the goals outlined for the study. The specific goals for the study are as follows:

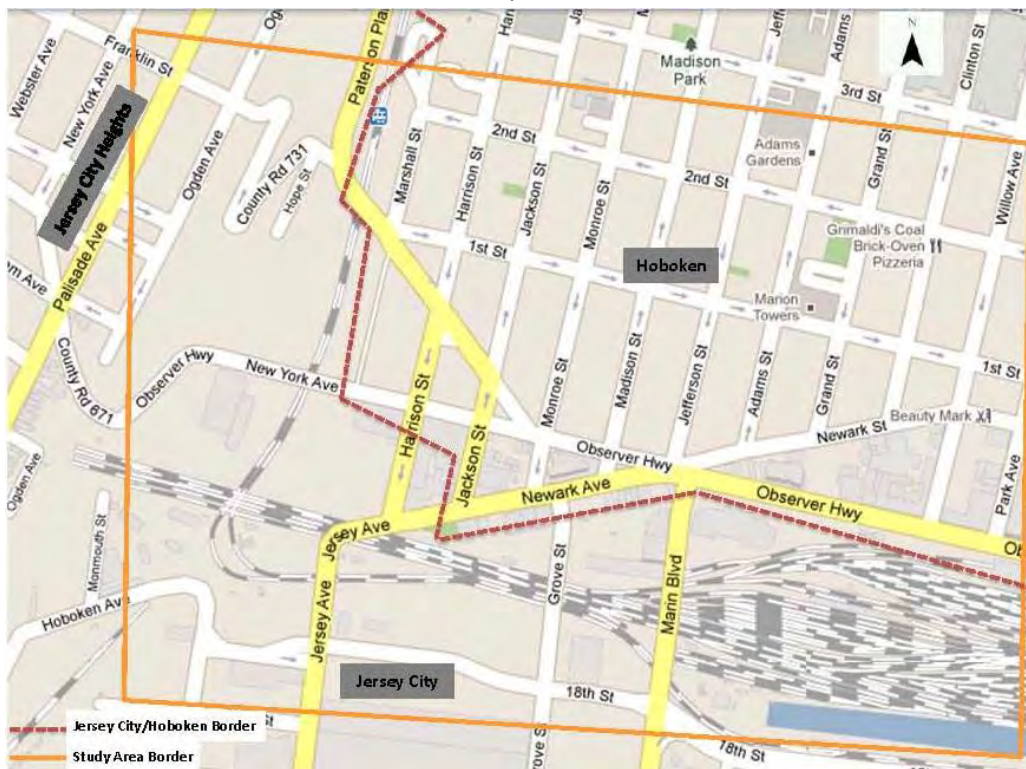
- Improve the connectivity of the street network
- Improve vehicular mobility for local *and* regional traffic

- Enhance non-automotive modes of travel and transit
- Ensure a fair, meaningful, and effective public outreach and participation in the planning process

### Project Area

The study area is in the vicinity of the border between the southwestern section of Hoboken and Jersey City. The Palisade Cliffs divide the study area into two sections, one on the cliffs and one at the foot of the cliffs. The portion of the study area atop the Palisades is in Jersey City and is bound by Palisade Avenue to the west, Franklin Street to the north, Paterson Plank Road to the east, and New York Avenue to the south. This area is in the Heights neighborhood of Jersey City and is an older residential neighborhood. The portion of the study area at the foot of the Palisades is in both Hoboken and Jersey City and is bound by Paterson Plank Road (in Jersey City) to the west, 2nd Street (in Hoboken) to the north, Willow Avenue (in Hoboken) to the east, and 18th Street (in Jersey City) to the south (see Figure 1).

Figure 1  
Study Area



### Project Technical Advisory Committee (TAC)

The project was guided with the assistance of a Technical Advisory Committee (TAC). Four TAC meetings were held during the course of the project. The TAC members consisted of agency representatives and elected officials including:

**Agency Representatives**

North Jersey Transportation Planning Authority  
Hudson County Division of Planning  
Hudson County Department of Parks and Community Services  
Hudson County Engineering  
Hudson County Improvement Authority  
Hudson County Transportation Management Association (TMA)  
Hoboken Transportation and Parking  
Hoboken Community Development  
Hoboken Quality of Life Coalition, Inc.  
Jersey City Housing, Economic Development and Commerce (HEDC)  
Jersey City Division of City Planning  
NJ Transit  
Rutgers Transportation Safety Resource Center

**Elected Officials**

Hudson County Freeholders  
Assemblyman  
Hoboken and Jersey City Mayors  
Hoboken and Jersey City Council members

**Public Outreach**

Howard/Stein-Hudson Associates (HSH) was responsible for leading the public outreach effort for Hudson County's Jersey City/Hoboken Connectivity Study. HSH's outreach plan focused on using a project website and public open houses as key tools for interacting with the public.

HSH developed content for and designed the project website ([www.jerseycityhobokenstudy.com](http://www.jerseycityhobokenstudy.com)). The project website contains an overview of the project, a map of the study area, and study area photos. HSH updated the website at various times to incorporate invitations to public open houses, a summary of the open houses, and copies of boards displayed at the open houses. The website also served as a forum for the public to submit feedback about the study. HSH documented all comments and responded to questions via email.

HSH also organized two rounds of public open houses for the study, and each round included two open houses—one in Jersey City and one in Hoboken. The first set of open houses was held in June 2010, and the goal was to engage the public in a discussion of bicycle, pedestrian, transit, and motor vehicle issues related to the study area. The second set of open houses was held in June 2011, and the goal was to present the findings of the study, including short-term, mid-term, and long-term recommended improvements to the study area. For both sets of open houses, HSH designed flyers and mailed them to all property owners in the study area. Flyers were also distributed to libraries, municipal offices, and

public housing facilities in close proximity to the study area. HSH designed and placed ads in the *Hudson Reporter* and *Jersey Journal* for both rounds of open houses. HSH also engaged the study's Technical Advisory Committee (TAC) to assist in publicizing these meeting opportunities. Summaries of comments from the public open houses can be found in Appendix A.



*The project website contained project information and provided stakeholders with another way to offer comments on the study*

The initial open houses were very useful to help assess the issues. Much of the input was focused on operations and maintenance and connections between Jersey City and Hoboken. Below are sample comments from the three breakout areas – bicycle and pedestrian, motor vehicles, and transit.

#### **Sample Bicycle and Pedestrian Comments**

- Add more high-visibility crosswalks
- Actuated pedestrian signals are needed
- Increasing pedestrian activity near Ogden Avenue with new families
- More bike lanes are needed near the 2nd Street Light Rail station
- North/South connections across Observer Highway are a key issue for pedestrians and bicyclists
- The tunnel on Ravine Road needs better lighting; also, a bicycle lane if there is room
- The bus shelter on Observer Highway at Marin Boulevard is very difficult to access from the southwest

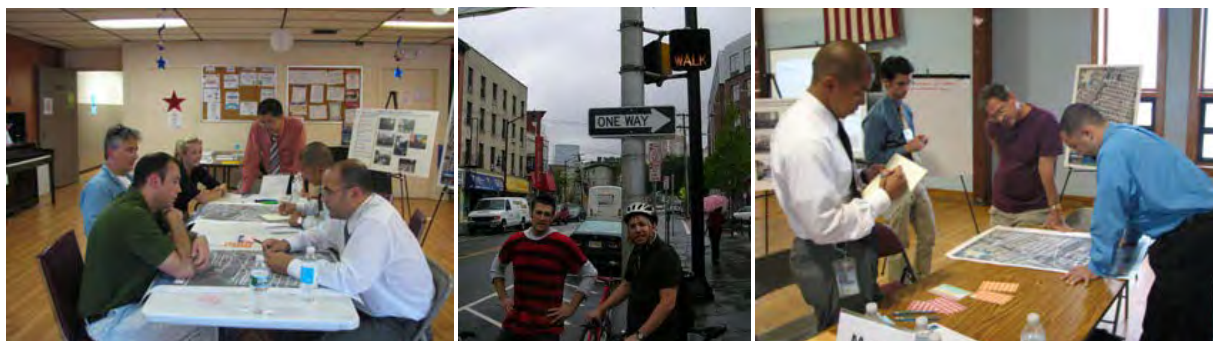
#### **Sample Motor Vehicle Comments**

- Left turns from westbound Newark Avenue to northbound Jackson Street have limited critical gaps
- Congestion on Jersey Avenue in and out of Hoboken

- Install “Don’t block the box” signs at intersections
- Monroe Street, Paterson Avenue, Newark Avenue all have traffic problems during AM and PM rush hour
- Make the intersections with Newark Avenue, Observer Highway, Marin Boulevard, and Jefferson Street a roundabout, taking the firehouse into consideration

### **Sample Transit Comments**

- Would prefer small buses/jitneys with better frequency
- Bike racks are needed on buses
- Buses travel too fast on 18<sup>th</sup> Street in Jersey City
- Light rail trip to Hoboken is very slow (10 minutes). Walking is faster.
- Create light rail stop on 18<sup>th</sup> Street in Jersey City between Grove Street and Jersey Avenue
- Bus schedules are needed at stations
- Hop bus stop signs should have Hop logo displayed
- Not enough information about buses available



*In addition to the open houses, input was sought from a variety of sources including Bike JC a local bicycle advocacy group*

## **Existing Conditions**

A full understanding of the project issues was developed through a thorough review of existing documents, input from the open houses, and data collection, and analysis.

### **Data Collection**

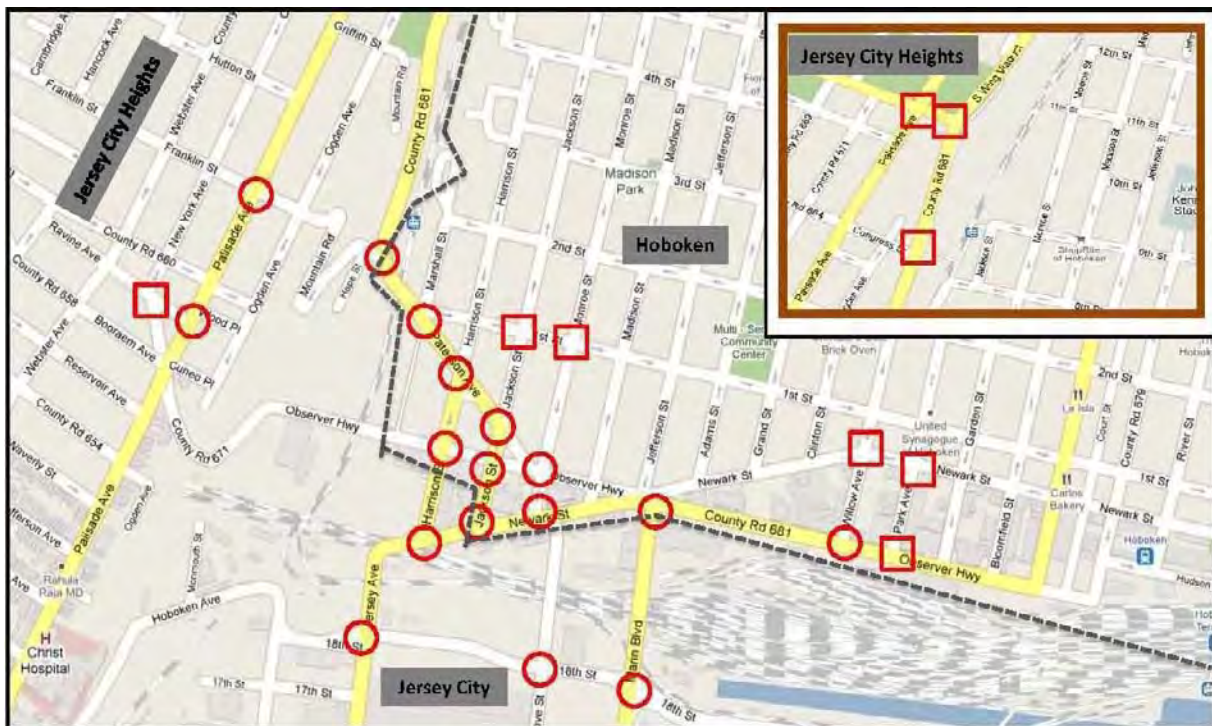
The data collection was comprehensive and extended beyond the boundaries of the study area. This was necessary to have an accurate picture of traffic flows through the study area and to capture the pinch points that cause traffic to back up through the study area. Full and partial (15 minute AM & PM) counts were conducted at the locations listed below and shown in Figure 2.

### **Full Counts**

1. 18th and Jersey Avenue
2. 18th and Grove Street

3. 18th and Marin Boulevard
4. Observer Highway and Marin Boulevard
5. Newark Street, Monroe Street and Grove Street
6. Franklin Street and Paterson Plank Rd (County Route 681)
7. Paterson Avenue, 1st Street, and Marshall Street
8. Paterson Avenue and Harrison Street
9. Harrison Street and Observer Highway
10. Harrison Street and Newark Street
11. Paterson Avenue and Jackson Street
12. Jackson Street and Observer Highway
13. Jackson Street and Newark Street
14. Paterson Avenue, Monroe St, and Observer Highway
15. Observer Highway and Willow Avenue
16. Palisades Avenue, Ravine Avenue, and Wood Pl.
17. Palisades Avenue and Franklin Street

Figure 2  
Full and Partial (15 minute AM & PM) Count Locations



**Jersey City – Hoboken Subregional Transportation Study**  
EWT Turning Movement Counts

- 15-min AM and PM Counts
- Full Video Counts
- Jersey City/Hoboken Border

**Partial (15 minute AM & PM) Counts**

1. Paterson Plank Road and Palisades Avenue
2. Paterson Plank Road and South Wing Viaduct
3. Paterson Plank Road and Congress Street

4. Ravine Avenue, New York Avenue and Observer Highway
5. 1st Street and Jackson Street
6. 1st Street and Monroe Street
7. Newark Street and Willow Avenue
8. Newark Street and Park Avenue
9. Park Avenue and Observer Highway
10. Jersey Avenue and 14<sup>th</sup> Street

Full traffic counts were conducted during the AM peak period between 6:00 and 9:00 AM and during the PM peak period between 4:00 and 7:00 PM on the following dates:

- Thursday May 20, 2010
- Tuesday May 25, 2010
- Wednesday May 26, 2010

The full count data collection was conducted using Miovision video collection units, an innovative new technology consisting of a video camera and tripod or pole-mount. After recording the data, each video was uploaded to the Miovision server, where their software automatically classified and counted the traffic by minute. The Miovision video analysis software can classify vehicles in to three categories: autos, medium trucks, and heavy trucks. Intersections with partial counts were used to fill out the traffic network and were conducted manually for 15-minute intervals during the AM and PM peak periods. Level of service data were generated for the full count locations and the intersection of Jersey Avenue and 14<sup>th</sup> Street. The full count locations were identified as the critical study area intersections. The Jersey Avenue and 14<sup>th</sup> Street intersection was also analyzed because it is a pinch point for traffic destined for the study area.

A full week of 24-hour Automatic Traffic Recorders (ATRs) data collection was conducted during the same time period as the video counts at the following locations:

1. Paterson Plank Road north of the light rail at-grade crossing
2. Jersey Avenue north of 18<sup>th</sup> Street
3. Marin Boulevard between Observer Highway and 18<sup>th</sup> Street
4. Observer Highway between Marin Boulevard and Willow Avenue

### *Existing Volumes and Levels of Service (LOS)*

The AM and PM peak hours were identified to be 7:45 to 8:45 AM and 5:00 to 6:00 PM. Existing AM and PM peak hour traffic volume networks were developed using the turning movement and ATR data. Copies of the volume maps can be found in Appendix B.

Many of the study area roads carry reasonably heavy volumes of traffic. A number of roads, particularly those in Hoboken, have about the same volume of traffic traveling in each direction; however, on Jersey Avenue and 18<sup>th</sup> Street, traffic is much more directionally peaked. Table 1 contains the AM and PM peak hour volume ranges in vehicle per hour (vph) on some of the study area roadways.



Table 1  
Existing Traffic Volumes

Street	Study Area Traffic Volume Range (vph)	
	AM	PM
Palisade Avenue	300 to 450	300 to 400
Paterson Plank Road	500 to 700	700
Paterson Avenue	400 to 500	500 to 600
Newark Avenue (east of Marin Boulevard)	400 to 500	300 to 400
Newark Avenue (west of Marin Boulevard)	900	900 to 1,000
Observer Highway (east of Marin Boulevard)	1000	1,100 to 1,300
Observer Highway (west of Marin Boulevard)	300 to 500	300 to 500
18th Street	200 to 400	300 to 1,000
Jersey Avenue	900 to 1,400	1,000 to 1,400

A Synchro traffic simulation model was developed to determine existing traffic conditions in the study area. The model was validated based on field observations regarding queuing, spillback, and other factors. Synchro is a useful analysis tool for this project because the software can produce key indicators of operating conditions—such as volume-to-capacity (v/c) ratios, average vehicle delays, and levels of service—which were used to identify existing areas of concern and to evaluate proposed solutions.

As contained in Table 2, three signalized intersections are over capacity (volume to capacity ratio “V/C” more than 1.00) and three intersections are operating at marginally acceptable (in more urban areas) LOS E during the AM and PM peak hours. Many of the signalized intersections have approaches or movements that are operating at LOS E or F.

Table 3 indicates that one unsignalized intersection is operating at LOS F during the AM peak hour; however most have approaches or movements operating at LOS E or F. Intersections that are at acceptable LOS A or B are shown in green, marginal LOS C or D in yellow, and unacceptable LOS E or F are shown in red. Complete LOS tables can be found in Appendix C.

**Origin-and-Destination Survey**

In addition to the existing traffic analysis, an origin-and-destination (OD) survey was conducted to further understand the traffic flows through the study area. The OD survey was used to segregate “through traffic” from trips that originate in or are destined for the area and to understand the travel routes vehicles are utilizing. The study area’s proximity to the Holland Tunnel, New Jersey Turnpike, Interstate 78, Routes 1 & 9, and other major generators of through traffic make it attractive for drivers seeking a short cut.

Table 2  
Existing Level of Service -- Signalized Intersections

INTERSECTION & APPROACH	7:45 to 8:45 AM			5:00 to 6:00 PM		
	V/C	Delay	LOS	V/C	Delay	LOS
18th Street and Jersey Avenue	0.71	20.0	B	0.81	23.2	C
18th Street and Grove Street	0.67	45.6	D	0.59	14.10	B
18th Street and Marin Boulevard	0.70	38.20	D	0.68	24.80	C
Newark Street and Monroe Street	1.15	77.7	E	1.09	48.4	D
Newark Street and Marin Boulevard	1.04	39.70	D	1.34	75.00	F
Observer Highway and Willow Avenue	0.75	28.5	C	0.72	20.1	C
Observer Highway and Monroe Street/Paterson Avenue	0.85	67.10	E	0.77	60.40	E
Paterson Avenue and Jackson Street	0.37	14.70	B	0.45	18.00	B
Paterson Avenue and First Street/Marshall Street	0.61	26.20	C	0.60	29.70	C
Franklin Street and Paterson Plank Road	0.46	25.10	C	0.43	20.70	C
Franklin Street and Palisade Avenue	0.41	14.20	B	0.48	14.80	B
Ravine Avenue and Palisade Avenue	0.63	16.10	B	0.54	15.40	B
14th Street and Jersey Avenue	1.11	44.90	D	1.16	55.20	E

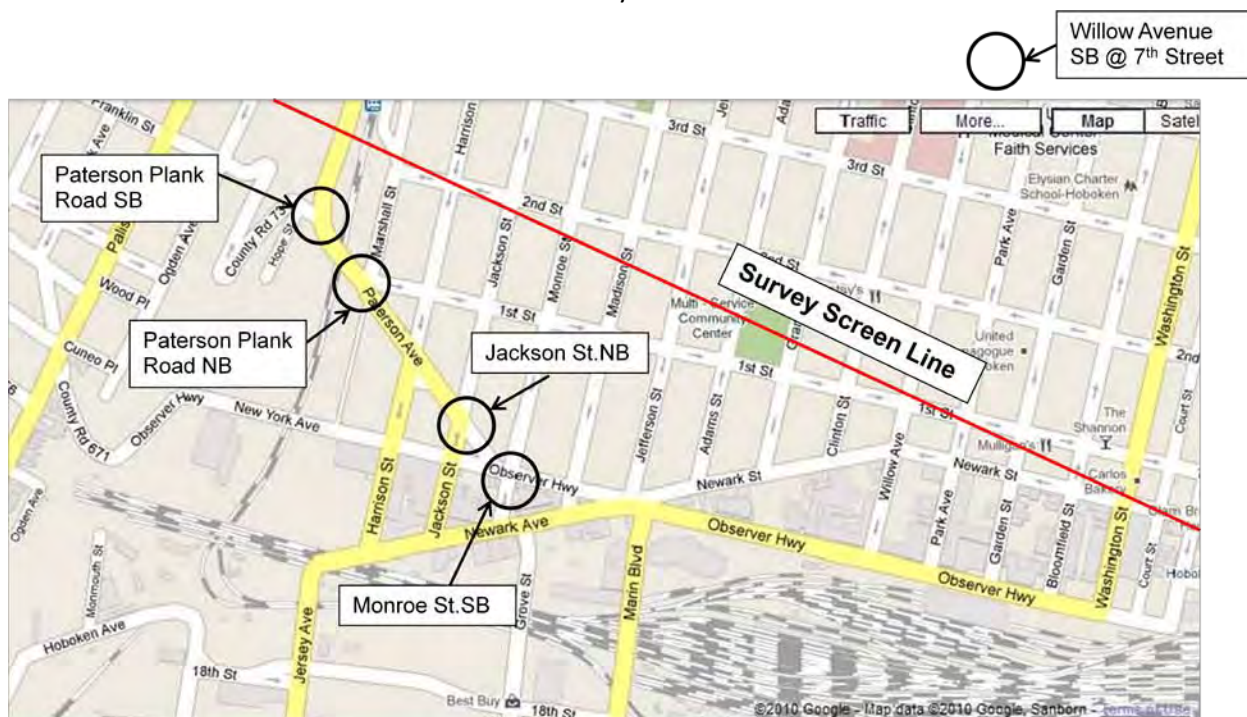
Table 3  
Existing Level of Service -- Unsignalized Intersections

INTERSECTION & APPROACH	7:45 to 8:45 AM		5:00 to 6:00 PM	
	Delay	LOS	Delay	LOS
Observer Highway and Jefferson Street	10.2	B	4.6	A
Paterson Avenue and Harrison Street	3.7	A	3.4	A
Observer Highway and Harrison Street	133.3	F	12.1	B
Newark Street & Harrison Street	21.4	C	19.5	C
Observer Highway and Jackson Street	25.7	D	41.5	E
Newark Street and Jackson Street	26.3	D	48.4	D

A screen line was drawn through the study area and survey staff were stationed at five key locations along the screen line to capture vehicles traveling north or south through the study area (see Figure 3). The survey was conducted during the AM peak period in June 2010 at the following locations:

1. Jackson Street NB at Paterson Avenue
2. Monroe Street SB at Observer Highway
3. Willow Avenue SB at 7th Street
4. Paterson Plank Road SB at Mountain Road
5. Paterson Plank Road NB at Marshall Street / First Street

Figure 3  
OD Survey Locations



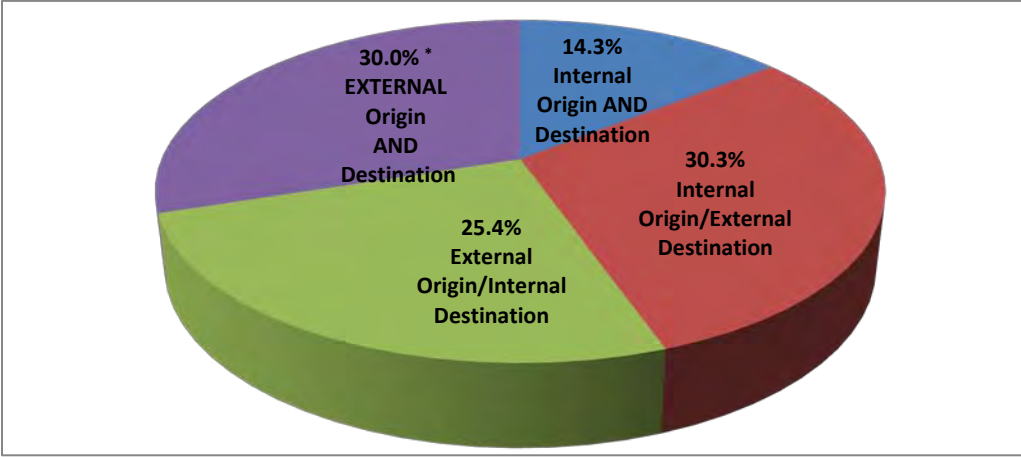
Surveyors approached the drivers of stopped vehicles and briefly asked them for the following information while they were waiting at the intersection:

- **Trip Origin** (Zip Code, Town, if Jersey City or Hoboken, specify street or intersection)
- **Trip Destination** (Zip Code, Town, if Jersey City or Hoboken, specify street or intersection)
- **Routes/Highways used** on this trip (Holland Tunnel, Lincoln Tunnel, NJ Turnpike, Routes 1 & 9, Route 139 – Covered Roadway, PATH, Light Rail, other – specify)
- **PM Return Trip – Same Route?** (yes, no)

Approximately 400 surveys were conducted. The survey data was weighted based on the traffic count volumes to represent the full volume or “universe” of traffic traveling through the surveyed intersections. As shown in Figure 4, 30 percent of the trips had an “external origin and an external destination” meaning the trip origin and destination was outside of Hoboken or Jersey City Heights and the trip was potentially a cut-through trip. Almost 56 percent had either an “internal origin or internal destination” and most likely had either their residence or worksite within the study area. About 14

percent of the traffic had an “internal origin and destination.” These trips could potentially be shifted from auto to walking, bicycle or transit.

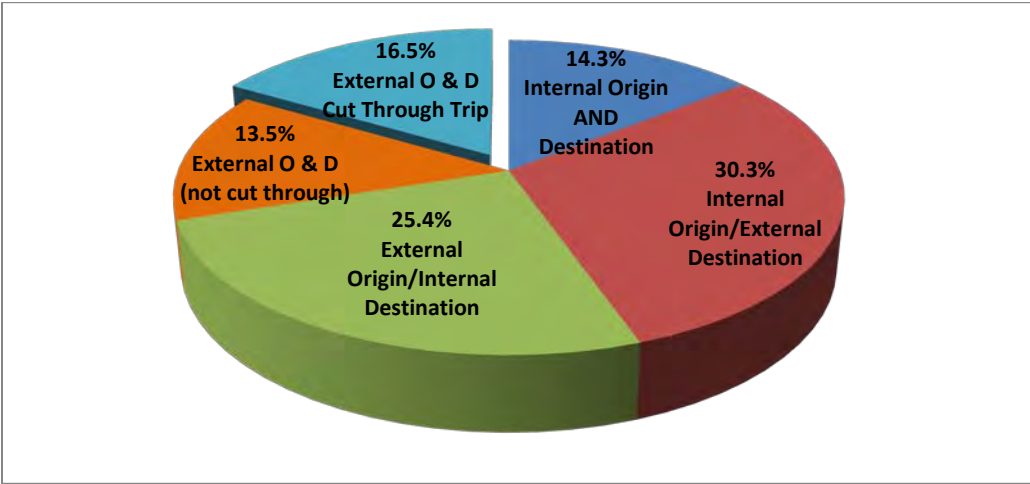
Figure 4  
OD Survey Internal and External Trip Distribution



Internal – Hoboken or Jersey City Heights zip code  
External – All other zip codes

The origin and destination pairs with external origins and external destinations (30 percent) were examined more closely by Eng-Wong, Taub staff to determine whether the trip was a cut-through trip. An example of a cut-through trip is a trip between Bayonne and Union City. There are several potential travel routes besides traveling through the study area. A trip from the Jersey City waterfront to Weehawken, however, was not considered a cut-through trip since the most logical way to travel between those two locations would be to pass through the study area. Figure 5 shows that 16.5 percent of the total trips were considered to be cut-through trips.

Figure 5  
OD Survey Cut-Through Trips



Internal – Hoboken or Jersey City Heights zip code  
External – All other zip codes

## Study Area Issues

Based on the findings from the travel survey, the existing traffic analysis, reviews of prior studies, input from the TAC, the two open houses, other stakeholders, and numerous field visits to the site, a number of multimodal study area issues were identified.

### Oversaturated Roadway Network

The roadway network is oversaturated causing queuing, traffic spillback into upstream intersections, gridlock and generally unsafe conditions for all modes because of congestion and aggressive drivers.



*Traffic queues often extend into upstream intersection during the peak periods causing bottlenecks and gridlock.*

### Closely Spaced, Multi-Leg Intersections with Difficult Roadway Geometries

Newark Avenue and Paterson Avenue cut across the Hoboken street grid creating a number of multi-leg intersections with complex roadway geometries. Longer traffic signal cycle lengths are needed to accommodate all the signal phases required and because it takes vehicles longer to make the maneuvers necessary to navigate the intersection. These intersections have many turning movements that also create an unsafe environment for pedestrians and bicyclists.

### Challenging Pedestrian Environment

Pedestrians have a difficult time traveling through the study area. Besides the multi-leg intersections and the roadway geometry described above, pedestrians must use crosswalks that are blocked by signage poles, other street furniture in inappropriate locations, overgrown shrubbery, cars parked on

the sidewalk, cars parked on-street in the crosswalk or very close so that the pedestrian is not visible to motorists, dark underpasses, and narrow sidewalks in poor condition among other challenges.



*Improperly placed sign poles, sidewalks in poor condition and dark underpasses are not conducive to a safe and pleasant walking experience.*

### Disconnected Bicycle Network

Although bicycle lanes are proposed for most of the study area roadways in the *Jersey City Master Plan Circulation Element* and the *Hoboken Bicycle and Pedestrian Master Plan*, those plans have not been fully implemented. The result is a disconnected, unsafe, bicycle network that is exacerbated by a difficult street grid, congestion and competition for space.

With knowledge of these overarching issues, the next step was to determine the future development, future traffic volumes, and levels of service for the future analysis year so that short, medium, and long term improvements could be identified.

## Future Development

This study is looking to the future and preparing for potential redevelopment impacts and needs now, rather than building them “on demand.” The future analysis year was set at 2025 after discussions with the TAC and the background growth factor was set at 0.20% per year. Both Cities have redevelopment plans in the study area. After working with the TAC, a list of developments and improvements were identified for inclusion in the future 2025 traffic volume network. Developments without a defined development plan were considered part of the background growth. Table 4 contains the future developments and improvements proposed in the study area.

Table 4  
Future Developments and Improvements

Proposed Developments/Improvements	Location	Included in
Western Edge Redevelopment/ 9th Street HBLR/Village West	Hoboken	Background growth
New York Avenue Redevelopment	Jersey City	Future traffic network
Southwest Hoboken Planned Parks	Hoboken	Future traffic network
Neumann Leather Complex	Hoboken	Future traffic network
Relocation of City Garage	Hoboken	Background growth
Observer Highway "Boulevard" Improvement	Hoboken	Future conditions. No vehicle trips generated.
Hoboken Terminal Rehabilitation and Yard Plan	Hoboken	Future traffic network
Van Leer North and South Development	Jersey City	Future traffic network
Hoboken Avenue Redevelopment Plan	Jersey City	Future traffic network
18th Street Light Rail Station	Jersey City	Future conditions although no funding has been committed by NJ Transit
Jersey Avenue Park Redevelopment Plan	Jersey City	Background growth
Jersey Avenue Light Rail Redevelopment Plan	Jersey City	Background growth
Horseshoe District Redevelopment	Jersey City	Background growth
Jersey Avenue 10th Street Redevelopment Plan	Jersey City	Future traffic network
Newport Northeast Quadrant	Jersey City	Future traffic network
The Cliffs Access Stairs	Jersey City	Future conditions. No vehicle trips generated
Hudson Bergen Light Rail Second Street Station Walkway	Jersey City & Hoboken	Future conditions. No vehicle trips generated

As described in the *Route 440/Routes 1&9T Multi-Use Urban Boulevard and Through Truck Diversion Concept Development Study*, Transit Use Codes were developed based on a travel survey that was conducted as part of the *Circulation Element of the Jersey City Master Plan*. Six transit utilization codes were identified based upon proximity and access to mass transit. Different automobile utilization rates were assigned to each code. The *Route 440/Routes 1&9T Multi-Use Urban Boulevard and Through Truck Diversion Concept Development Study* contained tables listing the Transit codes and associated automobile usage for existing uses, new development by 2020, 2035 and 2050. Each future development in the study area was given a transit use code based on its proximity to transit (see Table 5). Institute of Transportation Engineers (ITE) vehicle trip rates were used to calculate trip generation for each proposed development. The corresponding automobile usage percent (for 2020 since that was more conservative than the 2035 percentages) was then applied to the trips generated by each proposed development to determine the auto trip generation.

Table 5  
Future Developments and Improvements and Corresponding Transit Usage Codes and Auto Usage Percentages

Proposed Developments/ Improvements	Location	Included in	Transit Usage Level/Code	Type of Development	Auto Usage %
New York Avenue Redevelopment	Jersey City	Future traffic network	High	Residential	36%
Southwest Hoboken Planned Parks	Hoboken	Future traffic network	N/A	N/A	N/A
Neumann Leather Complex	Hoboken	Future traffic network	High	Residential	36%
			High	Retail	21%
Observer Highway "Boulevard" Improvement	Hoboken	Future conditions. No vehicle trips generated.	N/A	N/A	N/A
Hoboken Terminal Rehabilitation and Yard Plan	Hoboken	Future traffic network	Very High	Residential	26%
			Very High	Office	25%
			High	Retail	21%
			Very High	Hotel	26%
Van Leer North and South Development	Jersey City	Future traffic network	Medium	Residential	46%
			Low	Retail	41%
Hoboken Avenue Redevelopment Plan	Jersey City	Future traffic network	Medium	Residential	46%
18th Street Light Rail Station	Jersey City	Future conditions although no funding has been committed by NJ Transit	N/A	N/A	N/A
Jersey Avenue 10th Street Redevelopment Plan	Jersey City	Future traffic network	Low	Residential	56%
Newport Northeast Quadrant	Jersey City	Future traffic network	High	Residential	36%
			High	Office	35%
The Cliffs Access Stairs	Jersey City	Future conditions. No vehicle trips generated	N/A	N/A	N/A
Hudson Bergen Light Rail Second Street Station Walkway	Jersey City & Hoboken	Future conditions. No vehicle trips generated	N/A	N/A	N/A

***Future volumes without improvements***

The future 2025 traffic volumes without improvements were developed by growing the existing volumes by the 0.20% per year background growth factor and then adding the future development trip generation to the network. Future volume networks can be found in Appendix B.



Tables 6 and 7, contain the 2025 No Action LOS for signalized and unsignalized intersections, respectively. With no roadway improvements traffic congestion and delays are expected to continue to deteriorate. Five signalized intersections are over capacity and are expected to operate at LOS E or F. Four unsignalized intersections are expected to operate at LOS E or F.

Table 6  
2025 No Action Level of Service -- Signalized Intersections

INTERSECTION & APPROACH	7:45 to 8:45 AM			5:00 to 6:00 PM		
	V/C	Delay	LOS	V/C	Delay	LOS
18th Street and Jersey Avenue	0.83	25.0	C	0.80	26.2	C
18th Street and Grove Street	0.70	53.5	D	0.65	15.3	B
18th Street and Marin Boulevard	1.12	159.4	F	1.11	85.4	F
Newark Street and Monroe Street	1.18	222.5	F	1.71	134.4	F
Newark Street and Marin Boulevard	1.97	186.3	F	1.89	159.8	F
Observer Highway and Willow Avenue	0.92	29.9	C	0.81	21.1	C
Observer Highway and Monroe Street/Paterson Avenue	1.04	101.4	F	0.91	81.5	F
Paterson Avenue and Jackson Street	0.45	15.4	B	0.51	19.1	B
Paterson Avenue and First Street/Marshall Street	0.63	27.0	C	0.61	30.4	C
Franklin Street and Paterson Plank Road	0.46	25.4	C	0.44	20.9	C
Franklin Street and Palisade Avenue	0.43	14.5	B	0.50	15.1	B
Ravine Avenue and Palisade Avenue	0.65	17.0	B	0.56	15.9	B
14th Street and Jersey Avenue	1.19	60.1	F	1.25	79.8	E

Table 7  
2025 No Action Level of Service -- Unsignalized Intersections

INTERSECTION & APPROACH	7:45 to 8:45 AM		5:00 to 6:00 PM	
	Delay	LOS	Delay	LOS
Observer Highway and Jefferson Street	12.4	B	4.8	A
Paterson Avenue and Harrison Street	5.5	A	8.5	A
Observer Highway and Harrison Street	1872.5	F	15.4	C
Newark Street & Harrison Street	41.6	E	56.8	F
Observer Highway & Jackson Street	60.3	F	118.1	F
Newark Street and Jackson Street	73.6	F	61.9	F

## Alternatives Analysis

A series of design alternatives were identified for modifications to the existing street network or the construction of new right-of-ways within the project area in order to improve connectivity between Jersey City and Hoboken. Short, medium and long term recommendations were sought as part of the project so a number of roadway modifications and new roadways were considered first. Once the longer and medium term roadway improvements were identified, additional enhancements and short term recommendations were identified. Several alternatives and variations were tested and dismissed because they did not adequately address the congestion, bicycle, and pedestrian issues. Table 8 lists some of the dismissed alternatives and the reasons why they were dismissed.

## Recommended Actions

A long list of potential improvements was tested to identify the best and most logical candidates for consideration in the study area. The result is a wide array of possible improvement actions that include: low, medium, and higher cost measures; low, medium, and higher controversy measures; easily and more difficult to implement measures; and area-wide and localized measures. For simplicity we have grouped them into short term (generally lower cost, easier to implement, and less controversial), medium term (medium cost, more difficult to implement and may require further study and potentially more controversial), and long term (higher cost, potentially more controversial, and the most difficult to implement requiring additional study).

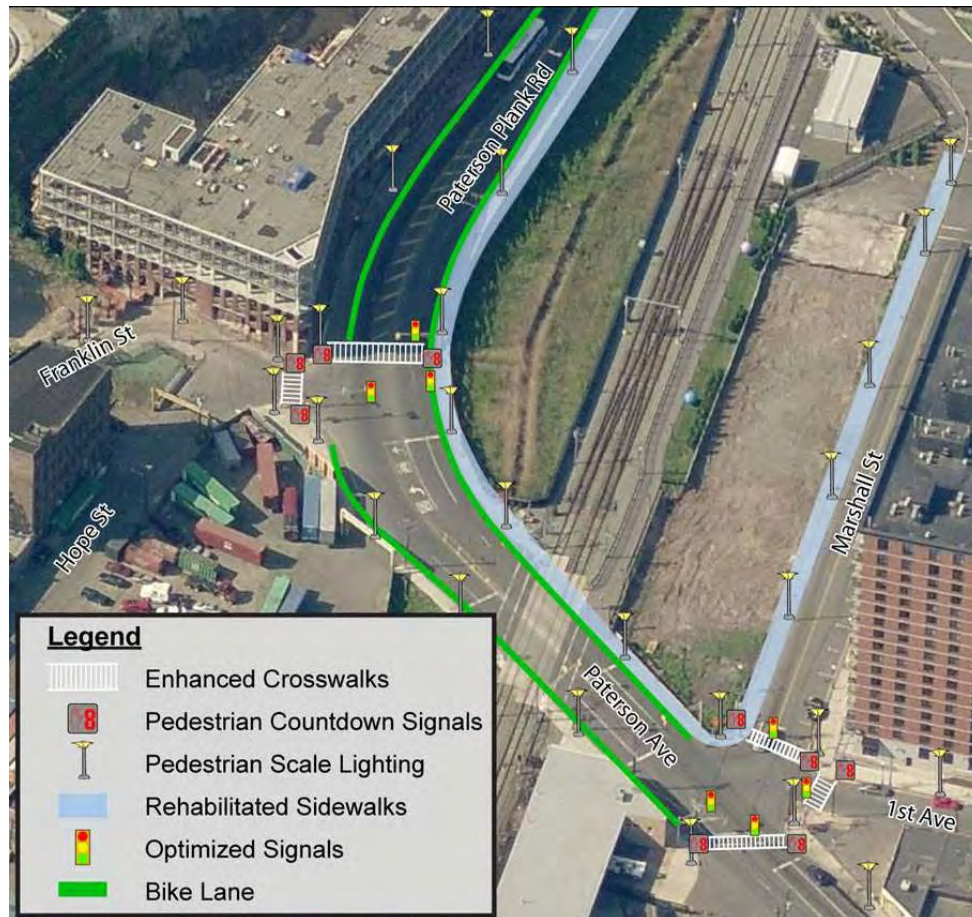
Table 8  
 Alternatives Considered but Eliminated

Measures/Alternatives Considered	Description	Constraints or Concerns	Feasibility Description
One-way Clockwise Pairing of Grove Street and Marin Boulevard	Grove Street would be converted to one-way northbound, while Marin Boulevard would become one-way southbound. The section of Newark Avenue between these two streets would become one-way eastbound.	Discontinuity in traffic patterns	Motorists traveling southbound along Monroe Street would not be able to continue directly onto Grove Street.
		Inefficient signal timing plan	The irregular geometry of the intersection of Newark Avenue and Monroe/Grove Street would not accommodate the northbound and southbound movements proceeding simultaneously; therefore requiring at least a minimum of two phases. Any east/west movements would require a third phase, which is an existing constraint on the operational efficiency of the intersection.
		Insufficient capacity	The intersection of 18th and Grove Streets would become a focal point of northbound traffic. An entrance at Marin Boulevard such as in the proposed plan would be more feasible due to the larger amount of capacity.
Newark Avenue and Observer Highway Connection	Connectivity would be established linking the north and south of Newark Avenue and Observer Highway by opening the barrier.	Complexity of intersection	The opening of the barrier between Newark Avenue and Observer Highway would create a six-legged intersection that would require a complex signal phasing plan that would not be efficient from an operational standpoint.
Roundabout at Key Intersections	A roundabout would keep traffic flowing at intersections where turns are difficult.	Lack of right-of-way	Lack of available land restricted the number of candidate locations.
		Heavy circulatory volumes	At locations where roundabouts were feasible, more through traffic would be circulating than turning vehicles, reducing the beneficial impact of the improvement.
Connector road to Jersey Avenue	A connector roadway from Paterson Plank to Jersey Avenue would allow traffic to by-pass the congestion at Monroe Street and Observer Highway	Physical constraints due to the underpass	Sight-visibility issues would be a major concern when connecting the by-pass road where Jersey Avenue and Newark Avenue meet. The skewed alignment of structural columns increase the difficulty in tunneling under the railroad tracks.
		The connector road would meet Paterson Plank Road to the east of the light rail tracks so vehicles would still have to cross the light rail tracks as they do today.	The amount of diverted traffic displaced from Patterson Avenue and Observer Highway is not a substantial amount, since most of the traffic is comprised of local trips between the Hoboken and Jersey City regions.

### Short Term Recommendations

Short term recommendations include some of the items shown in Figure 6 like high visibility crosswalks, pedestrian countdown signals, pedestrian scale lighting, widened sidewalks, optimized traffic signals, etc. The short term recommendations address all of the identified issues but are primarily focused on enhancing pedestrian and bicycle travel through the area.

Figure 6  
Recommended Improvements



### Medium Term Recommendations

Most of the medium term recommendations are centered on reducing congestion and simplifying intersections while improving safety for all travel modes. Grove Street and Marin Boulevard should be reconfigured (see Appendix D, Figure 1) to serve as counter-clockwise one-way pairs between 18<sup>th</sup> Street and Newark Avenue/Observer Highway. Newark Avenue should also be modified to be one-way westbound between Marin Boulevard and Jackson Street. By making these changes, traffic circulation is improved and congestion is reduced. The four intersections affected by the changes have less turning movements, more time for pedestrian movements and are safer. Reconfiguration of Paterson Avenue from Observer Highway/Monroe Street to Harrison to a one-way north westbound is also recommended

for the same reasons. When making these roadway modifications, all travel lanes should be restriped ideally to 10 foot lanes or a maximum of 11 foot lanes.

To accommodate future traffic volumes, a dual right turn (see Appendix D, Figure 4B) is recommended at Marin Boulevard northbound at Observer Highway. Without dual right turns, the intersection fails in the future analysis and will likely cause congestion and delays at other study area intersections. Since adding dual right turns will make this intersection more difficult to navigate than it is currently, we recommend bicycle and pedestrian signals to provide guidance for navigating the intersection. A three phase signal is recommended. The first phase would accommodate vehicles on the Marin Boulevard northbound approach, cyclists turning left from Marin Boulevard to westbound Observer Highway, and pedestrians crossing the north segment of Observer Highway to the center median. The second phase would accommodate vehicles traveling westbound on Observer Highway, pedestrians crossing the south segment of Observer Highway from the center median, and pedestrians and bicyclists wishing to cross Marin Boulevard. The final phase would be a vehicle-only phase for Marin Boulevard dual right turns and vehicles traveling westbound on Observer Highway. Right turn on red would not be allowed on Marin Boulevard. The pedestrian/bicycle signal could be activated by a pedestrian or bicyclist pushing the button or by a pad in the sidewalk that triggers when a pedestrian steps on it or potentially by a more advanced technology like an infrared beam that triggers the signal when a pedestrian crosses the beam. A similar pedestrian activated signal should be installed at the existing channelized right turn at Marin Boulevard and 18<sup>th</sup> Street (see Appendix D, Figure 5B).

New traffic signals are recommended at Observer Highway's intersection with Harrison and Jackson Streets and at Newark Avenue's intersection with the same two streets (see Appendix D, Figure 1). Traffic signals will provide time for pedestrians to cross safely, help improve traffic circulation and will reduce upstream traffic queues on New York Avenue/Ravine Road.

In an effort to improved north/south bicycle and pedestrian connections, Madison Street between Observer Highway and Newark Avenue should be opened up to pedestrians and bicyclists (see Appendix D, Figure 2). Opening up the roadway will also extend the existing Madison Avenue bike lane. The bike lane can continue to be a Class I bike lane for a short segment until bicycles will need to mix with traffic to make the left turn on Grove Street southbound. Another Class I bike lane is proposed for Marin Boulevard northbound to the proposed bike lane on Observer Highway. Class II bike lanes are proposed along 18<sup>th</sup> Street, Marin Boulevard and Grove Street south of 18<sup>th</sup> Street, Jersey Avenue, Coles Street, Paterson Avenue and Paterson Plank Road. The type of bicycle accommodation (Class I, II, or 3) recommendation was determined based on the available right-of-way, existing bicycle activity, and traffic volumes.

The final medium term recommendation is outside of the study area but is at the key pinch point intersection that is one of the causes of much of the study area congestion – Jersey Avenue and 14<sup>th</sup> Street. On a daily basis, traffic queues along Jersey Avenue waiting for the 14<sup>th</sup> Street traffic light to

change. Fourteenth Street, being the main exit from the Holland Tunnel, carries high volumes of traffic. Two potential improvements are to eliminate northbound left turns at that intersection and to close off 14<sup>th</sup> Street between Coles Street and Jersey Avenue (see Appendix D, Figure 6B). By doing this the stop bar for southbound traffic on Jersey Avenue could be moved closer to the intersection providing more roadway capacity and making the intersection safer. All of the medium term options would require further detailed design before they could be implemented.

### **Long Term Recommendations**

The long term recommendations were focused on looking at ways to divert traffic from the congested portion of the study area while adding new north/south pedestrian and bicycle connections. Several options were considered. The recommended option would be to connect Coles Street northbound to Paterson Plank Road/Mountain Road (see Appendix D, Figure 7). The new connector road would go under the railroad tracks and would then follow the alignment of the light rail staying west of the light rail tracks. Because of clearance issues, Hoboken Avenue would need to be realigned so that it is perpendicular to Coles Street creating a safer 90 degree intersection. The new connector roadway would have nine foot sidewalks and five foot bicycle lanes on either side adding a new north/south bicycle and pedestrian connection.

To make the connector road more attractive for motorist with origins and destinations outside the study area, several ramps to the major highways would need to be constructed, including an exit ramp from I-78 eastbound to Hoboken Avenue, either an entrance ramp from Hoboken Avenue to I-78 westbound or an alternative location would be an entrance ramp from Coles Street to I-78 westbound, and an entrance ramp from Coles Street to Route 1& 9 southbound. Further study and design is needed for the connector road and associated highway ramps.

The OD survey data was used to identify the trips that would be likely to use the new connector road and associated ramps. The OD data provided information regarding the origins, destinations, and travel paths of motorist traveling through the study area. The OD survey found that 16.5 percent of the trips traveling through the study could be considered cut-through trips. Based on this information, the cut-through trips were reassigned from their current path to the connector roadway.

The final long term recommendation is to construct a light rail station along 18<sup>th</sup> Street as the development in Jersey City occurs. A new station will encourage transit use by future residents of the proposed developments and will provide a transit connection to the existing retail in the vicinity of the proposed station. This something that has been discussed in prior studies but at this time there is no funding or ongoing work by NJ Transit to pursue this option.

The medium term and long term improvements were each analyzed as a package to see how they compared to existing conditions and future 2025 conditions without improvements. Figure 7 shows the overall intersection capacity utilization for each scenario. Existing conditions are operating at 91 and 81 percent of capacity during the AM and PM peak hours, respectively. With additional traffic and new

development in place in 2025, intersection capacity could deteriorate to 141 and 118 percent of capacity if no improvements area in place. With the medium term package of improvements, overall intersection capacity drops below existing conditions (80 percent AM and 79 percent PM). With the medium and long term improvement the capacity utilization drops even further to 71 and 70 percent for the AM and PM peak hours.

Each of the recommendations is listed in the Short Term, Medium Term, and Long Term Recommendations Matrices (see Tables 9 through 11). The Recommendations Matrices list the type of improvement, recommended action, beneficial result of that action, implementing agency to help facilitate the next steps toward implementation, and additional notes regarding further study needed. Each recommendation is numbered for easy reference. Copies of drawings showing some of the recommendations can be found in Appendix D.

Figure 7  
Overall Intersection Capacity Utilization Percentage

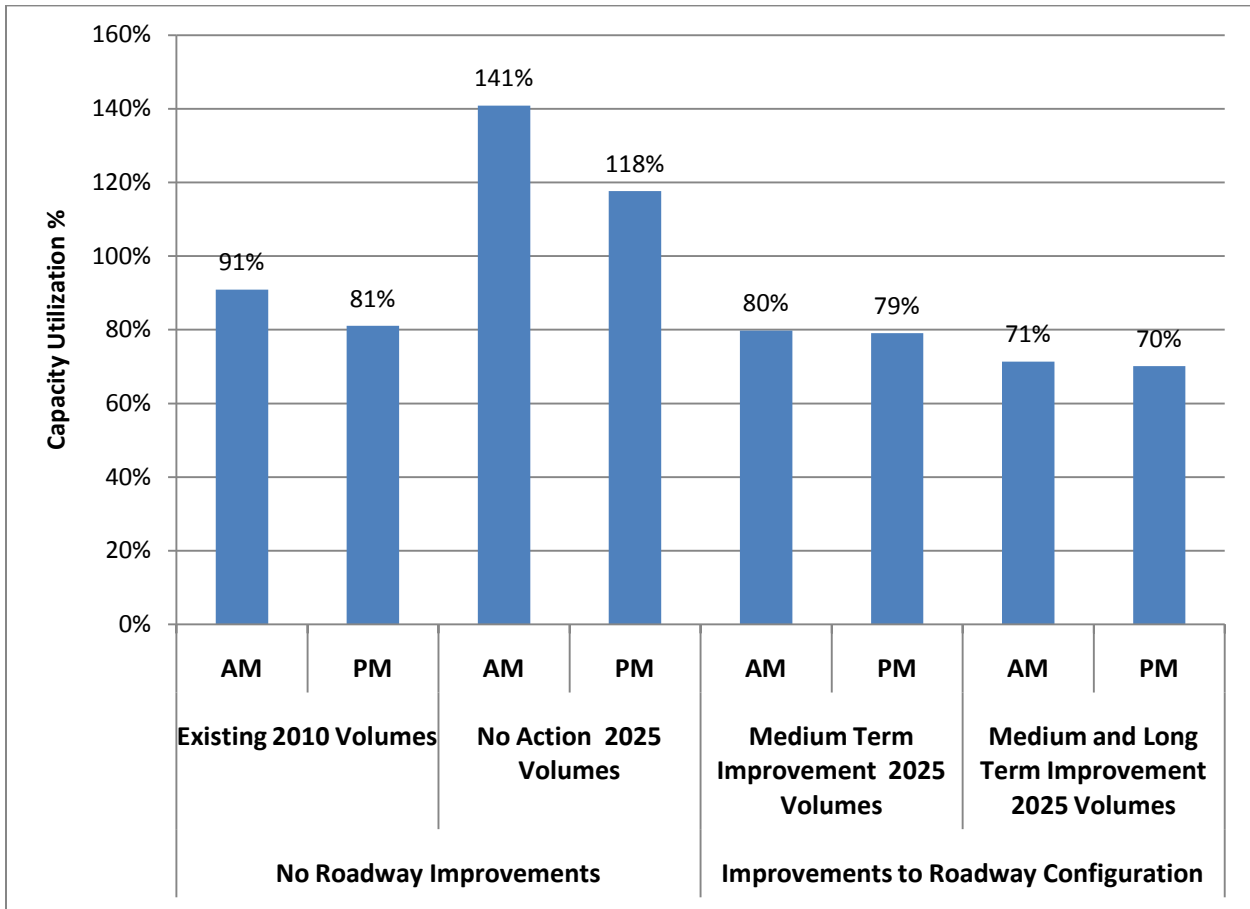


Table 9  
Recommendations Matrix – Short Term Improvements

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
1	JC+H		X			Pedestrian Signals: Install pedestrian count-down signals at all signalized intersections	Improves pedestrian safety; encourages walking; reduces auto use	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Pedestrian signals should be the
2	JC+H		X			Install Pedestrian signal pushbutton instructions	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
3	JC+H		X			Install "Stop for Pedestrian" stanchion signs at busy crosswalks	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
4	JC+H	X	X	X	X	Repaint Stop bars, and Other Pavement Markings	Improves safety for all modes		Operational Improvement.
5	JC+H	X	X	X	X	Install high visibility crosswalks at all intersections (could be zebra, ladder, stamped, etc.)	Improves safety for all modes		Operational Improvement. High visibility crosswalks should be the same in Jersey City and Hoboken
6	JC+H		X			Realign existing crosswalks to be at right angles to the curb to shorten the crossing distance	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement. In many cases pedestrian signals may need to be relocated so they are in the sight line of the crosswalk



Table 9  
 Recommendations Matrix – Short Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
7	JC+H		X			Repair/replace cracked or missing sidewalks	Improves pedestrian safety; encourages walking; reduces auto use	Jersey City DPW, Hoboken DT&P, Hudson County DR&PP	Operational Improvement.
8	JC+H		X			Institute a regular sidewalk maintenance program	Improves pedestrian safety; encourages walking; reduces auto use		Policy & Operational Improvement
9	JC+H		X			Reposition street furniture and sign poles to provide a clear sidewalk for pedestrians	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
10	JC+H		X			Conduct regular maintenance to trim back shrubbery so that sidewalks are clear for pedestrians	Improves pedestrian safety; encourages walking; reduces auto use		Policy & Operational Improvement
11	JC+H		X			Install landscaping/streetscaping enhancements to make the sidewalks more pedestrian-friendly	Encourages walking; reduces auto use		Operational Improvement.
12	JC+H			X		Conduct regular street cleaning to clear debris from bicycle paths	Improves bicycle safety. encourages bicycle use		Policy & Operational Improvement

Table 9  
Recommendations Matrix – Short Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
13	JC+H			X		Require developers to include bicycle facilities in their projects	Encourages bicycle use; reduces auto congestion	Jersey City HEDC and Hoboken DCD	Policy/Legislative Improvement
14	JC+H			X		Recommend that new businesses with a delivery component use bicycles for deliveries	Encourages bicycle use; reduces auto congestion		Policy/Legislative Improvement
15	JC+H	X	X	X	X	Update zoning codes and redevelopment plans to include accommodations to improve the differentiation of street space between automobiles, bicyclists, and pedestrians.	Improves safety for all modes		Policy/Legislative Improvement
16	JC+H		X			For new developments, where possible require a minimum 5 to 6 foot sidewalk	Improves pedestrian safety; encourages walking; reduces auto usage		Policy/Legislative Improvement
17	JC+H	X	X	X	X	Increased enforcement and education of the City's bicycle regulations	Safer roadways and bicycle paths	Jersey City PD and Hoboken PD	Enforcement/Policy Improvement
18	JC+H		X	X	X	Increased enforcement and education of the City's parking regulations	Keeps sidewalks, crosswalks, bicycle lane/paths, bus stops, etc. clear		Enforcement/Policy Improvement
19	JC+H	X	X	X	X	Hudson County should adopt a Complete Streets Policy similar to Jersey City and Hoboken	Improves safety for all modes; encourages multi-modal transportation usage	Hudson County Freeholders	Policy/Legislative Improvement

Table 9  
Recommendations Matrix – Short Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
20	JC+H			X	X	Install bicycle racks on buses that do not already have them	Encourages transit and bicycle use; reduces auto congestion	NJT	Operational Improvement.
21	JC+H				X	Provide bus timetable signage at bus stops	Encourages transit; reduces auto congestion		Operational Improvement.
22	H	X				At the light rail crossing at Paterson Plank Road, adjust the signal phasing so that after signal pre-emption is triggered by the light rail the signal will randomize the phase rather than return to the same phase (i.e., southbound left turn).	Reduces auto congestion		Operational Improvement. Further study would be needed.
23	JC+H		X			Install pedestrian lighting at railroad underpasses	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement.
24	JC		X			Add pedestrian lighting along the Ravine Road/New York Avenue underpass	Improves pedestrian safety; encourages walking; reduces auto use		Hudson County DE, and Hudson County DR&PP

LEGEND

Jersey City DPW	Jersey City Department of Public Works
Hoboken DT&P	Hoboken Department of Transportation and Parking
Hudson County DR&PP	Hudson County Department of Roads and Public Property
Hudson County DE	Hudson County Division of Engineering
Jersey City DE	Jersey City Division of Engineering
Jersey City HEDC	Jersey City Department of Housing, Economic Development & Commerce
Hoboken DCD	Hoboken Department of Community Development
Jersey City PD	Jersey City Police Department
Hoboken PD	Hoboken Police Department
NJT	New Jersey Transit

Table 10  
Recommendations Matrix – Medium Term Improvements

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Buses				
1	JC+H	X	X	X	X	Design travel lanes to be a minimum of 10 feet wide to a maximum of 11 feet wide	Slows traffic; provides a friendlier pedestrian/bicycle environment	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed
2	JC+H	X				Modify lane markings and restripe as shown in drawings in Appendix D	Improves traffic flow		Operational Improvement. Further design is needed
3	JC+H		X	X		Investigate the use of “daylighting” poles at corners	Improves visibility for pedestrians and bicyclists		Operational Improvement. Further study is needed. If funding is available, permanent daylighting
4	JC+H		X			Install pedestrian scale lighting	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement. Lighting design is needed

Table 10  
Recommendations Matrix – Medium Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
5	JC+H	X	X	X	X	Install new traffic signals at: Observer Highway with Harrison and Jackson Streets and at Newark Ave. with Harrison and Jackson Streets	Improves traffic circulation; will help reduce upstream traffic queues on New York Avenue/Ravine Road	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. A signal warrant analysis is needed and signal design is needed
6A	JC+H	X	X	X	X	Change Marin Boulevard to one-way northbound from 18th St. to Observer Hwy.	Improves safety by reducing conflicts between modes; improves traffic circulation		Operational Improvement. Further design is needed
6B	JC+H	X	X	X	X	Change Grove St. to one-way southbound from Observer Hwy. to 18th St.	Improves safety by reducing conflicts between modes; improves traffic circulation		Operational Improvement. Further design is needed
6C	JC+H	X	X	X	X	Change Newark Ave. to one-way southwestbound from Marin Blvd. to Jackson St.	Improves safety by reducing conflicts between modes; improves traffic circulation		Operational Improvement. Further design is needed

Table 10  
Recommendations Matrix – Medium Term Improvements (Continued)

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
7	JC+H	X	X	X	X	Change signal phasing at 18th St. with Grove St. and Marin Blvd; Observer Hwy with Marin Blvd and Monroe St.; Newark Ave. with Grove St., and Observer Hwy/Paterson Ave. and Monroe St. One phase can be removed due to street direction changes.	Improves traffic circulation; will help reduce upstream traffic queues and allow more pedestrian crossing time	Jersey City DE, Jersey City DPW, Hoboken DT&P, & Hudson County DE	Operational Improvement. Signal design is needed. Automated Red Light Enforcement Technology has been approved for the intersection of 18th St. and Jersey Ave. but has not yet been installed.
8	H	X	X	X	X	Change Paterson Ave. to one way northwestbound from Monroe Street to Harrison Street	Improve safety by reducing conflicts between modes; improve traffic circulation		Operational Improvement. Further design is needed
9	H		X			At the dual right turn at Observer Hwy. and Marin Blvd. consider installing a pedestrian/bicycle actuated traffic signal that detects when pedestrians and/or bicyclists are present	Improves pedestrian safety; encourages walking; reduces auto use	Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed
10	H		X	X		Open Madison St. between Observer Hwy. and Newark Ave. to bicyclist and pedestrians.	Provides an additional, safer north/south travel connection for bicyclists and pedestrians		Operational Improvement. Further design is needed
11	JC		X			Install pedestrian refuge island on the eastbound approach of 18th St. at Marin Boulevard	Improves pedestrian safety; encourages walking; reduces auto use		Operational Improvement. Further design is needed
12	JC		X			At the channelized right turn at 18th St. and Marin Blvd. install a pedestrian actuated traffic signal to stop right-turning vehicles when pedestrians are present	Improves pedestrian safety; encourages walking; reduces auto use	Jersey City DE and Jersey City DPW	Operational Improvement. Signal design is needed

Table 10  
 Recommendations Matrix – Medium Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Buses				
13	JC	X	X	X	X	Close 14th St. between Jersey Ave. and Coles St. and move the southbound stop bar closer to the intersection	Provides additional roadway capacity for traffic; improves intersection safety	Jersey City DE, Jersey City DPW, NJDOT, PANY&NJ, NJ Turnpike	Operational Improvement. Further design is needed
14	JC	X	X	X	X	Remove the northbound left turn movement at Jersey Ave. and 14th St.	Reduces conflicts for southbound approach; improves intersection safety		Operational Improvement. Further design is needed
15	H			X		Install a Class I bicycle lane (lane physically separated from motor vehicles) on Observer Hwy. from Marin Blvd. east as proposed for the Observer Hwy. project and also on Madison Ave. between Observer Hwy. and Newark Ave. to connect with the existing bicycle route on Madison Avenue	Improves bicycle safety; encourages bicycle use; reduces auto use	Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed

Table 10  
Recommendations Matrix – Medium Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Buses				
16	JC+H			X		Install Class II bicycle lanes (lane set aside on the street exclusively for bicycles) on Marin Boulevard northbound between 18th St. and Observer Hwy, on Grove St. southbound between Newark Ave. and 18th St. on Newark Ave between Jackson and Grove Streets, and on Paterson Ave. between Observer Hwy. and Harrison St.	Improves bicycle safety; encourages bicycle use; reduces auto use	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DE, and Hudson County DR&PP	Operational Improvement. Further design is needed
17	JC+H			X		Install sharrows (shared-lane markings - Class III bicycle lane) on 18th Street, on Jersey Ave., Coles St., Hoboken Ave. Observer Hwy between Madison St. and Harrison, on Harrison between Paterson Ave. and Observer Hwy. and on Paterson Avenue from Harrison St. north.	Improves bicycle safety; encourages bicycle use; reduces auto use		Operational Improvement. Further design is needed
18	JC+H			X		Investigate the use of bicycle boxes as shown in Appendix D Figures	Improves bicycle safety; encourages bicycle use; reduces auto use		Operational Improvement. Further study and design is needed

**LEGEND**

Jersey City DPW	Jersey City Department of Public Works
Hoboken DT&P	Hoboken Department of Transportation and Parking
Hudson County DR&PP	Hudson County Department of Roads and Public Property
Hudson County DE	Hudson County Division of Engineering
Jersey City DE	Jersey City Division of Engineering



Table 11  
Recommendations Matrix – Long Term Improvements

#	C i t y	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		A u t o	P e d	B i k e	B u s				
1	JC	X				Realign Hoboken Avenue so that it is perpendicular to Coles St.	Creates a safer intersection	Jersey City DE and Jersey City DPW	Capital Improvement. Further study and design is needed
2A	JC+H	X				Construct a connector road from the intersection of Hoboken Avenue and Coles Street to Paterson Plank Road near Hope St.	Provides an alternate route for traffic; reduces congestion	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DR&PP, NJDOT, PANY&NJ, NJ Turnpike	Capital Improvement. Further study and design is needed
2B	JC+H		X			Construct a nine foot sidewalk on either side of the connector roadway from the intersection of Hoboken Avenue and Coles Street to Paterson Plank Road near Hope St.	Provides a new walking path between Hoboken and Jersey City; encourages walking; reduces auto use		Capital Improvement. Further study and design is needed
2C	JC+H			X		Construct a five foot bike lane on either side of the connector roadway from the intersection of Hoboken Avenue and Coles Street to Paterson Plank Road near Hope St.	Provides a new bicycle path between Hoboken and Jersey City; encourages bicycling; reduces auto use		Capital Improvement. Further study and design is needed
3A	JC+H	X				Construct an exit ramp from I-78 eastbound to Hoboken Ave.	Provides an alternate route for traffic; reduces congestion		Capital Improvement. Further study and design is needed
3B	JC+H	X				Either construct an entrance ramp from Hoboken Ave. to I-78 westbound or from Coles St. to I-78 westbound	Provides an alternate route for traffic; reduces congestion		Capital Improvement. Further study and design is needed

Table 11  
 Recommendations Matrix – Long Term Improvements (Continued)

#	City	Improved Mode				Recommended Action	Beneficial Result	Implementing Agency(ies)	Improvement Type and Additional Notes
		Auto	Ped	Bike	Bus				
4	JC+H	X				Construct an entrance ramp from Coles St. to Route 1&9 southbound	Reduces conflicts for southbound approach; improves intersection safety	Jersey City DE, Jersey City DPW, Hoboken DT&P, Hudson County DR&PP, NJDOT, PANY&NJ, NJ Turnpike	Capital Improvement. Further study and design is needed
5	JC	X	X	X	X	Construct a light rail station along 18th Street	Encourages transit use by future residents of the proposed developments in that vicinity by providing a transit stop within a short walking distance also provides a transit connection to the existing retail and potential future retail in that vicinity	NJT	Capital Improvement. Further study and design is needed

# APPENDIX A

## Public Open House Comments

## Jersey City/Hoboken Connectivity Study Open Houses

June 23 & 24, 2010

### Summary

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Open Houses for the Jersey City/Hoboken Connectivity Study were held on June 23 & 24, 2010. Representatives from Hudson County, Jersey City, Hoboken, Eng-Wong, Taub & Associates, and Howard/Stein-Hudson Associates were in attendance to lead both meetings. Both meetings followed the same format. A short PowerPoint presentation was shown on loop throughout the Open Houses to give attendees an overview of the project. Additionally, three stations were set up to discuss issues regarding bicycles and pedestrians, motor vehicles, and transit. Each station included large maps of the study area and boards with photographs of issues related to the study. Project team members were available at each station to answer questions and record comments related to the study. Attendees were also given comment sheets to leave behind or mail in to the project team after the meeting.

### Hoboken Open House

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Date: June 23, 2010, 4PM-8PM  
Location: Hoboken Multi-Service Center, 124 Grand Street, Hoboken, NJ 07030  
Total Attendees: 51

#### **Bicycle & Pedestrian Comments:**

##### Multimodal Issues on Key Roadways:

###### Paterson Plank Road/Paterson Avenue:

- 1st Street & Paterson Avenue
  - Rush hour tunnel traffic creates so much congestion pedestrians cannot cross the street
  - Suggestion: no right turn during rush hour from Paterson Avenue to Harrison or Jefferson Street (all tunnel traffic)
- Path along Paterson Plank Road
  - Sign stumps and other obstructions interrupt path
  - Trees not adequately maintained and sometimes hit riders in the head
  - Poor lighting
  - Too narrow around 2nd Street Light Rail entrance.
  - Narrow sidewalk
  - Cannot switch between road and path because of low rail
- Vehicular speeds and lack of pedestrian connections make it dangerous.
- Maintenance of sidewalk and tree overhang limits pedestrian use.

- Domestic workers live in the northwest section of the study area, and walk down the hill via Paterson Plank Road/Paterson Avenue rather than using the Light Rail from 9<sup>th</sup> Street to 2<sup>nd</sup> street.
- Obstructions on the sidewalk such as sign posts or stubs, limit pedestrian usage.
- Biking feels unsafe. Bike lanes are needed.
- Sidewalks are too narrow.
- Crosswalks needed at the intersection of Mountain Road & Paterson Plank Road
- Mountain Road/Paterson Plank Avenue intersection: Need to count pedestrians and cyclists, and completely redesign this intersection.
- Comments about rerouting Paterson Plank Road/Paterson Avenue or connecting it to other roadways were repeatedly heard. The issue is rerouting Holland Tunnel traffic in a more direct way that eliminates this traffic going through Hoboken.
- Extend Paterson Plank Road/Paterson Avenue in front of Galaxy Recycling across rail to connect with Jersey Avenue.
- Do not add a pedestrian overpass – pedestrian crossings should be at grade.

#### Observer Highway:

- Need tunnel lighting and new paving on Observer Highway between Palisade Avenue and Harrison Street.
- Poor road conditions
- Cannot cycle safely through the winding section of Mountain Road.
- Fix the “crossover” problem intersection at Observer Highway/Newark Street/Marin Boulevard.
- In the Master Plan, Observer Highway had been proposed to be redesigned as a “Boulevard” or Complete Street.
- Parking along the south side of Observer Highway along the service road had been established about 10 years ago as a temporary measure, but now is seen as untouchable.
- Combining the entire road, including the service road with parking would allow additional space for a truly complete street. Parking could be permitted on both sides which would help calm traffic.
- Sidewalks are in poor condition near the municipal garage.
- Walking from the southeast up Observer Highway to the ferry/train terminal is difficult and one gets tangled in the Crossover
- North/South connections across Observer Highway are a key issue for pedestrians and cyclists.

#### Mountain Road:

- Needs maintenance and there is a question of who has jurisdiction.
- 311 type service is needed
- Too narrow
- Poor visibility around corners - mirrors could possibly help
- Was “The Cliffs” supposed to install elevator?
- Trash receptacles need to be emptied
- Poor Lighting
- Unsafe/dirty
- Should be bicycles only – closed to auto traffic

Bicycle Issues:

- Grand and Madison Streets work well with the new bike lanes.
- One person would bike from home in Weehawken to Jersey City to shop, but the north south connections are difficult.
- There should be a way to ride around or through the ferry terminal without dismounting a bicycle.
- Add bike parking on the south side of the terminal building.
- Add bike racks on buses, and on buses that go into New York City.
- The cycling improvements in Hoboken are “very encouraging.”
- Change local ordinances so bikes can be legally locked to a sign or a lamp post (but not fire hydrants or other public safety items).
- Study area is unfriendly to bikes
- More east/west bike lanes are needed (every 4 blocks)
- Need more bike racks are needed on numbered streets in Hoboken
- Flooding makes cycling difficult
- Bicycle storage is difficult: most buildings do not have room and they are stolen off the street.
- Need to remove abandoned bikes
- Limited options for cyclists to get to Hoboken Terminal from Jersey City Heights:
  - Congress Street elevator (preferred)
  - Mountain Road is unsafe (too steep)
  - Ravine Road has blind spots to traffic and puts cyclists in vehicular chokepoint
- Pleasant ride along river up to the George Washington Bridge
- Delivery bikes need racks
- Bike lanes have potholes
- Madison Street has very poor road conditions, there are many potholes
- Drivers do not respect bicyclists
- Marin Boulevard to Jefferson Street on Newark Street: bicyclists cannot easily get through
- Jersey Avenue, Monroe Street, Madison Street, and Willow Street: Poor road conditions
- Too many cyclists ride on the sidewalk, especially on Washington Street.
- A bike share program could be successful. It would make sense to place the bikes at:
  - Light rail stations
  - The shipyard
  - Church Square Park
  - The football stadium
  - The ferry terminal area
- 3<sup>rd</sup> Street may be appropriate for a new bike lane
- All bike lanes should be striped on the left side of the road for safety purposes.
- The tunnel on Ravine Road needs better lighting; also, a bike lane if there is room.
- Bike lanes should go anywhere that they fit, and there should be sharrows where they do not fit.
- There should be better bicycle access to the 2<sup>nd</sup> Street light rail station.

Pedestrian Issues:

- The triangles at Harrison Street/Jackson Street/Observer Highway/Paterson Avenue are in the Master Plan as park space. Getting to these future parks through the traffic of Paterson Avenue would be very difficult. Slow speeds down or re-route traffic to allow for safer and easier pedestrian access.
- If the proposed park is created next to Paterson Avenue, pedestrian safety must be considered. It may be necessary to close roads.
- Plan pedestrian connections to future park to be located in the western section of Hoboken.
- Better connections of parks, ball fields, and school playgrounds throughout Hoboken could be a focus of pedestrian improvements. For example, 4th and 5th Streets connect two main parks, Church Square and Hudson Park. With the addition of the triangular parks along Observer Highway, there will be a need for pedestrian connections.
- Marin Boulevard and Observer Highway:
  - Northbound right turning vehicles onto eastbound Observer Highway do not see pedestrians trying to cross the street.
  - Crosswalk is too narrow
  - Needs pedestrian lead time.
  - Bus shelter on Observer Highway at Marin Boulevard is very difficult to access from the southwest – it is “like playing chicken with the cars.” In addition to the crossover, there are many driveways that make this confusing for both drivers and pedestrians.
- Sidewalks are needed where Newark Street & Observer Highway cross (in the median)
- Jersey Avenue between 18th Street and the Observer Highway/Newark Street crossover is not used by pedestrians. It is dark and unwelcoming.
- Newark Street is more pedestrian friendly than Observer Highway and is a more desirable pedestrian route.
- There are missing sidewalk segments on Observer Highway and Newark Street.
- Shopping at big box stores in Jersey City:
  - Unpleasant walk down Marin Boulevard to Target. Traffic is often backed up. Suggested adding a designated walking path.
  - 3 ½ percent sales tax encourages people to go there to shop.
  - Big box supermarket is actually closer to south Hoboken residents than the Hoboken grocery stores.
  - Have to walk through parking lot to the grocery store.
  - Target has back entrance so customers do not have to walk to front of the store. Target should take better advantage of back entrance for Hoboken and Jersey City Heights residents.
  - Stores should be oriented more toward pedestrians and cyclists. Currently stores are oriented toward drivers.
- Pedestrian crossing of Newark Street at Grove Street is difficult.
- Newark Street intersections at Harrison, Jackson, and Monroe Streets have traffic spillback that blocks crosswalks and makes pedestrian crossings difficult.
- Most traffic to and from the tunnel is on Jersey Avenue. Drivers do not use the grid to disperse. Perhaps wayfinding signage could help.
- Add more high-visibility crosswalks.
- Prefer pedestrian signals that are actuated – they only stop traffic if a pedestrian pushes the button; otherwise the traffic is allowed to keep flowing.

- Intersection of Paterson Plank and Monroe Street needs better signals – because you cannot tell when to walk so people walk at any time, which is dangerous.
- Signal timing is off at 14th Street and Park Avenue
- High pedestrian traffic from the 2nd Street HBLR Station walking SB along Paterson Avenue
- Pedestrian signals are needed on Washington Street.
- Study area seems unsafe for pedestrians.
- 1<sup>st</sup> Street
  - Cars speed – traffic calming is necessary.
  - Growing in popularity as a pedestrian route.
  - Intersection with Jackson Street is dangerous -- cars do not stop.
  - Should be redesigned as a complete street.
  - Monroe & 1st Street traffic light -- had many crashes which have since been reduced, but now there is more noise (honking) and air quality issues. If all of 1<sup>st</sup> Street was calmed, the traffic light could be removed.
- There is poor pedestrian access to the 2<sup>nd</sup> Street Light Rail Station: poor signage and facilities
- Intersections with crosswalks should have signals that give pedestrian lead time.
- The signal at 11<sup>th</sup> Street and Willow Avenue (outside the study area) needs pedestrian lead time.
- Pedestrians often cross diagonally through intersections throughout the study area.
- At 3<sup>rd</sup> Street & Washington Street, pedestrians cannot see the traffic light
- The walkway along the Hoboken waterfront is deteriorating.
- The intersection at 9<sup>th</sup> Street & Park Avenue (outside the study area) is a particularly dangerous intersection for pedestrians.
- Yield to (now “Stop for”) pedestrian in crosswalk signs should be posted around the study area – some of the existing ones are so low, drivers do not see them.

#### General Issues:

- Taking the elevator and the Light Rail from 9th Street to 2nd Street takes longer than walking.
- Safety concerns from one attendee:
  - Do not put bike lanes on narrow streets where there is interaction with parked cars. Bike lanes should only be put where they are totally separate from traffic. Traffic lanes should not be eliminated to add bike lanes
  - All modes – vehicles, pedestrians and cyclists – do not comply with stop signs and traffic laws and need to.
  - Closing Sinatra Drive (outside the study area) will only make things worse.
  - Removing parking and then adding a parking garage means forcing people to pay for parking when it used to be free but a parking garage is needed in the southwest part of the Hoboken.
  - Cars parking right at the intersection cause a safety problem for pedestrians due to blocked sight lines. Suggested corner bulb outs to permanently prevent this illegal parking and shorten distances for pedestrians.
- There are bicycle and pedestrian capacity issues along the waterfront.
- Monroe Street at Observer Highway: cars race through the traffic lights
- PATH Terminal is a popular destination and should have friendlier policies



- Study area is overpowered by cars and aggressive drivers.
- More green space desired in vacant areas mainly in Southwest Hoboken.
- Need signs delineating space for bicyclist and pedestrians
- Mixed-use development around the 2nd Street Light Rail Station is needed
- There are many Adult and child pedestrians in the area of Church Square Park
  - There are a number of charter schools in the area that may not show up in a traditional search.
- Better east/west connections are needed to connect the community with the waterfront.
- Pedestrian and cycle counts should be conducted at Paterson Plank Road & Mountain Road.
- Speed humps are helpful for calming traffic.

### **Motor Vehicle Comments:**

#### Specific Street/Intersection Issues:

- Paterson Avenue/Paterson Plank Road, Harrison/Jackson Streets and Jersey Avenue
  - Master Plan suggests Paterson Plank Road will lose a lane
  - Future triangular park bordered by Paterson Avenue, Harrison Avenue, and Observer Highway is proposed.
  - If current traffic patterns/issues remain, there will be problems with congestion, air and noise pollution, and the neighborhood will continue to be unattractive.
  - Drivers have difficulty crossing Paterson Avenue from southbound Harrison Street due to illegally parked vehicles on the westbound side of Paterson Avenue, confusing traffic flow flowing from three locations (Paterson Avenue east and westbound and Jackson Street), and there is heavy congestion southbound on Harrison Street
  - Noise and air quality problems from trucks cutting through on Paterson Avenue.
  - Accidents are common on the intersection of Observer Highway and Harrison Street.
  - Vehicles queue eastbound on Observer Highway and cut through the westbound traffic lane.
  - Left turn on westbound Newark Avenue for northbound Jackson Street there are limited critical gaps so vehicles are forced to aggressively overtake other left turning drivers.
  - A lot of cut-through traffic on Jackson Street
  - Congress Street at Paterson Plank Road also gets congested during rush hours. Sometimes experiences an average 8 minute delay for southbound Paterson Plank Road.
  - Jersey Avenue always backs up
  - Congestion on Jersey Avenue in and out of Hoboken
  - Extend Jersey Avenue north
  - Connect north end of Jersey Avenue to Observer Highway
  - Eliminate right turns onto Harrison and Jefferson Streets during rush hour (from Paterson Avenue and Newark Street). If that happens, where will cars go?

- Paterson Avenue is a bottleneck
- Suggested solutions for congestion on Paterson Avenue/Jersey Avenue/Harrison Street/Jackson street
  - Police presence at Paterson Avenue and Observer Highway
  - 4-way stop at Observer Highway and Harrison Avenue
  - Marshall Street (south of Paterson Avenue) is city owned but fenced in. Could it be opened to the public to alleviate congestion on Harrison Street
  - Connection between Paterson Plank Road and Jersey Avenue/Coles Street
    - Proposed connector ramp west of light rail tracks (intrudes into recycling plant)
    - Proposed connector ramp east of light rail tracks (cut through supporting wall under the NJTransit RR tracks)
    - Prevent future at-grade crossings with HBLR tracks
    - Flank roadway with noise barriers
    - Speed bumps/ traffic calming devices installed where needed
    - Widen Jersey Avenue.
    - Connect Paterson Plank Road & Jersey Avenue. Keep connection on west side of tracks. Will relieve many other traffic issues.
    - Do not re-route Paterson Plank Road through to Jersey Avenue because it will just push traffic from Hoboken into Jersey City.
  - Install “Don’t block the box” signs at intersections.
  - Install temporary channelizer posts on Harrison and Newark Streets to make the southbound right turn merge better with westbound Newark Street.
  - Fix coordination of traffic signals along Jersey Avenue.
  - Install a traffic light at the intersection of Harrison Street and Paterson Avenue.
  - Modify one-way access points (Ravine Road and Mountain Road) as well as other streets around Paterson/Jackson/Harrison/Jersey/Grove
  - Close off Paterson Avenue altogether once proposed park is built.
  - Install “No honking” signs at Paterson/Monroe/Observer
- Monroe Street
  - At Monroe Street & 1st St, the new traffic light has improved overall safety but now cars blow their horns creating noise pollution and cars speed to make the green light.
  - Drivers make LT on red from SB Monroe to EB 1st Street
  - “One Way” signage at Monroe obscure so some vehicles are seen making LT from EB 1st Street to NB Monroe.
  - Overall congestion in area between 1st Street and Observer Street
  - Monroe Street always backups for turns onto Paterson Avenue
  - Vehicles enter Monroe Street illegally
- Observer Highway
  - Westbound traffic on Observer Highway during PM rush hour is coming from parking lots/garages. There is not a lot of traffic, but cars cannot get through the Marin Boulevard & Jersey Avenue intersection.
  - Observer Highway/Harrison Street Intersection:
    - Should be a four-way stop

- Cars have to play “chicken”
- Dangerous for pedestrians to cross
- Large trucks at Galaxy Recycling cannot move easily through narrow streets
- Observer Highway backs up to Ravine Road.
- Difficult to make left turns off Observer Highway while traveling westbound.
- Widen Observer Highway and Newark Street.
- Open up the Service Road to add at least one more travel lane at Observer Highway (between Marin Boulevard and Washington Street) and preserve half of the parking spaces.
- Vehicles have been seen cutting through hatched opening in front of the Fire House on Newark Avenue/Observer Highway.
- Make the intersections with Newark Street, Observer Highway, Marin Boulevard, and Jefferson Street a roundabout, taking firehouse into consideration.
- Future developments along Observer Highway may create more traffic.

#### Traffic Signal Issues

- Monroe Street/Grove Street/Observer Highway: The green phase of the traffic signal is too short for those traveling on Observer Highway.
- At the Light Rail Crossing – the current phasing and timing plan for the Light Rail crossing at Paterson Avenue are creating excessive delay and causes backups southbound on Paterson-Plank Road and northbound on Paterson Avenue.

#### Parking Issues

- There should be no parking on Jefferson Street.
- There should be no parking on Monroe Street.
- Residents were told that street parking along Observer Highway (between Marin Boulevard and Washington Street) was temporary.
- Permanent parking area took away traveled lanes from Observer Highway
- Bicycles riding along Service Road may get hit by car doors opening.
- Parking is allowed too close to intersections; it restricts the line of sight and creates safety concerns.

#### Light Rail Crossing at Paterson Avenue/Paterson Plank Road

- Make 2nd Street between Marshall and Harrison bidirectional. Intersection of Marshall Street and 1st Street to be right turn only so traffic bound for points south and east use Harrison Street; those bound for points north and west use Marshall Street. This would eliminate the Marshall Street phase of the signal.
- Make the left turn phase for Franklin Street actuated and have it occur at the end of the sequence if calls are present. This should create more green time for the main line (Paterson Avenue/ Paterson Plank Road)
- Eliminate the Light Rail signal preemption and have Light Rail trains stop rather than cars stop. This, however, favors cars over transit.
- Keep Light Rail preemptive timing at Paterson Plank Road.

General Issues:

- Future developments will welcome more pedestrians and vehicles into area so limit zoning.
- The intersections of Bloomfield Street/Newark Street and Park Avenue/Newark Street have numerous accidents which should be studied.
- Monroe Street, Paterson Avenue, Newark Street all have traffic problems during AM and PM rush hour. Police directing traffic is not enough to solve the problem.
- Extend Monmouth Street north.
- Cars travel too fast on 18th Street in Jersey City.
- Future developments on Monmouth Street area (west of Jersey Avenue, south of the NJ Transit tracks) may hinder future connector roadway plans.
- Developments call for parking garages and lots that favor more vehicles.
- Jersey City commuters are causing problems by using southwest Hoboken as a cut-through area.
- Commercial traffic banned from Holland Tunnel is forced to make a last minute detour to Lincoln Tunnel through Hoboken.
- There is no proper signage that guides trucks through Hoboken
- Hoboken residents are used to driving slow through their neighborhoods, so they complain about non-Hoboken residents who speed through the streets.
- There is a lack of seamless connections between streets
- Big problems: congestion and conditions of road.
- Significant AM traffic exists getting to Hoboken Terminal
- Tunnel traffic is a big problem
- Truck traffic routed to Jersey Avenue from Paterson Plank Road congests that intersection.
- Need inspection of road work
- Signal progression favors tunnel traffic
- Cars should be filmed to track violations
- Cars are using northbound residential streets to avoid bad traffic in study area
- Study should take new/planned development into account
- The Light Rail delays traffic
- The Southwest 6 Park will alter the Hoboken road system -- roads may need to be closed to traffic.
- Owner of 100-132 Marshall Street concerned about what recommendations will come from this study and how it will affect his development site, which is just south of the 2nd Street Light Rail Station. He has finished clearing the site and will be constructing 81 apartments and retail space.
- 

Transit Comments:Bus Issues:

- 126 bus:
  - When it arrives at 9<sup>th</sup> Street in the morning, the Manhattan-bound bus is full
  - Long gaps between buses
  - Bus bunching
  - Stops needed at Jackson Street/Observer Highway and Marin Street/Observer Highway

- 87 bus:
  - Bus bunching
  - Doesn't run on schedule
  - Unreliable because of traffic
  - Need more frequent service
- 85 bus:
  - Always on time
  - Need more frequent service
  - Bus bunching
  - Congestion is extending travel times
- Long gaps between buses and bunching on 89 & 22 buses
- Harrison Street/Paterson Avenue bus stop:
  - Bus shelter are needed
  - When roads flood, passengers have to catch bus one block away
- Not enough information about buses available
  - Need alternatives to Internet
  - Schedules should be in shelters
  - Need more schedules on buses
  - No bus information kiosks exist
- Would prefer small buses/jitneys with better frequency
- Crowded buses on the Interstate
- Need more services uptown, midtown and Hoboken
- Should be free transfers between PATH and bus
- Bike racks are needed on buses
- Need NYC bound bus route on Jefferson Street and Madison Street
- Weekend bus service is not frequent enough
- Buses need dispatchers and should be monitored
- Would like a bus along the waterfront to George Washington Bridge Park
- Buses travel too fast on 18<sup>th</sup> Street in Jersey City
- Reroute buses off Paterson Plank Road– too much truck traffic already exists
- Increased bus service needed on Monroe Street and Jackson Street
- More bus stops are needed on Clinton Street
- Why doesn't Clinton Street bus turn right on 19<sup>th</sup> Street?
- Electric/hybrid buses should be used
- Far side stops should be changed to near side stops on Washington Street
- Parking should not be allowed in bus stop areas
- West side bus route is needed

#### Light Rail Issues:

- Light rail should run 24 hours/day, 7 days/week
- Light rail should have 8 min. headways
- Light rail trip to Hoboken is very slow (10 minutes). Walking is faster.
- Mixed use development around light rail stations to increase ridership (Transit Oriented Development)
- Create light rail stop on 18<sup>th</sup> Street in Jersey City between Grove Street and Jersey Avenue
- 9<sup>th</sup> Street light rail station:

- Great for Jersey City/Hoboken connectivity
- Elevator at station is dirty
- Light rail is good and runs on schedule
- Light rail is dirty (food, broken paving, structures, trash in Jersey Avenue stop)

General Transit Issues:

- Frequency of transit is more important than quality.
- Need regional transportation authority
- Should have competitive transit service
- Possible relocation or additional Light Rail station between Grove and Jersey Avenue
- Limit parking spaces for new developments so that residents/workers are discouraged to drive.

## Jersey City Open House

Date: June 24, 2010, 4PM-8PM  
Location: Pershing Field Memorial Park, Vietnam Veterans Memorial Building,  
201 Central Avenue, Jersey City, NJ 07307  
Total Attendees: 9

### **Bicycle & Pedestrian Comments:**

#### Bicycle Issues:

- Marin Boulevard is a natural connector (between Downtown Jersey City and Hoboken), so it would be nice to connect there. From there you can connect to Observer Highway and reach Hoboken Terminal.
- Biking in Jersey City is not so safe in general.
- Cyclists bike downhill against one-way traffic on Mountain Road.
- More bike lanes are needed near the 2nd Street Light Rail station.
- Many bicyclists from the Heights and Union City take the 9th Street Light Rail Station elevator at Congress Street to get down the hill.
- Most people today are bicycling in local neighborhood streets because they're safer.
- Washington Boulevard (outside the study area) should be considered for a bike lane
- Attendee doesn't bike because it's too dangerous
- A 5-10 k unit residential development are 1.5 acre park are being developed near the area of 18th Street and Hoboken Avenue – the County should consider developing bicycle facilities there ahead of development.
- Many cyclists come down Mountain Road into Hoboken
- Bicycle lanes should be added to the underdeveloped Jersey City section of the study area while the capacity still exists.
- There should be a bike lane on 18<sup>th</sup> Street
- 18<sup>th</sup> Street is currently a high-speed throughway.
- The study website should provide a link to Jersey City's Bicycle Plan
- Marin Boulevard should be considered as the primary connector between Jersey City and Hoboken for bicycles. This may require some grade separation to shield users from traffic from/to the Holland Tunnel.
- Grove Street is dangerous for cyclists because drivers roll through the stop signs to cross Grove Street and are not looking for cyclists.
- It is a losing battle to try to remove parking to add bike lanes.
- One possible bike lane loop to study involves 18<sup>th</sup> Street to Newark Avenue to Dickinson High School to Hoboken Avenue.

#### Pedestrian Issues:

- Attendee would be more likely to walk between Jersey City Heights and Hoboken if there was a stairway.

- The waterfront walkway is (outside the study area) roped off in many locations in Hoboken – cannot get to the gazebo near Frank Sinatra Park. And the park is in disrepair.
- Paterson Plank Road is unsafe for pedestrians.
- When attendee walks between Hoboken and Jersey City (to the south), he/she uses Marin Boulevard because Grove Street feels very deserted.
- The intersection of Park Avenue and 9th Street (outside the study area) is a dangerous area for pedestrians, particularly during rush hour. Vehicles do not stop at the stop signs.
- On Washington Street (outside the study area), pedestrians do not always look to see if they have the right-of-way. There should be “Walk/Don’t Walk” signals.
- Pedestrians also walk against the signal.
- At the garages near Hoboken Station (outside the study area), pedestrians do not notice the cars coming out of the mid-block driveways.
- The 100 steps is planned near Franklin Street between Ogden Avenue (up the hill) and Patterson Plank Road (down the hill) but developer hasn’t made good on the commitment as of yet.
- The intersection of Congress Street and Patterson Plank Road (outside the study area) has lots of foot traffic.
- A new rental building at the bottom of Patterson Plank Road has increased pedestrian activity.
- Jersey Avenue and Grove Street are not pedestrian friendly today.
- There has been a proposal to build steps up the cliff somewhere between Waverly and Jefferson Avenues which would connect the Heights with lower Jersey City.
- Pedestrian activity has increased with new development
- The park planned for the Hoboken Avenue area will draw pedestrians up along 18th – 14th Streets.
- “100 Steps,” a staircase promised by a developer, will descend straight across Mountain Road
- Mountain Road is not very inviting – there are lighting and sanitation issues. At night, it is particularly uninviting

#### General Issues:

- 18th Street has lots of capacity but has high speeds.
- Hoboken Avenue is steep and has a poor line of vision.
- A ramp was suggested to be constructed from Christ Hospital down the hill along the rail tracks, but this would require an easement.
- Attendee doesn’t want to Patterson Plank Road cutting through to connect to Jersey Avenue.
- The Heights generally has more walking than biking between the neighborhood and Hoboken,
- New young families moving up to Ogden Avenue are increasing activity there.
- “Yield to Pedestrian” (now “stop for pedestrians”) signs aren’t in clear view of motorists – they are posted too high and some are covered by branches.
- The entire southwest corner of Hoboken gets flooded easily.
- South Hoboken is becoming overdeveloped and the infrastructure just cannot support it.



- Look into linking Jersey City's master plan with Hoboken.
- Jersey and Hoboken are disconnected by the Holland Tunnel, specifically at Marin Boulevard
- The study should extend to downtown Jersey City because you cannot get from downtown to either northern Jersey City or Hoboken.
- Only 30% of households in the Newport area own cars
- Mountain Road should be closed to auto traffic; it should be bike/ped only.
- Mountain Road should be connected through to Observer Highway.
- Perhaps an easement could be bought from Christ Hospital to create a ramp on the south side on the NJTRANSIT tracks to connect the Heights with lower Jersey City.
- Paterson Plank should not be redesigned to cut through to Jersey City.
- Many cyclists and pedestrians (specifically workers and students) use the existing elevator at the 9th Street Light Rail Station to connect between the Heights and Hoboken.
- There are many cyclists in the downtown Jersey City area – the study should consider a meeting in that area.

#### **Motor Vehicle Comments:**

- NJ Transit and Light Rail tracks are preventing the construction of crucial connector roadways to the south.
- Waterline running parallel to the tracks and Conrail line is a hurdle to development
- Create/move Light Rail station between Grove Street and Jersey Avenue to help new developments along 18th Street and alleviate traffic.
- Connect Paterson Plank Road with Jersey Avenue
- Key Contact should be the President of the Riverview Neighborhood Association, regarding the area along Palisade Avenue/Ogden Avenue. The Association is upset with Hoboken with the new developments that block the view.
- Will you shut down Paterson Plank Road? If it is eliminated, how will traffic be affected?
- Will tracks be removed or is it possible to build over the tracks?
- "Observer Boulevard" concept should be considered - combining Northern & Southern halves of Observer Highway and Newark Avenue
- Dangerous traffic pattern coming off of Paterson Plank Road
- Smaller vehicles during off peak along Palisades Avenue
- At Park Street & 9th Street, cars do not stop at the stop signs.

#### **Transit Comments:**

- 126 bus service is good
- 123 bus:
  - Goes through Union City, but should be more direct to New York City
  - Long travel time
  - Needs more frequent morning service
- 87 bus:
  - Runs well during day
  - Long lines in Hoboken Terminal at night
  - Stop on Paterson Plank Road between Jackson Street and Harrison Street is a "mud hole" (not paved, no shelter)

- Need more frequent service at night
- Buses are crowded at night
- Should split the 87 bus into 2 routes
- 85 bus has infrequent service
- 9<sup>th</sup> Street elevator (outside the study area):
  - Safety issues
  - Cleanliness issues
  - Need overhead lighting at night (8<sup>th</sup> Street)
- Bus signs in Jersey City would be helpful
- Bus schedules are needed at stations
- Need pull-off for buses
- Need bike racks on buses
- Hop bus stop signs should have Hop logo displayed
- Jersey City Heights has a lot of people that work “off hours” (reverse commuters)
- Limited transit options to Hoboken terminal from Jersey City Heights
- Light rail station needed on 18<sup>th</sup> Street to spur development
- Hoboken bus shelters are good, but there should be more in Jersey City
- Mountain Road is not safe at night
- 100 steps part of Cliffs project should be built, but hasn’t happened

## Website Comments

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### Bicycle & Pedestrian Comments:

#### Bicycle Issues:

- Bikers travel the wrong way on one-way streets in Hoboken
- Drivers on Monroe Street between 2nd Street and Observer Highway create two lanes during rush hour traffic, causing unsafe cycling conditions

#### Pedestrian Issues:

- Need access down Mountain Road to Hope Street via a pedestrian stairway.
- The developer of the Cliffs Project has reneged on his promise to the local community and the city to build this "100 steps" project. The Riverview Neighborhood Association is seeking alternative funding or County pressure to get the developer to build the project or to find other means to build the project to provide safer and quicker access for pedestrians to Hoboken and the Light Rail stop at Second Street
- Walking on the sidewalk between 18th Street and the light rail embankment is treacherous due to high speed of traffic and the placement of light stanchions too close to the embankment
  - Sidewalk is too narrow to accommodate pedestrians and light fixtures; why not attach fixtures to the concrete wall?

- Pedestrians cross intersections throughout Hoboken on the diagonal creating confusion for bikers and drivers.
- The pedestrian area on 18<sup>th</sup> Street in Jersey City under the Light Rail overpass between A&P and Target between could be better utilized and made more friendly

#### General Issues:

- A park would be a wonderful and necessary addition to the Hoboken study area
- Mountain Road and the adjacent vegetated slopes are littered with trash, broken glass, dead animals, etc.
  - Plantings at the upper turn would help
  - The Riverview Neighborhood Association frequently encourages the City of Jersey City to clean this area

#### Motor Vehicle Comments:

- Re-route traffic away from Paterson Plank Road and Marshall Street in Hoboken
- Monroe Street between 2<sup>nd</sup> Street and Observer Highway: in the morning, drivers create two lanes of traffic on a one-lane road
- Drivers make left turns on red from Monroe Street onto 1<sup>st</sup> Street
- Drivers make left turn onto Monroe Street from 1<sup>st</sup> Street against traffic
- Hope Street (in Jersey City through the recycling facility) could connect Paterson Plank Road and Jersey Avenue on the south side of the railroad tracks.
- Marshall Street in Hoboken could serve as a connector to south side of railroad overpass into Jersey Avenue
- Newark Street from Hoboken could connect to Hoboken Avenue at Jersey Avenue (where it passes under the railroad tracks)
- Buses on 18th Street traveling west speed towards Marin Boulevard

#### Transit Comments:

- Signage for HOP should be prominent along routes
- Light Rail elevator and station at 9th Street (outside study area) is filthy with trash, graffiti, and broken surfaces and structures
- Pavement at 2<sup>nd</sup> Street light rail station is covered with chewing gum

**Jersey City/Hoboken Connectivity Study****Public Open Houses: Round 2**

June 16 &amp; 21, 2011

**Summary**

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A second round of Open Houses for the Jersey City/Hoboken Connectivity Study were held on June 16 & 21, 2011. Representatives from Hudson County, Eng-Wong, Taub & Associates, and Howard/Stein-Hudson Associates were in attendance to lead both meetings. Both meetings followed the same format. The study team displayed boards with maps and information about the findings for the study, including short-term, mid-term, and long-term recommendations for the study area. Traffic simulation videos were projected on a screen for attendees to watch. Study team members were available to answer questions related to the study. Attendees were also given comment sheets to leave behind or mail in to the study team after the meeting.

**Hoboken Open House**

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Date: June 16, 2011, 4PM-7PM

Location: Hoboken Multi-Service Center, 124 Grand Street, Hoboken, NJ 07030

Total Attendees: 18

**Traffic/Roadway Configuration Comments:**

- Consider long-term closure of Paterson Avenue between Monroe Street and Harrison Street to enhance future park
- Consider connecting Observer Highway to bypass road west of rail tracks to eliminate need for Paterson Plank Road to access Jersey Heights
- Continue to investigate extending Hope Street and/or Marshall Street to connect with Jersey Avenue
- Remove parking spaces on Jefferson Street at Newark Avenue to create dedicated left and right turn lanes
- Could the city retake the section of Marshall Street between 1<sup>st</sup> Street and Newark Avenue to relieve congestion?
- Did the team measure truck traffic to and from Galaxy and Ponte properties and on 18th Street?
- Unsure about making Newark Avenue one-way. How will this affect 1<sup>st</sup> Street?
- Long-term recommendation (bypass) offers best solution with direct access to the NJ Turnpike and Rte. 139
- Short-term plan (Marin Boulevard and Grove Street as one-way) looks good
- Like addition of lights/safety measures

**Bicycle, Pedestrian & Transit Comments:**

- Add bike lanes to the proposed short-term and long-term roadway configurations

- Inquire about providing land at the corner of Marin Boulevard and Newark Street to create a wider pedestrian entrance to Newark Street from Jersey City

**General Comments about the Study:**

- Excellent presentation
- Excellent plan
- Solves many existing problems with reasonable solutions
- Recommendations seem cost-effective and easy to execute
- Proposed changes are great, long overdue, and badly needed
- Need to monitor future impact of proposed rail yards (visitors, traffic, parking, etc.)

**Jersey City Open House**

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Date: June 21, 2011, 4PM-7PM  
Location: 700 Grove Street, Jersey City, NJ 07310  
Total Attendees: 16

**Traffic/Roadway Configuration Comments:**

- New York Avenue/Ravine Road is not addressed even though it is the major thoroughfare between Jersey Heights and Hoboken
- Bypass was not discussed with community, and there is negative history with this idea
- Regarding the bypass, no attention was given to truck routes (impact on pedestrians, noise, pollution, etc.)
- Although the bypass addresses the need for a better street grid, impacts should be reviewed
- Short distance to lights at gridlocked Paterson Avenue/Harrison Street intersection

**Bicycle, Pedestrian & Transit Comments:**

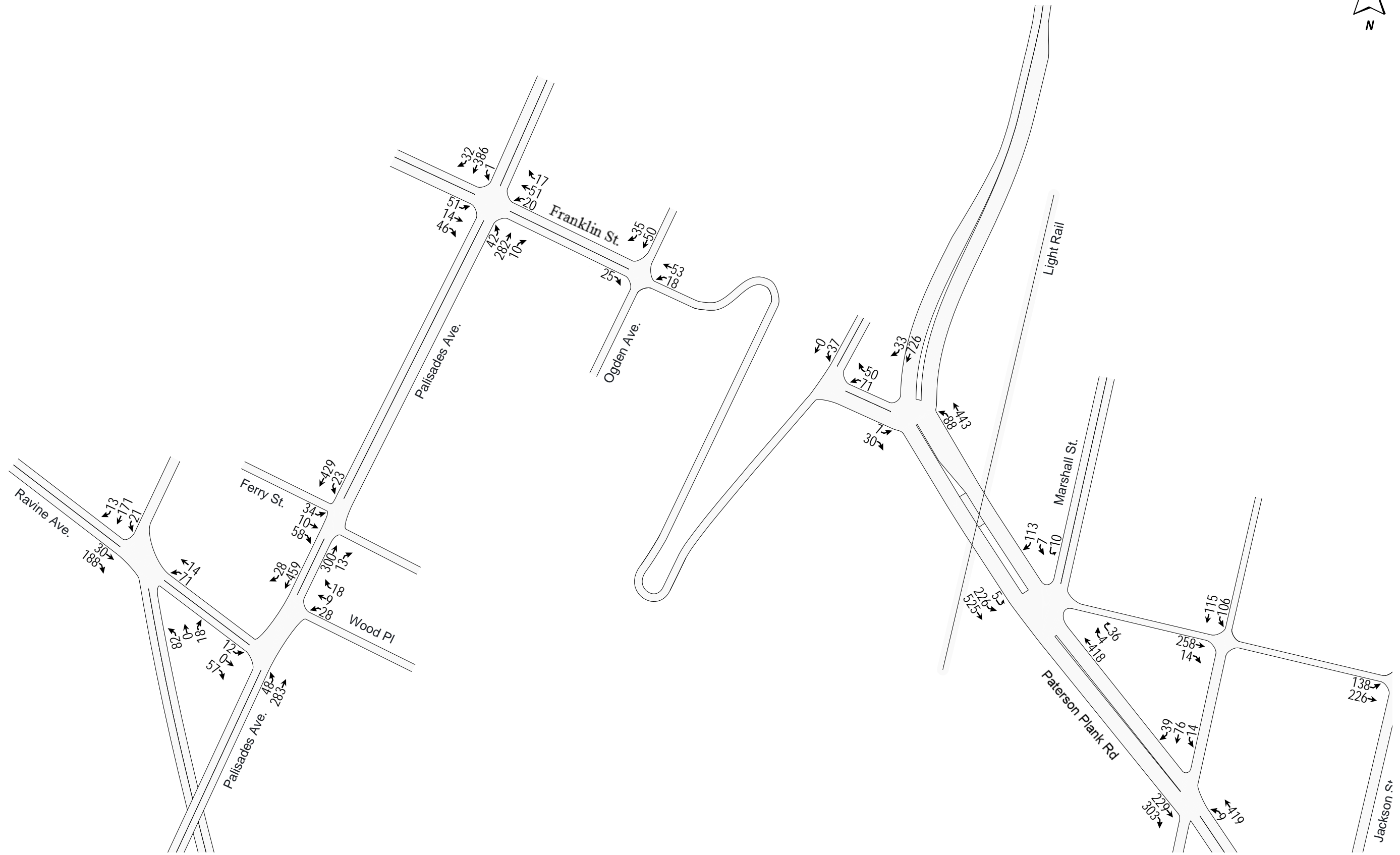
- No public transportation component was factored into the study (bus lanes, high speed bus lines)
- Minimal attention given to bicyclists and pedestrians other than painted crosswalks and lines on the roadway

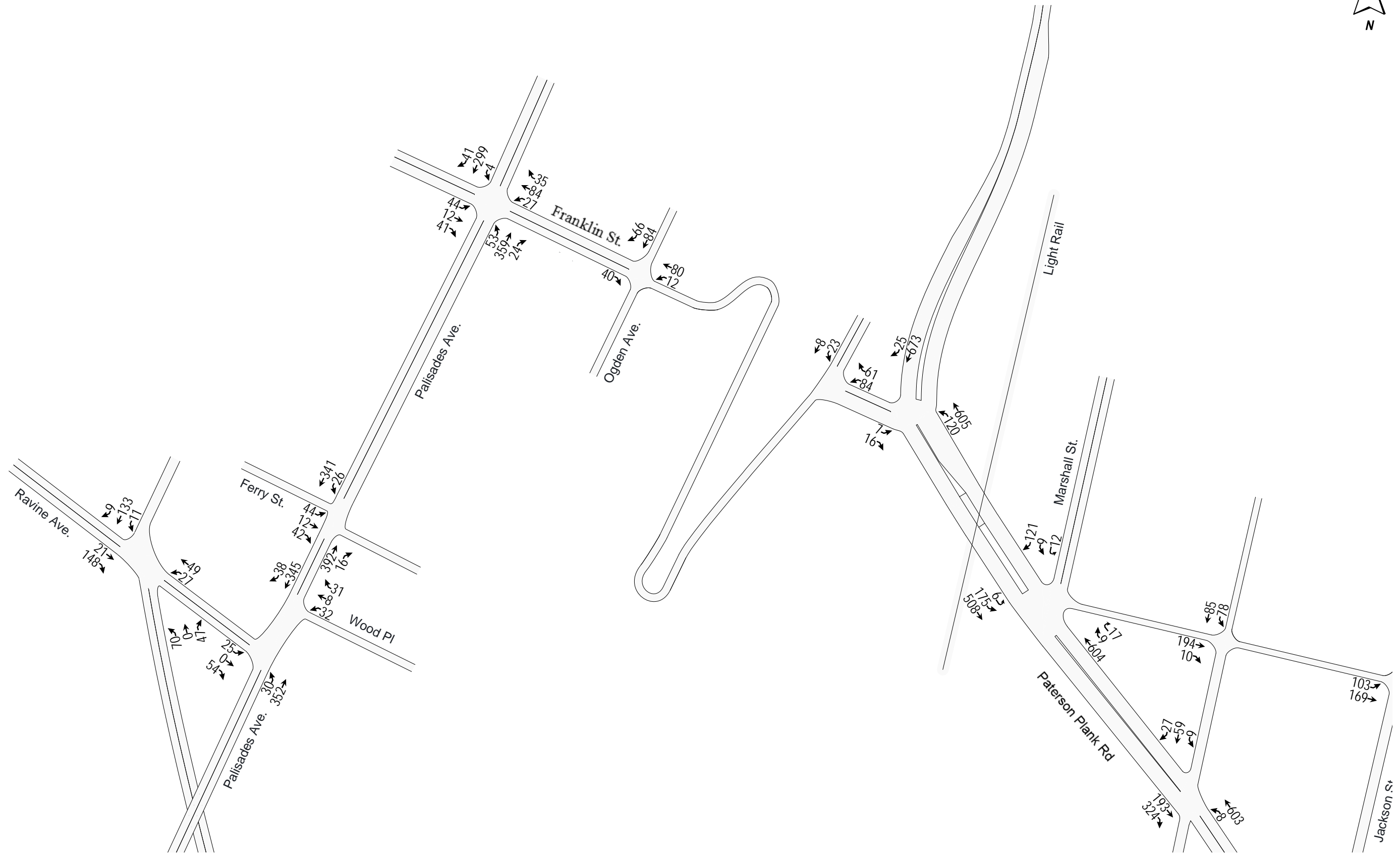
**General Comments about the Study:**

- Very interesting study
- What is the timeline for implementation?
- Interested in development along Observer Highway and 18<sup>th</sup> Street
- Need to have longer public comment period so comments can be incorporated before the study is finished
- Materials should be available in advance (electronically and hard-copy)
- Study team should meet with neighborhood associations
- Study should include zoning recommendations for lower density development because the infrastructure can't handle projected density/development

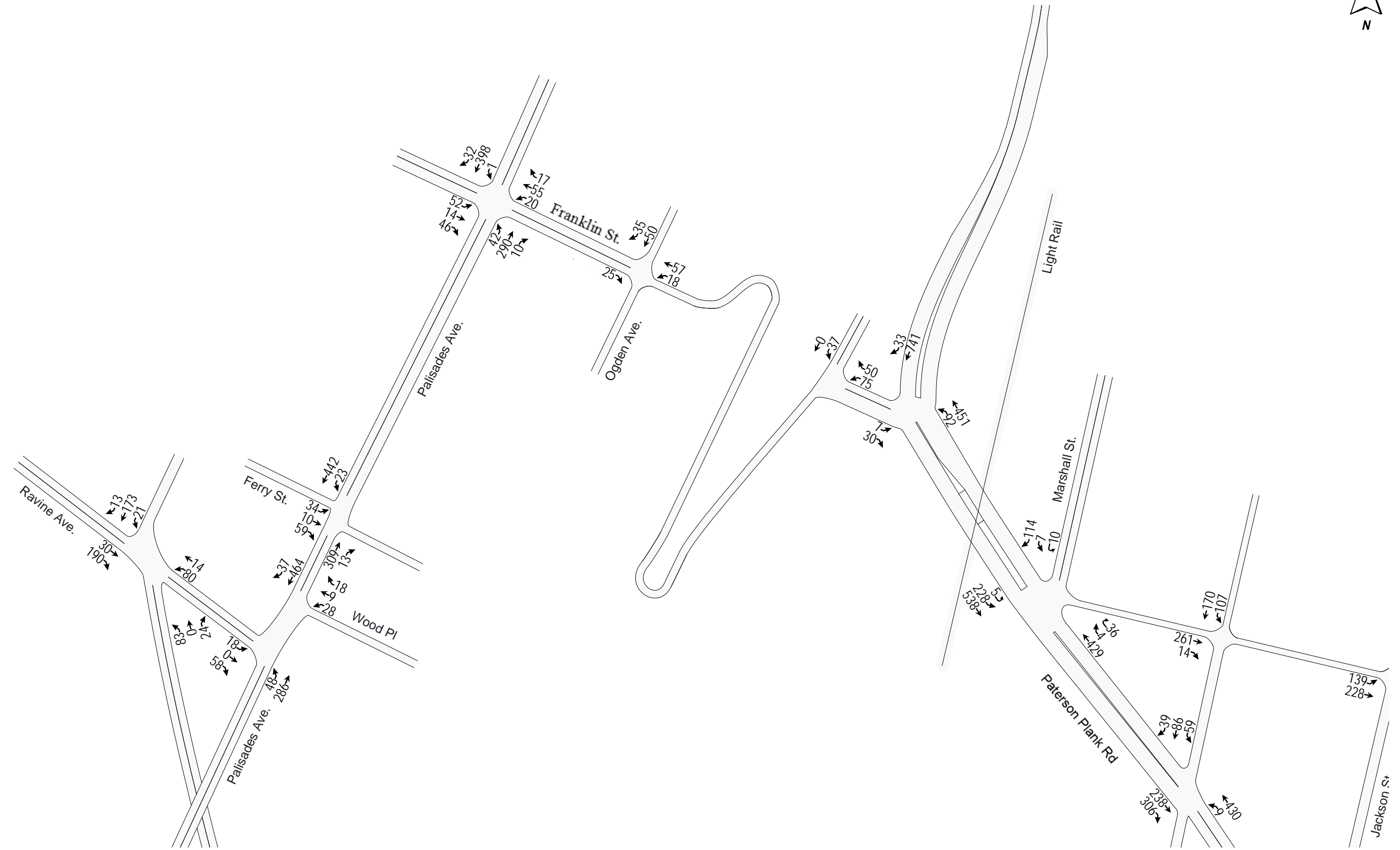
# APPENDIX B

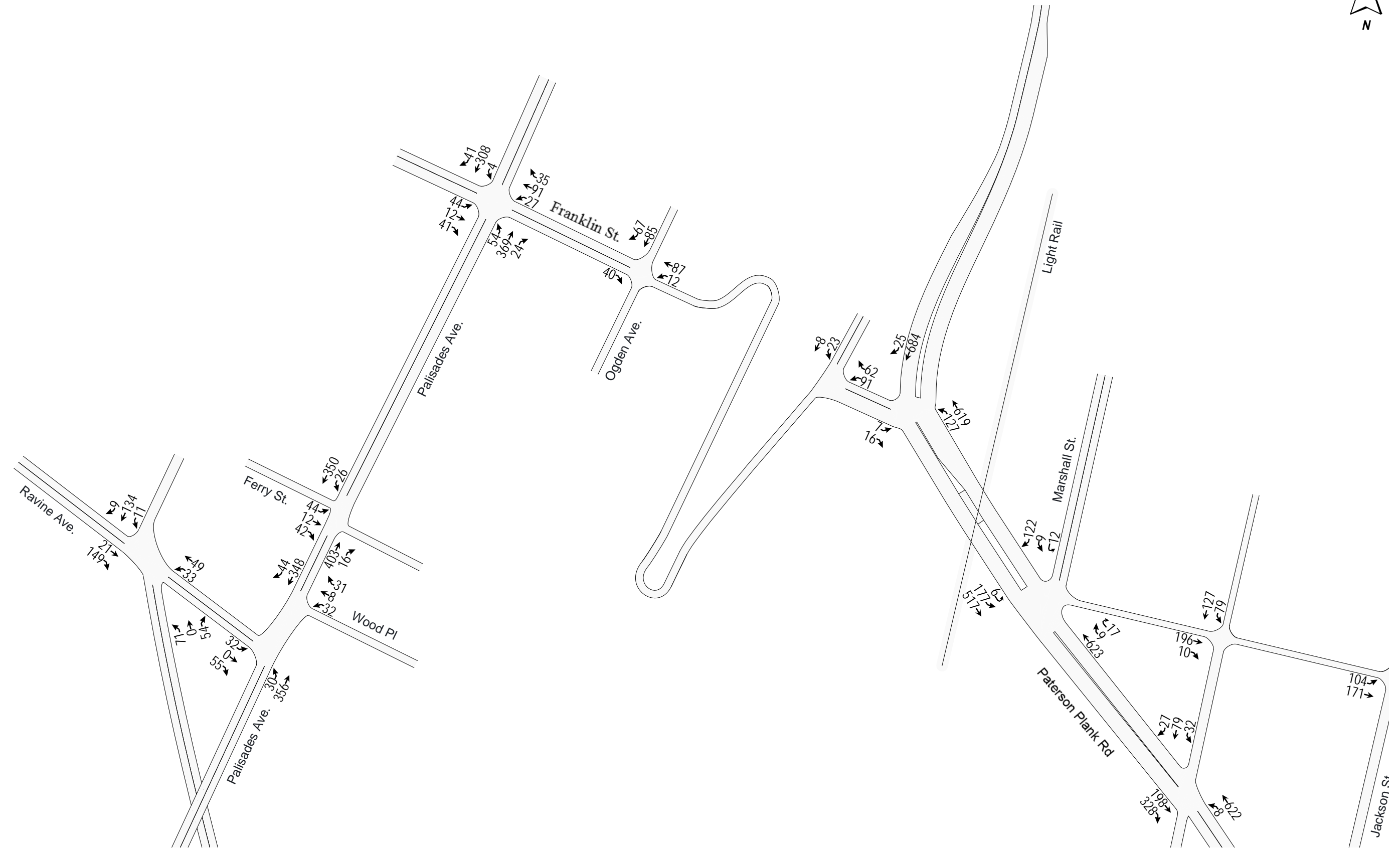
## Traffic Volumes

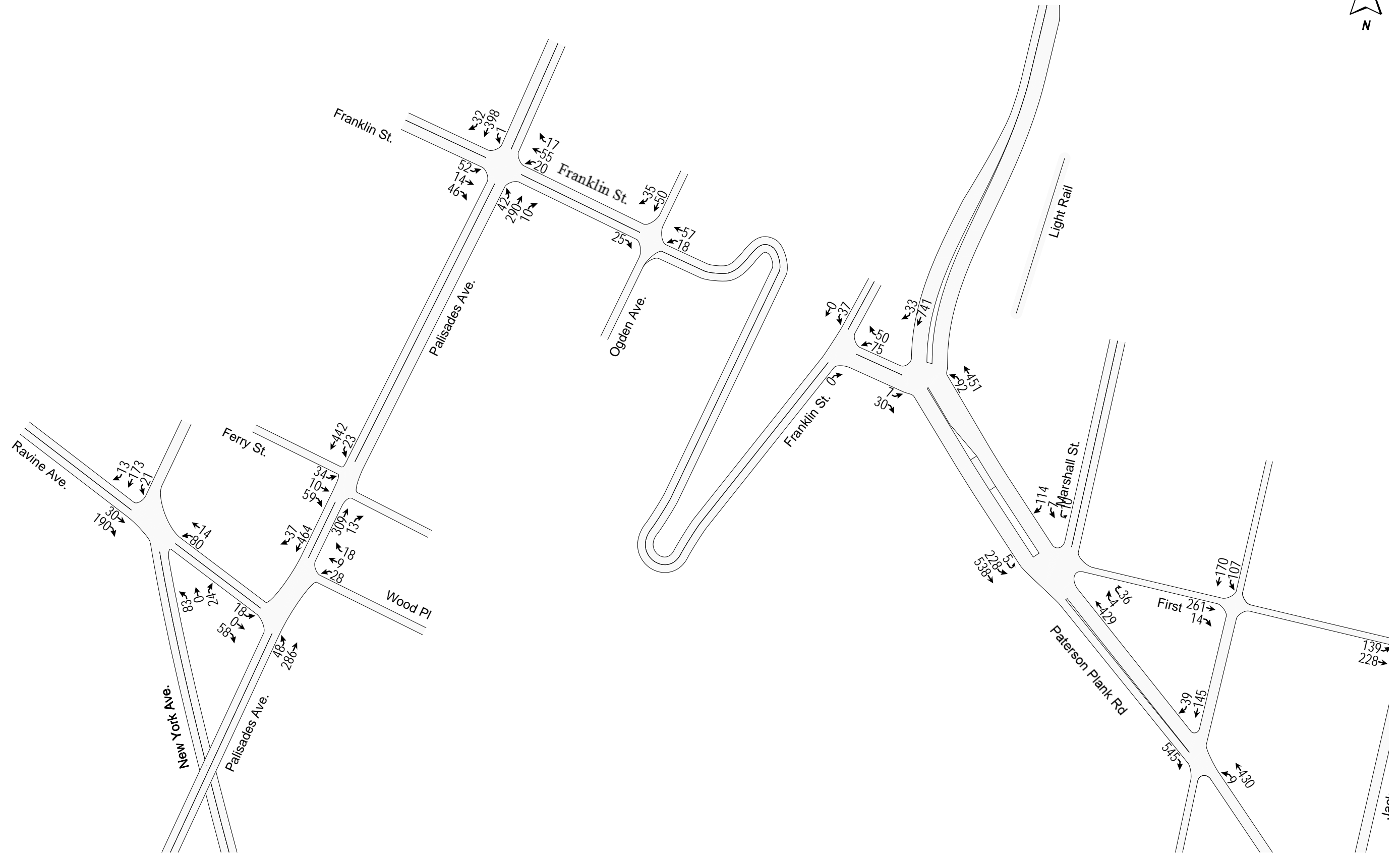


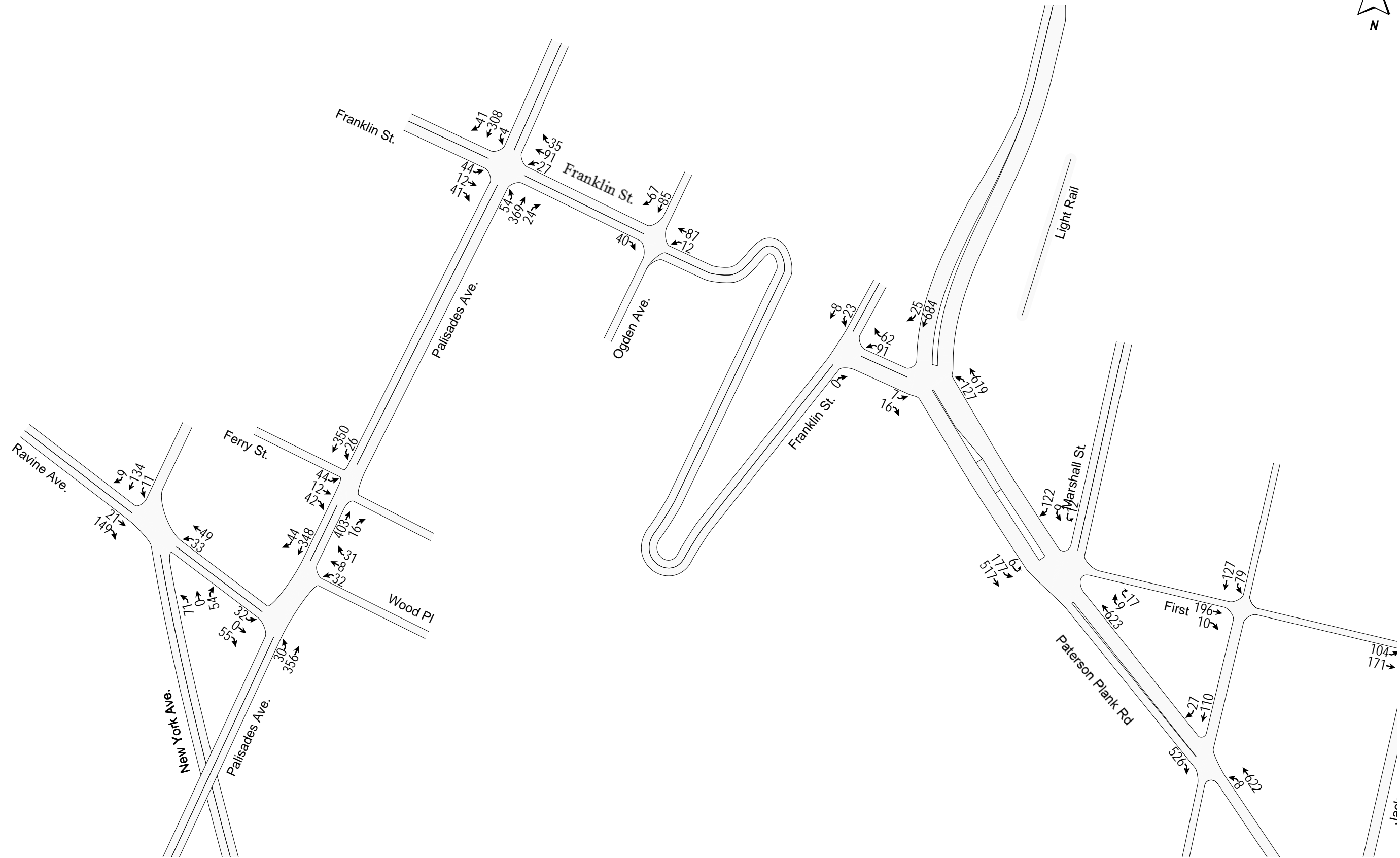


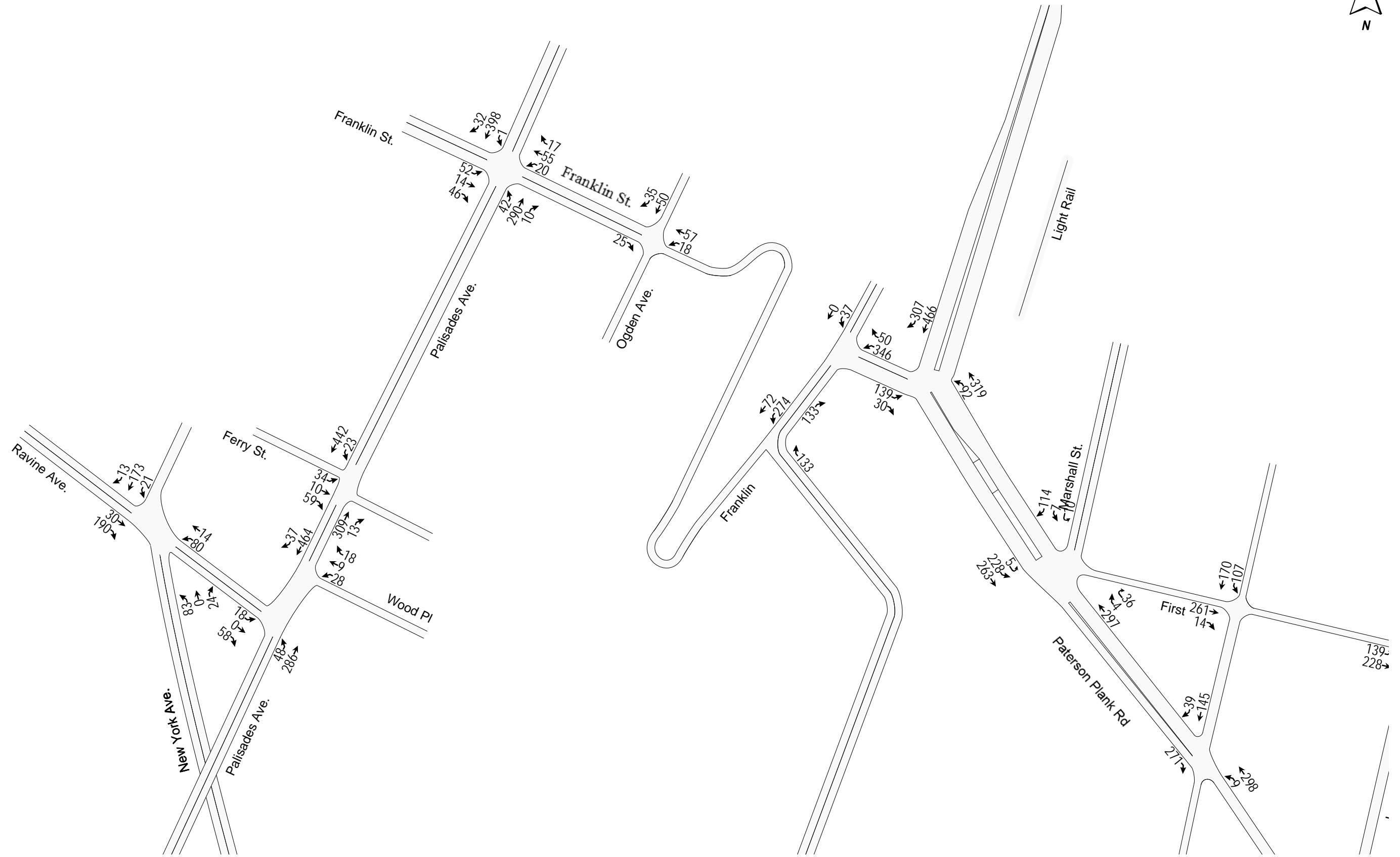


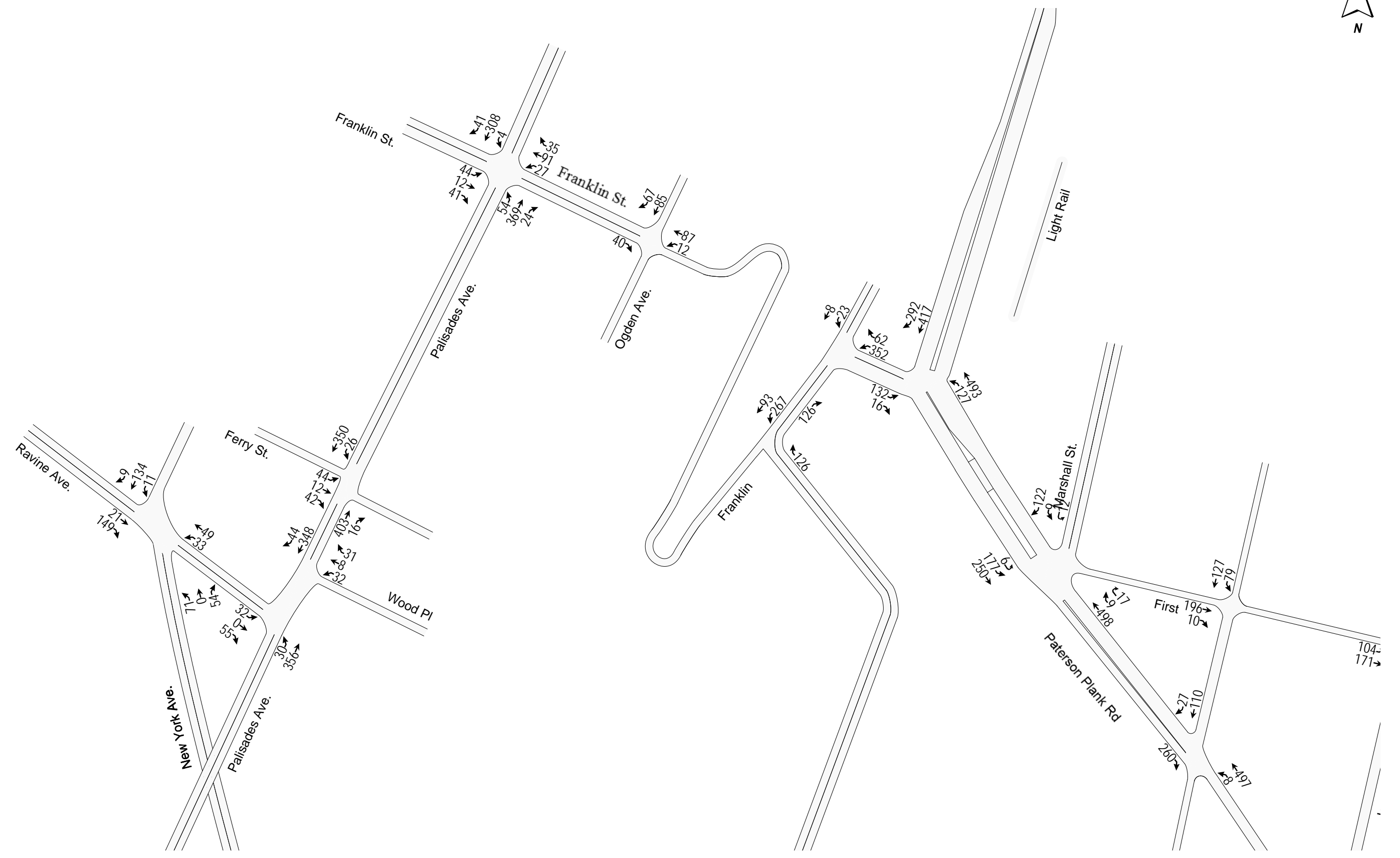


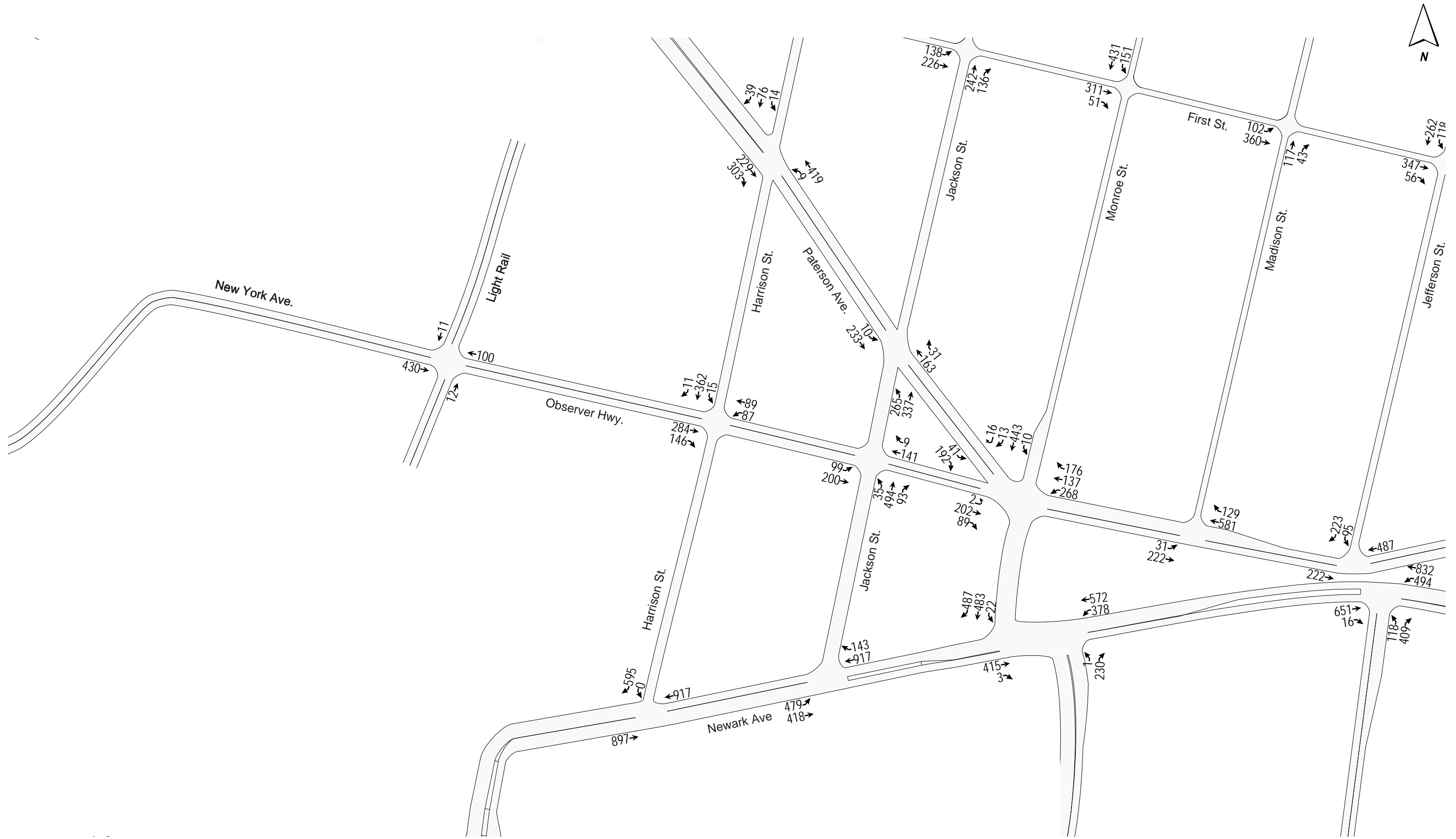


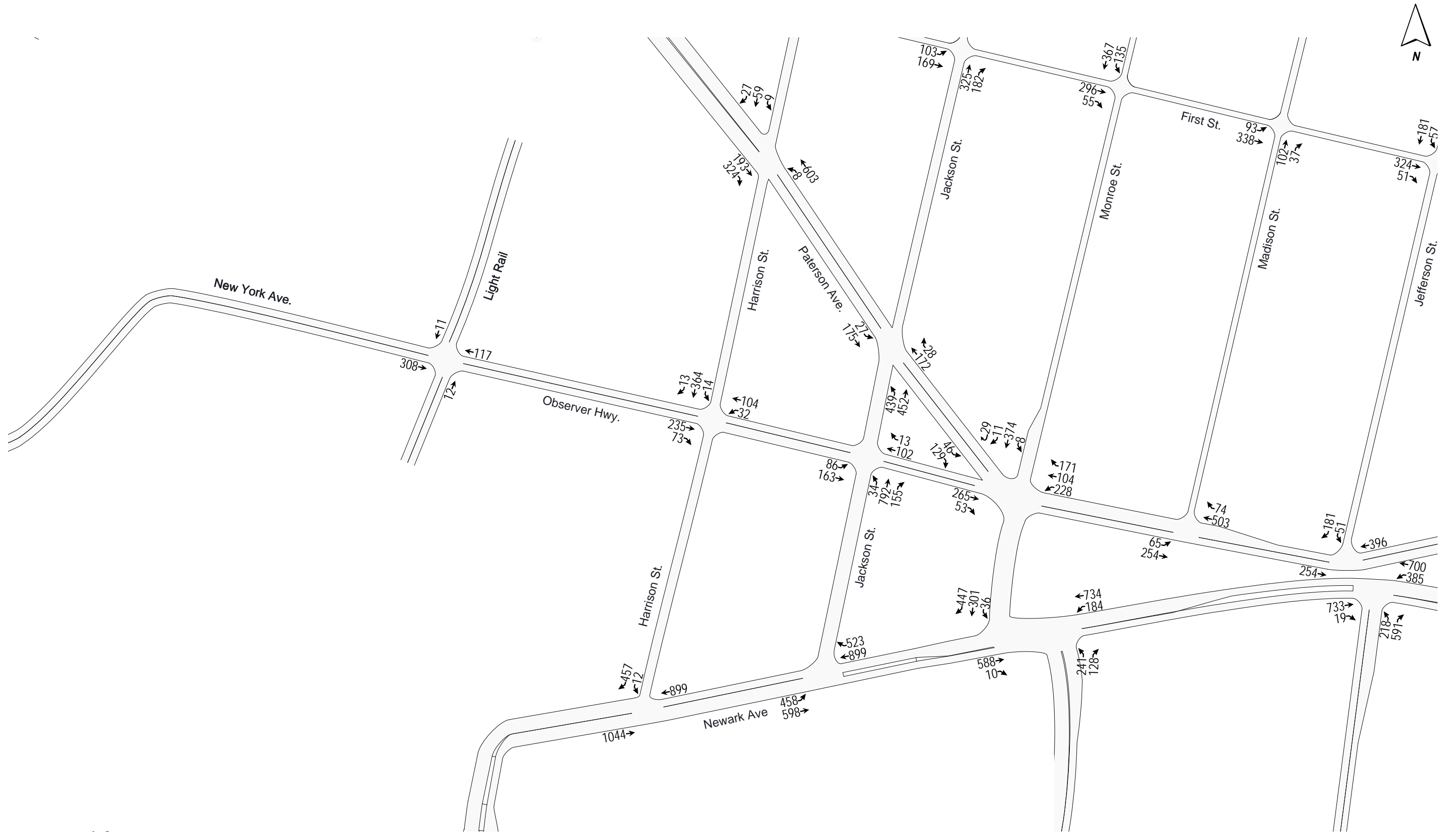






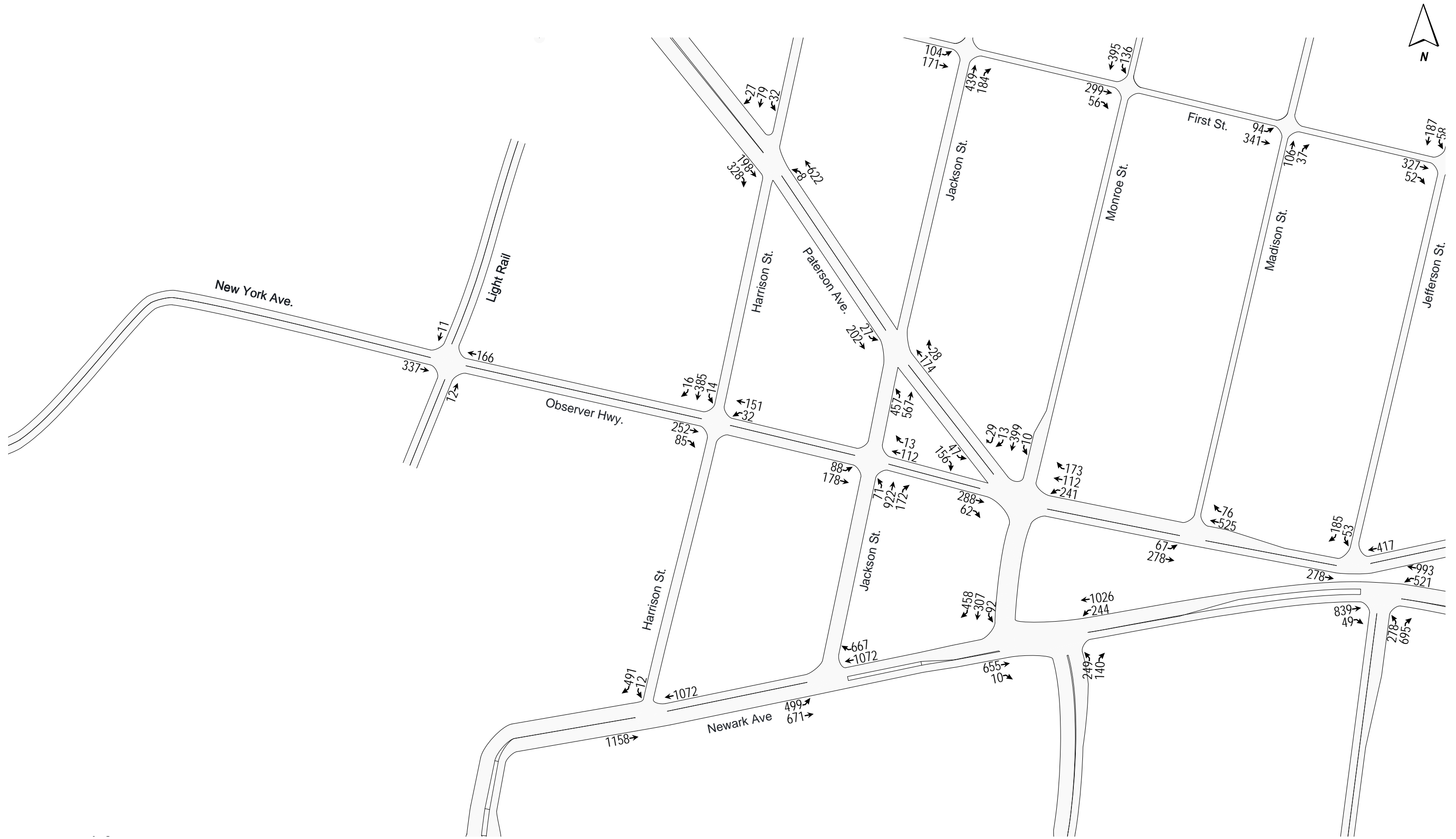


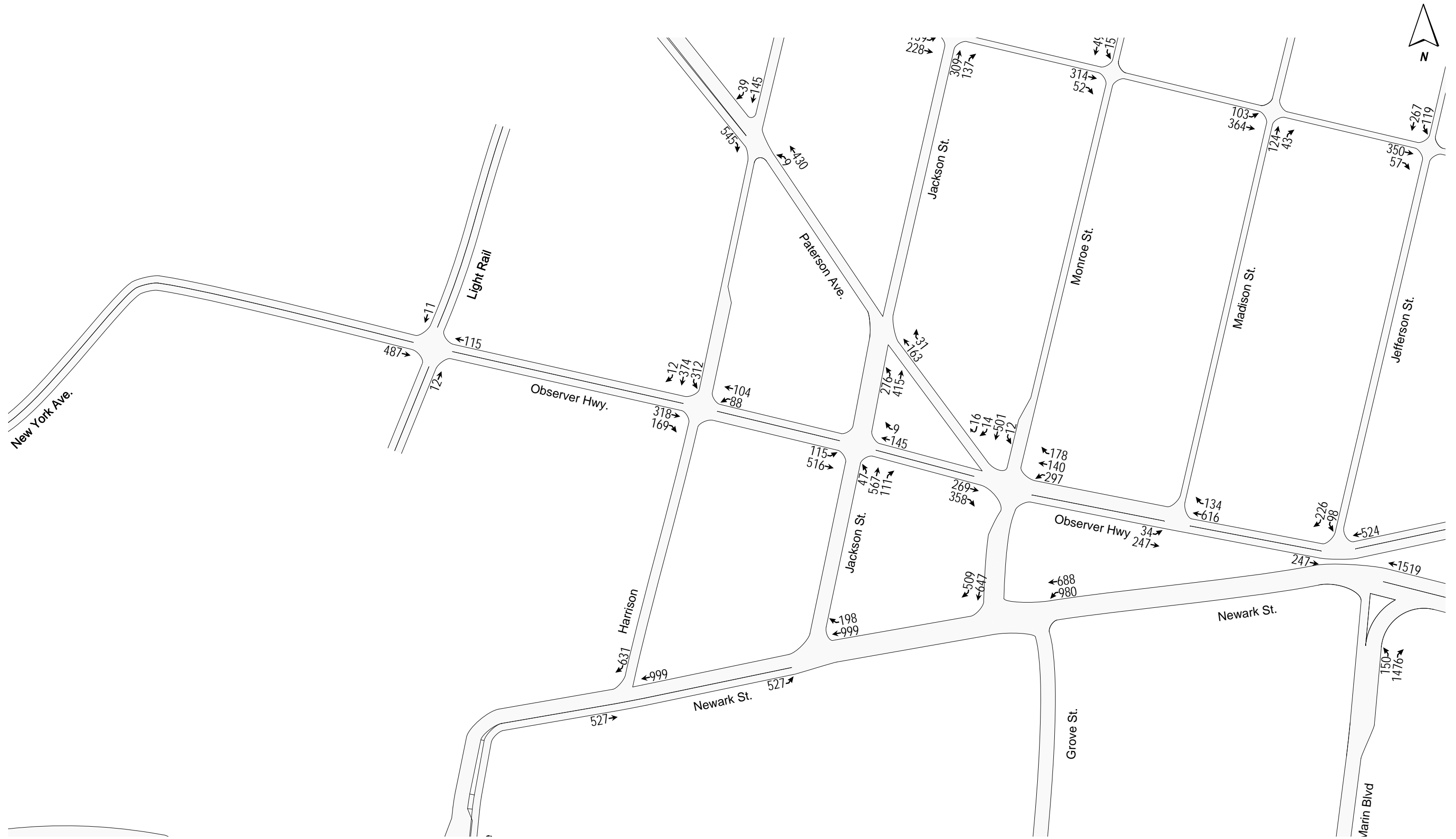


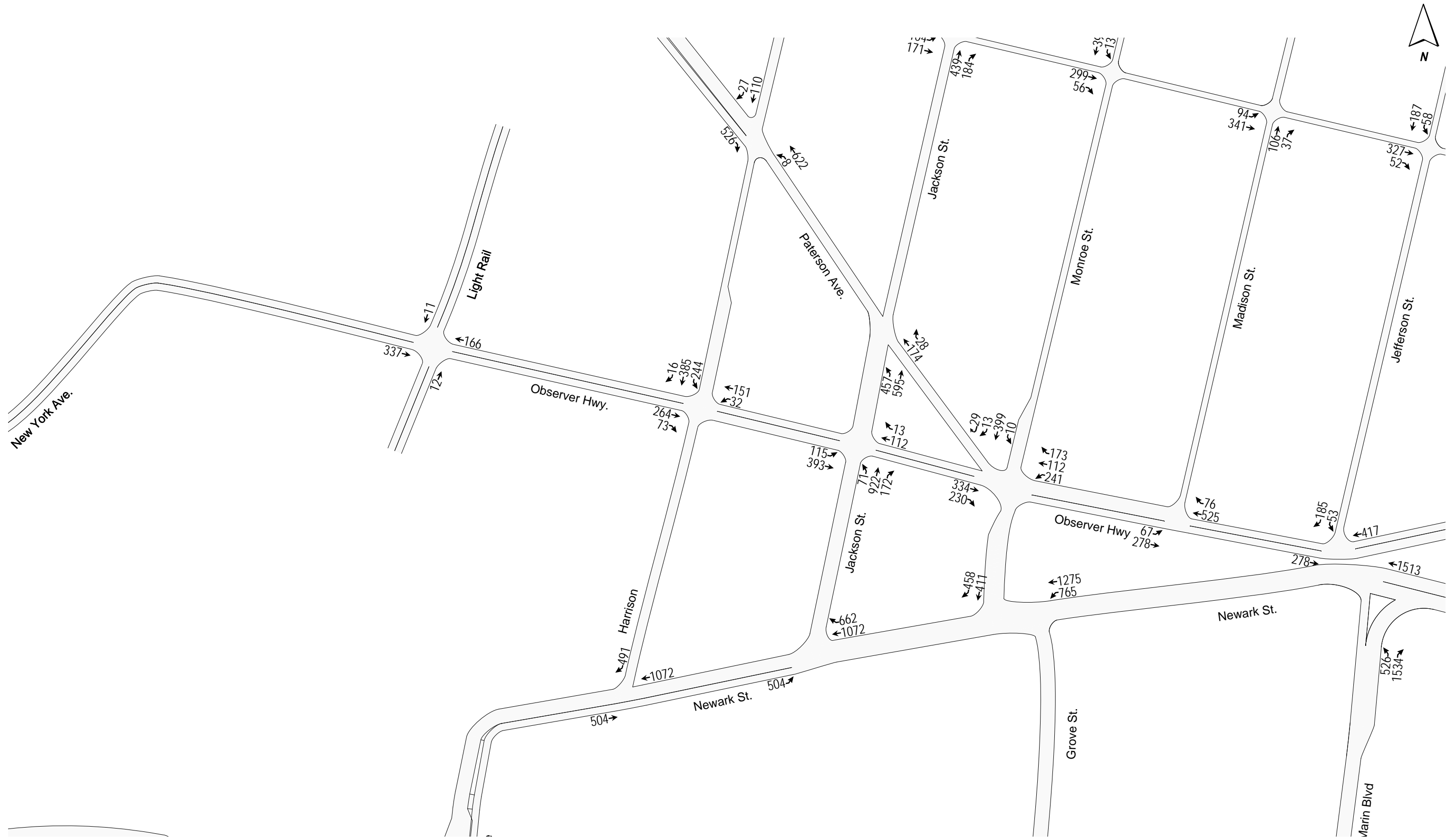


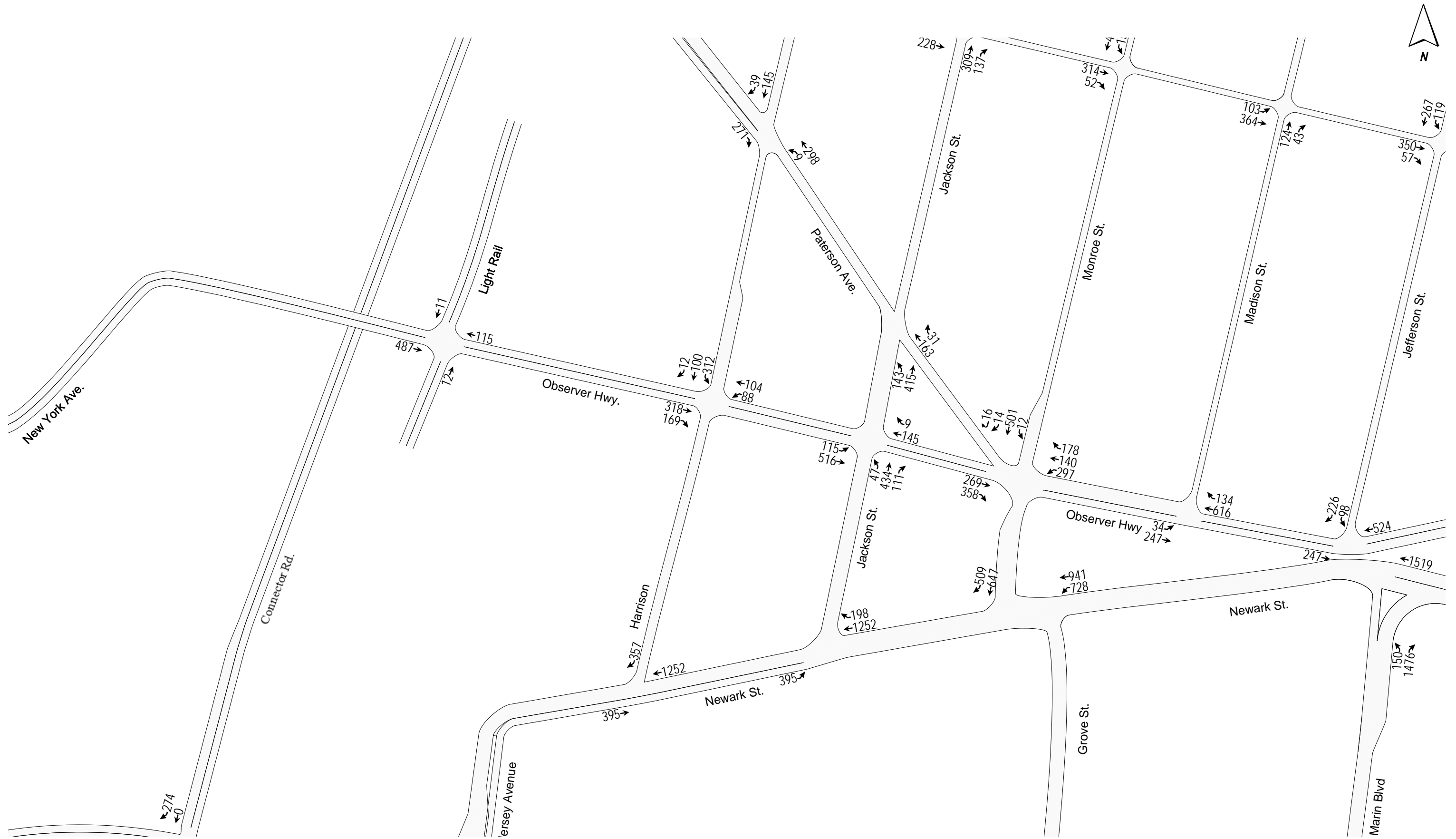


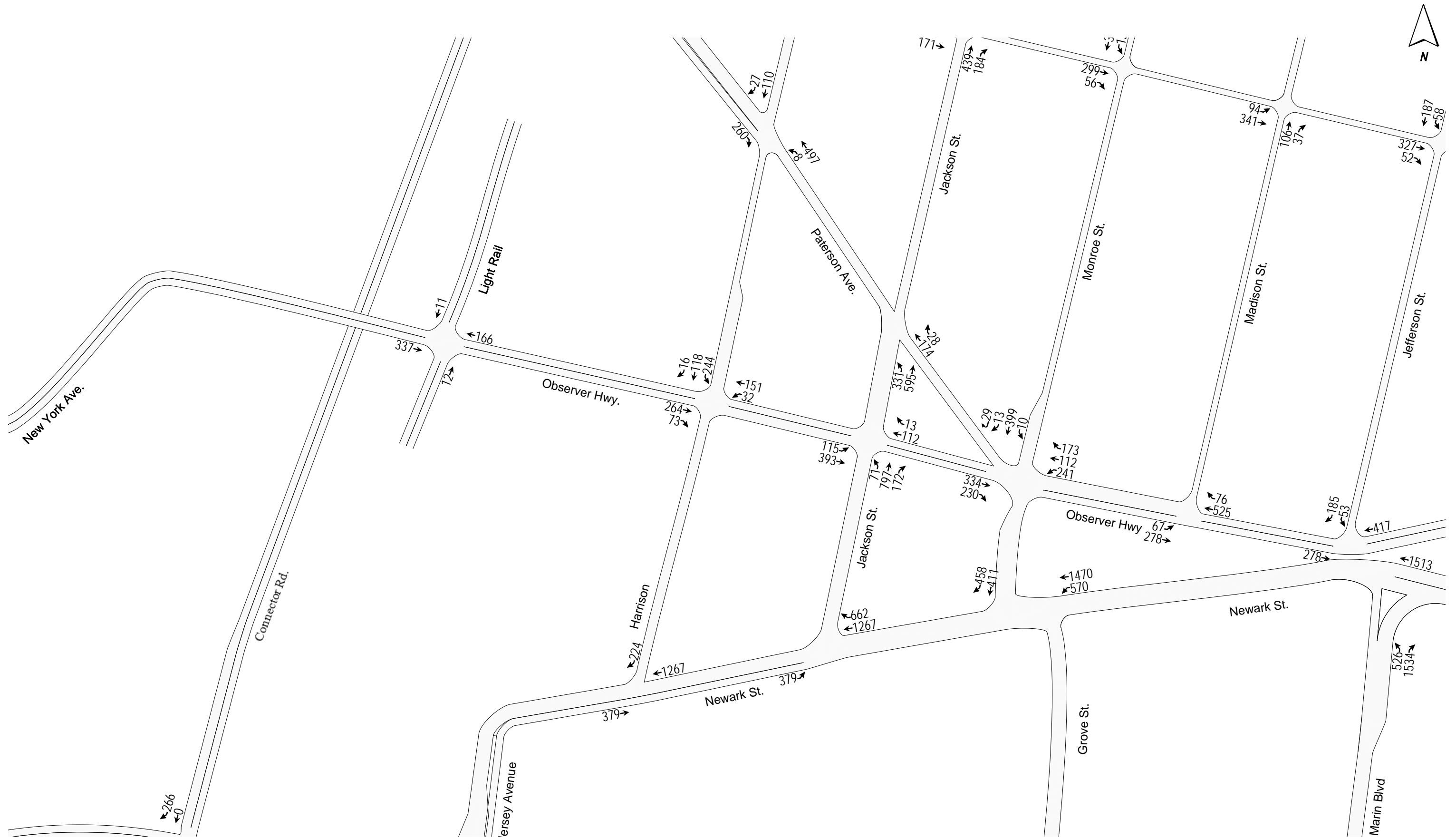


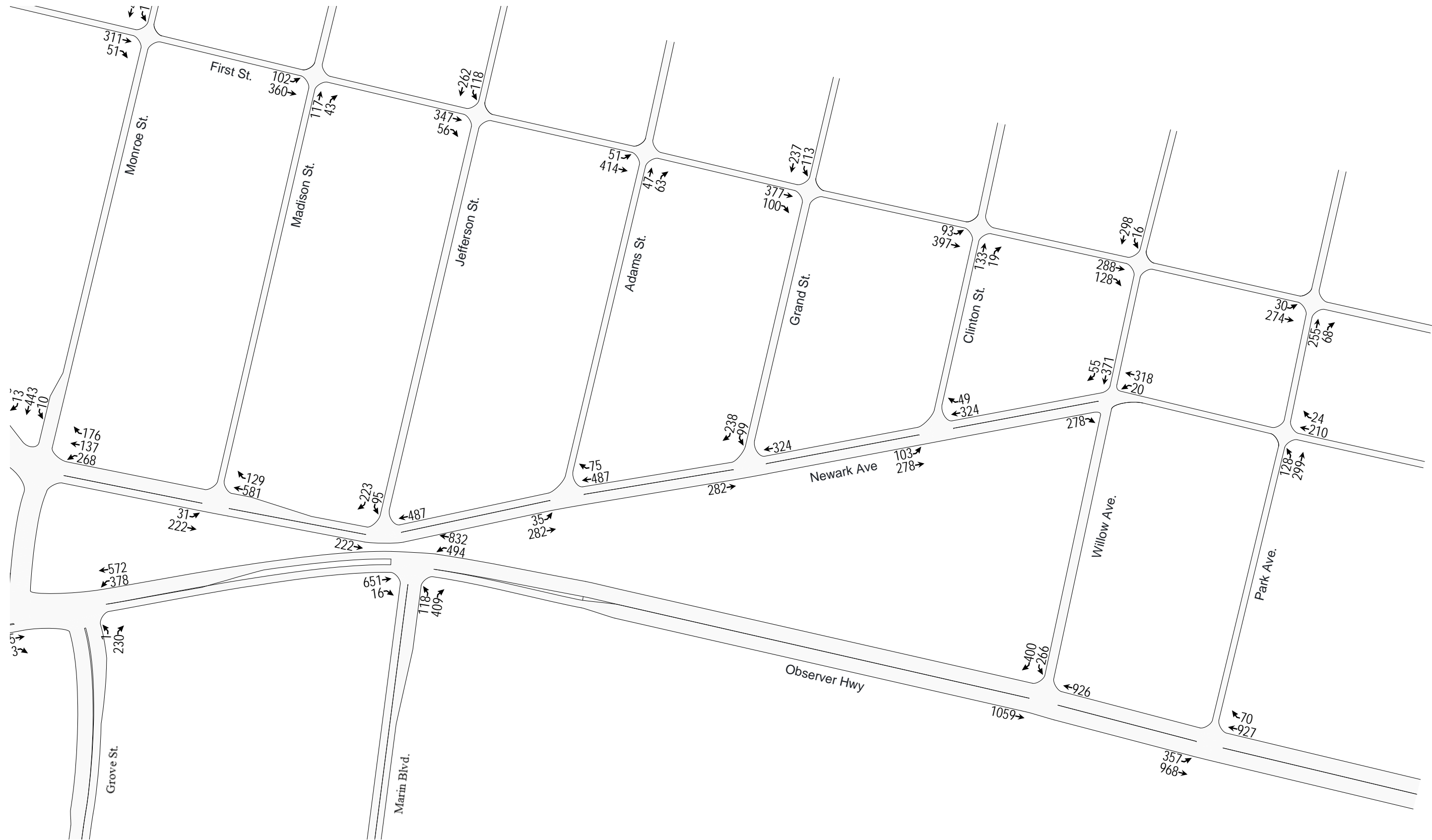


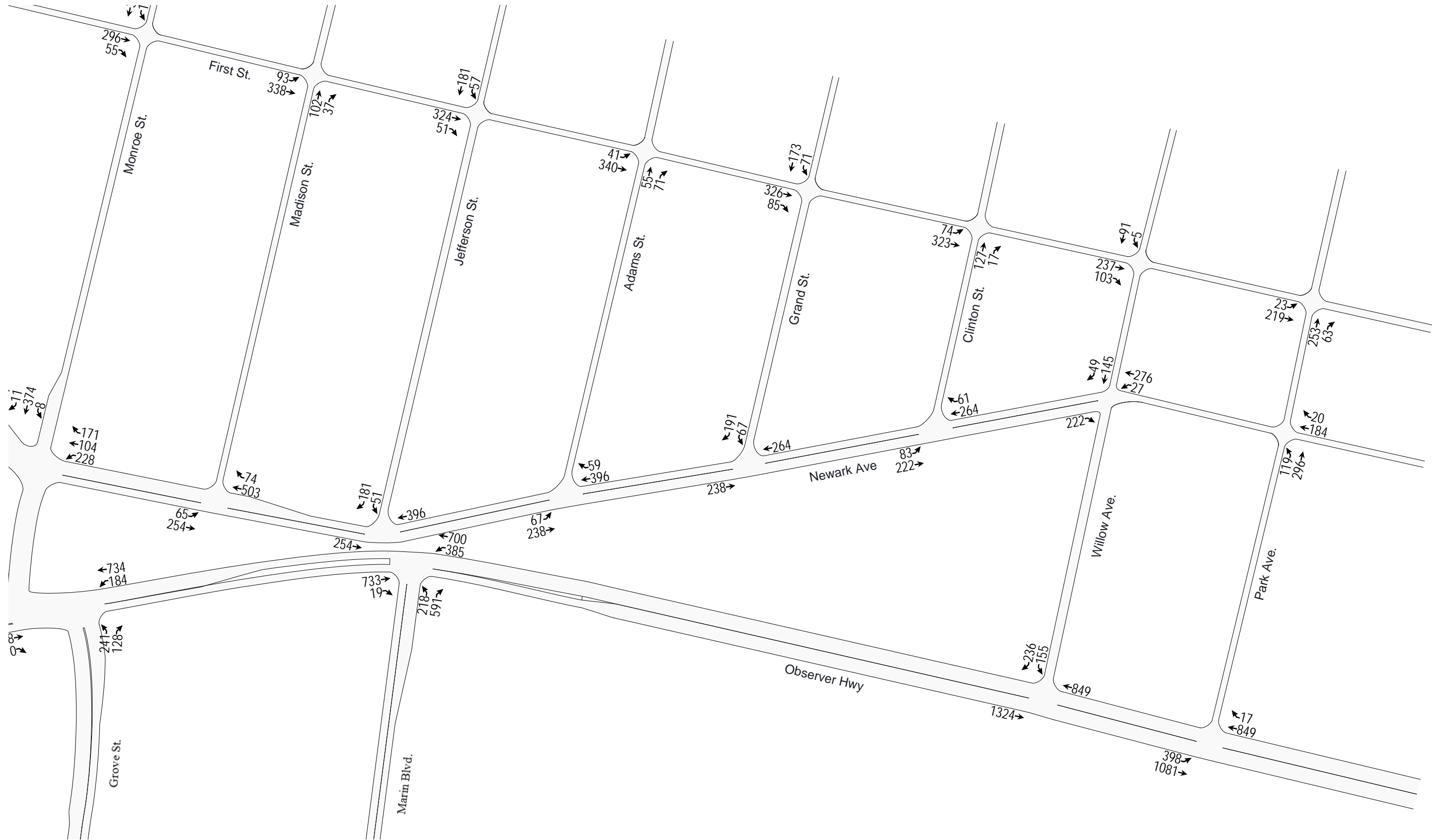




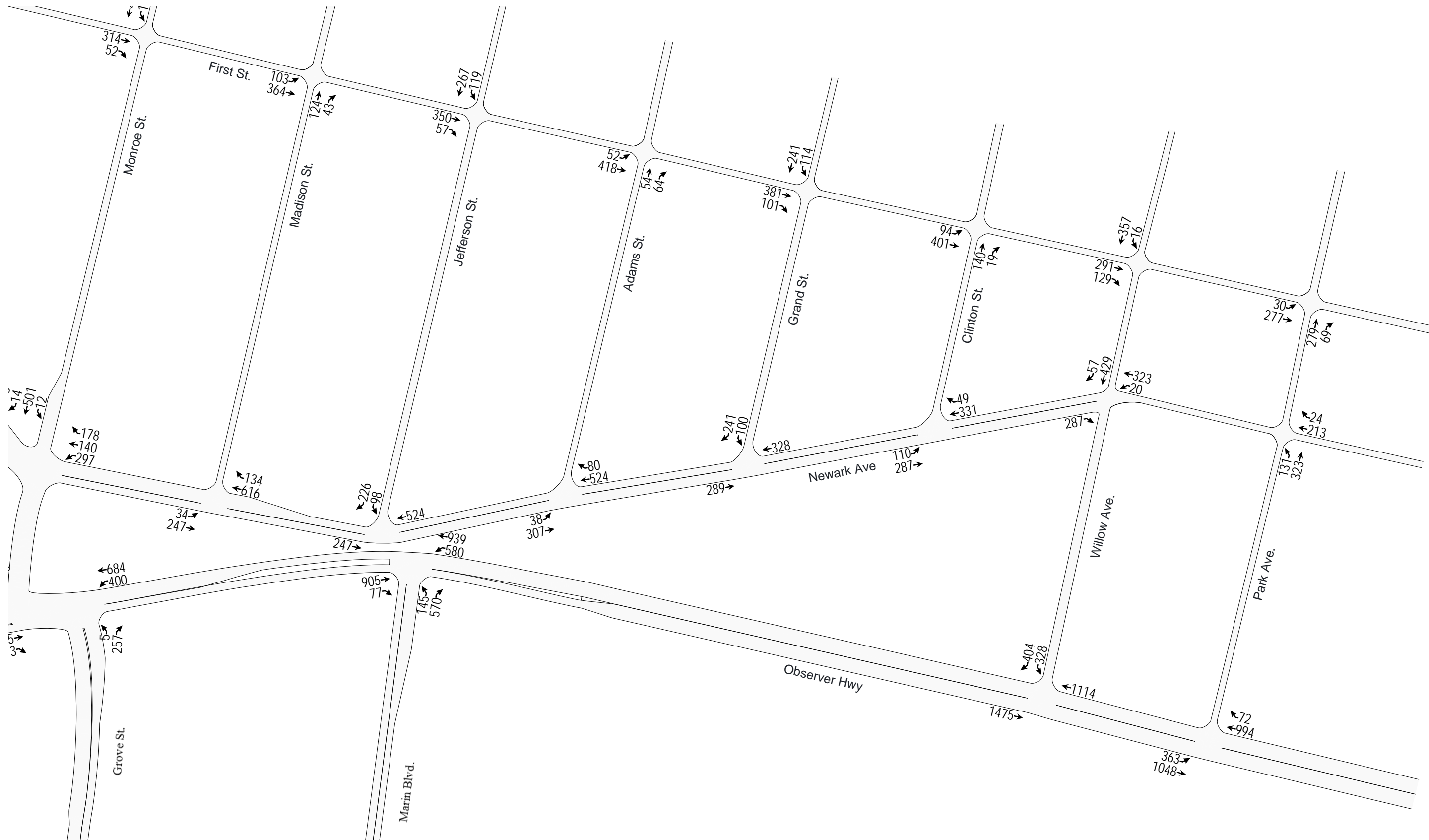


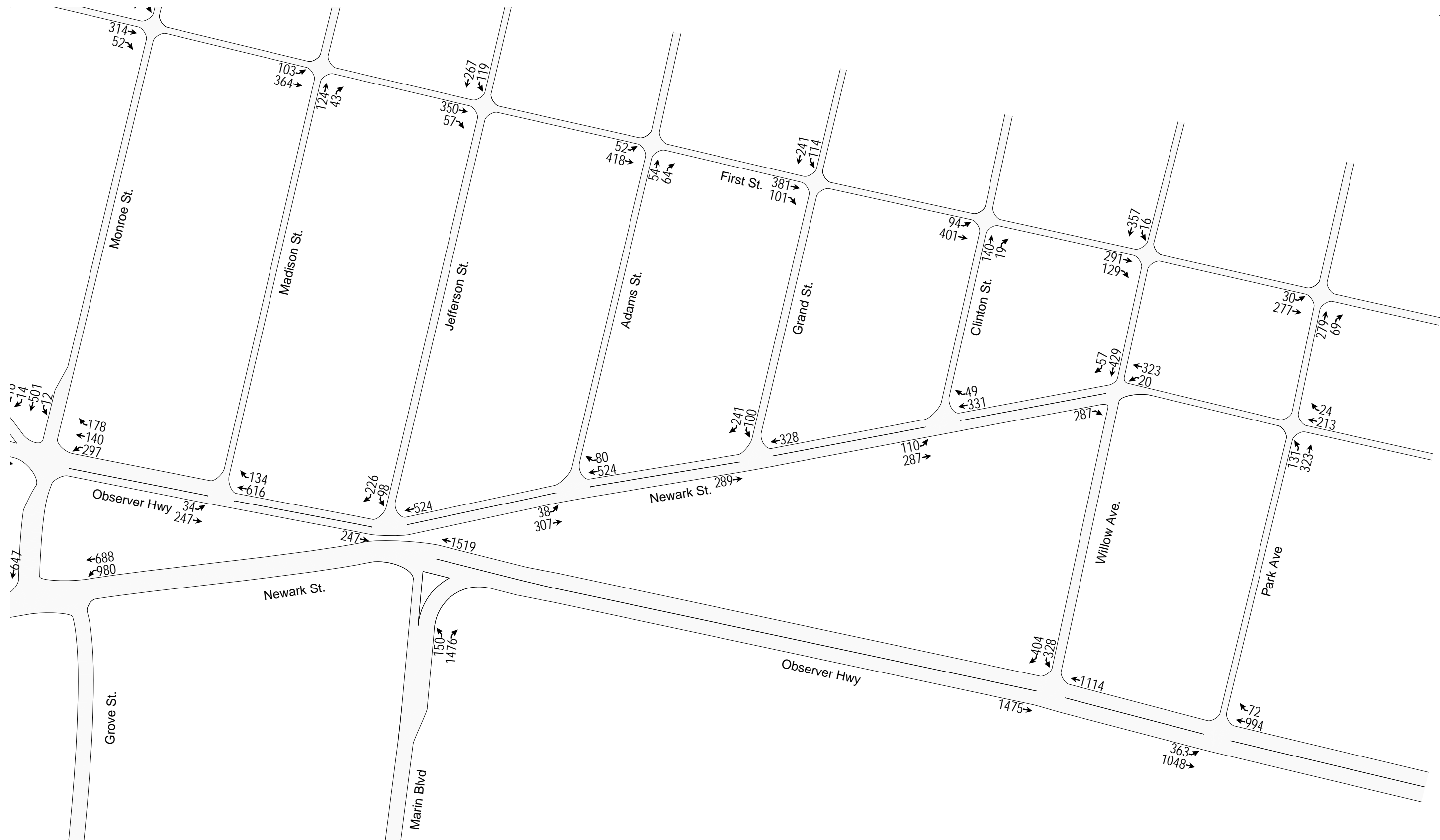


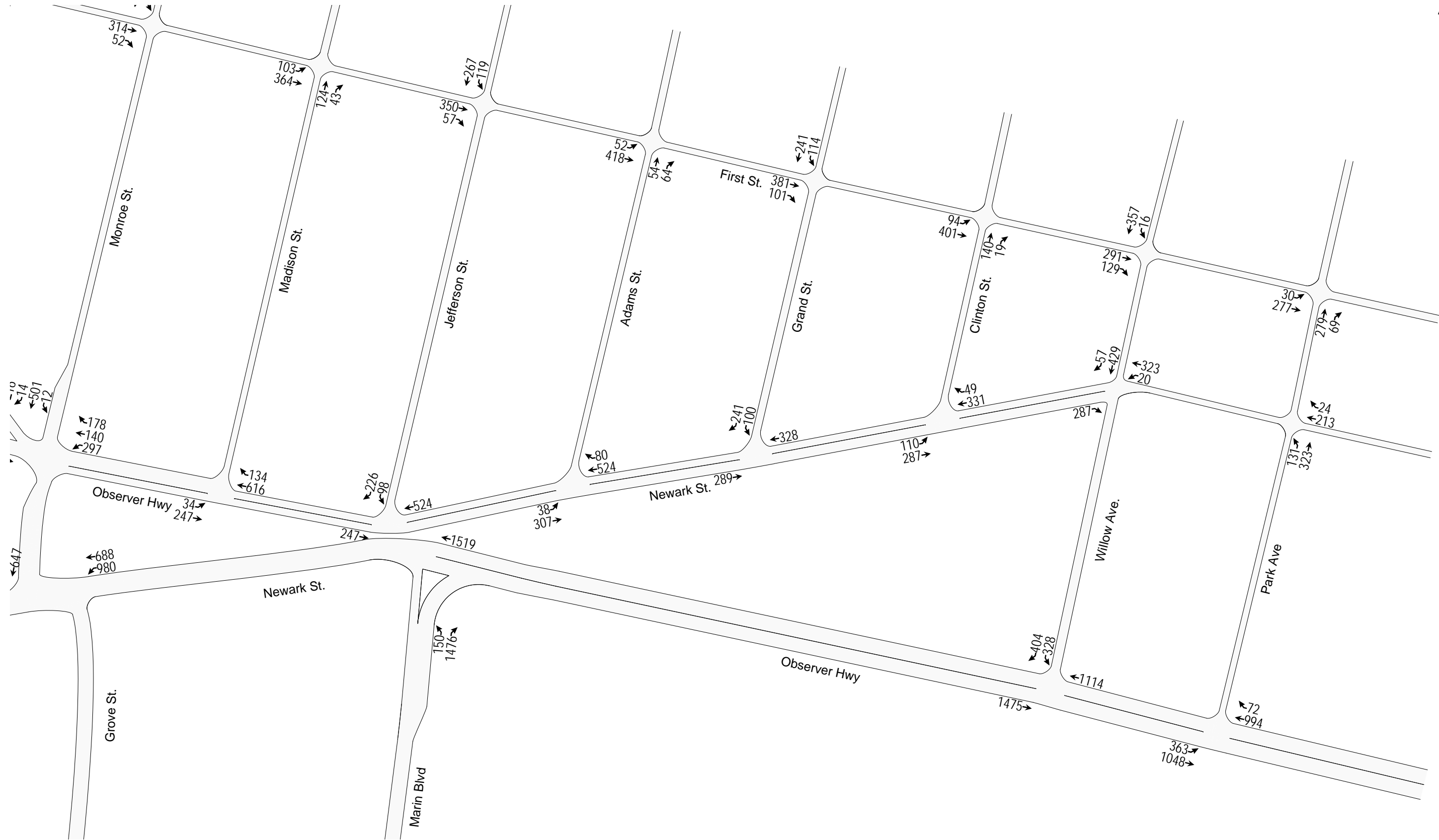


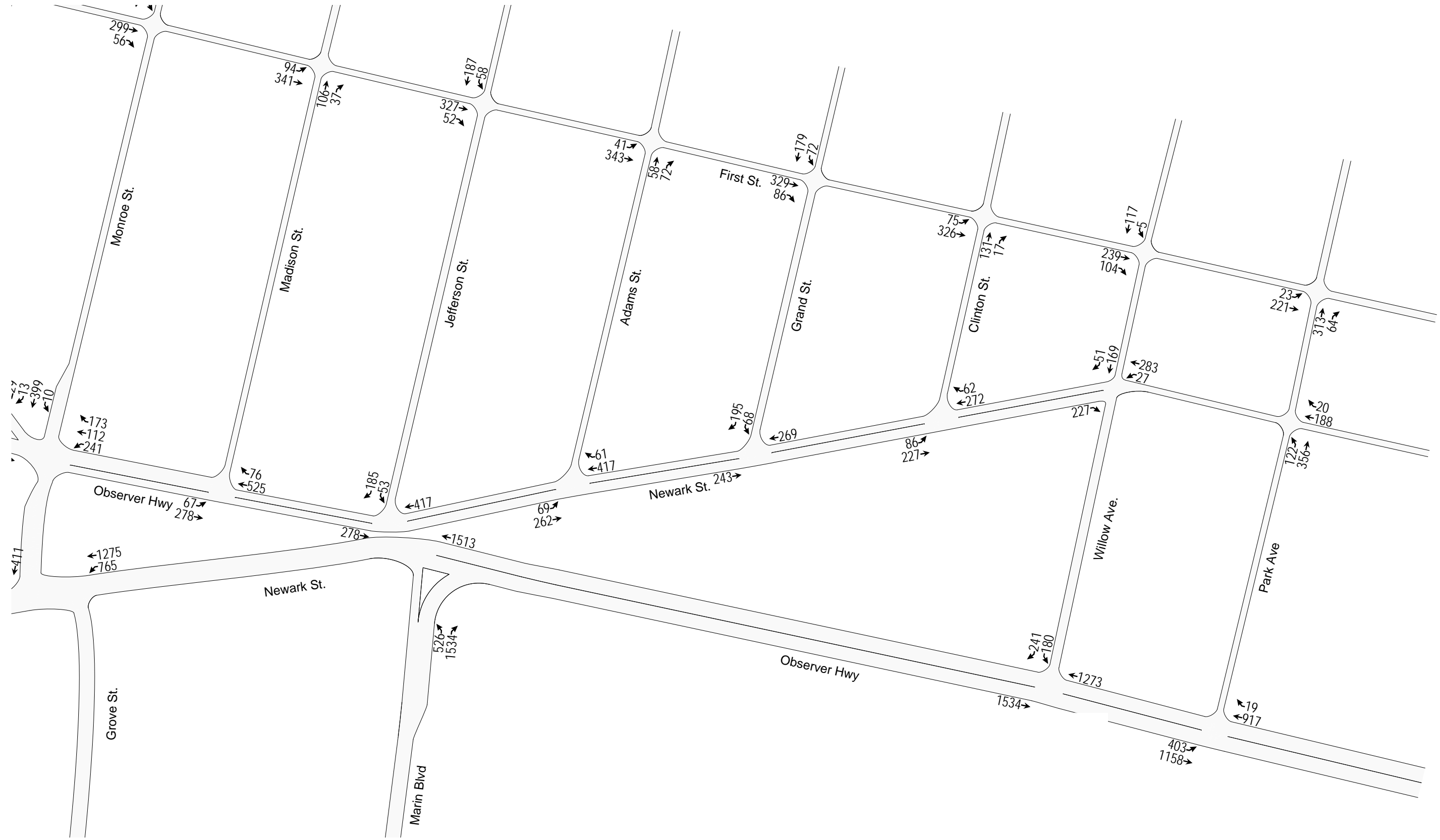


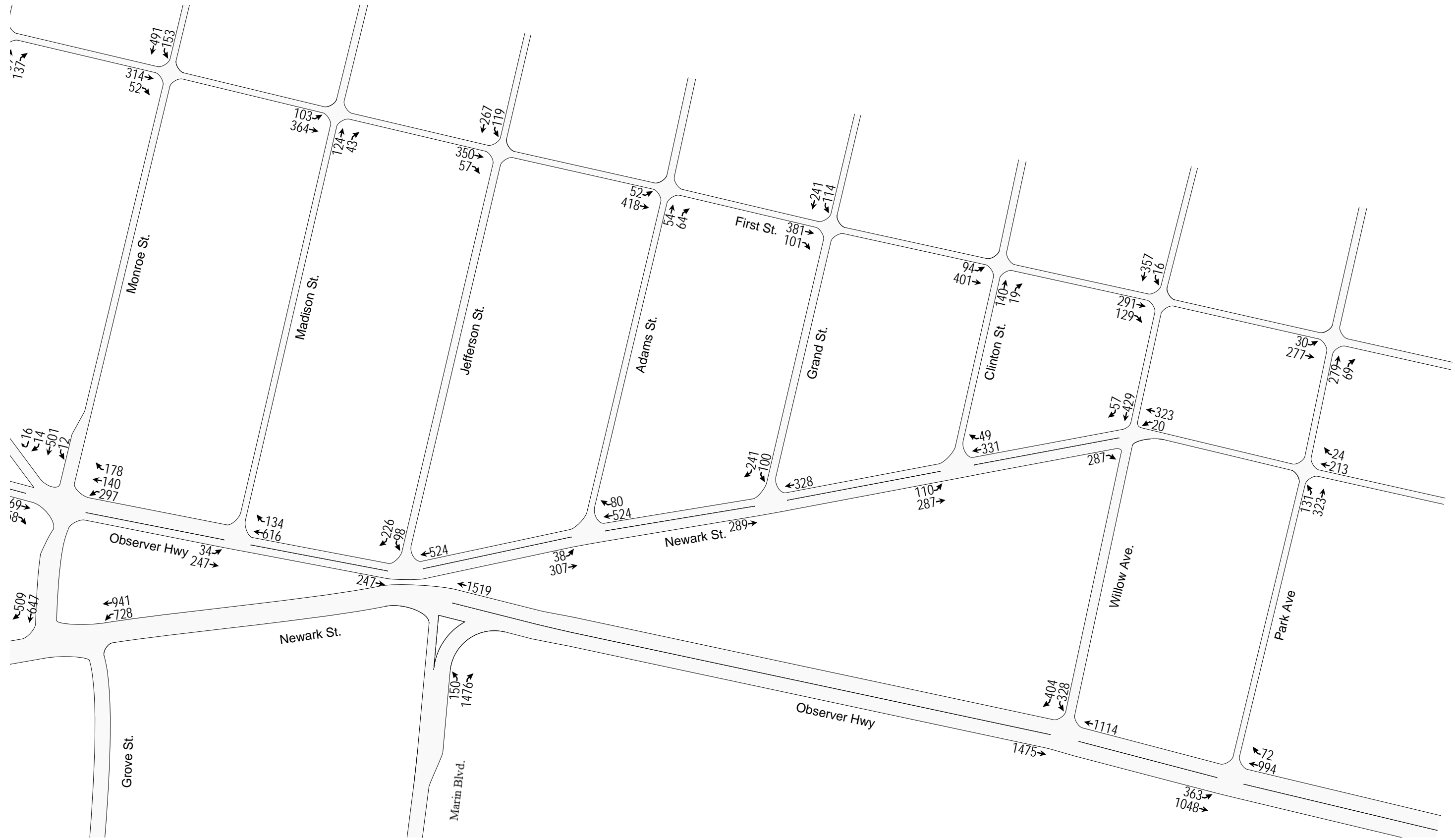


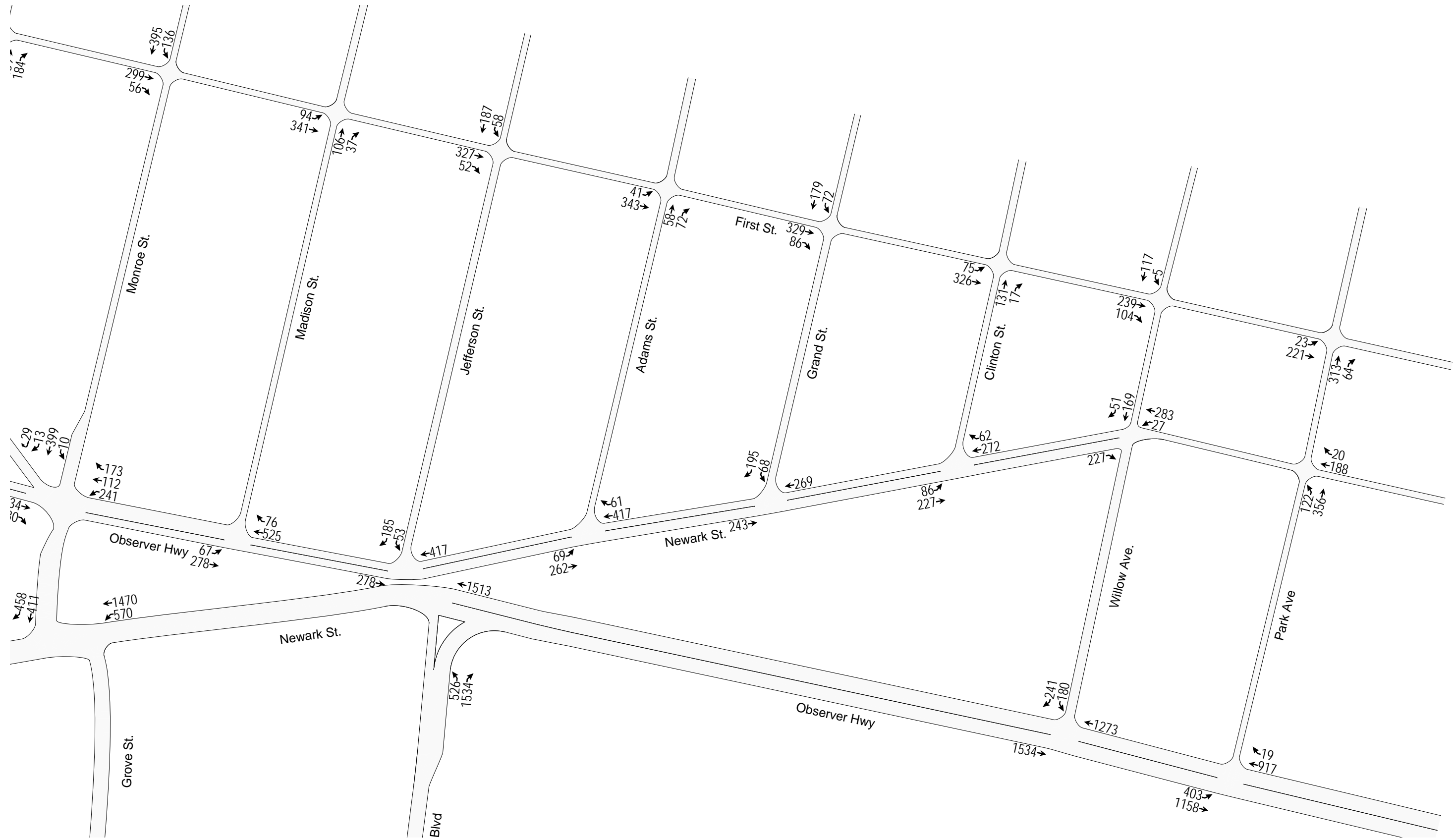


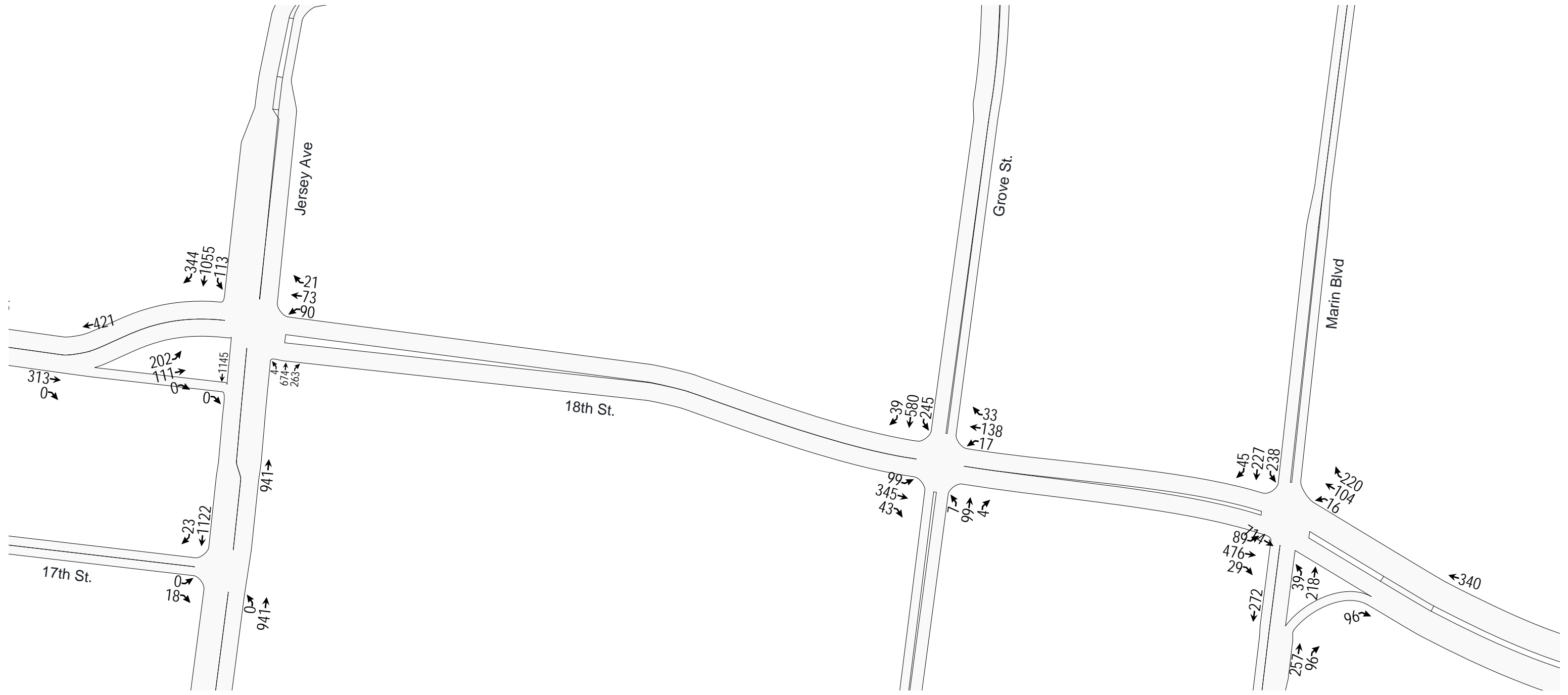


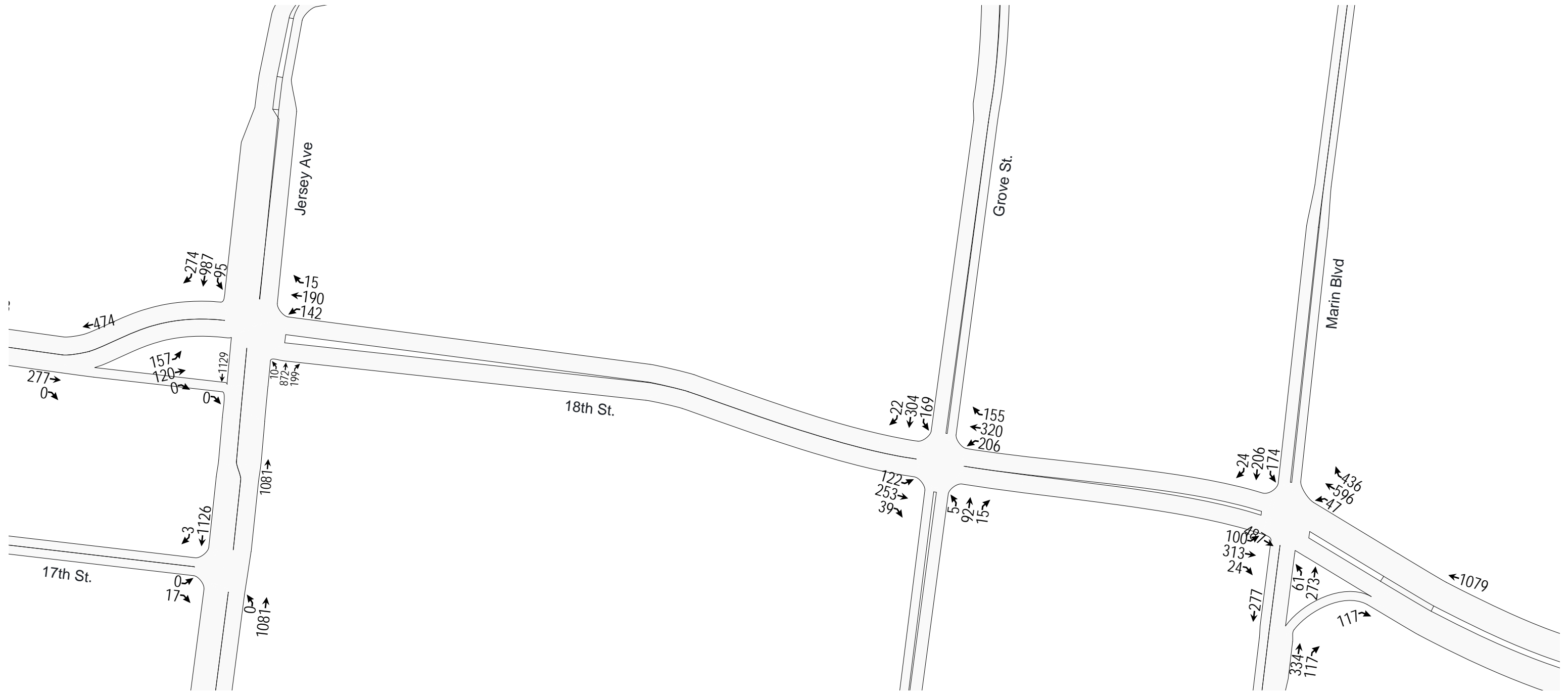




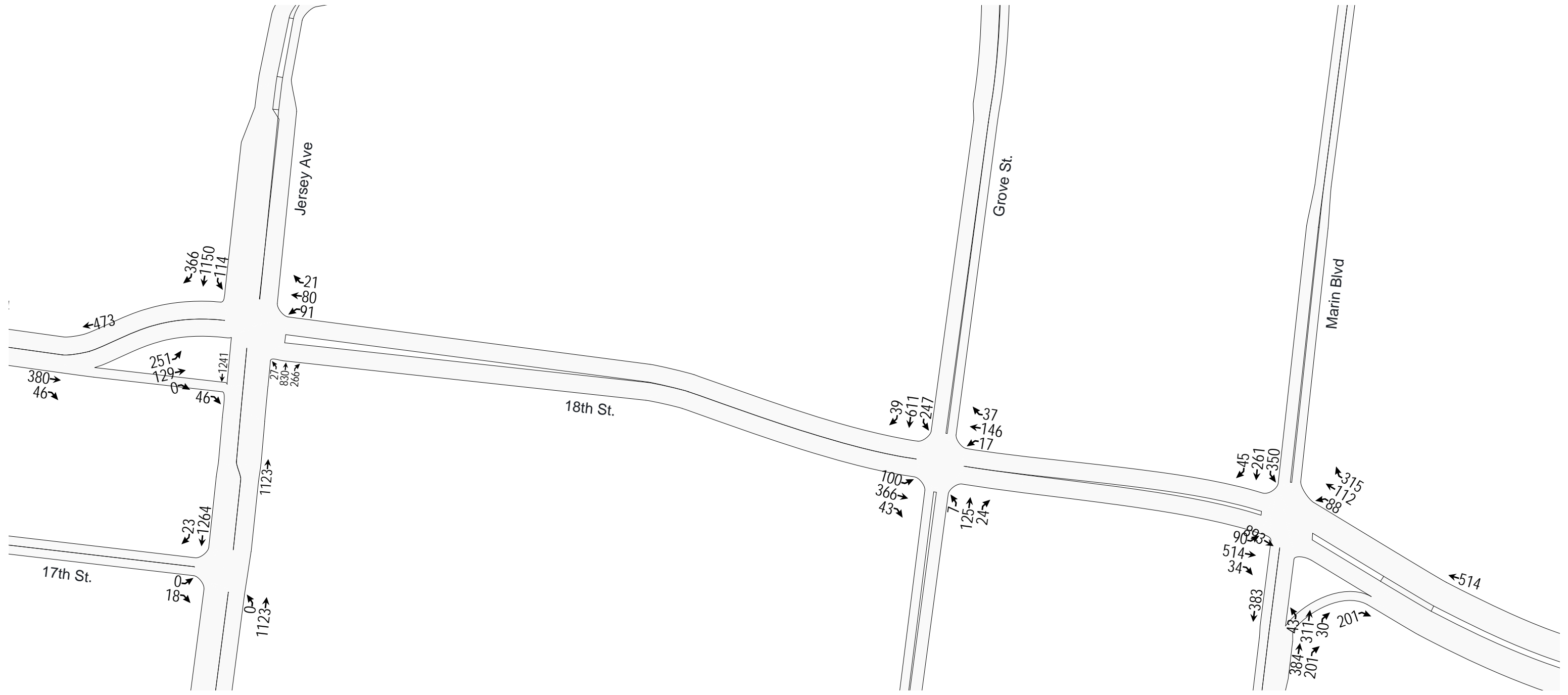


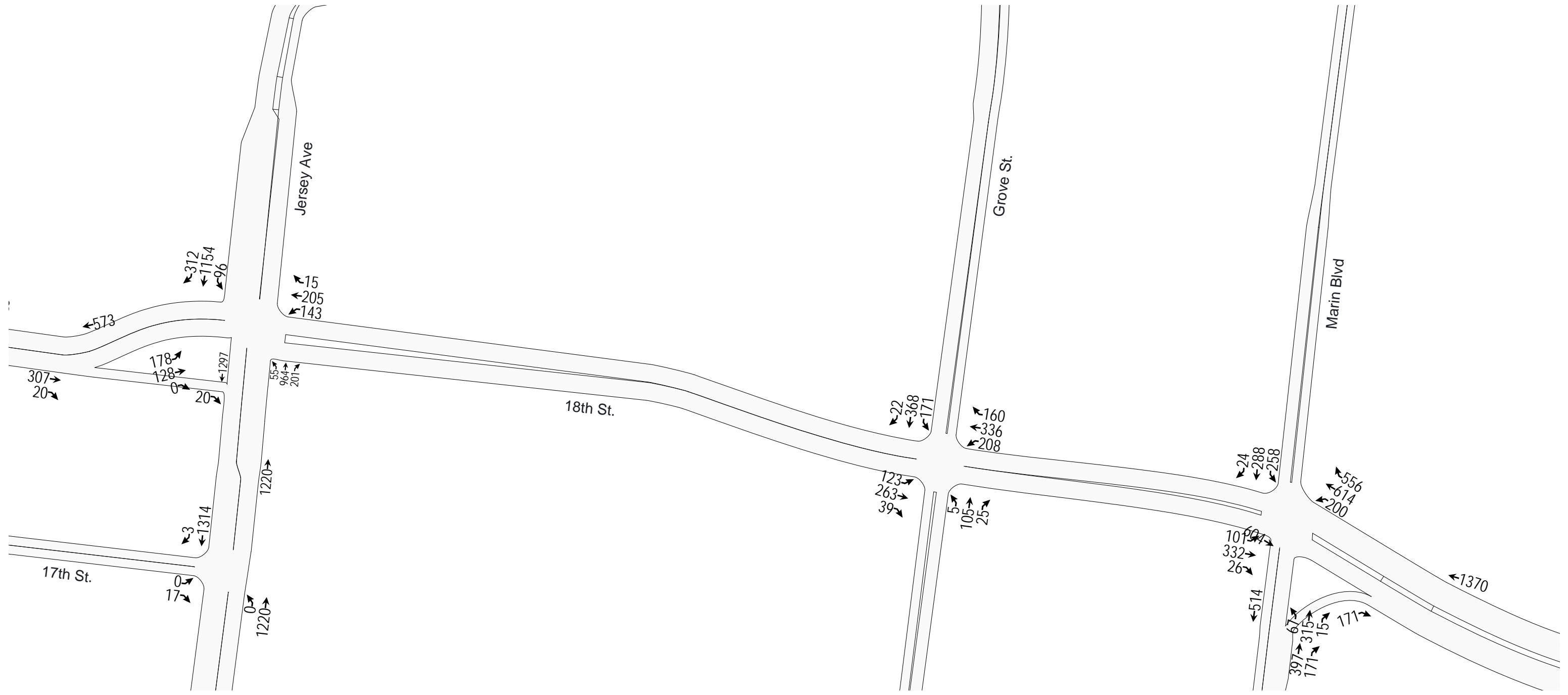


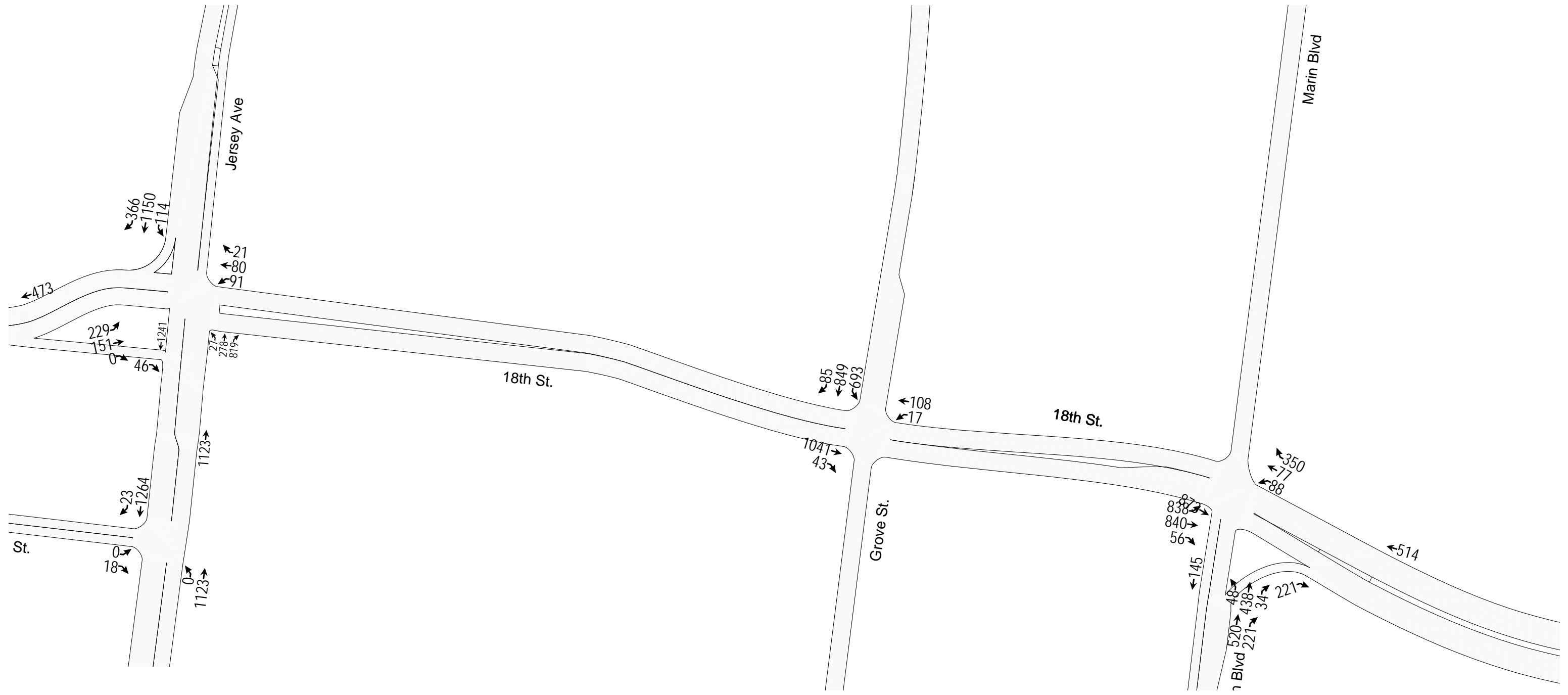


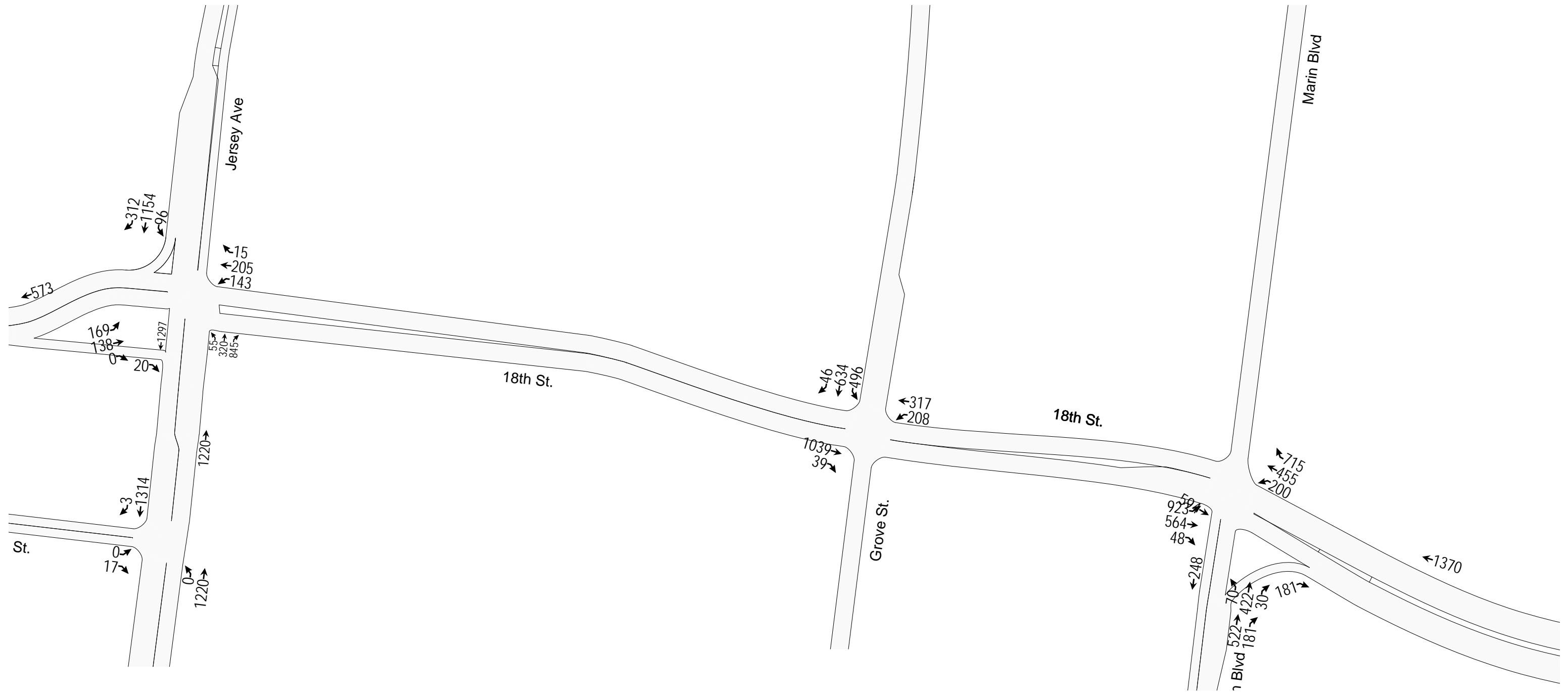


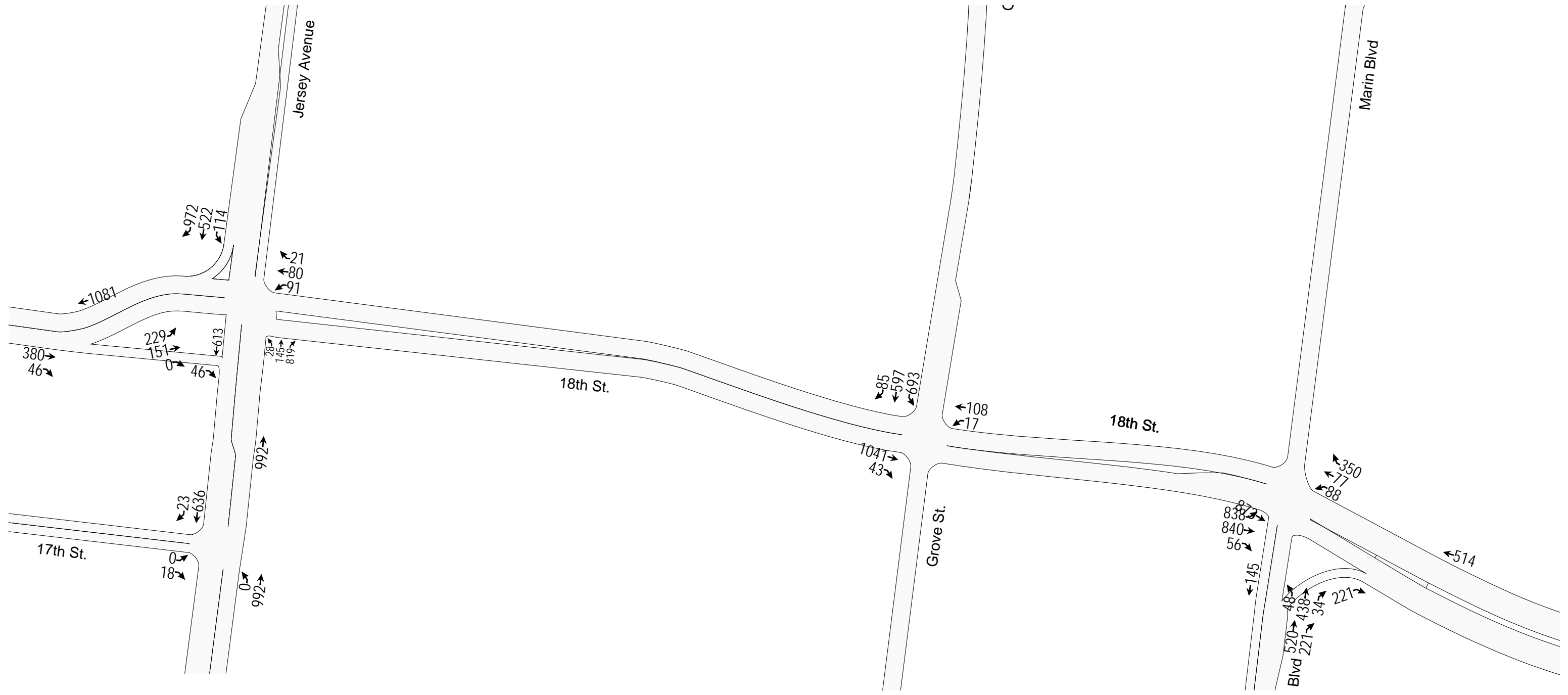


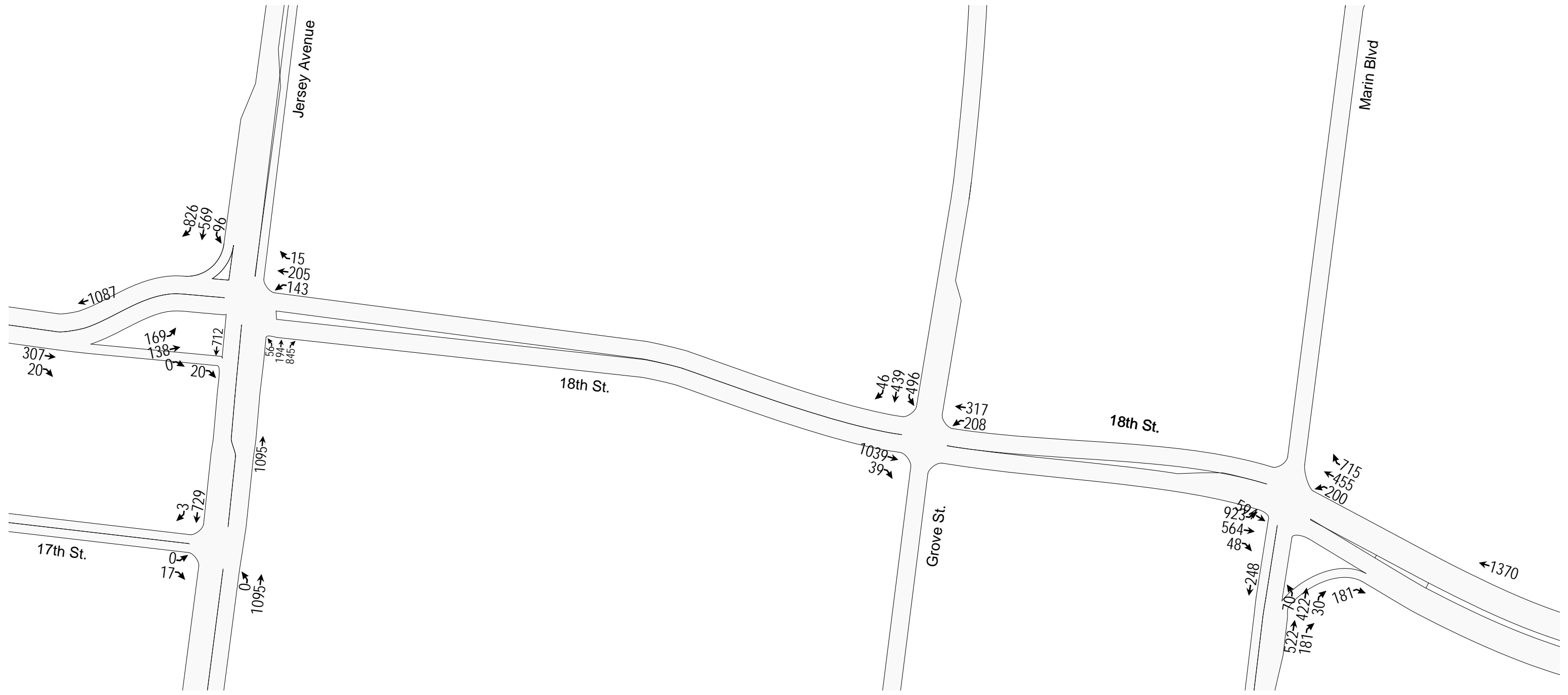












# APPENDIX C

## Traffic Levels of Service

**TABLE 1A**

**Jersey City/Hoboken Subregional Transportation Study**

**2010 AM EXISTING TRAFFIC LEVELS OF SERVICE**

**SIGNALIZED INTERSECTION**

**System Peak Hour (7:45 to 8:45 AM)**

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1</b>	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.81	43.8	D
		EB	TR	0.28	25.1	C
	18th Street	WB	LTR	0.31	19.6	B
	Jersey Avenue	NB	L	0.02	18.9	B
		NB	TR	0.63	24.1	C
	Jersey Avenue	SB	L	0.49	9.8	A
		SB	T	0.65	15.5	B
		SB	R	0.23	10.9	B
	<b>Overall Intersection</b>	-		<b>0.71</b>	<b>20.0</b>	<b>B</b>
<b>2</b>	<b>18th Street and Grove Street</b>					
	18th Street	EB	LTR	0.36	7.4	A
	18th Street	WB	LTR	0.13	14.6	B
	Grove Street	NB	LTR	0.27	20.2	C
	Grove Street	SB	L	0.61	27.5	C
		SB	TR	1.11	97.0	F
	<b>Overall Intersection</b>	-		<b>0.67</b>	<b>45.6</b>	<b>D</b>
<b>3</b>	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	LTR	0.42	9.6	A
	18th Street	WB	LT	0.09	10.6	B
		WB	R	0.16	11.4	B
	Marin Boulevard	NB	L	0.17	30.0	C
		NB	T	0.40	33.1	C
	Marin Boulevard	SB	LTR	1.09	92.3	F
	<b>Overall Intersection</b>	-		<b>0.70</b>	<b>38.2</b>	<b>D</b>
<b>4</b>	<b>Newark Street and Monroe Street</b>					
	Newark Street	EB	TR	0.59	25.6	C
	Newark Street	WB	L	1.55	291.6	F
		WB	T	0.84	36.1	D
	Monroe Street	NB	L	0.01	36.2	D
		NB	R	0.16	37.1	D
	Monroe Street	SB	LT	1.06	77.2	E
		SB	R	0.72	25.1	C
	<b>Overall Intersection</b>	-		<b>1.15</b>	<b>77.7</b>	<b>E</b>
<b>5</b>	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	EB	TR	0.66	11.1	B
	Newark Street	WB	L	1.14	123.4	F
		WB	T	0.67	7.7	A
	Marin Boulevard	NB	L	0.54	39.9	D
		NB	R	0.74	49.8	D
	<b>Overall Intersection</b>	-		<b>1.04</b>	<b>39.7</b>	<b>D</b>
<b>6</b>	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.65	23.6	C
	Observer Highway	WB	LT	0.59	17.2	B
	Willow Avenue	SB	LT	0.65	35.5	D
		SB	TR	0.94	62.4	E
	<b>Overall Intersection</b>	-		<b>0.75</b>	<b>28.5</b>	<b>C</b>



**TABLE 1A**

**Jersey City/Hoboken Subregional Transportation Study**

**2010 AM EXISTING TRAFFIC LEVELS OF SERVICE**

**SIGNALIZED INTERSECTION**

**System Peak Hour (7:45 to 8:45 AM)**

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>7</b>	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	TR	0.73	41.4	D
	Observer Highway	WB	L	1.35	220.9	F
		WB	TR	0.73	40.6	D
	Monroe Street	SB	TRL	0.43	24.1	C
	Paterson Avenue	SEB	LR	0.85	46.9	D
	<b>Overall Intersection</b>	-	-	<b>0.85</b>	<b>67.1</b>	<b>E</b>
<b>8</b>	<b>Paterson Avenue and Jackson Street</b>					
	Paterson Avenue	EB	LT	0.31	18.5	B
		WB	TR	0.23	2.5	A
	Jackson Street	NB	L	0.44	17.2	B
		NB	T	0.44	17.1	B
	<b>Overall Intersection</b>	-	-	<b>0.37</b>	<b>14.7</b>	<b>B</b>
<b>9</b>	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.64	13.8	B
		WB	TR	0.37	32.5	C
	First Street/Marshall Street	SB	LTR	0.26	76.2	E
	<b>Overall Intersection</b>	-	-	<b>0.61</b>	<b>26.2</b>	<b>C</b>
<b>10</b>	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.07	72.9	E
		EB	R	0.03	72.6	E
	Paterson Plank Road	NB	L	0.26	9.9	A
		NB	T	0.27	4.4	A
	Paterson Plank Road	SB	TR	0.56	36.7	D
	<b>Overall Intersection</b>	-	-	<b>0.46</b>	<b>25.1</b>	<b>C</b>
<b>11</b>	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.20	20.0	B
	Franklin Street	WB	LTR	0.18	19.6	B
	Palisade Avenue	NB	LTR	0.47	13.1	B
	Palisade Avenue	SB	LTR	0.53	12.5	B
	<b>Overall Intersection</b>	-	-	<b>0.41</b>	<b>14.2</b>	<b>B</b>
<b>12</b>	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.17	29.8	C
	Ravine Avenue	WB	LTR	0.43	32.2	C
	Palisade Avenue	NB	LT	0.58	13.1	B
	Palisade Avenue	SB	TR	0.72	14.4	B
	<b>Overall Intersection</b>	-	-	<b>0.63</b>	<b>16.1</b>	<b>B</b>
<b>22</b>	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.08	11.3	B
		WB	LT	0.98	131.2	F
	Jersey Avenue	NB	L	0.18	15.1	B
		NB	T	0.72	21.8	C
	Jersey Avenue	SB	T	0.21	37.7	D
		SB	R	1.16	122.5	F
<b>Overall Intersection</b>	-	-	<b>1.11</b>	<b>44.9</b>	<b>D</b>	

**TABLE 1A**

**Jersey City/Hoboken Subregional Transportation Study  
2010 AM EXISTING TRAFFIC LEVELS OF SERVICE  
UNSIGNALIZED INTERSECTION**

System Peak Hour (7:45 to 8:45 AM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.14		A
	Observer Highway	WB	T	0.31		A
	Jefferson Street	SB	LR	0.75	32.9	D
	<b>Overall Intersection</b>		-		<b>10.2</b>	<b>B</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	T	0.15		A
		EB	R	0.19		A
	Paterson Avenue	WB	LT	0.01	0.3	A
	Harrison Street	SB	LTR	0.50	30.0	D
	<b>Overall Intersection</b>		-		<b>3.7</b>	<b>A</b>
<b>1218</b>	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	1.18	134.6	F
	Observer Highway	WB	LT	1.71	422.9	F
	Harrison Street	SB	LTR	0.01	0.4	A
	<b>Overall Intersection</b>		-		<b>133.3</b>	<b>F</b>
<b>1219</b>	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.29		A
	Newark Street	WB	T	0.59		A
	Harrison Street	SB	LR	1.08	86.7	F
	<b>Overall Intersection</b>		-		<b>21.4</b>	<b>C</b>
<b>1220</b>	<b>Observer Highway and Jackson Street</b>					
	Observer Highway	EB	LT	0.98	79.9	F
	Observer Highway	WB	TR	0.44	22.3	C
	Jackson Street	NB	LT	0.02	1.1	A
		NB	TR	0.22	0.0	A
	<b>Overall Intersection</b>		-		<b>25.7</b>	<b>D</b>
<b>1227</b>	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	1.12	57.4	F
		EB	T	0.27		A
	Newark Street	WB	TR	0.68		A
	<b>Overall Intersection</b>		-		<b>26.3</b>	<b>D</b>

**TABLE 1C**

Jersey City/Hoboken Subregional Transportation Study						
2010 PM EXISTING TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1</b>	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.83	52.8	D
		EB	TR	0.32	25.9	C
	18th Street	WB	LTR	0.59	39.9	D
	Jersey Avenue	NB	L	0.05	18.5	B
		NB	TR	0.69	25.7	C
	Jersey Avenue	SB	L	0.48	10.3	B
		SB	T	0.57	13.7	B
		SB	R	0.18	10.0	A
	<b>Overall Intersection</b>	-		<b>0.81</b>	<b>23.2</b>	<b>C</b>
<b>2</b>	<b>18th Street and Grove Street</b>					
	18th Street	EB	LTR	0.42	8.9	A
	18th Street	WB	LTR	0.59	8.9	A
	Grove Street	NB	LTR	0.16	18.4	B
	Grove Street	SB	L	0.41	22.5	C
		SB	TR	0.59	25.6	C
	<b>Overall Intersection</b>	-		<b>0.59</b>	<b>14.1</b>	<b>B</b>
<b>3</b>	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	LTR	0.41	13.2	B
	18th Street	WB	LT	0.44	13.8	B
		WB	R	0.35	13.3	B
	Marin Boulevard	NB	L	0.22	18.1	B
		NB	T	0.45	18.3	B
	Marin Boulevard	SB	LTR	1.01	72.5	E
	<b>Overall Intersection</b>	-		<b>0.68</b>	<b>24.8</b>	<b>C</b>
<b>4</b>	<b>Newark Street and Monroe Street</b>					
	Newark Street	EB	TR	0.74	27.3	C
	Newark Street	WB	L	1.14	124.8	F
		WB	T	0.93	36.7	D
	Monroe Street	NB	L	0.98	92.9	F
		NB	R	0.35	38.4	D
	Monroe Street	SB	LT	1.04	79.5	E
		SB	R	0.60	20.0	B
	<b>Overall Intersection</b>	-		<b>1.09</b>	<b>48.4</b>	<b>D</b>
<b>5</b>	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	EB	TR	0.89	21.7	C
	Newark Street	WB	L	1.54	298.5	F
		WB	T	0.66	12.6	B
	Marin Boulevard	NB	L	0.53	31.6	C
		NB	R	1.03	87.6	F
	<b>Overall Intersection</b>	-		<b>1.34</b>	<b>75.0</b>	<b>E</b>
<b>6</b>	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.70	18.5	B
	Observer Highway	WB	LT	0.46	11.7	B
	Willow Avenue	SB	LT	0.49	36.1	D
		SB	TR	0.78	48.7	D
	<b>Overall Intersection</b>	-		<b>0.72</b>	<b>20.1</b>	<b>C</b>

**TABLE 1C**

Jersey City/Hoboken Subregional Transportation Study						
2010 PM EXISTING TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
7	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	TR	0.73	41.3	D
	Observer Highway	WB	L	1.31	204.6	F
		WB	TR	0.64	36.5	D
	Monroe Street	SB	TRL	0.37	23.3	C
	Paterson Avenue	SEB	LR	0.68	34.8	C
	<b>Overall Intersection</b>	-	-	<b>0.77</b>	<b>60.4</b>	<b>E</b>
8	<b>Paterson Avenue and Jackson Street</b>					
	Paterson Avenue	EB	LT	0.26	17.9	B
		WB	TR	0.23	4.6	A
	Jackson Street	NB	L	0.63	21.7	C
		NB	T	0.58	20.4	C
<b>Overall Intersection</b>	-	-	<b>0.45</b>	<b>18.0</b>	<b>B</b>	
9	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.62	15.3	B
		WB	TR	0.48	34.7	C
	First Street/Marshall Street	SB	LTR	0.32	76.5	E
<b>Overall Intersection</b>	-	-	<b>0.60</b>	<b>29.7</b>	<b>C</b>	
10	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.08	73.1	E
		EB	R	0.01	72.6	E
	Paterson Plank Road	NB	L	0.33	11.1	B
		NB	T	0.34	3.6	A
	Paterson Plank Road	SB	TR	0.51	35.4	D
<b>Overall Intersection</b>	-	-	<b>0.43</b>	<b>20.7</b>	<b>C</b>	
11	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.18	19.8	B
	Franklin Street	WB	LTR	0.30	21.2	C
	Palisade Avenue	NB	LTR	0.57	14.5	B
	Palisade Avenue	SB	LTR	0.42	11.0	B
<b>Overall Intersection</b>	-	-	<b>0.48</b>	<b>14.8</b>	<b>B</b>	
12	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.27	30.0	C
	Ravine Avenue	WB	LTR	0.36	30.3	C
	Palisade Avenue	NB	LT	0.62	14.8	B
	Palisade Avenue	SB	TR	0.58	10.2	B
<b>Overall Intersection</b>	-	-	<b>0.54</b>	<b>15.4</b>	<b>B</b>	
22	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.03	28.3	C
		WB	LT	1.06	56.9	E
	Jersey Avenue	NB	L	0.26	15.3	B
		NB	T	0.85	26.1	C
	Jersey Avenue	SB	T	0.26	26.2	C
		SB	R	1.12	86.4	F
<b>Overall Intersection</b>	-	-	<b>1.16</b>	<b>55.2</b>	<b>E</b>	

**TABLE 1D**

**Jersey City/Hoboken Subregional Transportation Study  
2010 PM EXISTING TRAFFIC LEVELS OF SERVICE  
UNSIGNALIZED INTERSECTION**

System Peak Hour (5:00 to 6:00 PM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.16		A
	Observer Highway	WB	T	0.25		A
	Jefferson Street	SB	LR	0.47	17.6	C
	<b>Overall Intersection</b>		-		<b>4.6</b>	<b>A</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	T	0.12		A
		EB	R	0.21		A
	Paterson Avenue	WB	LT	0.09	0.0	A
	Harrison Street	SB	LTR	0.53	42.4	E
	<b>Overall Intersection</b>		-		<b>3.4</b>	<b>A</b>
<b>1218</b>	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	0.64	23.0	C
	Observer Highway	WB	LT	0.41	21.5	C
	Harrison Street	SB	LTR	0.01	0.4	A
	<b>Overall Intersection</b>		-		<b>12.1</b>	<b>B</b>
<b>1219</b>	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.33		A
	Newark Street	WB	T	0.57		A
	Harrison Street	SB	LR	1.10	100.2	F
	<b>Overall Intersection</b>		-		<b>19.5</b>	<b>C</b>
<b>1220</b>	<b>Observer Highway and Jackson Street</b>					
	Observer Highway	EB	LT	1.29	206.6	F
	Observer Highway	WB	TR	0.52	35.0	D
	Jackson Street	NB	LT	0.02	0.8	A
		NB	TR	0.35	0.0	A
	<b>Overall Intersection</b>		-		<b>41.5</b>	<b>E</b>
<b>1227</b>	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	1.08	40.8	E
		EB	T	0.38		A
	Newark Street	WB	TR	0.91		A
	<b>Overall Intersection</b>		-		<b>17.4</b>	<b>C</b>

**TABLE 2A**

**Jersey City/Hoboken Subregional Transportation Study  
2025 AM NO ACTION TRAFFIC LEVELS OF SERVICE**

**SIGNALIZED INTERSECTION**

**System Peak Hour (7:45 to 8:45 AM)**

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1</b>	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.88	50.0	D
		EB	TR	0.28	23.0	C
	18th Street	WB	LTR	0.29	11.5	B
	Jersey Avenue	NB	L	0.21	24.0	C
		NB	TR	0.82	30.5	C
	Jersey Avenue	SB	L	0.64	18.1	B
		SB	T	0.78	21.2	C
		SB	R	0.25	13.1	B
	<b>Overall Intersection</b>	-	-	<b>0.83</b>	<b>25.0</b>	<b>C</b>
<b>2</b>	<b>18th Street and Grove Street</b>					
	18th Street	EB	LTR	0.38	6.8	A
	18th Street	WB	LTR	0.14	13.9	B
	Grove Street	NB	LTR	0.43	23.4	C
	Grove Street	SB	L	0.68	31.3	C
		SB	TR	1.17	118.0	F
	<b>Overall Intersection</b>	-	-	<b>0.70</b>	<b>53.5</b>	<b>D</b>
<b>3</b>	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	LTR	0.46	10.1	B
	18th Street	WB	LT	0.21	11.6	B
		WB	R	0.24	12.2	B
	Marin Boulevard	NB	L	0.18	30.2	C
		NB	T	0.61	36.9	D
	Marin Boulevard	SB	LTR	2.02	492.9	F
	<b>Overall Intersection</b>	-	-	<b>1.12</b>	<b>159.4</b>	<b>F</b>
<b>4</b>	<b>Newark Street and Monroe Street</b>					
	Newark Street	EB	TR	0.81	34.6	C
	Newark Street	WB	L	3.25	1047.2	F
		WB	T	1.01	51.8	D
	Monroe Street	NB	L	0.04	36.4	D
		NB	R	0.20	37.4	D
	Monroe Street	SB	LT	1.58	291.4	F
		SB	R	0.76	24.3	C
	<b>Overall Intersection</b>	-	-	<b>2.18</b>	<b>222.5</b>	<b>F</b>
<b>5</b>	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	EB	TR	1.21	116.7	F
	Newark Street	WB	L	2.41	679.9	F
		WB	T	0.89	20.9	C
	Marin Boulevard	NB	L	0.40	30.1	C
		NB	R	1.11	116.5	F
	<b>Overall Intersection</b>	-	-	<b>1.97</b>	<b>186.3</b>	<b>F</b>
<b>6</b>	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.91	25.1	C
	Observer Highway	WB	LT	0.71	19.9	B
	Willow Avenue	SB	L	0.80	43.8	D
		SB	TR	0.94	63.9	E
	<b>Overall Intersection</b>	-	-	<b>0.92</b>	<b>29.9</b>	<b>C</b>

**TABLE 2A**

**Jersey City/Hoboken Subregional Transportation Study**

**2025 AM NO ACTION TRAFFIC LEVELS OF SERVICE**

**SIGNALIZED INTERSECTION**

**System Peak Hour (7:45 to 8:45 AM)**

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
7	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	TR	0.84	50.3	D
	Observer Highway	WB	L	1.72	379.1	F
		WB	TR	0.74	41.3	D
	Monroe Street	SB	TRL	0.48	24.9	C
	Paterson Avenue	SEB	LR	1.04	85.6	F
	<b>Overall Intersection</b>	-	<b>1.04</b>	<b>101.4</b>	<b>F</b>	
8	<b>Paterson Avenue and Jackson Street</b>					
	Paterson Avenue	EB	LT	0.38	19.5	B
		WB	TR	0.23	2.4	A
	Jackson Street	NB	L	0.45	16.9	B
		NB	T	0.53	17.7	B
	<b>Overall Intersection</b>	-	<b>0.45</b>	<b>15.4</b>	<b>B</b>	
9	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.66	15.1	B
		WB	TR	0.38	32.7	C
	First Street/Marshall Street	SB	LTR	0.26	76.1	E
	<b>Overall Intersection</b>	-	<b>0.63</b>	<b>27.0</b>	<b>C</b>	
10	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.07	72.9	E
		EB	R	0.03	72.6	E
	Paterson Plank Road	NB	L	0.27	11.4	B
		NB	T	0.28	4.3	A
	Paterson Plank Road	SB	TR	0.57	37.0	D
	<b>Overall Intersection</b>	-	<b>0.46</b>	<b>25.4</b>	<b>C</b>	
11	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.21	20.1	C
	Franklin Street	WB	LTR	0.19	19.8	B
	Palisade Avenue	NB	LTR	0.48	13.4	B
	Palisade Avenue	SB	LTR	0.54	12.8	B
	<b>Overall Intersection</b>	-	<b>0.43</b>	<b>14.5</b>	<b>B</b>	
12	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.23	29.9	C
	Ravine Avenue	WB	LTR	0.43	32.2	C
	Palisade Avenue	NB	LT	0.59	13.4	B
	Palisade Avenue	SB	TR	0.75	15.7	B
	<b>Overall Intersection</b>	-	<b>0.65</b>	<b>17.0</b>	<b>B</b>	
22	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.09	10.6	B
		WB	TR	1.03	40.7	D
	Jersey Avenue	NB	L	0.19	15.1	B
		NB	T	0.83	25.8	C
	Jersey Avenue	SB	T	0.33	38.8	D
		SB	R	1.26	162.2	F
	<b>Overall Intersection</b>	-	<b>1.19</b>	<b>60.1</b>	<b>E</b>	

**TABLE 2B**

**Jersey City/Hoboken Subregional Transportation Study  
2025 AM NO ACTION TRAFFIC LEVELS OF SERVICE  
UNSIGNALIZED INTERSECTION**

System Peak Hour (7:45 to 8:45 AM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.16		A
	Observer Highway	WB	T	0.34		A
	Jefferson Street	SB	LR	0.82	41.7	D
	<b>Overall Intersection</b>		-		<b>12.4</b>	<b>B</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	T	0.15		A
		EB	R	0.20		A
	Paterson Avenue	WB	LT	0.01	0.3	A
	Harrison Street	SB	LTR	0.63	33.9	D
	<b>Overall Intersection</b>		-		<b>5.5</b>	<b>A</b>
<b>1218</b>	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	1.37	210.2	F
	Observer Highway	WB	LT	4.51	Error <sup>1</sup>	F
	Harrison Street	SB	LTR	0.01	0.4	A
	<b>Overall Intersection</b>		-		<b>1872.5</b>	<b>F</b>
<b>1219</b>	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.35		A
	Newark Street	WB	T	0.64		A
	Harrison Street	SB	LR	1.32	180.3	F
	<b>Overall Intersection</b>		-		<b>41.6</b>	<b>E</b>
<b>1220</b>	<b>Observer Highway &amp; Jackson Street</b>					
	Observer Highway	EB	LT	1.32	203.8	F
	Observer Highway	WB	TR	0.53	28.7	D
	Jackson Street	NB	LT	0.03	0.6	A
		NB	TR	0.25		A
	<b>Overall Intersection</b>		-		<b>60.3</b>	<b>F</b>
<b>1227</b>	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	1.64	326.7	F
		EB	T	0.37		A
	Newark Street	WB	TR	0.77		A
	<b>Overall Intersection</b>		-		<b>73.6</b>	<b>F</b>
	1) Note: Value exceeds maximum reportable delay.					



**TABLE 2C**

**Jersey City/Hoboken Subregional Transportation Study**

**2025 PM NO ACTION TRAFFIC LEVELS OF SERVICE**

**SIGNALIZED INTERSECTION**

**System Peak Hour (5:00 to 6:00 PM)**

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1</b>	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.87	57.5	E
		EB	TR	0.31	24.6	C
	18th Street	WB	LTR	0.57	36.5	D
	Jersey Avenue	NB	L	0.31	27.5	C
		NB	TR	0.78	28.7	C
	Jersey Avenue	SB	L	0.59	15.9	B
		SB	T	0.75	20.3	C
		SB	R	0.21	12.8	B
	<b>Overall Intersection</b>	-	-	<b>0.80</b>	<b>26.2</b>	<b>C</b>
<b>2</b>	<b>18th Street and Grove Street</b>					
	18th Street	EB	LTR	0.44	8.6	A
	18th Street	WB	LTR	0.61	8.9	A
	Grove Street	NB	LTR	0.19	18.7	B
	Grove Street	SB	L	0.44	23.3	C
		SB	TR	0.71	29.6	C
	<b>Overall Intersection</b>	-	-	<b>0.65</b>	<b>15.3</b>	<b>B</b>
<b>3</b>	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	LTR	0.47	13.9	B
	18th Street	WB	LT	0.70	18.8	B
		WB	R	0.55	16.5	B
	Marin Boulevard	NB	L	0.27	20.1	C
		NB	T	0.55	21.2	C
	Marin Boulevard	SB	LTR	1.70	350.5	F
	<b>Overall Intersection</b>	-	-	<b>1.11</b>	<b>85.4</b>	<b>F</b>
<b>4</b>	<b>Newark Street and Monroe Street</b>					
	Newark Street	EB	TR	0.83	31.8	C
	Newark Street	WB	L	2.14	546.5	F
		WB	T	1.30	160.9	F
	Monroe Street	NB	L	1.02	102.6	F
		NB	R	0.39	38.7	D
	Monroe Street	SB	LT	1.27	163.1	F
		SB	R	0.76	26.5	C
	<b>Overall Intersection</b>	-	-	<b>1.72</b>	<b>134.4</b>	<b>F</b>
<b>5</b>	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	EB	TR	1.06	54.9	D
	Newark Street	WB	L	2.19	589.4	F
		WB	T	0.94	28.3	C
	Marin Boulevard	NB	L	0.67	35.6	D
		NB	R	1.35	209.2	F
	<b>Overall Intersection</b>	-	-	<b>1.89</b>	<b>159.8</b>	<b>F</b>
<b>6</b>	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.81	19.3	B
	Observer Highway	WB	LT	0.69	15.7	B
	Willow Avenue	SB	L	0.56	37.2	D
		SB	TR	0.78	48.1	D
	<b>Overall Intersection</b>	-	-	<b>0.81</b>	<b>21.1</b>	<b>C</b>
<b>7</b>	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	TR	0.80	46.5	D
	Observer Highway	WB	L	1.59	325.8	F
	WB	TR	0.67	37.3	D	

**TABLE 2C**

**Jersey City/Hoboken Subregional Transportation Study  
2025 PM NO ACTION TRAFFIC LEVELS OF SERVICE**

**SIGNALIZED INTERSECTION**

**System Peak Hour (5:00 to 6:00 PM)**

<b>Node #</b>	<b>INTERSECTION &amp; APPROACH</b>	<b>App.</b>	<b>Mvt.</b>	<b>V/C</b>	<b>Delay</b>	<b>LOS</b>
	Monroe Street	SB	TRL	0.40	23.6	C
	Paterson Avenue	SEB	LR	0.79	43.0	D
	<b>Overall Intersection</b>	-		<b>0.91</b>	<b>81.5</b>	<b>F</b>
<b>8</b>	<b>Paterson Avenue and Jackson Street</b>					
	Paterson Avenue	EB	LT	0.29	18.3	B
		WB	TR	0.23	4.6	A
	Jackson Street	NB	L	0.66	21.1	C
		NB	T	0.73	22.9	C
	<b>Overall Intersection</b>	-		<b>0.51</b>	<b>19.1</b>	<b>B</b>
<b>9</b>	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.63	16.6	B
		WB	TR	0.49	35.1	D
	First Street/Marshall Street	SB	LTR	0.32	76.5	E
<b>Overall Intersection</b>	-		<b>0.61</b>	<b>30.4</b>	<b>C</b>	
<b>10</b>	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.08	73.1	E
		EB	R	0.01	72.6	E
	Paterson Plank Road	NB	L	0.36	13.1	B
		NB	T	0.35	3.6	A
	Paterson Plank Road	SB	TR	0.51	35.6	D
<b>Overall Intersection</b>	-		<b>0.44</b>	<b>20.9</b>	<b>C</b>	
<b>11</b>	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.18	19.8	B
	Franklin Street	WB	LTR	0.32	21.5	C
	Palisade Avenue	NB	LTR	0.59	15.0	B
	Palisade Avenue	SB	LTR	0.43	11.1	B
<b>Overall Intersection</b>	-		<b>0.50</b>	<b>15.1</b>	<b>B</b>	
<b>12</b>	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.32	30.0	C
	Ravine Avenue	WB	LTR	0.36	30.3	C
	Palisade Avenue	NB	LT	0.63	15.3	B
	Palisade Avenue	SB	TR	0.59	10.7	B
<b>Overall Intersection</b>	-		<b>0.56</b>	<b>15.9</b>	<b>B</b>	
<b>22</b>	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.06	28.9	C
		WB	TR	1.12	80.1	F
	Jersey Avenue	NB	L	0.27	15.3	B
		NB	T	0.91	31.7	C
	Jersey Avenue	SB	T	0.39	26.7	C
	SB	R	1.25	142.2	F	
<b>Overall Intersection</b>	-		<b>1.25</b>	<b>79.8</b>	<b>E</b>	

**TABLE 2D**

**Jersey City/Hoboken Subregional Transportation Study  
2025 PM NO ACTION TRAFFIC LEVELS OF SERVICE  
UNSIGNALIZED INTERSECTION**

System Peak Hour (5:00 to 6:00 PM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.18		A
	Observer Highway	WB	T	0.27		A
	Jefferson Street	SB	LR	0.50	19.0	B
	<b>Overall Intersection</b>		-		<b>4.8</b>	<b>A</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	T	0.13		A
		EB	R	0.21		A
	Paterson Avenue	WB	LT	0.01	0.2	A
	Harrison Street	SB	LTR	0.82	78.2	F
	<b>Overall Intersection</b>		-		<b>8.5</b>	<b>A</b>
<b>1218</b>	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	0.72	27.7	D
	Observer Highway	WB	LT	0.56	26.9	D
	Harrison Street	SB	LTR	0.01	0.3	A
	<b>Overall Intersection</b>		-		<b>15.4</b>	<b>C</b>
<b>1219</b>	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.37		A
	Newark Street	WB	T	0.69		A
	Harrison Street	SB	L	0.04	17.1	C
		SB	R	1.61	315.8	F
	<b>Overall Intersection</b>		-		<b>56.8</b>	<b>F</b>
<b>1220</b>	<b>Observer Highway &amp; Jackson Street</b>					
	Observer Highway	EB	LT	2.27	652.0	F
	Observer Highway	WB	TR	0.79	77.1	F
	Jackson Street	NB	LT	0.05	0.6	A
		NB	TR	0.40		A
	<b>Overall Intersection</b>		-		<b>118.1</b>	<b>F</b>
<b>1227</b>	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	1.71	360.9	F
		EB	T	0.43		A
	Newark Street	WB	TR	1.11		A
	<b>Overall Intersection</b>		-		<b>61.9</b>	<b>F</b>

**TABLE 3A**

Jersey City/Hoboken Subregional Transportation Study						
2025 AM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (7:45 to 8:45 AM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
1	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.84	46.5	D
		EB	TR	0.35	24.5	C
	18th Street	WB	LTR	0.29	24.0	C
	Jersey Avenue	NB	L	0.13	9.0	A
		NB	T	0.36	15.9	B
		NB	R	0.78	59.4	E
	Jersey Avenue	SB	L	0.22	8.5	A
		SB	T	0.74	19.6	B
		SB	R	0.24	13.0	B
	<b>Overall Intersection</b>	-		<b>0.78</b>	<b>30.2</b>	<b>C</b>
2	<b>18th Street and Grove Street</b>					
	18th Street	EB	TR	0.96	49.7	D
	18th Street	WB	L	0.10	17.7	B
		WB	T	0.14	13.8	B
	Grove Street	SB	L	0.96	48.9	D
		SB	TR	0.63	22.4	C
	<b>Overall Intersection</b>	-		<b>0.92</b>	<b>39.0</b>	<b>D</b>
3	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	L	0.74	18.8	B
		EB	TR	0.75	7.1	A
	18th Street	WB	L	0.55	41.6	D
		WB	TR	0.52	33.2	C
		WB	R	0.53	33.8	C
	Marin Boulevard	NB	LT	0.88	52.9	D
	<b>Overall Intersection</b>	-		<b>0.77</b>	<b>24.4</b>	<b>C</b>
4	<b>Newark Street and Monroe Street</b>					
	Newark Street	WB	L	0.92	36.3	D
		WB	LT	0.89	29.8	C
	Monroe Street	SB	T	0.95	35.2	D
		SB	R	0.50	16.3	B
	<b>Overall Intersection</b>	-		<b>0.93</b>	<b>29.8</b>	<b>C</b>
5	<b>Newark Street and Marin Boulevard</b>					
	Newark Avenue	WB	T	0.94	27.1	C
	Marin Boulevard	NB	L	0.28	17.9	B
		NB	R	0.93	22.9	C
	<b>Overall Intersection</b>	-		<b>0.94</b>	<b>24.7</b>	<b>C</b>
6	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.88	27.5	C
	Observer Highway	WB	LT	0.71	20.4	C
	Willow Avenue	SB	L	0.77	40.4	D
		SB	TR	0.98	72.2	E
	<b>Overall Intersection</b>	-		<b>0.92</b>	<b>31.9</b>	<b>C</b>

**TABLE 3A**

Jersey City/Hoboken Subregional Transportation Study						
2025 AM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (7:45 to 8:45 AM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>7</b>	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	T	0.36	10.3	B
		EB	R	0.50	5.6	A
	Observer Highway	WB	L	0.46	7.7	A
		WB	TR	0.36	6.7	A
	Monroe Street	SB	LTR	0.88	39.9	D
	<b>Overall Intersection</b>	-		<b>0.60</b>	<b>17.3</b>	<b>B</b>
<b>8</b>	<b>Paterson Avenue and Jackson Street</b>					
	Paterson Avenue	WB	TR	0.44	17.1	B
	Jackson Street	NB	L	0.15	0.2	A
		NB	T	0.34	2.1	A
	<b>Overall Intersection</b>	-		<b>0.36</b>	<b>4.8</b>	<b>A</b>
<b>9</b>	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.50	10.9	B
		WB	TR	0.32	21.0	C
	First Street/Marshall Street	SB	LTR	0.28	61.7	E
	<b>Overall Intersection</b>	-		<b>0.50</b>	<b>19.2</b>	<b>B</b>
<b>10</b>	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.04	50.1	D
		EB	R	0.02	49.9	D
	Paterson Plank Road	NB	L	0.24	11.5	B
		NB	T	0.23	2.9	A
	Paterson Plank Road	SB	TR	0.50	24.0	C
	<b>Overall Intersection</b>	-		<b>0.38</b>	<b>16.9</b>	<b>B</b>
<b>11</b>	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.21	20.1	C
	Franklin Street	WB	LTR	0.19	19.8	B
	Palisade Avenue	NB	LTR	0.45	12.7	B
	Palisade Avenue	SB	LTR	0.52	12.4	B
	<b>Overall Intersection</b>	-		<b>0.41</b>	<b>14.1</b>	<b>B</b>
<b>12</b>	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.24	30.7	C
	Ravine Avenue	WB	LTR	0.43	32.4	C
	Palisade Avenue	NB	LT	0.54	11.6	B
	Palisade Avenue	SB	TR	0.70	13.3	B
	<b>Overall Intersection</b>	-		<b>0.63</b>	<b>15.2</b>	<b>B</b>
<b>22</b>	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.09	13.6	B
		WB	TR	1.02	43.4	D
	Jersey Avenue	NB	L	0.19	15.1	B
		NB	T	0.81	24.5	C
	Jersey Avenue	SB	T	0.31	26.8	C
		SB	R	1.23	135.4	F
	<b>Overall Intersection</b>	-		<b>1.18</b>	<b>56.3</b>	<b>E</b>

**TABLE 3A**

Jersey City/Hoboken Subregional Transportation Study						
2025 AM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (7:45 to 8:45 AM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1220</b>	<b>Observer Highway &amp; Jackson Street</b>					
	Observer Highway	EB	LT	0.62	11.4	B
	Observer Highway	WB	TR	0.17	3.7	A
	Jackson Street	NB	LTR	0.82	19.8	B
	<b>Overall Intersection</b>	-	-	<b>0.68</b>	<b>14.6</b>	<b>B</b>
<b>1227</b>	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	0.83	27.6	C
	Newark Street	WB	T	0.66	9.7	A
		WB	R	0.14	27.4	C
	<b>Overall Intersection</b>	-	-	<b>0.74</b>	<b>17.2</b>	<b>B</b>
<b>1218</b>	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	0.80	27.8	D
	Observer Highway	WB	LT	0.91	47.7	E
		SB	L	0.40	12.2	B
	Harrison Street	SB	TR	0.52	14.0	B
<b>Overall Intersection</b>	-	-	<b>0.68</b>	<b>23.2</b>	<b>C</b>	
<b>1219</b>	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.31	0.1	A
	Newark Street	WB	T	0.87	8.7	A
	Harrison Street	SB	R	0.84	20.9	C
	<b>Overall Intersection</b>	-	-	<b>0.85</b>	<b>10.2</b>	<b>B</b>

**TABLE 3B**

**Jersey City/Hoboken Subregional Transportation Study  
2025 AM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE**

**UNSIGNALIZED INTERSECTION**

System Peak Hour (7:45 to 8:45 AM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.16		A
	Observer Highway	WB	T	0.34		A
	Jefferson Street	SB	LR	0.83	42.6	D
	<b>Overall Intersection</b>		-		<b>12.6</b>	<b>B</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	R	0.35		A
	Paterson Avenue	WB	LT	0.01	0.3	A
	Harrison Street	SB	LTR	0.83	66.3	F
	<b>Overall Intersection</b>		-		<b>10.6</b>	<b>B</b>

**TABLE 3C**

Jersey City/Hoboken Subregional Transportation Study						
2025 PM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
1	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.86	56.6	E
		EB	TR	0.34	25.1	C
	18th Street	WB	LTR	0.58	27.5	C
	Jersey Avenue	NB	L	0.26	6.9	A
		NB	T	0.40	13.6	B
		NB	R	0.78	59.7	E
	Jersey Avenue	SB	L	0.19	8.3	A
		SB	T	0.73	19.1	B
		SB	R	0.21	12.3	B
	<b>Overall Intersection</b>	-	-	<b>0.76</b>	<b>30.4</b>	<b>C</b>
2	<b>18th Street and Grove Street</b>					
	18th Street	EB	TR	0.85	39.6	D
	18th Street	WB	L	0.85	32.8	C
		WB	T	0.35	22.1	C
	Grove Street	SB	L	0.83	44.9	D
	SB	TR	0.55	30.5	C	
	<b>Overall Intersection</b>	-	-	<b>0.82</b>	<b>35.8</b>	<b>D</b>
3	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	L	0.97	43.5	D
		EB	TR	0.50	1.8	A
	18th Street	WB	L	0.73	44.9	D
		WB	TR	0.98	65.2	E
		WB	R	0.97	65.8	E
Marin Boulevard	NB	LT	0.96	75.1	E	
	<b>Overall Intersection</b>	-	-	<b>0.97</b>	<b>48.5</b>	<b>D</b>
4	<b>Newark Street and Monroe Street</b>					
	Newark Street	WB	L	0.93	34.3	C
		WB	LT	0.90	21.3	C
	Monroe Street	SB	T	0.75	19.0	B
		SB	R	0.56	12.9	B
	<b>Overall Intersection</b>	-	-	<b>0.86</b>	<b>22.6</b>	<b>C</b>
5	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	WB	T	0.99	37.6	D
	Marin Boulevard	NB	L	0.90	38.8	D
		NB	R	0.96	28.1	C
	<b>Overall Intersection</b>	-	-	<b>0.99</b>	<b>33.7</b>	<b>C</b>
6	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.81	18.9	B
	Observer Highway	WB	LT	0.68	15.3	B
	Willow Avenue	SB	L	0.56	37.2	D
		SB	TR	0.78	48.1	D
	<b>Overall Intersection</b>	-	-	<b>0.80</b>	<b>20.7</b>	<b>C</b>
7	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	T	0.43	9.3	A
		EB	R	0.32	4.8	A
	Observer Highway	WB	L	0.40	7.0	A
		WB	TR	0.32	6.0	A
	Monroe Street	SB	LTR	0.79	32.8	C
	<b>Overall Intersection</b>	-	-	<b>0.52</b>	<b>14.6</b>	<b>B</b>



**TABLE 3C**

Jersey City/Hoboken Subregional Transportation Study						
2025 PM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>8</b>	<b>Paterson Avenue and Jackson Street</b>					
	Paterson Avenue	WB	TR	0.46	19.4	B
	Jackson Street	NB	L	0.25	0.2	A
		NB	T	0.48	2.0	A
	<b>Overall Intersection</b>		-	<b>0.48</b>	<b>4.1</b>	<b>A</b>
<b>9</b>	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.49	11.0	B
		WB	TR	0.43	21.9	C
	First Street/Marshall Street	SB	LTR	0.32	61.6	E
	<b>Overall Intersection</b>		-	<b>0.48</b>	<b>20.6</b>	<b>C</b>
<b>10</b>	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.05	51.7	D
		EB	R	0.01	51.4	D
	Paterson Plank Road	NB	L	0.30	10.8	B
		NB	T	0.31	2.3	A
	Paterson Plank Road	SB	TR	0.45	22.2	C
<b>Overall Intersection</b>		-	<b>0.37</b>	<b>13.3</b>	<b>B</b>	
<b>11</b>	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.18	19.8	B
	Franklin Street	WB	LTR	0.32	21.5	C
	Palisade Avenue	NB	LTR	0.59	15.0	B
	Palisade Avenue	SB	LTR	0.43	11.1	B
<b>Overall Intersection</b>		-	<b>0.50</b>	<b>15.1</b>	<b>B</b>	
<b>12</b>	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.36	30.8	C
	Ravine Avenue	WB	LTR	0.38	30.9	C
	Palisade Avenue	NB	LT	0.61	14.0	B
	Palisade Avenue	SB	TR	0.58	9.8	A
<b>Overall Intersection</b>		-	<b>0.55</b>	<b>15.1</b>	<b>B</b>	
<b>22</b>	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.07	13.6	B
		WB	TR	1.11	76.0	E
	Jersey Avenue	NB	L	0.27	15.3	B
		NB	T	0.91	31.7	C
	Jersey Avenue	SB	T	0.39	26.7	C
		SB	R	1.25	142.2	F
<b>Overall Intersection</b>		-	<b>1.24</b>	<b>77.2</b>	<b>E</b>	

**TABLE 3C**

Jersey City/Hoboken Subregional Transportation Study						
2025 PM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
1220	<b>Observer Highway &amp; Jackson Street</b>					
	Observer Highway	EB	LT	0.66	16.1	B
	Observer Highway	WB	TR	0.18	7.4	A
	Jackson Street	NB	LTR	0.89	19.8	B
	<b>Overall Intersection</b>		-	<b>0.77</b>	<b>17.9</b>	<b>B</b>
1227	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	0.84	29.0	C
	Newark Street	WB	T	0.68	13.4	B
		WB	R	0.83	11.7	B
	<b>Overall Intersection</b>		-	<b>0.83</b>	<b>16.4</b>	<b>B</b>
1218	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	0.71	27.4	D
	Observer Highway	WB	LT	0.52	17.1	C
		SB	L	0.27	7.9	A
	Harrison Street	SB	TR	0.46	10.0	A
	<b>Overall Intersection</b>		-	<b>0.54</b>	<b>15.7</b>	<b>C</b>
1219	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.29	0.1	A
	Newark Street	WB	T	0.92	15.0	B
	Harrison Street	SB	R	0.66	12.3	B
	<b>Overall Intersection</b>		-	<b>0.77</b>	<b>10.7</b>	<b>B</b>

**TABLE 3D**

**Jersey City/Hoboken Subregional Transportation Study  
2025 PM BUILD WITH IMPROVEMENTS TRAFFIC LEVELS OF SERVICE**

**UNSIGNALIZED INTERSECTION**

System Peak Hour (5:00 to 6:00 PM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.18		A
	Observer Highway	WB	T	0.27		A
	Jefferson Street	SB	LR	0.51	19.1	B
	<b>Overall Intersection</b>		-		<b>4.9</b>	<b>A</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	R	0.34		A
	Paterson Avenue	WB	LT	0.01	0.2	A
	Harrison Street	SB	LTR	0.89	97.2	F
	<b>Overall Intersection</b>		-		<b>10.4</b>	<b>B</b>

**TABLE 4A**

Jersey City/Hoboken Subregional Transportation Study						
2025 AM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (7:45 to 8:45 AM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1</b>	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.84	46.5	D
		EB	TR	0.35	24.5	C
	18th Street	WB	LTR	0.29	24.0	C
	Jersey Avenue	NB	L	0.06	6.3	A
		NB	T	0.19	12.1	B
		NB	R	0.78	56.9	E
	Jersey Avenue	SB	L	0.19	8.5	A
		SB	T	0.33	13.4	B
		SB	R	0.81	26.6	C
	<b>Overall Intersection</b>	-	-	<b>0.73</b>	<b>31.9</b>	<b>C</b>
<b>2</b>	<b>18th Street and Grove Street</b>					
	18th Street	EB	TR	0.96	49.7	D
		WB	L	0.10	18.0	B
	18th Street	WB	T	0.14	14.2	B
	Grove Street	SB	L	0.96	48.9	D
		SB	TR	0.46	19.4	B
	<b>Overall Intersection</b>	-	-	<b>0.92</b>	<b>39.8</b>	<b>D</b>
<b>3</b>	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	L	0.67	16.5	B
	18th Street	EB	TR	0.75	8.0	A
		WB	L	0.64	51.9	D
	Marin Boulevard	WB	T	0.60	39.2	D
		WB	R	0.62	40.2	D
	Marin Boulevard	NB	LT	0.86	49.3	D
	<b>Overall Intersection</b>	-	-	<b>0.77</b>	<b>24.6</b>	<b>C</b>
<b>4</b>	<b>Newark Street and Monroe Street</b>					
	Newark Street	WB	L	0.90	33.8	C
		WB	LT	0.88	27.7	C
	Monroe Street	SB	T	0.95	36.1	D
		SB	R	0.50	14.9	B
	<b>Overall Intersection</b>	-	-	<b>0.93</b>	<b>28.5</b>	<b>C</b>
<b>5</b>	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	WB	T	0.94	27.1	C
	Marin Boulevard	NB	L	0.28	17.9	B
		NB	R	0.93	22.9	C
	<b>Overall Intersection</b>	-	-	<b>0.94</b>	<b>24.7</b>	<b>C</b>
<b>6</b>	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.88	27.5	C
	Willow Avenue	WB	LT	0.71	20.4	C
		SB	L	0.77	40.4	D
		SB	TR	0.98	72.2	E
	<b>Overall Intersection</b>	-	-	<b>0.92</b>	<b>31.9</b>	<b>C</b>

**TABLE 4A**

Jersey City/Hoboken Subregional Transportation Study						
2025 AM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (7:45 to 8:45 AM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
7	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	T	0.39	14.7	B
		EB	R	0.55	9.4	A
	Observer Highway	WB	L	0.51	10.0	A
		WB	TR	0.39	8.5	A
	Monroe Street	SB	LTR	0.72	26.4	C
	<b>Overall Intersection</b>	-	-	<b>0.60</b>	<b>15.3</b>	<b>B</b>
8	<b>Paterson Avenue and Jackson Street</b>					
	Jackson Street	WB	TR	0.44	21.2	C
		NB	L	0.08	0.1	A
		NB	T	0.34	2.7	A
	<b>Overall Intersection</b>	-	-	<b>0.36</b>	<b>7.0</b>	<b>A</b>
9	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.31	2.2	A
		WB	TR	0.24	20.7	C
	First Street/Marshall Street	SB	LTR	0.30	62.4	E
	<b>Overall Intersection</b>	-	-	<b>0.32</b>	<b>16.9</b>	<b>B</b>
10	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.73	65.1	E
		EB	R	0.02	48.1	D
	Paterson Plank Road	NB	L	0.25	14.1	B
		NB	T	0.17	3.9	A
	Paterson Plank Road	SB	TR	0.52	25.3	C
	<b>Overall Intersection</b>	-	-	<b>0.53</b>	<b>24.1</b>	<b>C</b>
11	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.21	20.1	C
	Franklin Street	WB	LTR	0.19	19.8	B
	Palisade Avenue	NB	LTR	0.45	14.4	B
	Palisade Avenue	SB	LTR	0.52	12.4	B
<b>Overall Intersection</b>	-	-	<b>0.41</b>	<b>14.7</b>	<b>B</b>	
12	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.24	30.7	C
	Ravine Avenue	WB	LTR	0.43	32.4	C
	Palisade Avenue	NB	LT	0.54	11.6	B
	Palisade Avenue	SB	TR	0.70	11.4	B
<b>Overall Intersection</b>	-	-	<b>0.63</b>	<b>14.2</b>	<b>B</b>	
22	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.08	10.9	B
		WB	TR	0.84	19.6	B
	Jersey Avenue	NB	L	0.22	18.3	B
		NB	T	0.83	28.8	C
	Jersey Avenue	SB	T	0.40	15.6	B
		SB	R	0.73	19.8	B
<b>Overall Intersection</b>	-	-	<b>0.84</b>	<b>20.9</b>	<b>C</b>	

**TABLE 4A**

Jersey City/Hoboken Subregional Transportation Study						
2025 AM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (7:45 to 8:45 AM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
1220	<b>Observer Highway &amp; Jackson Street</b>					
	Observer Highway	EB	LT	0.59	13.4	B
	Observer Highway	WB	TR	0.16	3.8	A
	Jackson Street	NB	LTR	0.72	18.3	B
	<b>Overall Intersection</b>		-	<b>0.63</b>	<b>14.4</b>	<b>B</b>
1227	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	0.75	26.6	C
		EB	T	0.72	8.9	A
	Newark Street	WB	TR	0.14	19.2	B
	<b>Overall Intersection</b>		-	<b>0.73</b>	<b>13.8</b>	<b>B</b>
1218	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	0.80	27.8	D
	Observer Highway	WB	LT	0.91	56.8	F
	Harrison Street	SB	L	0.40	12.4	B
		SB	TR	0.15	9.9	A
	<b>Overall Intersection</b>		-	<b>0.61</b>	<b>26.7</b>	<b>D</b>
1219	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.23	0.1	A
	Newark Street	WB	T	0.75	3.7	A
	Harrison Street	SB	LR	0.66	18.0	C
	<b>Overall Intersection</b>		-	<b>0.72</b>	<b>5.6</b>	<b>A</b>

**TABLE 4B**

**Jersey City/Hoboken Subregional Transportation Study**  
**2025 AM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE**

**UNSIGNALIZED INTERSECTION**

System Peak Hour (7:45 to 8:45 AM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.16		A
	Observer Highway	WB	T	0.34		A
	Jefferson Street	SB	LR	0.83	42.7	D
	<b>Overall Intersection</b>		-		<b>12.6</b>	<b>B</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	R	0.17		A
	Paterson Avenue	WB	LT	0.01	0.3	A
	Harrison Street	SB	TR	0.46	19.9	C
	<b>Overall Intersection</b>		-		<b>4.9</b>	<b>A</b>

**TABLE 4C**

Jersey City/Hoboken Subregional Transportation Study						
2025 PM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
1	<b>18th Street and Jersey Avenue</b>					
	18th Street	EB	L	0.86	56.6	E
		EB	TR	0.34	25.1	C
	18th Street	WB	LTR	0.58	27.5	C
	Jersey Avenue	NB	L	0.13	5.2	A
		NB	T	0.24	11.4	B
		NB	R	0.78	60.1	E
	Jersey Avenue	SB	L	0.16	8.3	A
		SB	T	0.36	13.4	B
		SB	R	0.79	25.3	C
	<b>Overall Intersection</b>	-	-	<b>0.69</b>	<b>32.5</b>	<b>C</b>
2	<b>18th Street and Grove Street</b>					
	18th Street	EB	TR	0.85	39.6	D
		WB	L	0.85	32.8	C
	18th Street	WB	T	0.35	22.1	C
	Grove Street	SB	L	0.83	44.9	D
		SB	TR	0.39	27.2	C
	<b>Overall Intersection</b>	-	-	<b>0.82</b>	<b>35.7</b>	<b>D</b>
3	<b>18th Street and Marin Boulevard</b>					
	18th Street	EB	L	0.97	43.5	D
	18th Street	EB	TR	0.50	1.8	A
		WB	L	0.73	44.9	D
	Marin Boulevard	WB	T	0.98	65.2	E
		WB	R	0.97	65.8	E
	Marin Boulevard	NB	LT	0.96	75.1	E
	<b>Overall Intersection</b>	-	-	<b>0.97</b>	<b>48.5</b>	<b>D</b>
4	<b>Newark Street and Monroe Street</b>					
	Newark Street	WB	L	0.68	22.6	C
		WB	LT	0.92	21.7	C
	Monroe Street	SB	T	0.85	38.2	D
		SB	R	0.63	14.3	B
	<b>Overall Intersection</b>	-	-	<b>0.90</b>	<b>23.0</b>	<b>C</b>
5	<b>Newark Street and Marin Boulevard</b>					
	Newark Street	WB	T	0.99	37.6	D
	Marin Boulevard	NB	L	0.90	38.8	D
		NB	R	0.96	28.1	C
	<b>Overall Intersection</b>	-	-	<b>0.99</b>	<b>33.7</b>	<b>C</b>
6	<b>Observer Highway and Willow Avenue</b>					
	Observer Highway	EB	TR	0.81	18.9	B
	Willow Avenue	WB	LT	0.68	15.3	B
		SB	L	0.56	37.2	D
		SB	TR	0.78	48.1	D
	<b>Overall Intersection</b>	-	-	<b>0.80</b>	<b>20.7</b>	<b>C</b>



**TABLE 4C**

Jersey City/Hoboken Subregional Transportation Study						
2025 PM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
7	<b>Observer Highway and Monroe Street/Paterson Avenue</b>					
	Observer Highway	EB	T	0.46	13.4	B
		EB	R	0.33	20.6	C
	Observer Highway	WB	L	0.42	8.1	A
		WB	TR	0.33	6.9	A
	Monroe Street	SB	LTR	0.70	27.5	C
	<b>Overall Intersection</b>		-	<b>0.52</b>	<b>16.6</b>	<b>B</b>
8	<b>Paterson Avenue and Jackson Street</b>					
		WB	TR	0.46	22.0	C
	Jackson Street	NB	L	0.18	0.3	A
		NB	T	0.48	2.5	A
<b>Overall Intersection</b>		-	<b>0.48</b>	<b>5.3</b>	<b>A</b>	
9	<b>Paterson Avenue and First Street/Marshall Street</b>					
	Paterson Avenue	EB	LT	0.30	2.4	A
		WB	TR	0.36	22.3	C
	First Street/Marshall Street	SB	LTR	0.33	61.9	E
<b>Overall Intersection</b>		-	<b>0.34</b>	<b>19.6</b>	<b>B</b>	
10	<b>Franklin Street and Paterson Plank Road</b>					
	Franklin Street	EB	L	0.73	65.6	E
		EB	R	0.01	48.8	D
	Paterson Plank Road	NB	L	0.32	14.4	B
		NB	T	0.26	2.8	A
	Paterson Plank Road	SB	TR	0.47	24.1	C
<b>Overall Intersection</b>		-	<b>0.50</b>	<b>20.1</b>	<b>C</b>	
11	<b>Franklin Street and Palisade Avenue</b>					
	Franklin Street	EB	LTR	0.18	19.8	B
	Franklin Street	WB	LTR	0.32	21.5	C
	Palisade Avenue	NB	LTR	0.59	15.0	B
	Palisade Avenue	SB	LTR	0.43	11.1	B
<b>Overall Intersection</b>		-	<b>0.50</b>	<b>15.1</b>	<b>B</b>	
12	<b>Ravine Avenue and Palisade Avenue</b>					
	Ravine Avenue	EB	LTR	0.36	30.8	C
	Ravine Avenue	WB	LTR	0.38	30.9	C
	Palisade Avenue	NB	LT	0.61	14.0	B
	Palisade Avenue	SB	TR	0.58	9.8	A
<b>Overall Intersection</b>		-	<b>0.55</b>	<b>15.1</b>	<b>B</b>	
22	<b>14th Street and Jersey Avenue</b>					
	14th Street	WB	L	0.06	12.3	B
		WB	TR	1.00	34.6	C
	Jersey Avenue	NB	L	0.29	16.7	B
		NB	T	0.88	29.7	C
	Jersey Avenue	SB	T	0.44	25.3	C
		SB	R	0.71	28.0	C
<b>Overall Intersection</b>		-	<b>0.94</b>	<b>32.3</b>	<b>C</b>	

**TABLE 4C**

Jersey City/Hoboken Subregional Transportation Study						
2025 PM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE						
SIGNALIZED INTERSECTION						
System Peak Hour (5:00 to 6:00 PM)						
Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
1220	<b>Observer Highway &amp; Jackson Street</b>					
	Observer Highway	EB	LT	0.64	15.6	B
	Observer Highway	WB	TR	0.17	11.0	B
	Jackson Street	NB	LTR	0.83	17.9	B
	<b>Overall Intersection</b>		-	<b>0.72</b>	<b>16.7</b>	<b>B</b>
1227	<b>Newark Street and Jackson Street</b>					
	Newark Street	EB	L	0.75	27.6	C
		EB	T	0.71	14.4	B
	Newark Street	WB	TR	0.70	21.8	C
	<b>Overall Intersection</b>		-	<b>0.73</b>	<b>18.7</b>	<b>B</b>
1218	<b>Observer Highway and Harrison Street</b>					
	Observer Highway	EB	TR	0.71	27.4	D
	Observer Highway	WB	LT	0.52	14.7	B
	Harrison Street	SB	L	0.27	8.0	A
		SB	TR	0.15	7.1	A
<b>Overall Intersection</b>		-	<b>0.41</b>	<b>16.5</b>	<b>C</b>	
1219	<b>Newark Street &amp; Harrison Street</b>					
	Newark Street	EB	T	0.22	0.1	A
	Newark Street	WB	T	0.75	4.0	A
	Harrison Street	SB	LR	0.41	16.5	C
	<b>Overall Intersection</b>		-	<b>0.62</b>	<b>4.7</b>	<b>A</b>

**TABLE 4D**

**Jersey City/Hoboken Subregional Transportation Study**  
**2025 PM BUILD WITH IMPROVEMENTS AND CONNECTOR ROAD TRAFFIC LEVELS OF SERVICE**  
**UNSIGNALIZED INTERSECTION**

System Peak Hour (5:00 to 6:00 PM)

Node #	INTERSECTION & APPROACH	App.	Mvt.	V/C	Delay	LOS
<b>1214</b>	<b>Observer Highway and Jefferson Street</b>					
	Observer Highway	EB	T	0.18		A
	Observer Highway	WB	T	0.27		A
	Jefferson Street	SB	LR	0.51	19.1	B
	<b>Overall Intersection</b>		-		<b>4.9</b>	<b>A</b>
<b>1217</b>	<b>Paterson Avenue and Harrison Street</b>					
	Paterson Avenue	EB	R	0.17		A
	Paterson Avenue	WB	LT	0.01	0.2	A
	Harrison Street	SB	TR	0.45	24.7	C
	<b>Overall Intersection</b>		-		<b>3.9</b>	<b>A</b>

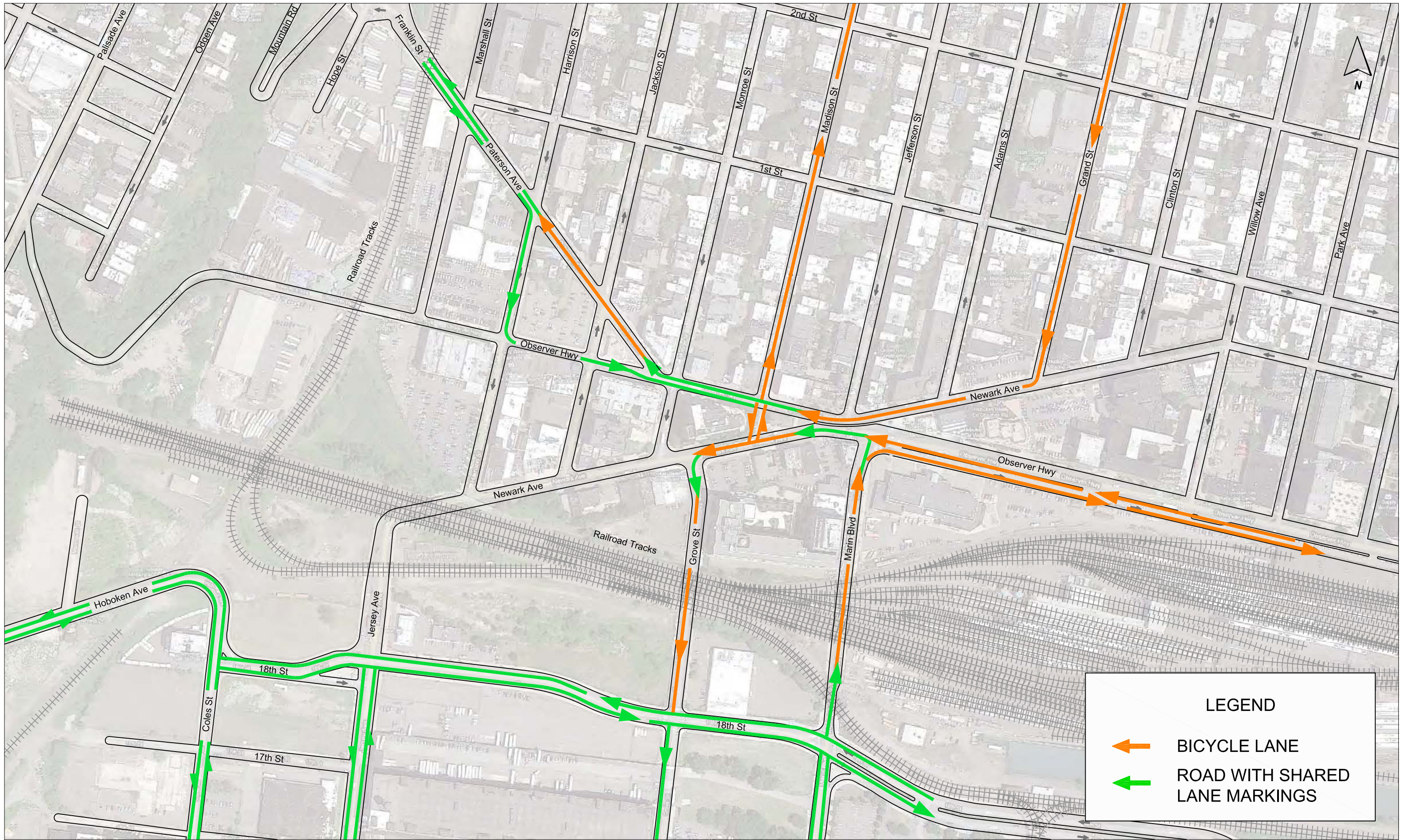
# APPENDIX D

## Proposed Improvements



**LEGEND**

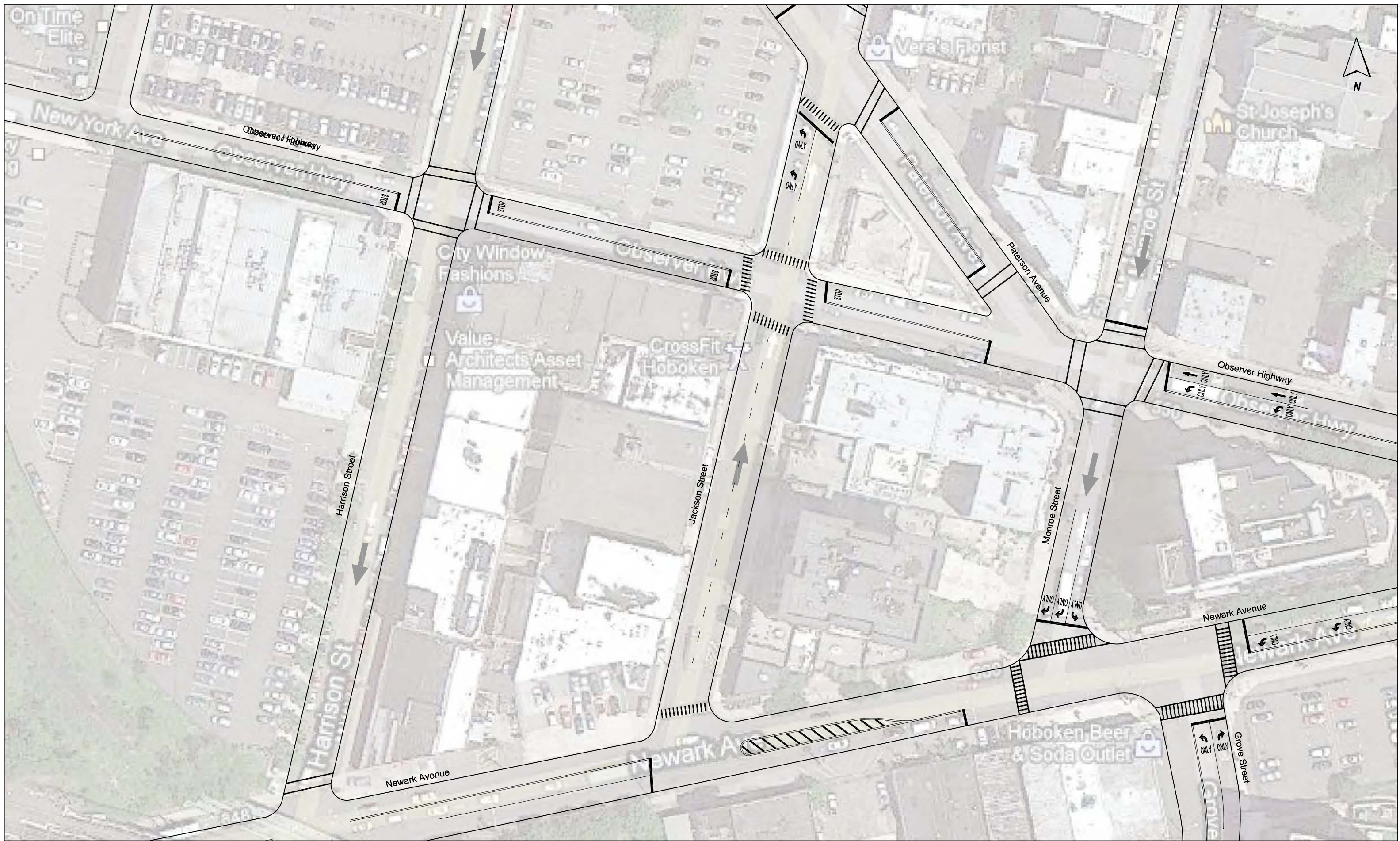
- PROPOSED ONE-WAY STREET
- PROPOSED PHASE ADJUSTMENT
- PROPOSED NEW SIGNAL

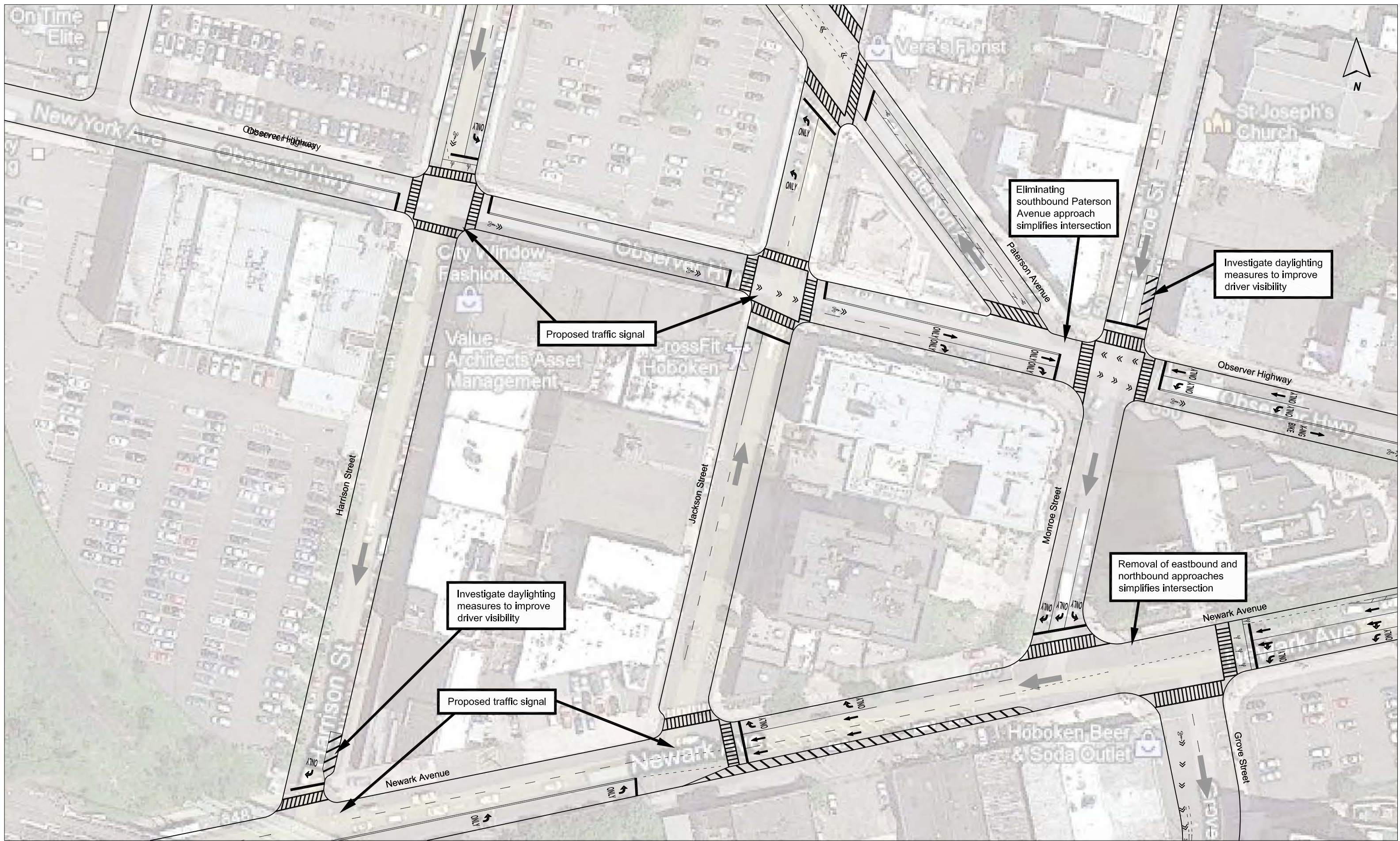


**LEGEND**

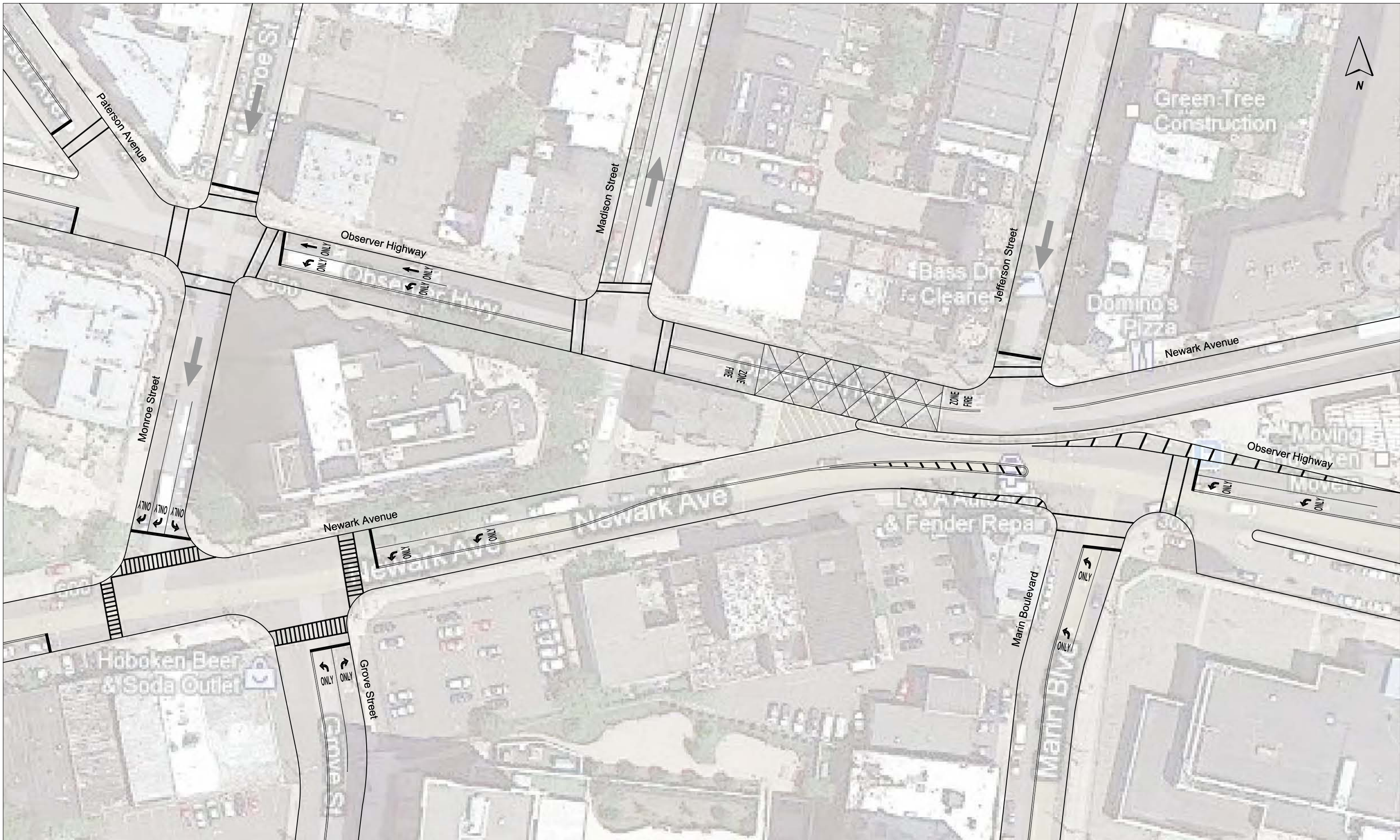
← BICYCLE LANE

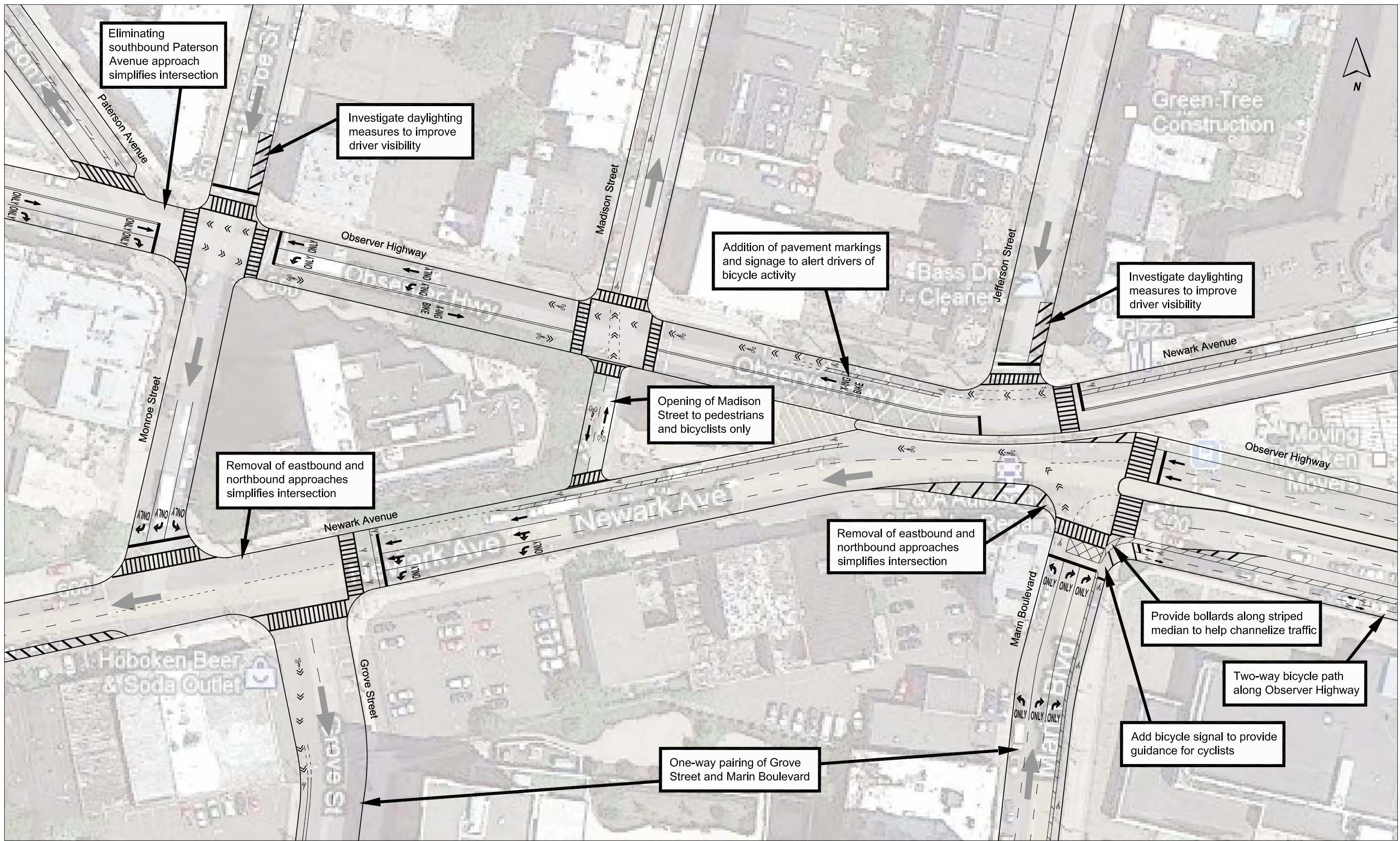
← ROAD WITH SHARED LANE MARKINGS











Eliminating southbound Paterson Avenue approach simplifies intersection

Investigate daylighting measures to improve driver visibility

Addition of pavement markings and signage to alert drivers of bicycle activity

Opening of Madison Street to pedestrians and bicyclists only

Investigate daylighting measures to improve driver visibility

Removal of eastbound and northbound approaches simplifies intersection

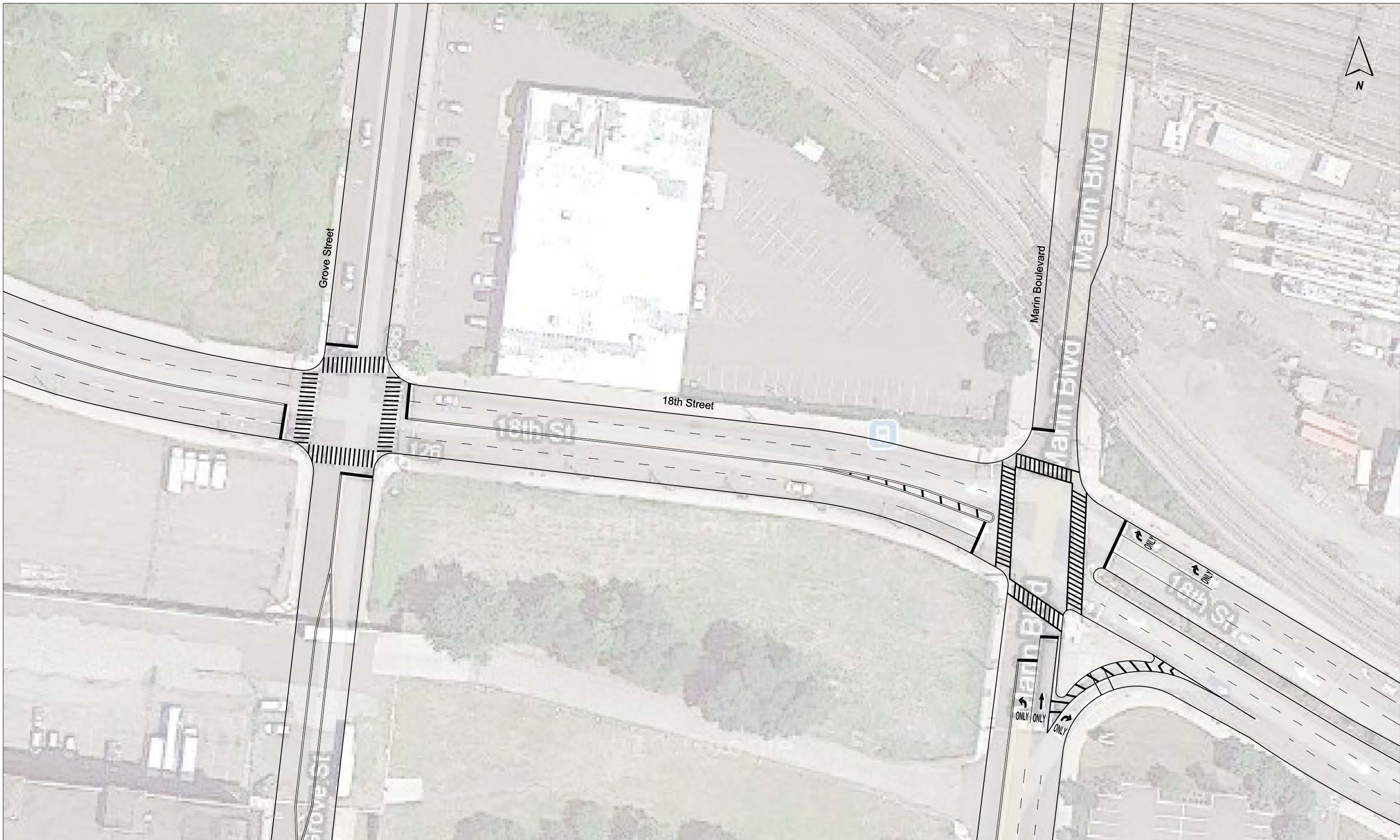
Removal of eastbound and northbound approaches simplifies intersection

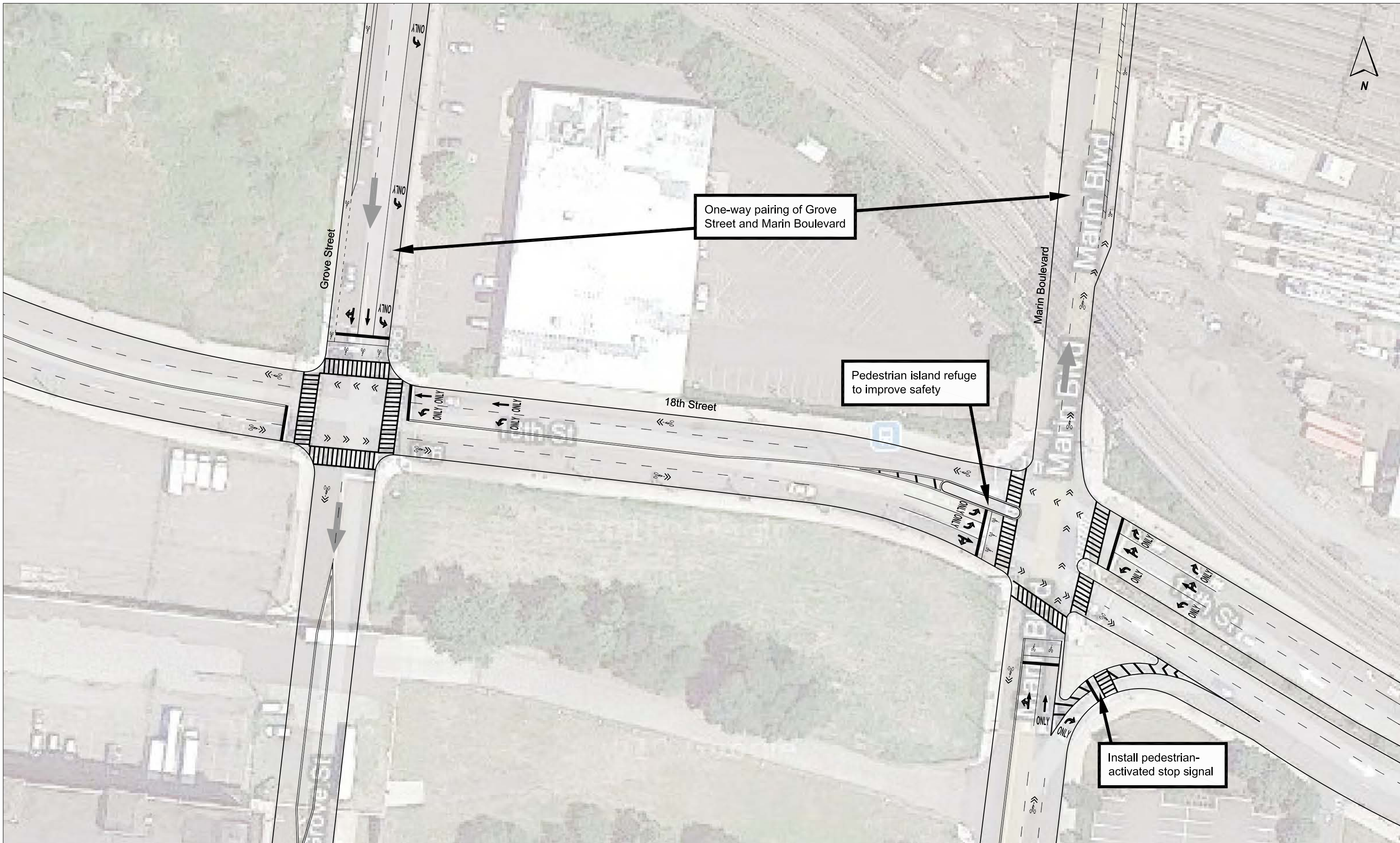
Provide bollards along striped median to help channelize traffic

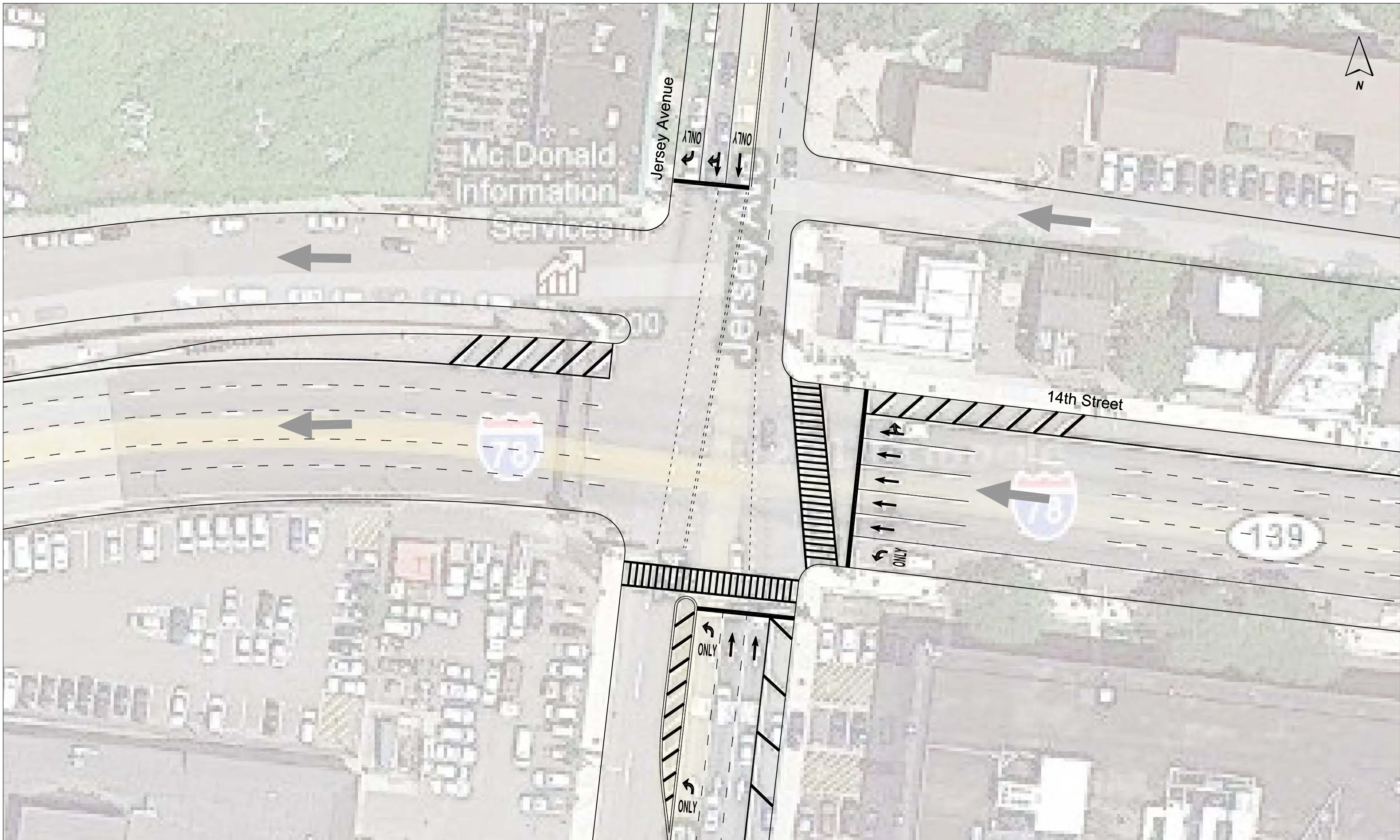
Two-way bicycle path along Observer Highway

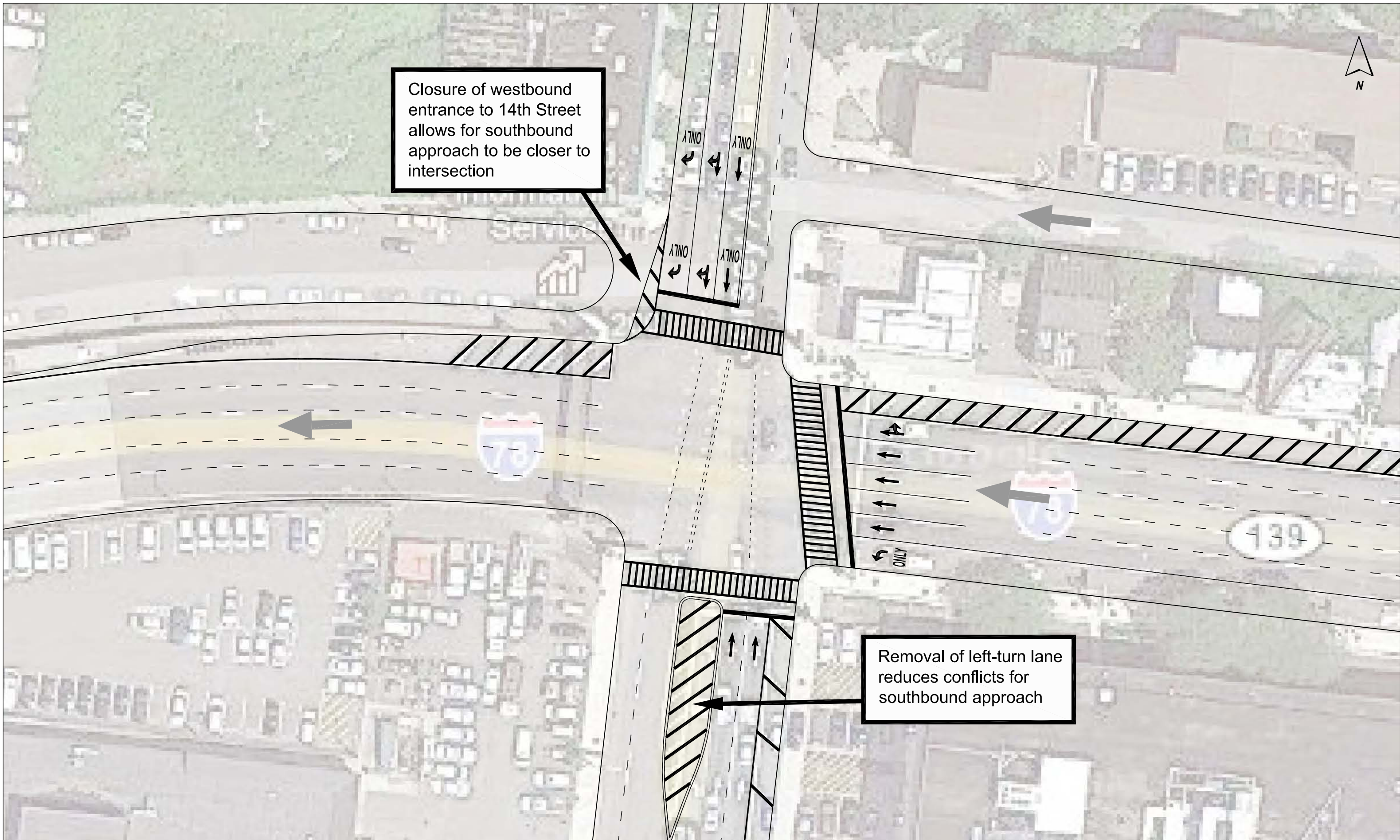
Add bicycle signal to provide guidance for cyclists

One-way pairing of Grove Street and Marin Boulevard





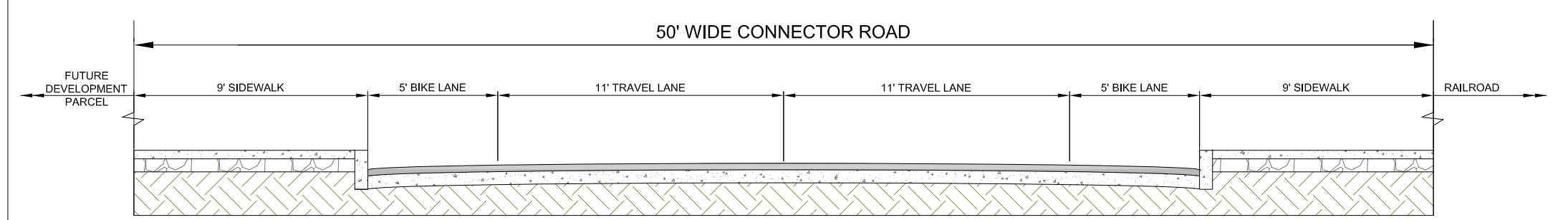
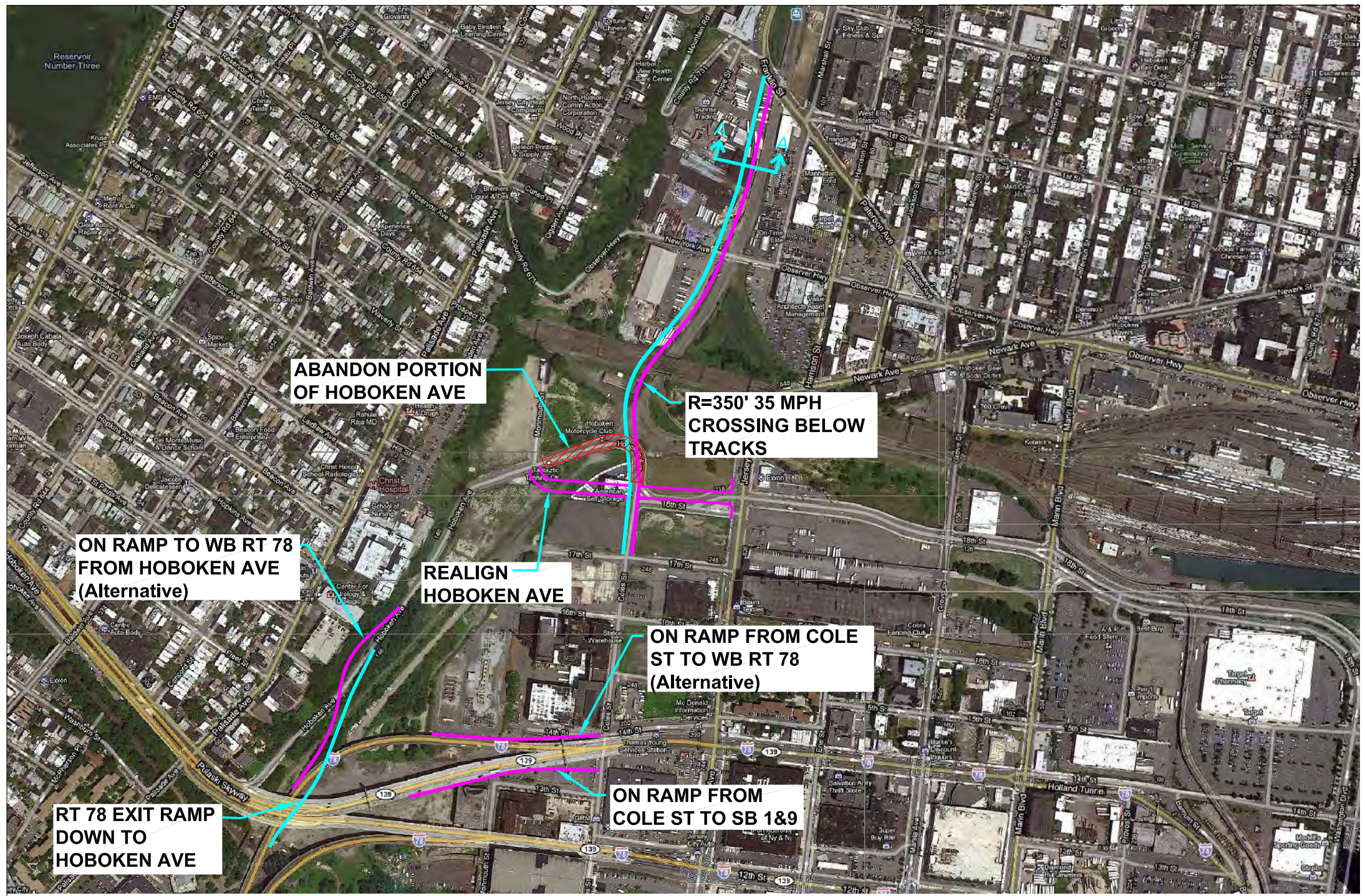




Closure of westbound entrance to 14th Street allows for southbound approach to be closer to intersection

Removal of left-turn lane reduces conflicts for southbound approach

NOTE: DRAWING NOT TO SCALE. NOT FOR DESIGN PURPOSES.



TYPICAL SECTION A-A - PROPOSED CONNECTOR ROAD

**LEGEND**

- PROPOSED ROUTE TO HOBOKEN / JERSEY CITY
- PROPOSED ROUTE TO INTERSTATE

PREPARED BY



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