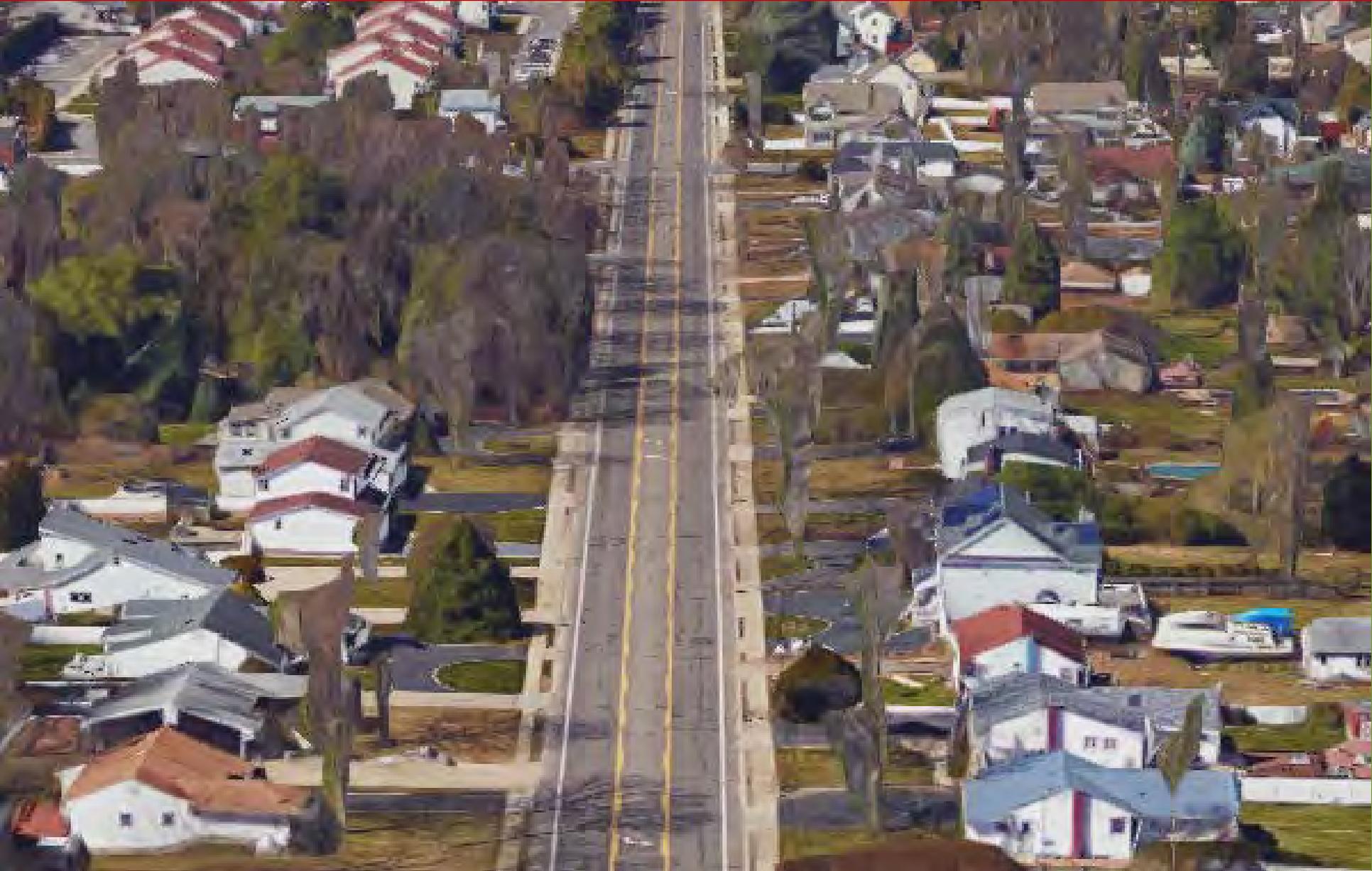
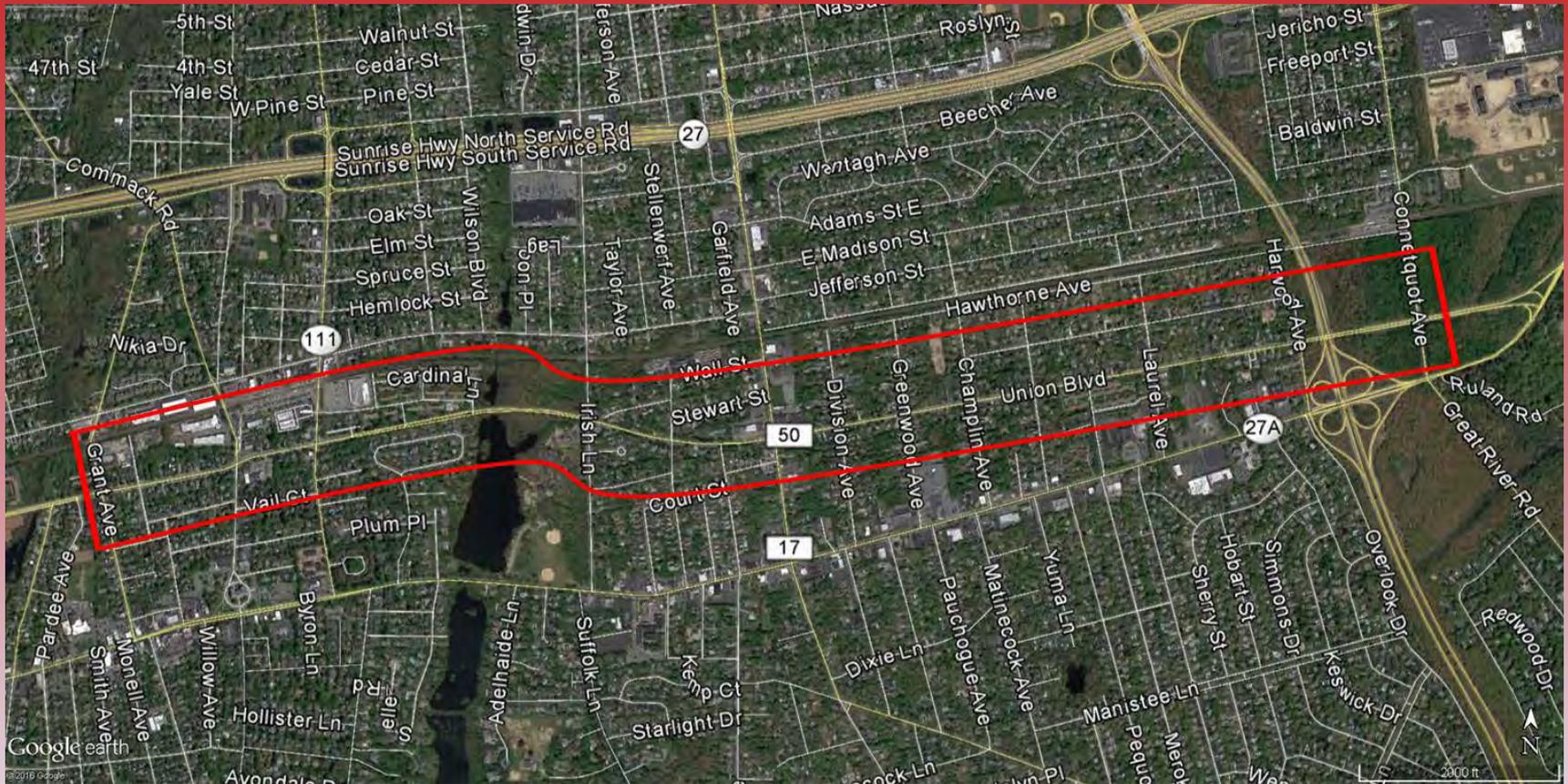


CR 50 – Union Boulevard Traffic Study



Study Area

Grant Avenue – Connetquot Avenue



Functional Classification

- Dictates Function and Design
- Urban Minor Arterial (Serves multiple functions)
 - Trips of Moderate Length
 - Connect to Larger Arterial Streets (Southern State, Montauk Highway, Sunrise Highway)
 - Access to Neighborhoods, homes, businesses, schools
 - Emergency Access
 - Local Public and School Bus Routes
 - Moderate volumes and mix of vehicle types

CR 50 Issues

Wide lanes - Speeding

Off-Peak 85th percentile = 45-49mph

Off-Peak Average Speeds = 40-43mph

Posted Speed Limit = 35 MPH



CR 50 Issues

Mix of local and through trips

Mix of Vehicle types



CR 50 Issues

Faded Stop Lines



CR 50 Issues

Poor Sight Lines



CR 50 Data

Volumes = 7,000-10,000 per day

Peak Hour = 400-600 per direction

Un-signalized Intersections - Low Volumes to/from side streets



CR 50 Data

Safety Analysis – Types (3 year period)

Intersection or Midblock Location	Over-taking	Rear End	Right Angle	Left Turn	Head-On	Side Swipe	Bicycle	Right Turn	Other	Unknown	Total
Intersection											
Union Blvd / Grant Ave	1	1	1	0	0	0	0	0	1	1	5
Union Blvd / Watson Pl	0	0	0	0	0	0	0	0	1	0	1
Union Blvd / Nassau Ave	0	3	5	0	0	0	0	0	0	0	8
Union Blvd / Islip Ave	0	2	4	2	0	0	0	0	1	2	11
Union Blvd / Irish Ln	0	0	0	2	0	0	0	0	1	1	4
Union Blvd / 3rd Ave	1	3	5	0	0	0	0	0	4	3	16
Union Blvd / Carleton Ave	0	2	7	2	0	1	0	0	3	4	19
Union Blvd / Division Ave	0	0	0	0	0	0	0	0	0	0	0
Union Blvd / Greenwood Ave	0	0	2	0	0	0	0	0	1	2	5
Union Blvd / Champlin Ave	0	0	2	0	0	0	0	0	1	0	3
Union Blvd / Fern Ave	0	0	1	0	0	0	0	0	0	0	1
Union Blvd / Laurel Ave	0	0	0	0	0	0	0	0	0	1	1
Union Blvd / Harwood Ave	0	1	3	0	0	0	0	0	0	1	5
Union Blvd / Connetquot Ave	0	2	5	2	0	0	0	1	0	1	11
Signalized Intersections Subtotal	1	8	17	6	0	1	0	0	6	8	47
Unsignalized Intersections Subtotal	1	6	18	2	0	0	0	1	7	8	43

CR 50 Data

Safety Analysis – Severity (3 year period)

Intersection or Midblock Location	Fatal	Injury	PDO ¹	Total Crashes
Intersection				
Union Blvd / Grant Ave	0	2	3	5
Union Blvd / Watson Pl	0	1	0	1
Union Blvd / Nassau Ave	0	3	5	8
Union Blvd / Islip Ave	0	4	7	11
Union Blvd / Irish Ln	0	1	3	4
Union Blvd / 3rd Ave	0	7	9	16
Union Blvd / Carleton Ave	0	8	11	19
Union Blvd / Division Ave	0	0	0	0
Union Blvd / Greenwood Ave	0	5	0	5
Union Blvd / Champlin Ave	0	2	1	3
Union Blvd / Fern Ave	0	1	0	1
Union Blvd / Laurel Ave	0	1	0	1
Union Blvd / Harwood Ave	0	5	0	5
Union Blvd / Connetquot Ave	0	5	6	11

1. PDO = Property Damage Only

CR 50 Data

Safety Analysis – Injury by Mode (3 year period)

Intersection or Midblock Location	Pedestrian Injury Crashes	Bicyclist Injury Crashes	MVO ¹	Total Injury Crashes
Intersection				
Union Blvd / Grant Ave	0	0	2	2
Union Blvd / Watson Pl	0	0	1	1
Union Blvd / Nassau Ave	0	0	3	3
Union Blvd / Islip Ave	0	1	4	5
Union Blvd / Irish Ln	0	0	1	1
Union Blvd / 3rd Ave	2	0	7	9
Union Blvd / Carleton Ave	1	0	8	9
Union Blvd / Division Ave	0	0	0	0
Union Blvd / Greenwood Ave	0	1	5	6
Union Blvd / Champlin Ave	0	0	2	2
Union Blvd / Fern Ave	0	0	1	1
Union Blvd / Laurel Ave	0	0	1	1
Union Blvd / Harwood Ave	0	0	5	5
Union Blvd / Connetquot Ave	0	0	5	5
Signalized Intersections Subtotal	1	1	18	20
Unsignalized Intersections Subtotal	2	1	27	30

1. MVO = Motor Vehicle Only

CR 50 Data

Safety Analysis – Rates (3 year period)

Intersection	AADT ¹	Accidents (3-year total) ²	Intersection Accident Rate (acc/MEV) ³	NYSDOT Average Accident Rate	Higher than NYSDOT Average?
Union Blvd / Grant Ave	14,010	5	0.33	0.52	No
Union Blvd / Watson Pl		1		0.52	No
Union Blvd / Nassau Ave	17,450	8	0.42	0.52	No
Union Blvd / Islip Ave	19,590	11	0.51	0.52	No
Union Blvd / Irish Ln	14,160	4	0.26	0.52	No
Union Blvd / 3rd Ave	11,000	16	1.33	0.52	Yes
Union Blvd / Carleton Ave	23,650	19	0.73	0.52	Yes
Union Blvd / Division Ave	10,200	0	0.00	0.52	No
Union Blvd / Greenwood Ave	9940	5	0.46	0.52	No
Union Blvd / Champlin Ave	9680	3	0.28	0.52	No
Union Blvd / Fern Ave	9260	1	0.10	0.52	No
Union Blvd / Laurel Ave	9,220	1	0.10	0.52	No
Union Blvd / Harwood Ave	9,860	5	0.46	0.52	No
Union Blvd / Connetquot Ave	15,740	11	0.64	0.52	Yes

CR 50 Data

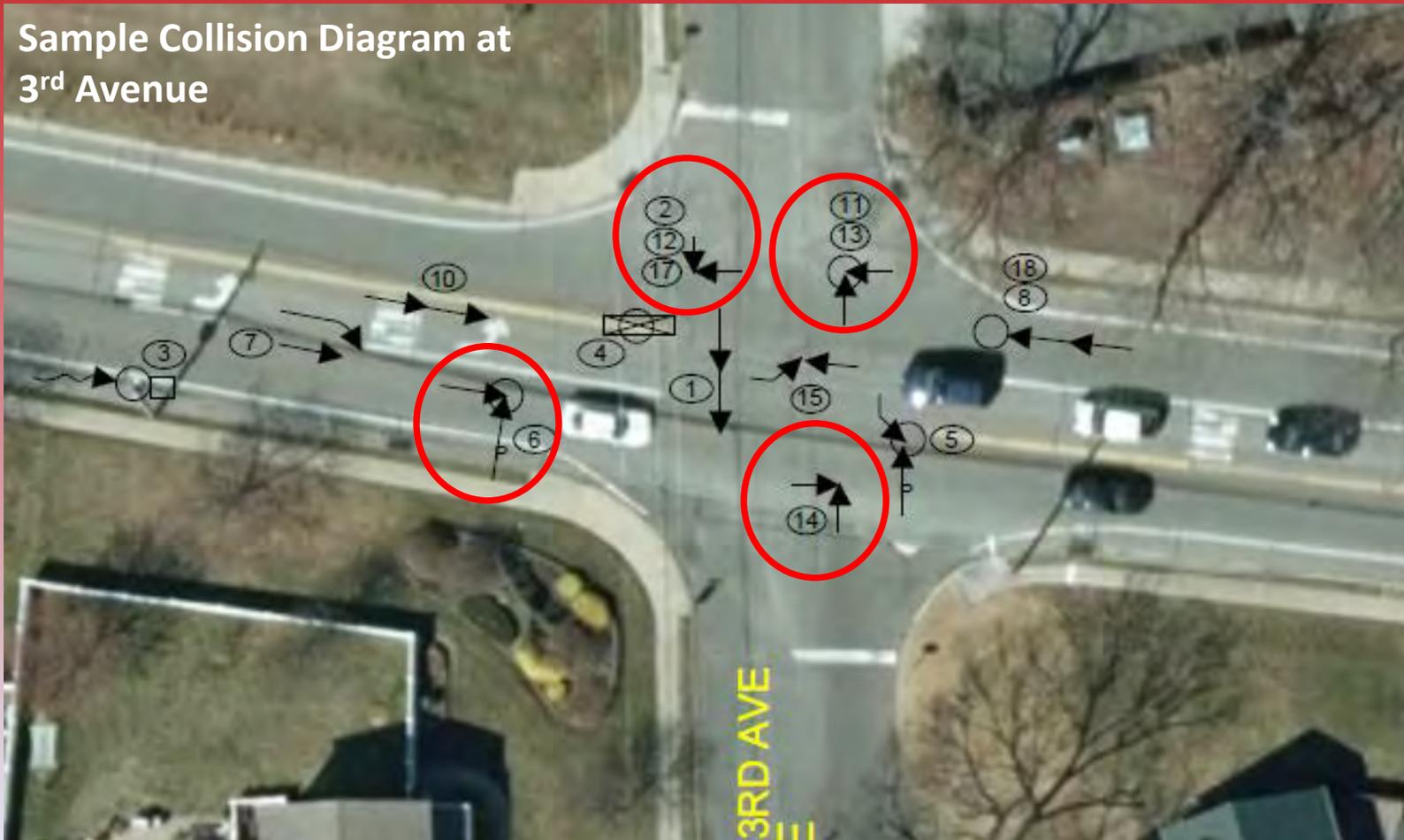
Safety Analysis Summary (3 year period for Study Corridor)

2 recent fatalities

5 involving pedestrians/bicyclist

Right Angle – 36% of total (42% of unsignalized intersections)

Sample Collision Diagram at
3rd Avenue



CR 50 Data

Traffic Control Assessment

- Additional traffic signals are not warranted
- “All-Way Stop Control” not warranted
 - None of the un-signalized intersections experienced five or more crashes in a continuous 12-month period that were susceptible to correction by a multi-way stop installation.
 - Minimum Volumes:
 - All experienced entering volumes greater than 300 vehicles per hour for an 8-hour period during a typical weekday.
 - However, none of the intersections experience combined volumes from the minor street approaches that exceed a total of 140 units for an 8 hour period.

CR 50 Data

Conclusion

- Off-Peak Free-Flow 85th percentile speeds 45-49mph are higher than 35 mph.
- Off-Peak Free-Flow Average Speeds 40-43mph
- Sight lines and distances are less than desirable at several locations due to obstructions (e.g. overgrown bushes, trees, fences, building).
- Crashes lower than the average, prevalence of right-angle crashes along the corridor. May be correlated to high speeds along the corridor and limited sight distance at certain points on the corridor.
- Third Avenue greater than the average rate of crashes.

CR 50 Data

Recommendations

- Enforcement, signage, use of speed carts, and design treatments should be considered to calm traffic and influence driver behavior to reduce speeds.
- Enforce Town of Islip's code compliance requirements at corner lots (30'x30' at 24" height).
- Maintain pavement markings, particularly minor street stop lines.
- Develop design alternatives to calm traffic and improve sight lines

CR 50 Sample Treatments

Mini-Roundabouts



Huntington

Gerard St (70' Roundabout)

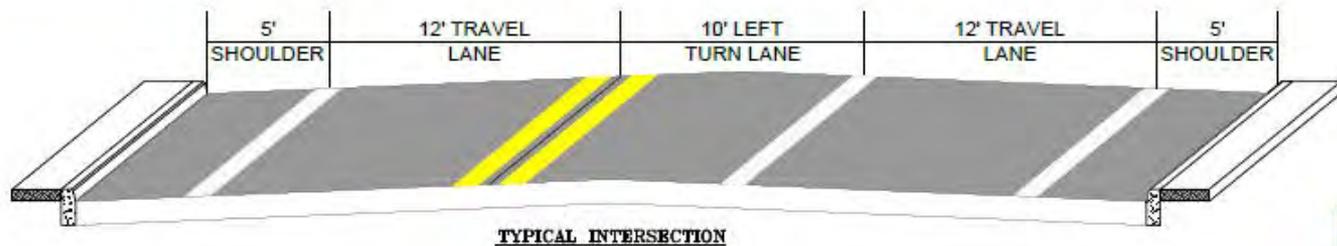
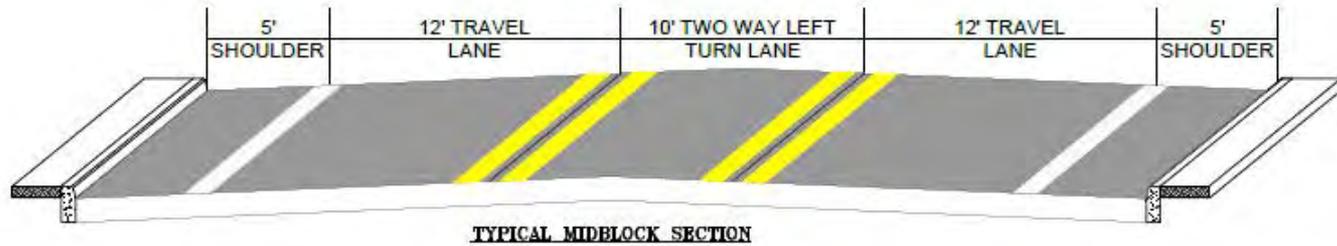


Straight Path

Narrow lanes, parking, median



Existing Conditions

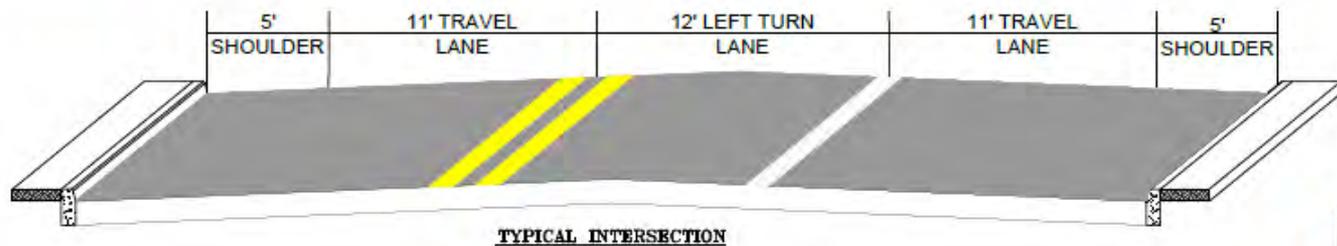
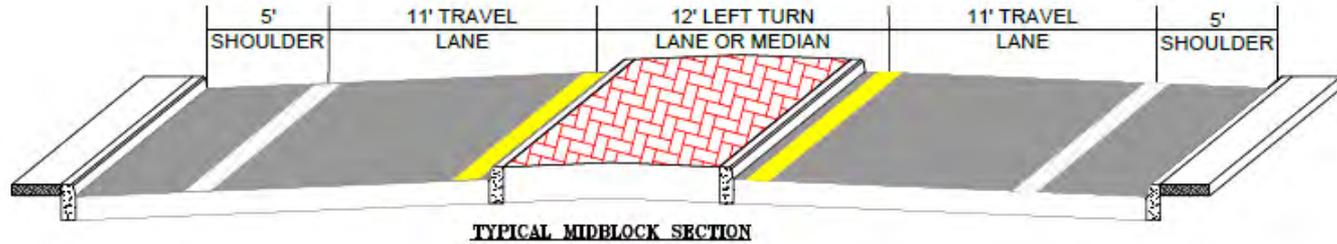


EXISTING CONDITIONS



Alternative 1

Full length Medians and Mini-Roundabouts

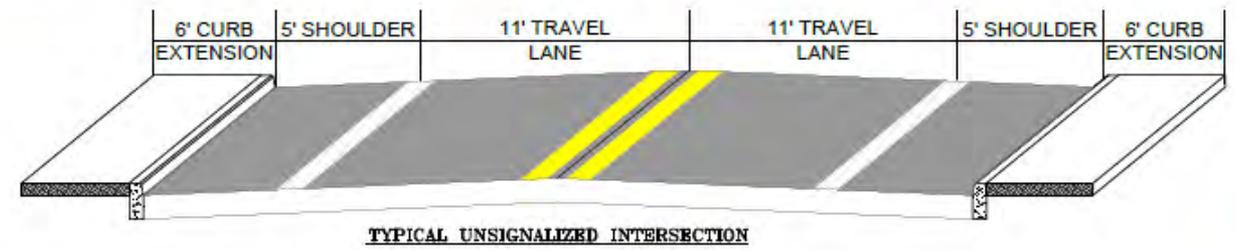
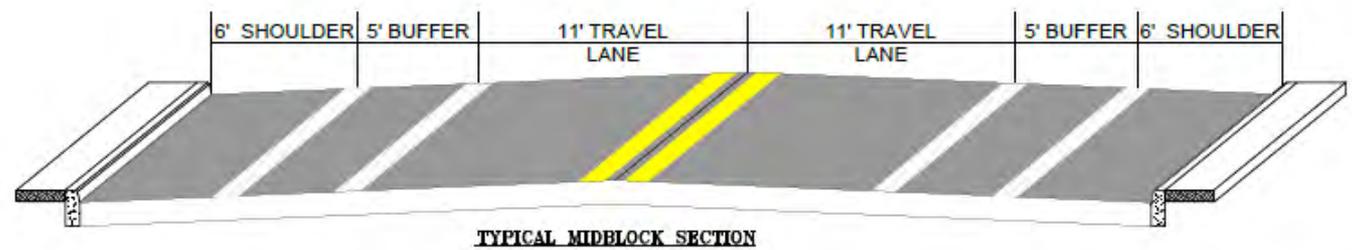


ALTERNATIVE 1



Alternative 2

2-lanes with Buffered Shoulder and Bulb-outs



ALTERNATIVE 2



Gateway Treatment

Full-Sized Roundabout at Connetquot Avenue



Mini-Roundabouts also being considered at:

- Grant Avenue
- Irish Lane
- Greenwood Avenue
- Harwood Avenue

