9. Year 2041 Traffic Operations

The year 2041 reflects when the Proposed Project will generate the highest volume of trips. At this time, the final fabrication plant (Fab 4) will be under construction, and the other three fabs will be in operation. No additional recommended mitigations are expected to be implemented after the interim year 2031. Hence, the roadway network modifications reflect that planned regional improvements are unrelated to the Proposed Project. This section presents the traffic operations analysis results for the year 2041 for the following scenarios:

- **Year 2041 No Action Alternative:** This scenario does not include the Proposed Project. The roadway network reflects the 2031 No Action network. The peak period volumes were produced through the travel demand forecasting effort and reflect background conditions without the Proposed Project.
- **Year 2041 Preferred Action Alternative:** This scenario adds the Proposed Project trips generated by construction and operations employees to the background volume and represents the 2031 No Action roadway network with the addition of six driveways to serve the campus.
- **Year 2041 Preferred Action Alternative with Mitigation Scenario A:** This scenario adds the Proposed Project trips generated by construction and operations employees to the background volume. The roadway network is modified to add an interchange to I-81 at Sneller Road, upgrade the existing NYS Route 31/NYS Route 481 and NYS Route 31/I-81 interchanges, and widen NYS Route 31 and U.S. Route 11 within the Transportation Evaluation Area.
- **Year 2041 Preferred Action Alternative with Mitigation Scenario B:** This scenario adds the Proposed Project trips generated by construction and operations employees to the background volume. The roadway network includes the Year 2041 Scenario A network and adds a new interchange between NYS Route 481 and a Micron Campus access road.
- **Year 2041 Preferred Action Alternative with Mitigation Scenario C:** This scenario adds the Proposed Project trips generated by construction and operations employees to the background volume. The roadway network includes the Year 2041 Scenario B network and adds access from Caughdenoy Road to NYS Route 481.

9.1 No Action Alternative

The following subsections present key MOEs and discuss the traffic operational analysis results for the background traffic without the Proposed Project in the year 2041. The roadway network reflects the 2031 scenario that includes the NYSDOT initial improvements. Operations for the peak hour with the lowest LOS within the peak period of the freeway mainline segments, merge/diverge areas, weaving areas, ramp segments, ramp terminal intersections, and surface street intersections are expressed as LOS based on the color coding shown in Tables 2-3 and 2-4 in Section 2.4.2. Appendix D summarizes the model output, which details the link and node results summarized in the figures and tables.

9.1.1 Traffic Volumes

The traffic volumes shown in Figures 9-1 through 9-4 reflect background growth and trips generated by the planned developments discussed in Section 5.2. Compared to 2031 background volumes, noticeable traffic increases occur on Morgan Road, NYS Route 31, and I-81.

Figure 9-1: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 1 of 5

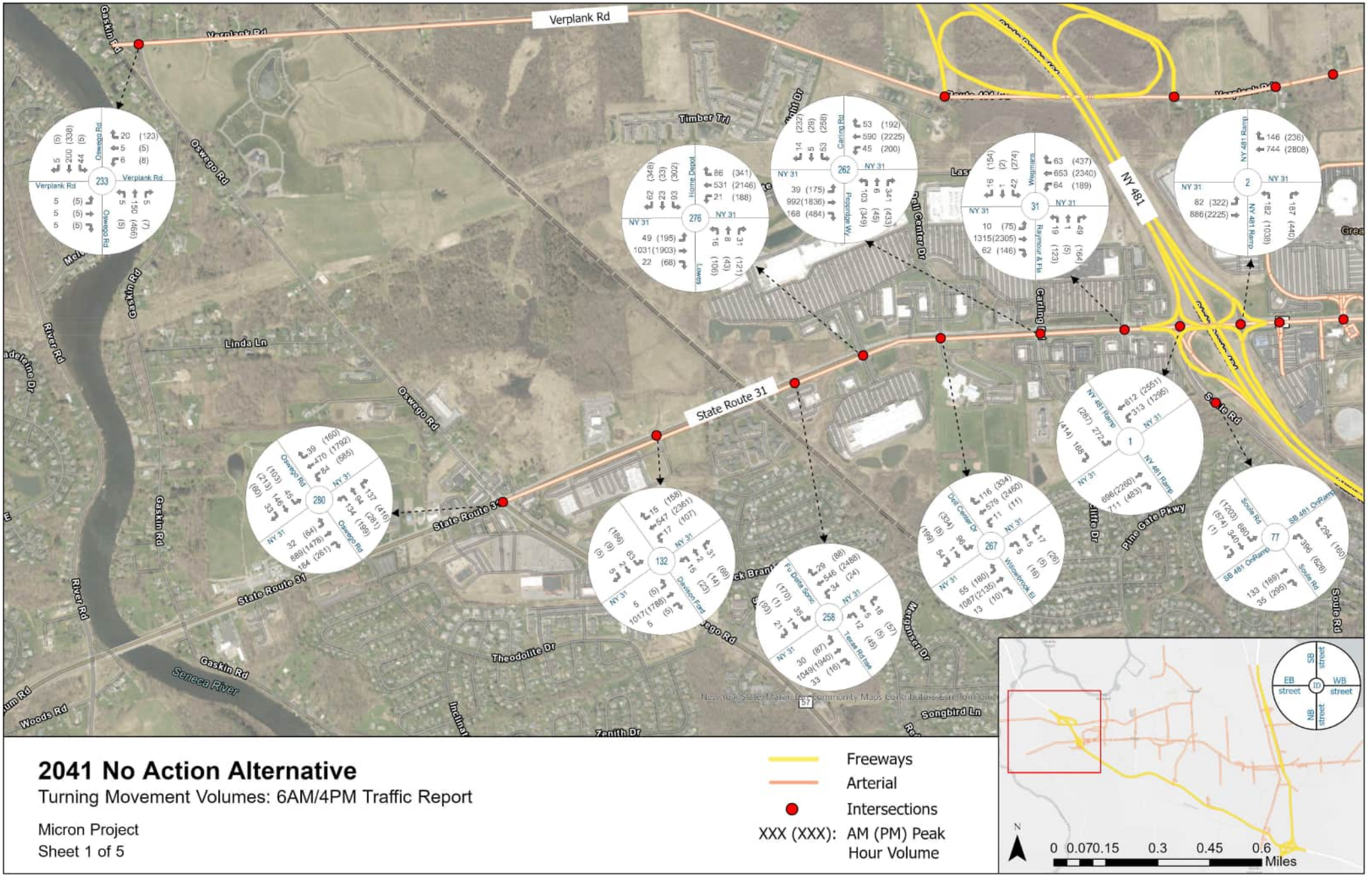


Figure 9-1: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 2 of 5

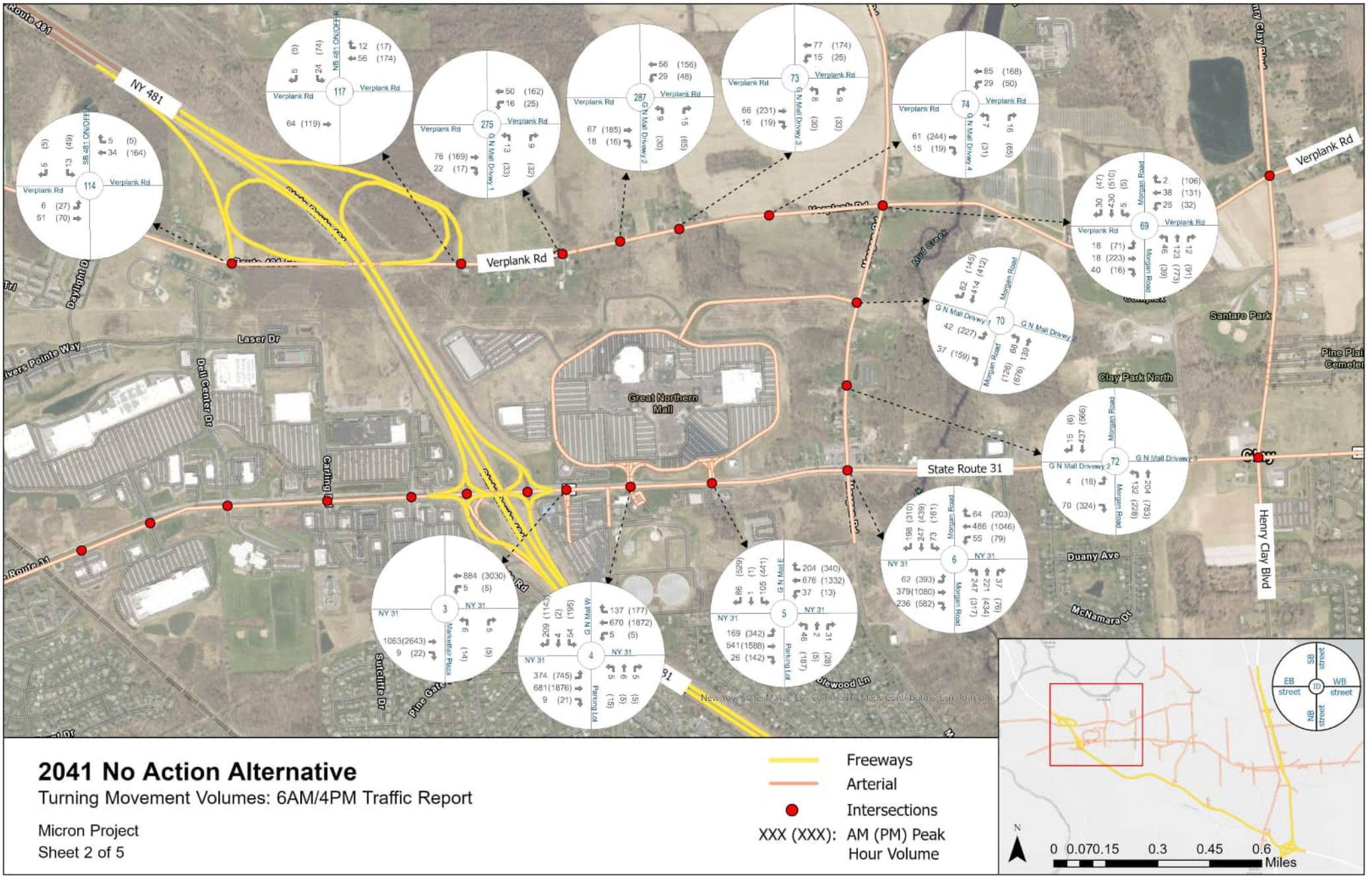


Figure 9-1: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 3 of 5

2041 No Action Alternative

Turning Movement Volumes: 6AM/4PM Traffic Report

Micron Project

Sheet 3 of 5

Freeways

Arterial

Intersections

XXX (XXX): AM (PM) Peak Hour Volume

0 0.17 0.35 0.7 1.05 1.4 Miles

Figure 9-1: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 4 of 5

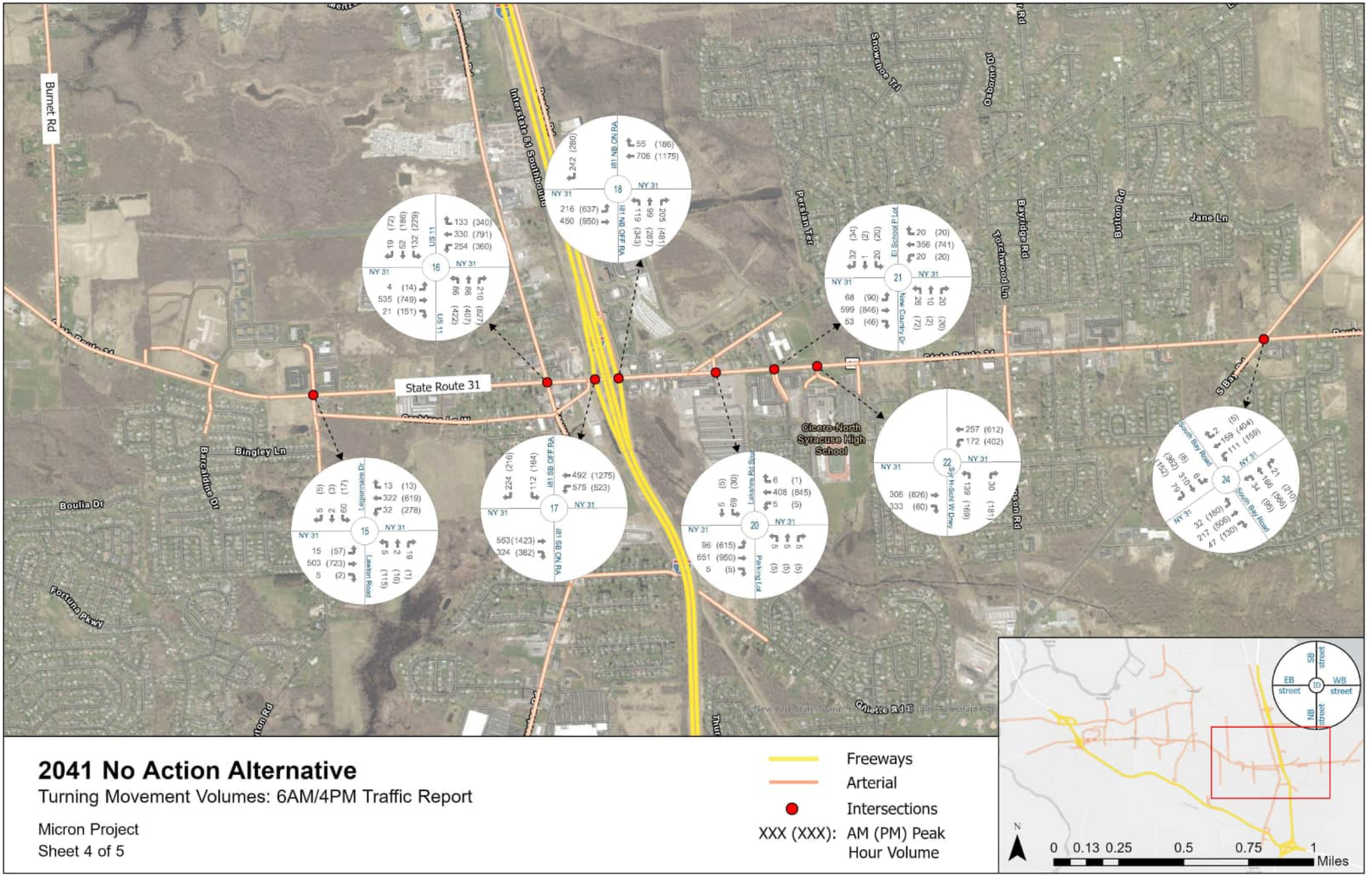


Figure 9-1: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 5 of 5

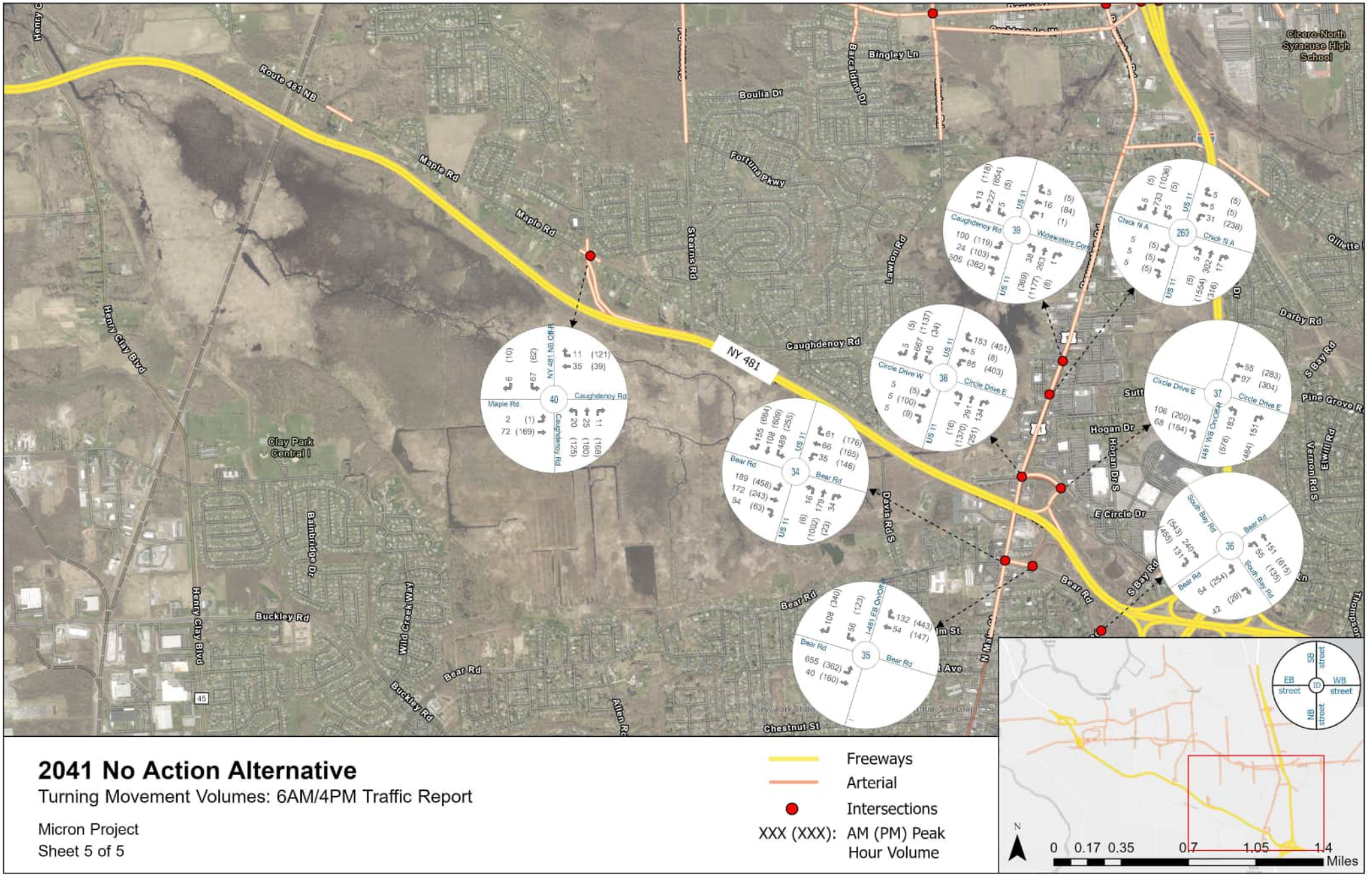
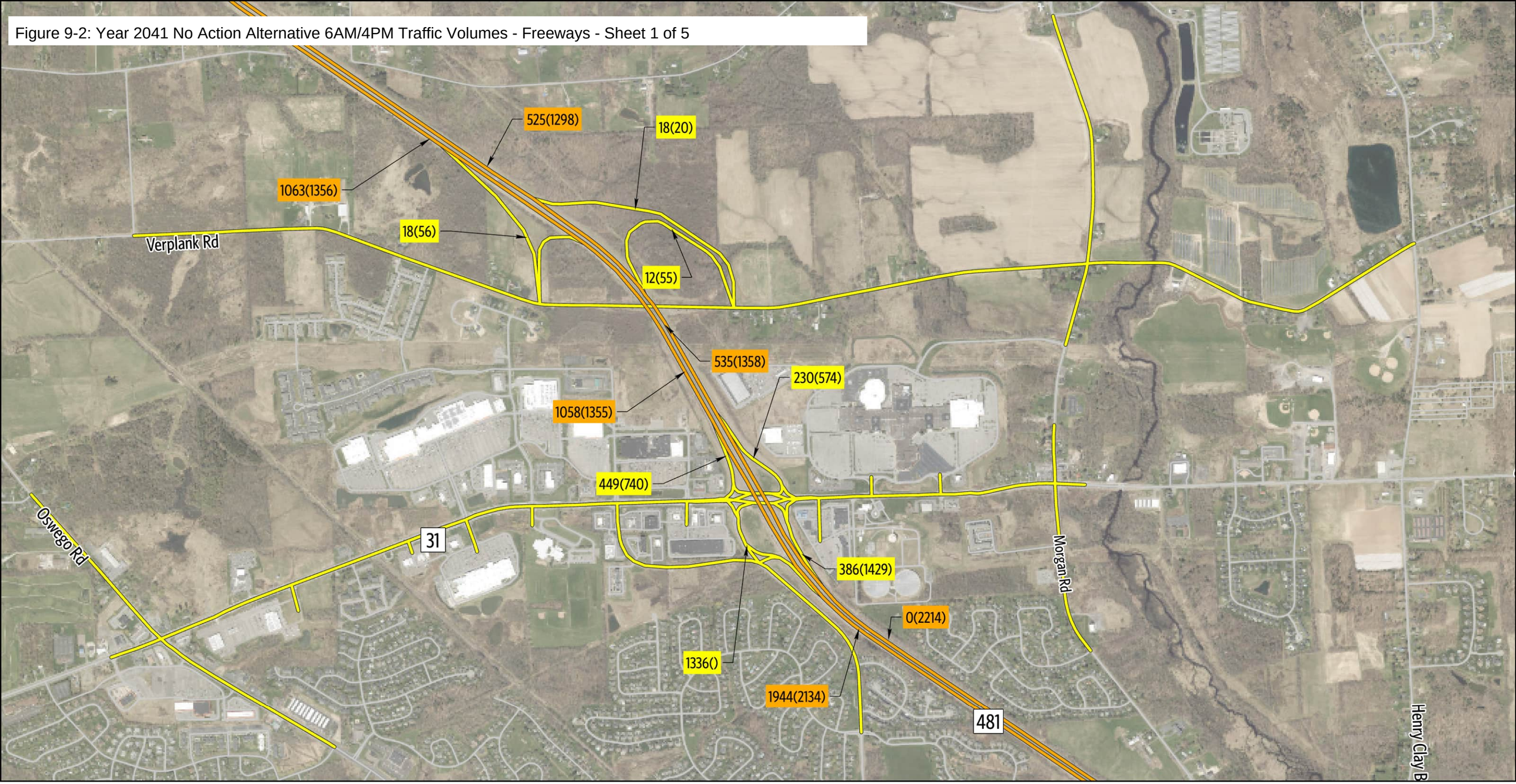


Figure 9-2: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 1 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

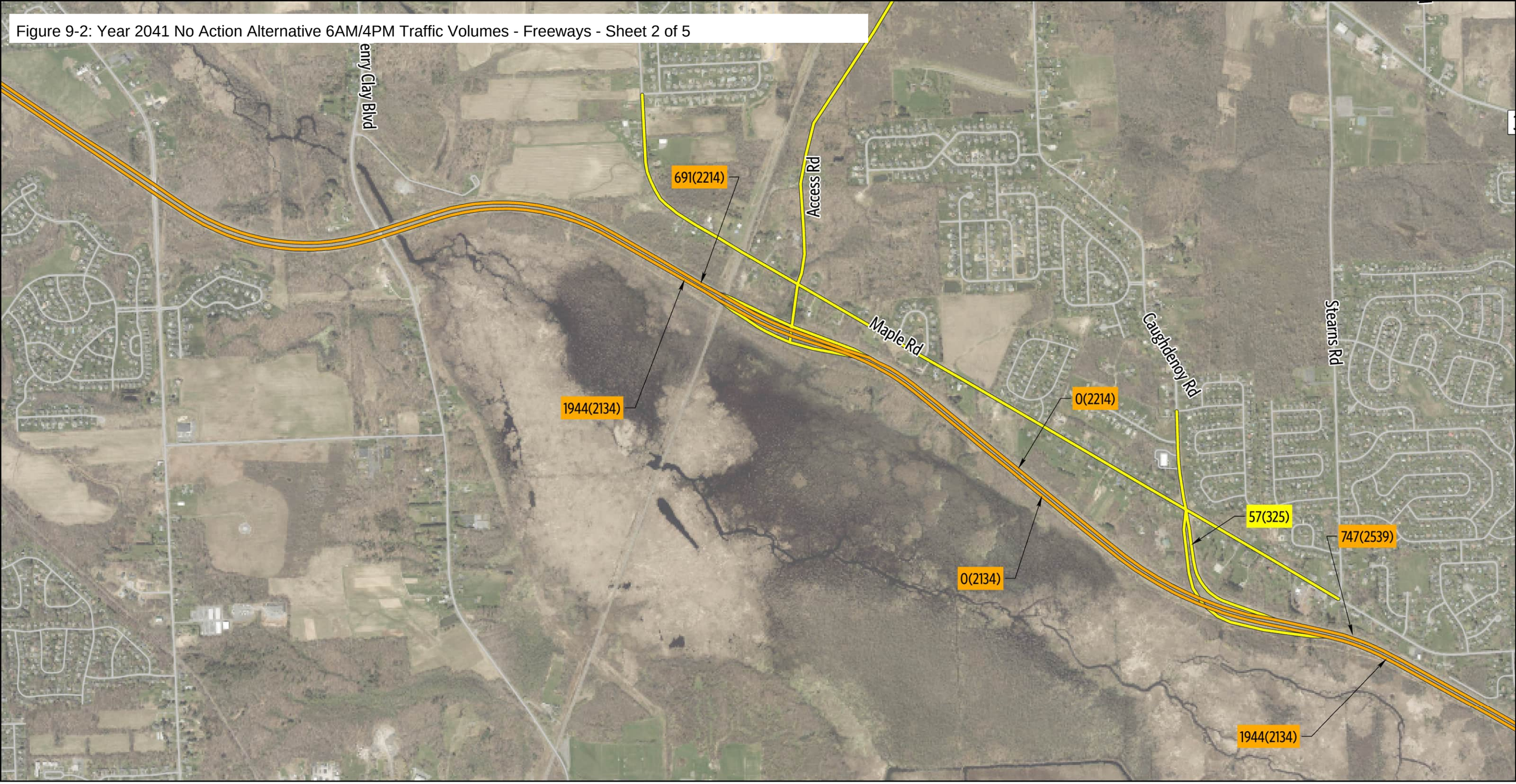
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-2: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 2 of 5



Mainline Volumes

Freeways

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

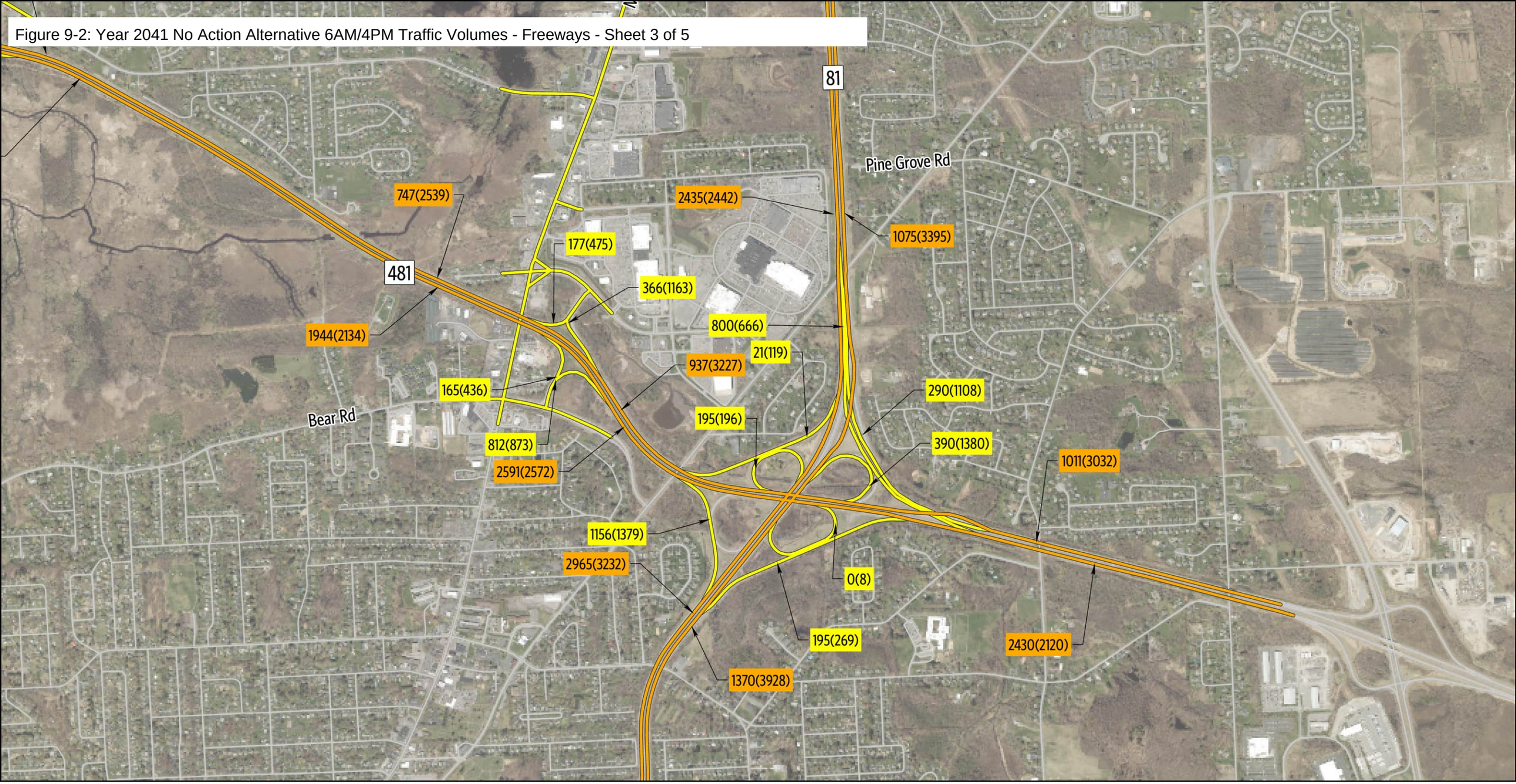
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-2: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 3 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-2: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 4 of 5

Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 4 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-2: Year 2041 No Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 5 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 5 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-3: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 1 of 5

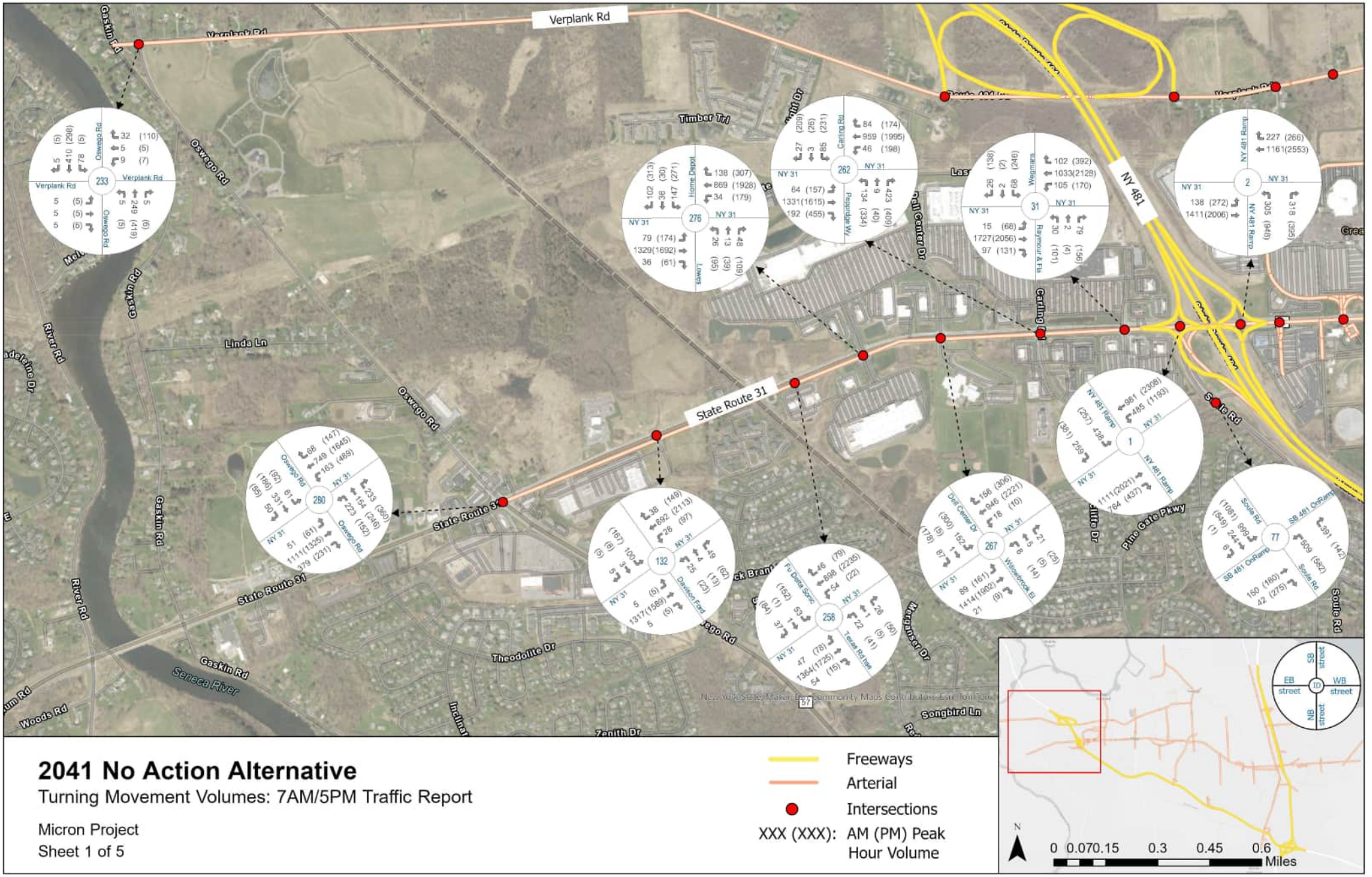


Figure 9-3: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 2 of 5

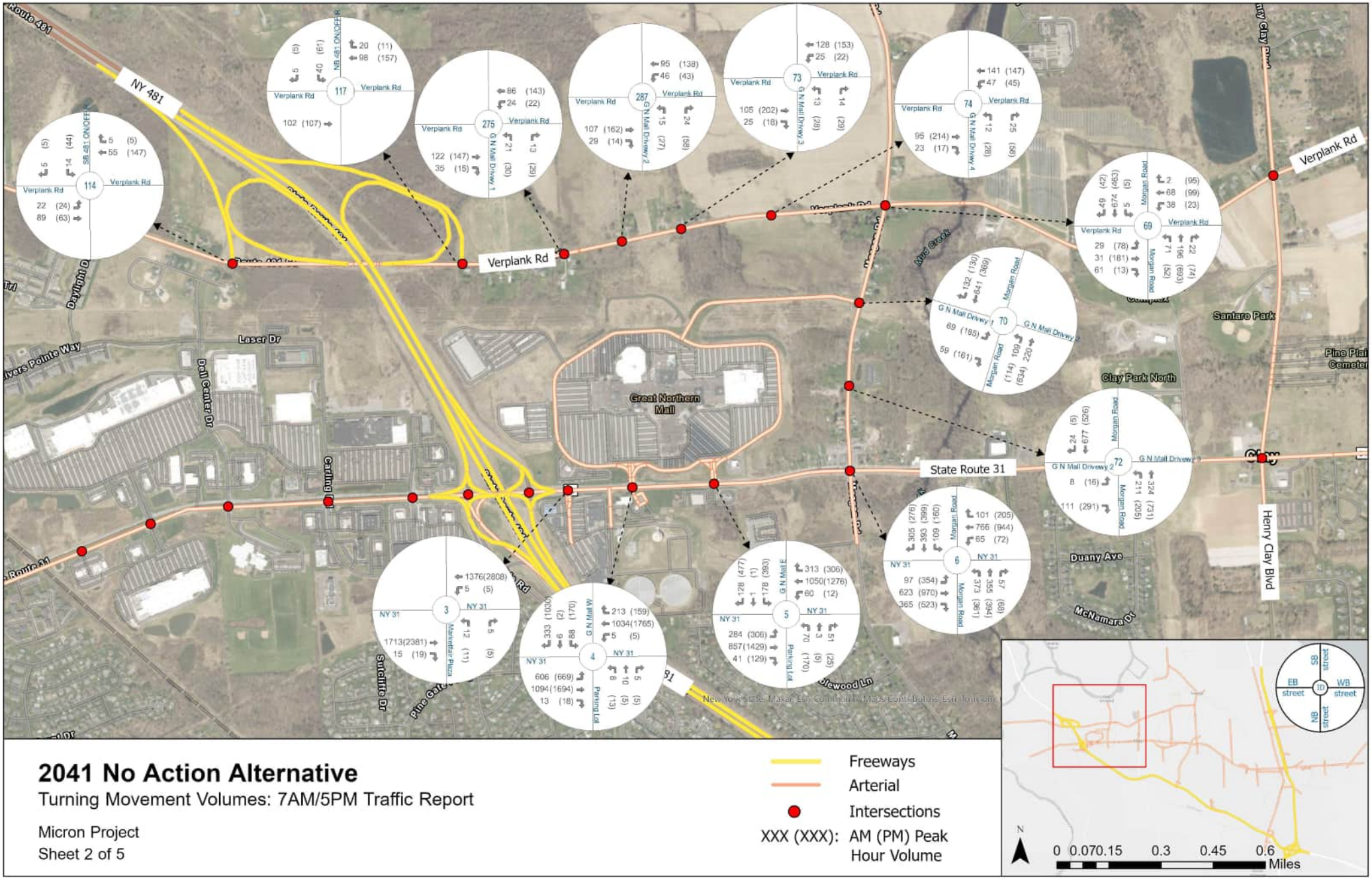
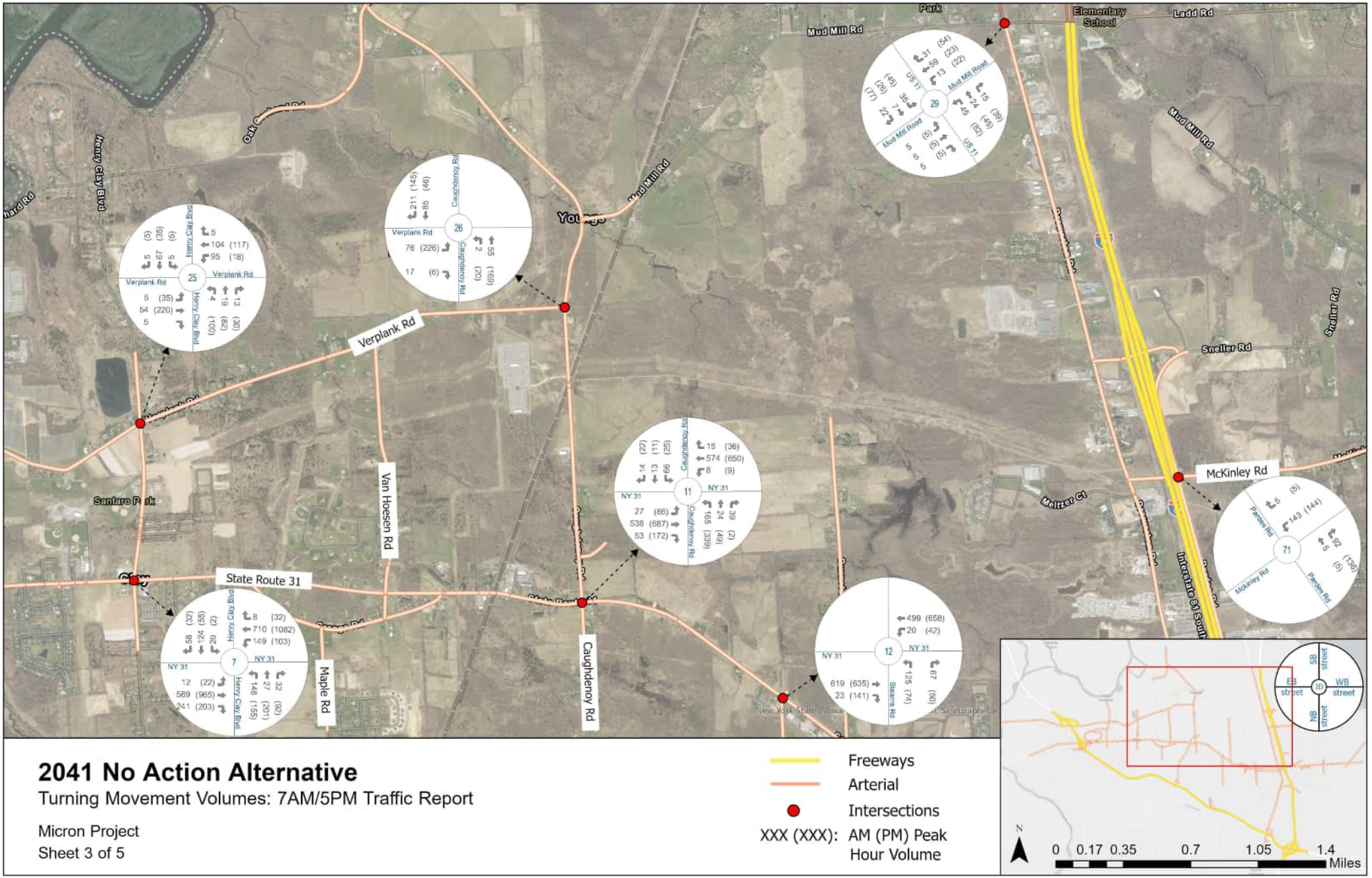


Figure 9-3: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 3 of 5



2041 No Action Alternative

Turning Movement Volumes: 7AM/5PM Traffic Report

Micron Project

Sheet 3 of 5

Figure 9-3: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 4 of 5

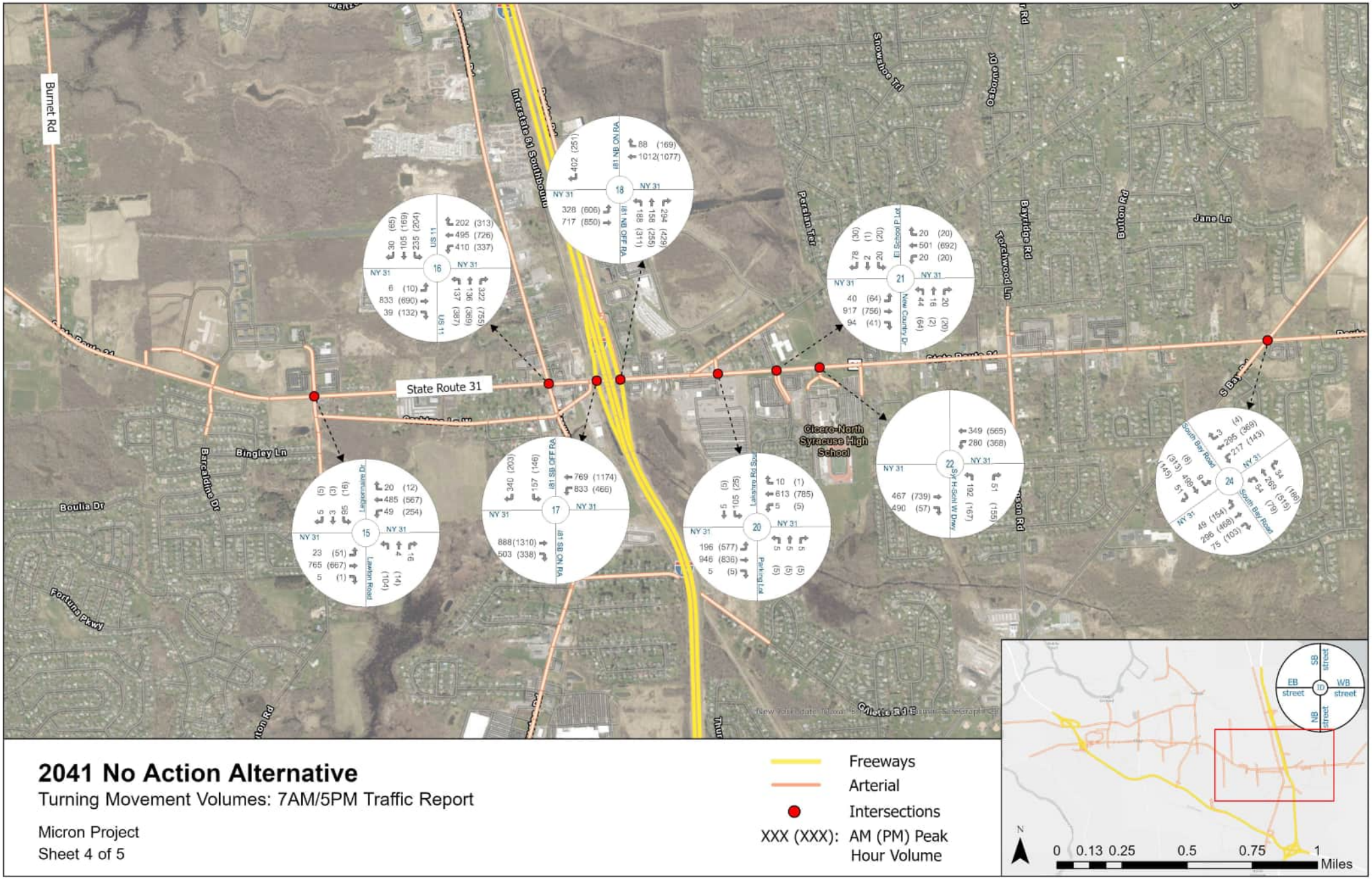
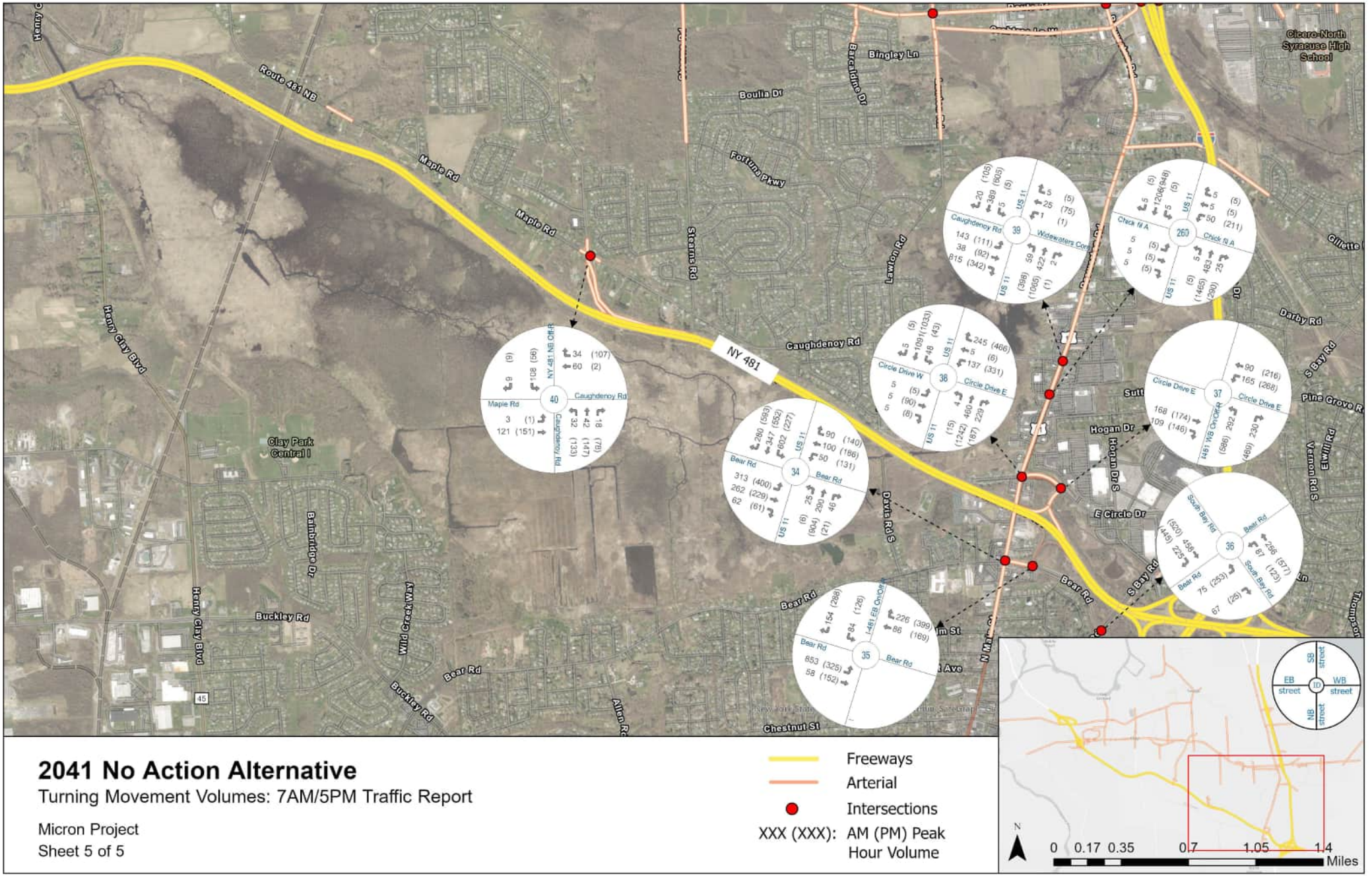


Figure 9-2: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 5 of 5



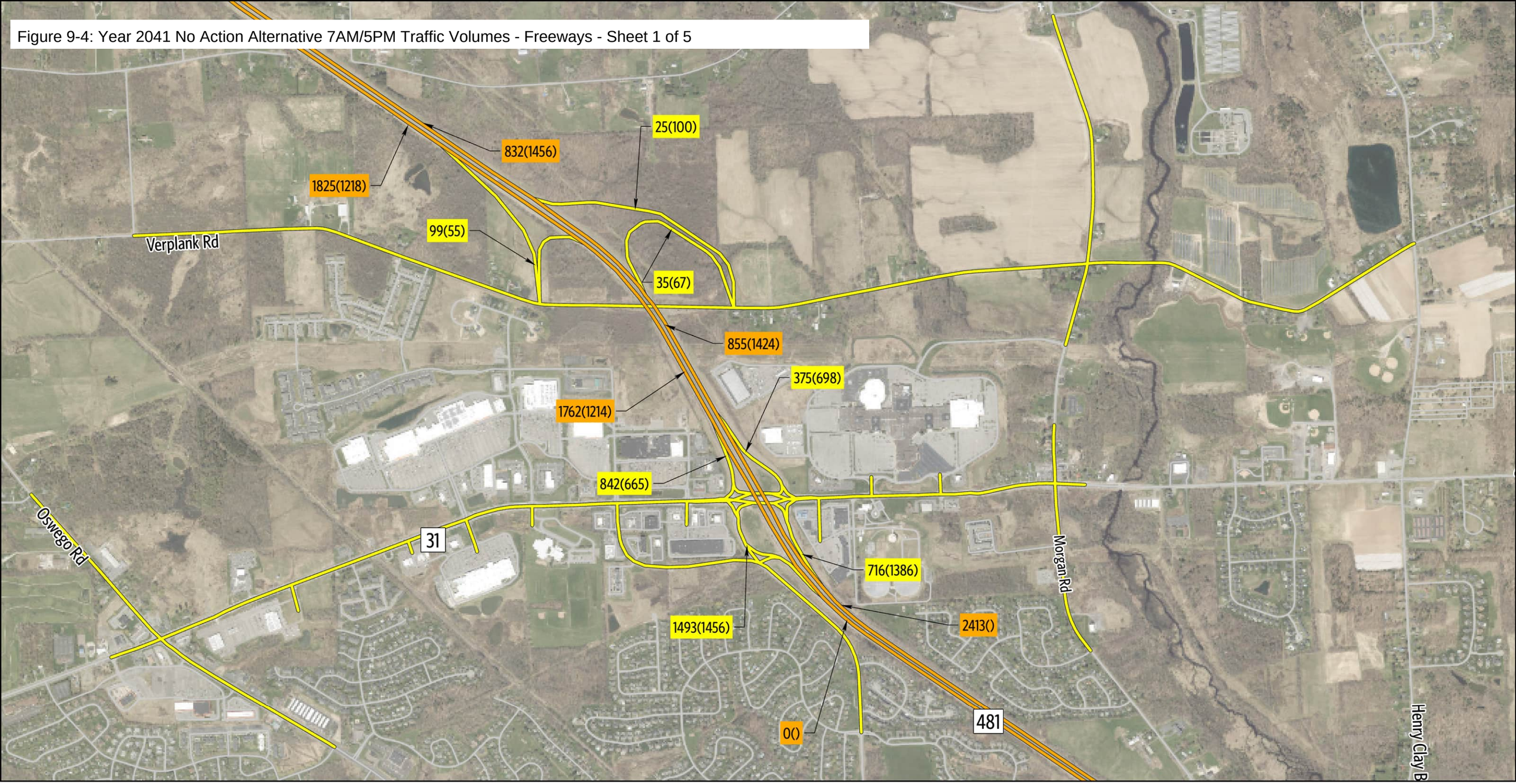
2041 No Action Alternative

Turning Movement Volumes: 7AM/5PM Traffic Report

Micron Project

Sheet 5 of 5

Figure 9-4: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 1 of 5



Mainline Volumes **Ramp Volumes** XXX(XXX) - AM Volumes(PM Volumes)

Freeways Ramps

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-4: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 2 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

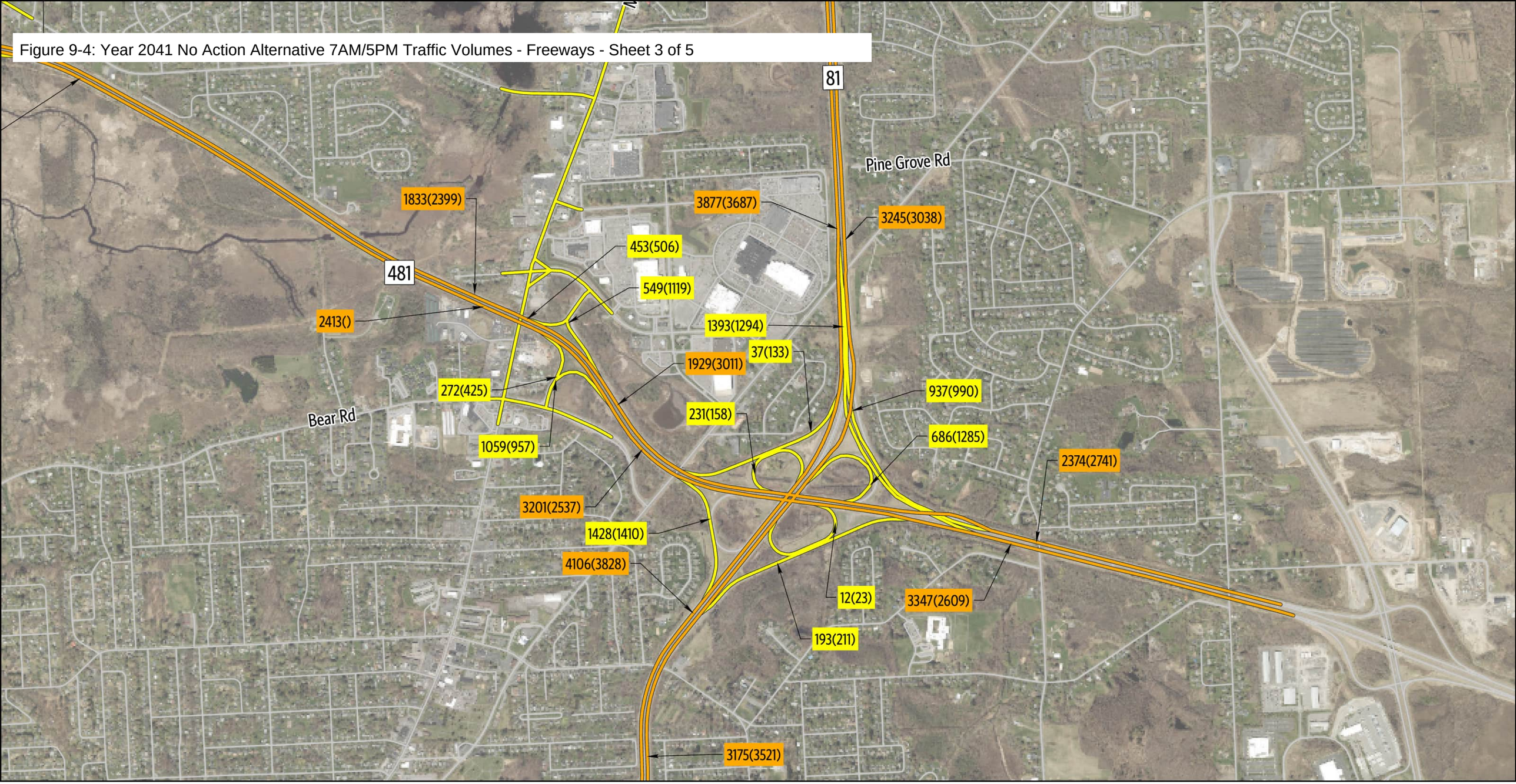
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-4: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 3 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

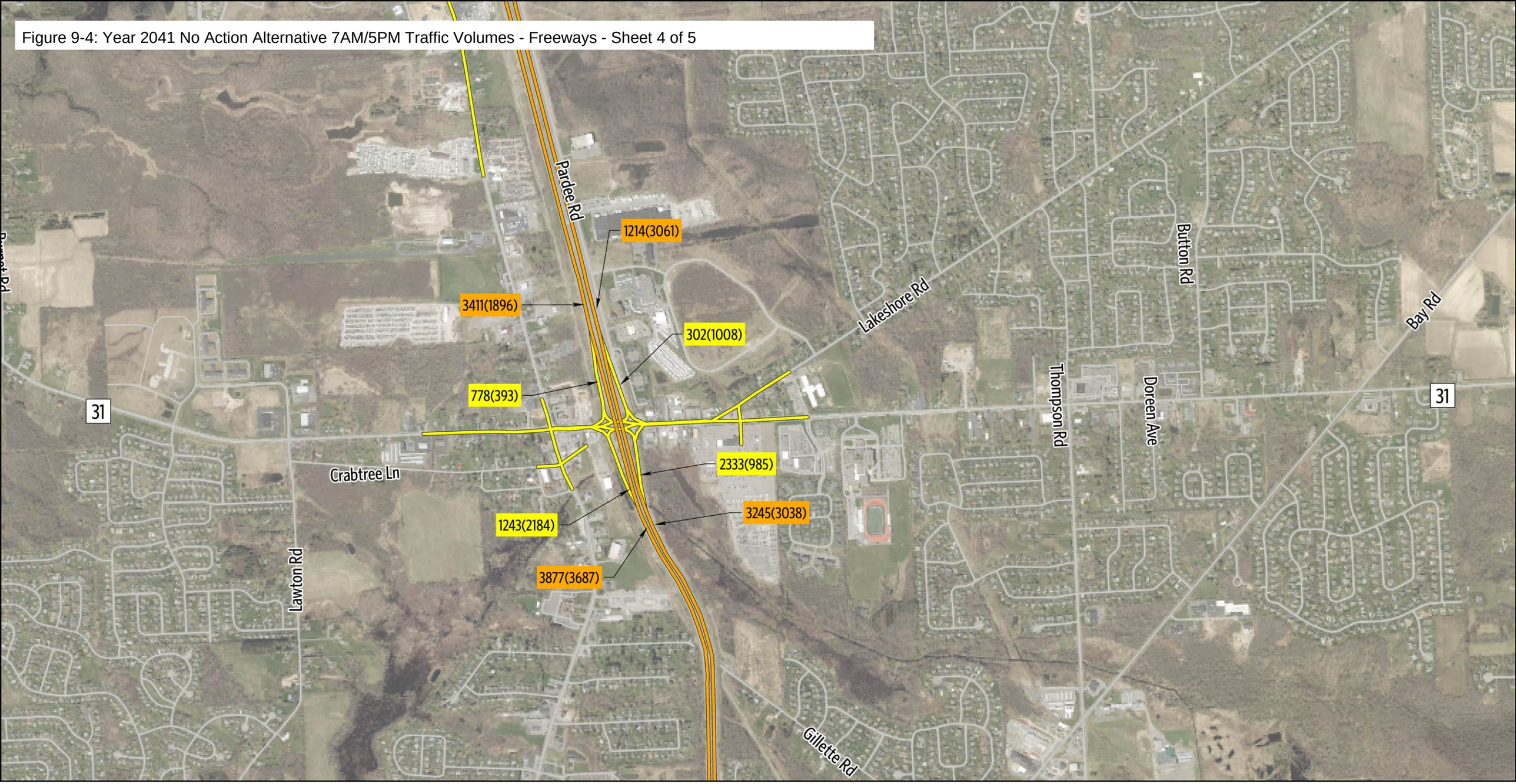
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-4: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 4 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 4 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-4: Year 2041 No Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 5 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

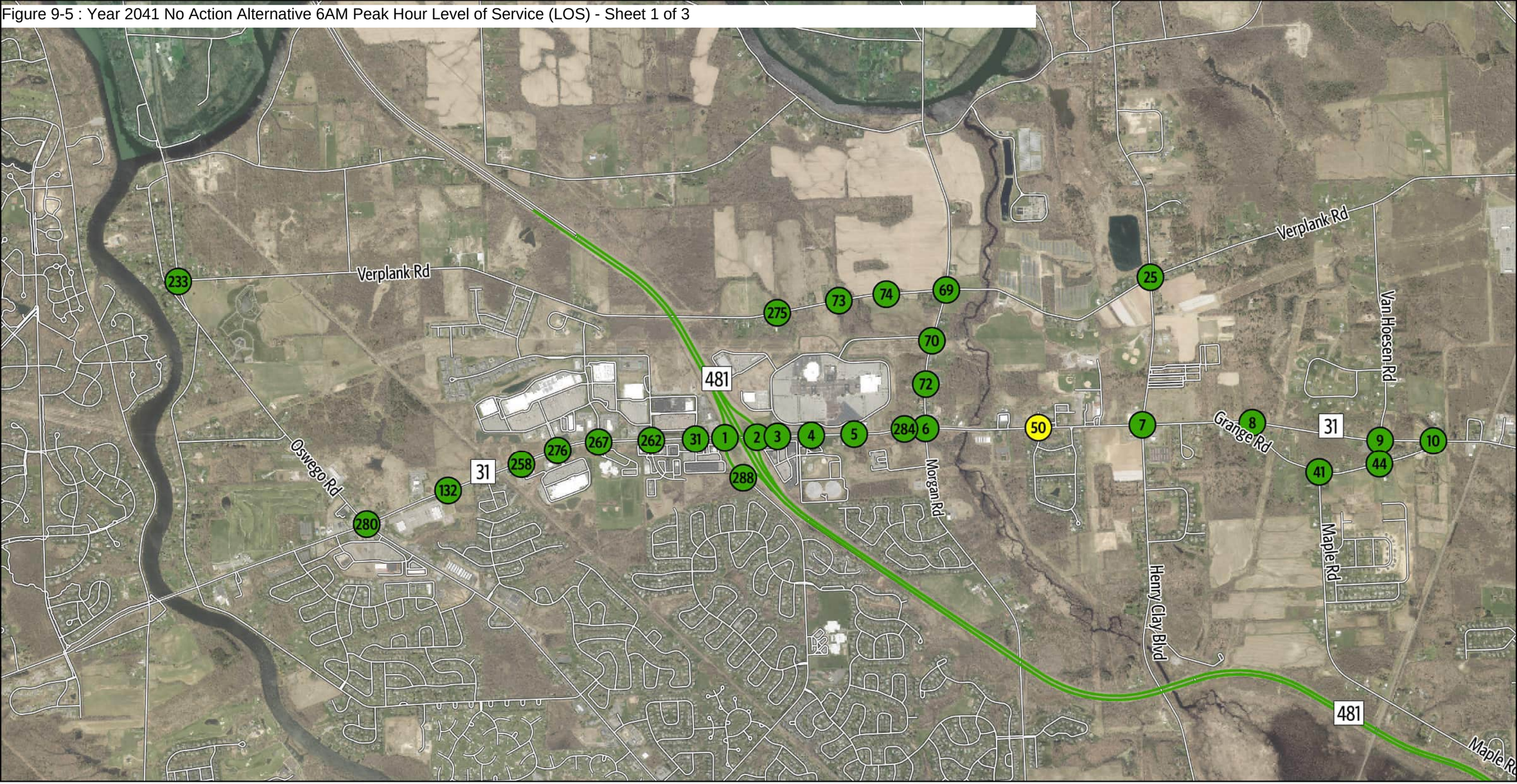
Sheet 5 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

9.1.2 Intersection Operations

Table 9-1 summarizes the results for the 65 intersections, include delay values and LOS expressed as a letter designation and by the color coding shown in Table 2-3. While most intersections operate acceptably at LOS D or better in both peak periods, several have higher delays and LOS E or LOS F operations, particularly in the evening peak period. As discussed in the following subsections, lower operating conditions occur for side streets intersecting NYS Route 31 and U.S. Route 11 in the central portion of the Transportation Evaluation Area. Drivers generally expect to wait longer to turn onto higher-volume primary roadways from side streets, so higher delays and lower LOS may be acceptable peak period operating conditions in this Transportation Evaluation Area. Figures 9-5 through 9-8 show this scenario's operational analysis LOS results.

Figure 9-5 : Year 2041 No Action Alternative 6AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

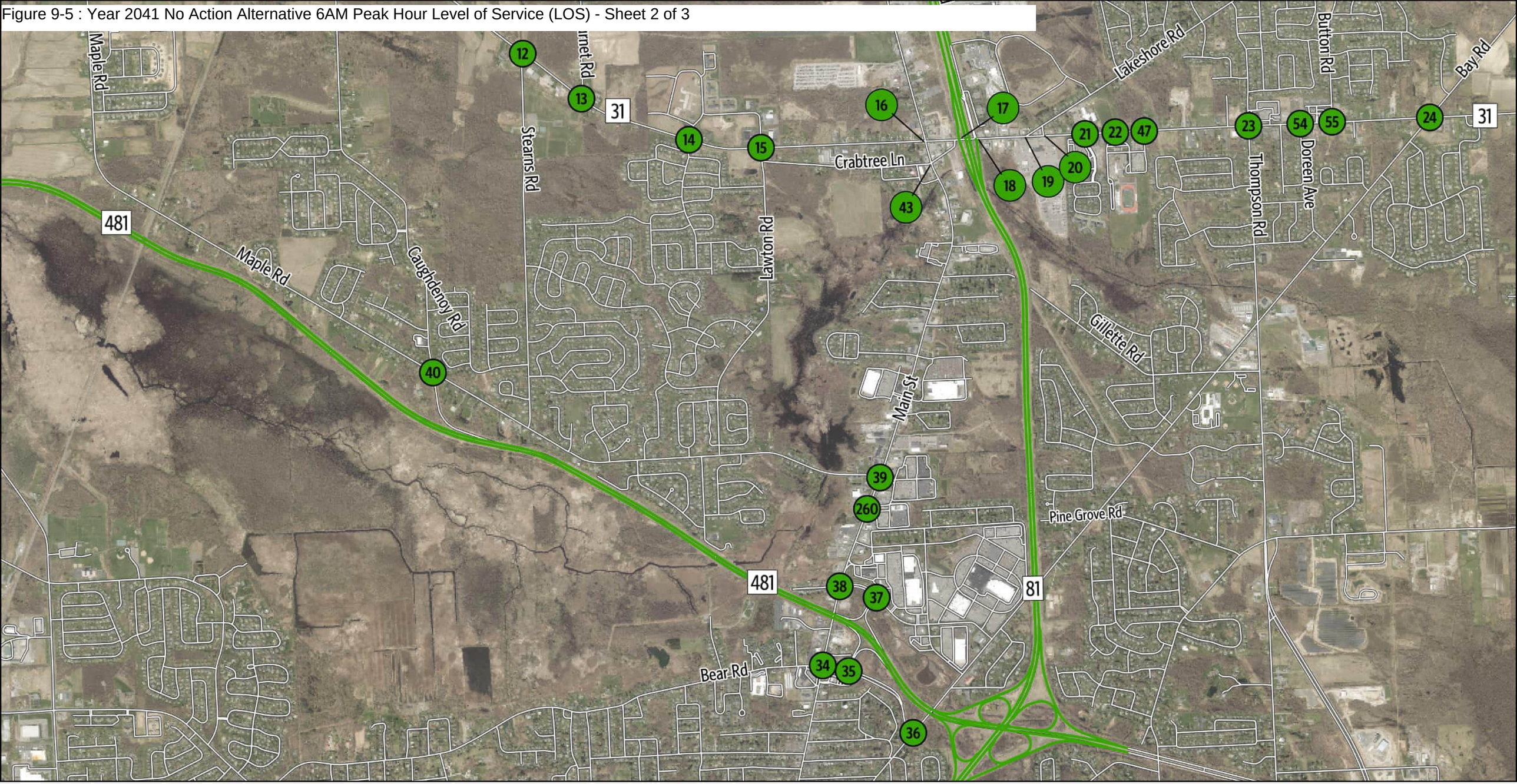
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 1 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-5 : Year 2041 No Action Alternative 6AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

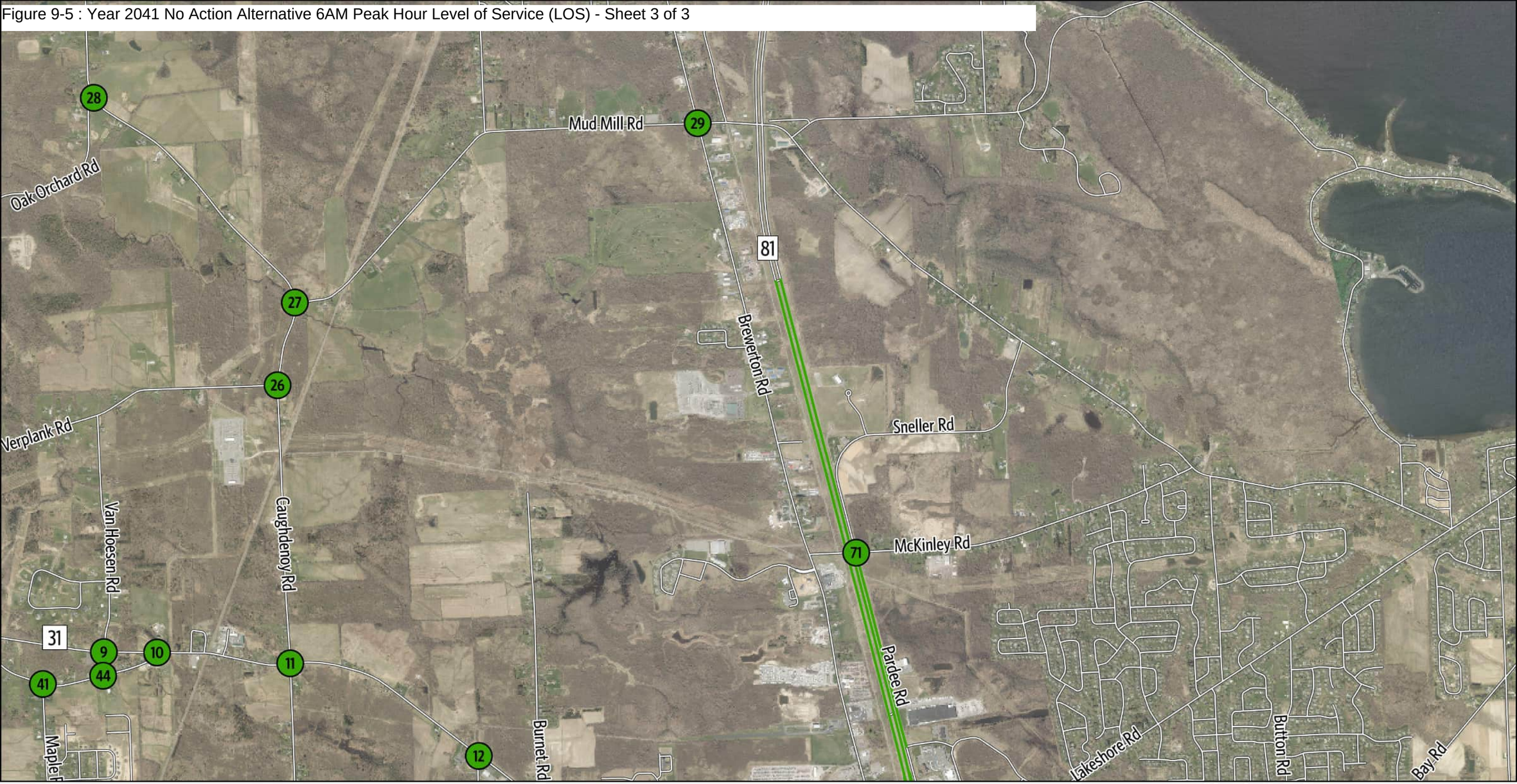
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 2 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-5 : Year 2041 No Action Alternative 6AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

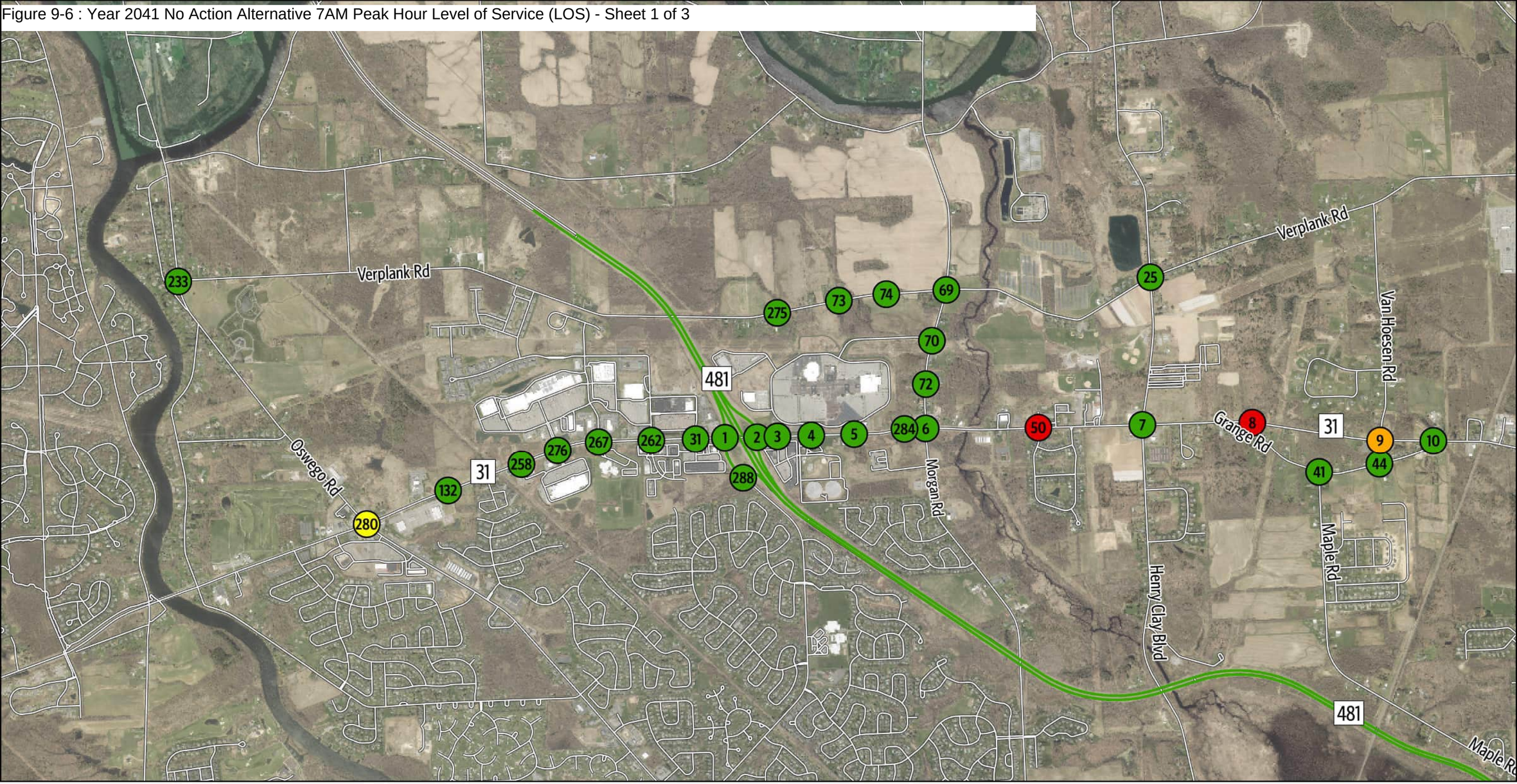
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 3 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-6 : Year 2041 No Action Alternative 7AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

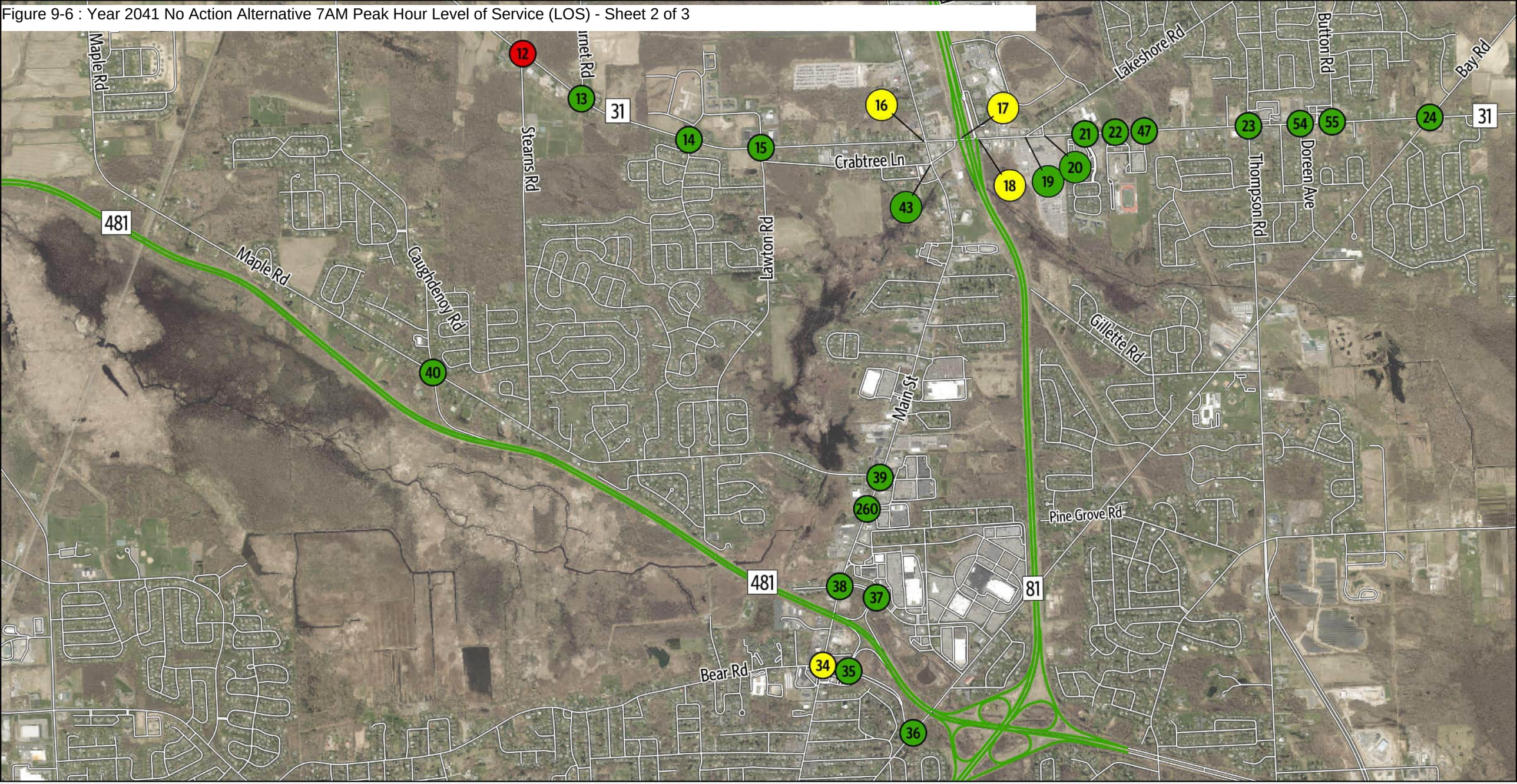
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 1 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-6 : Year 2041 No Action Alternative 7AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- F

Roadway Level Of Service

- A, B, C
- Streets

N

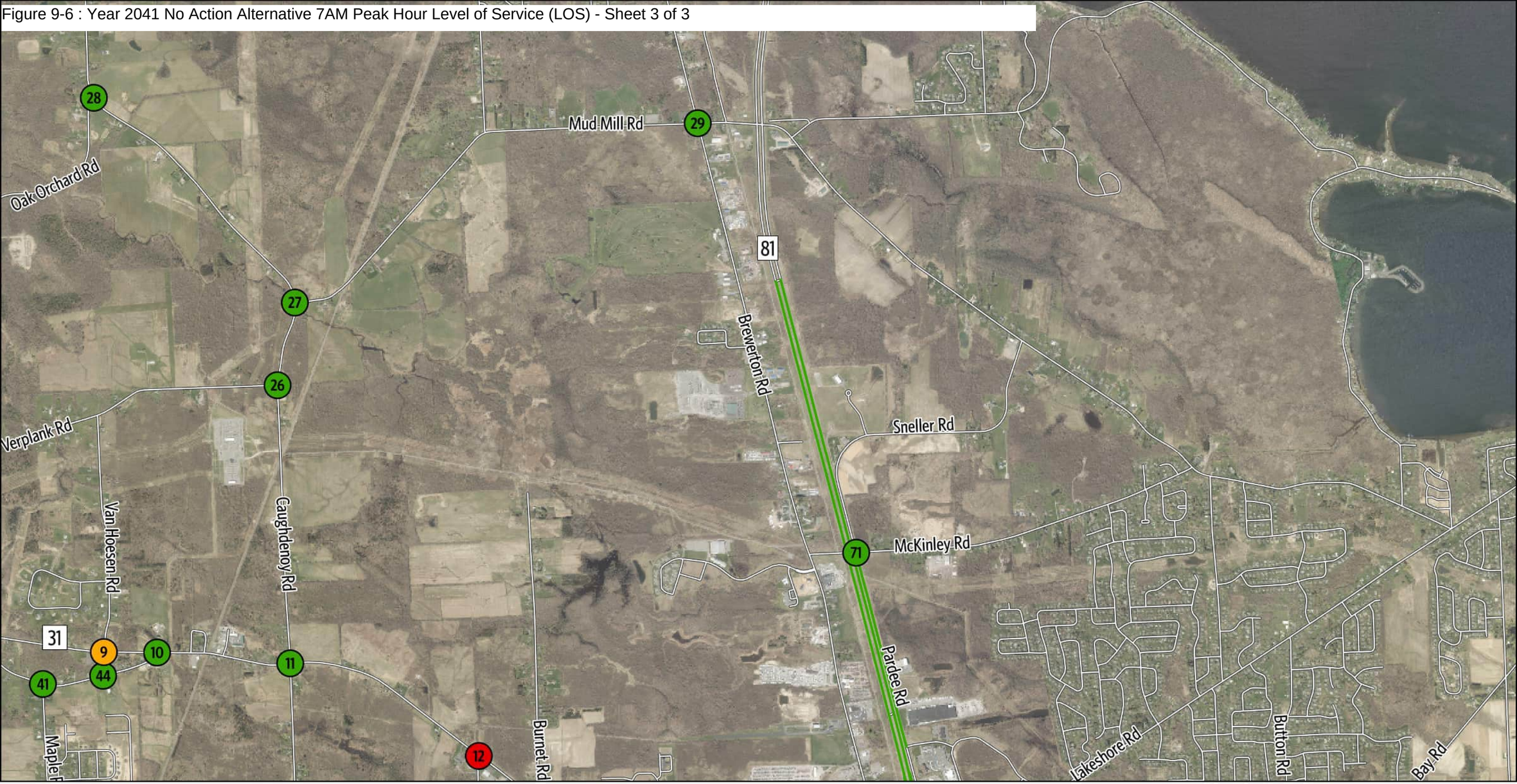
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 2 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-6 : Year 2041 No Action Alternative 7AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

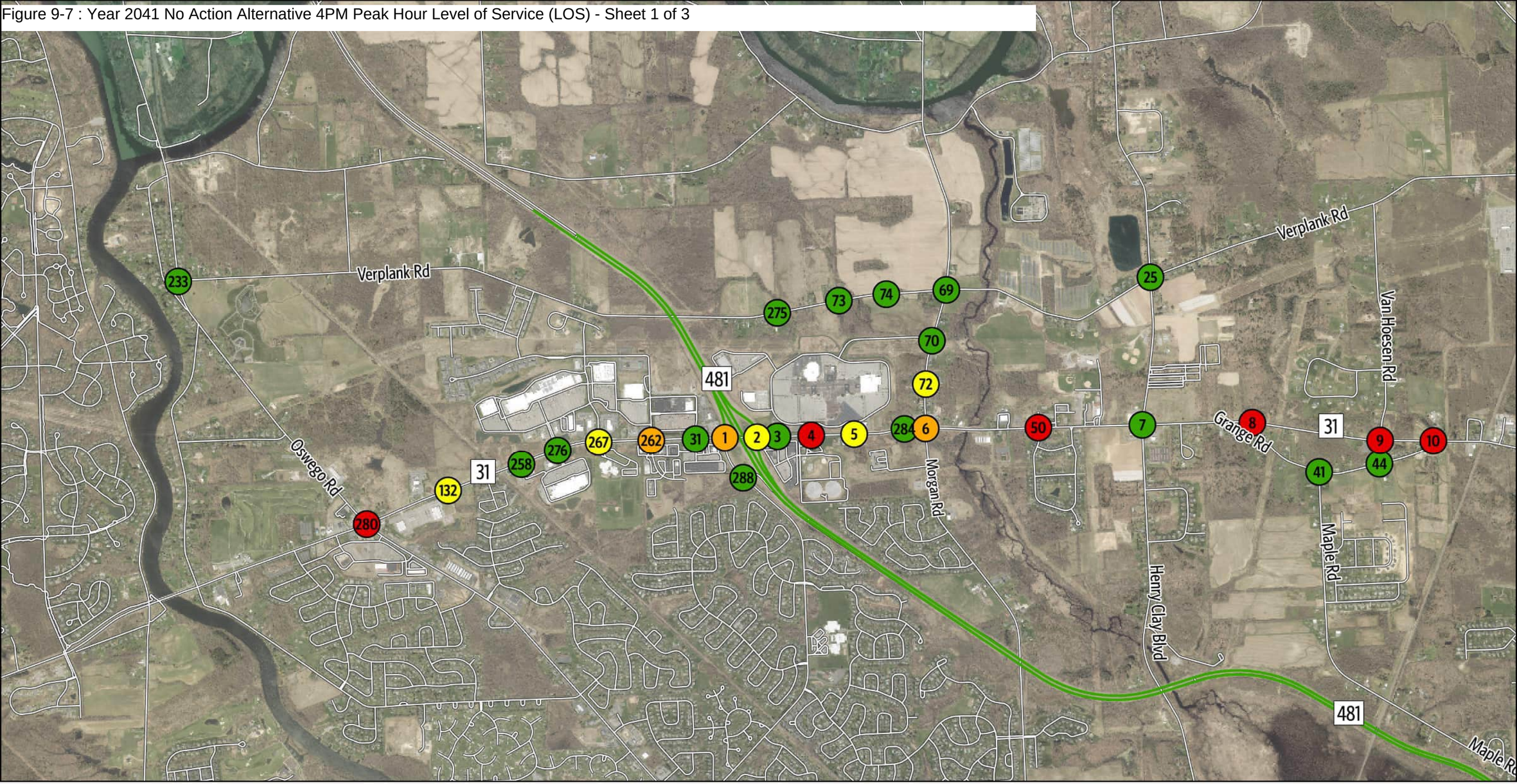
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 3 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-7 : Year 2041 No Action Alternative 4PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

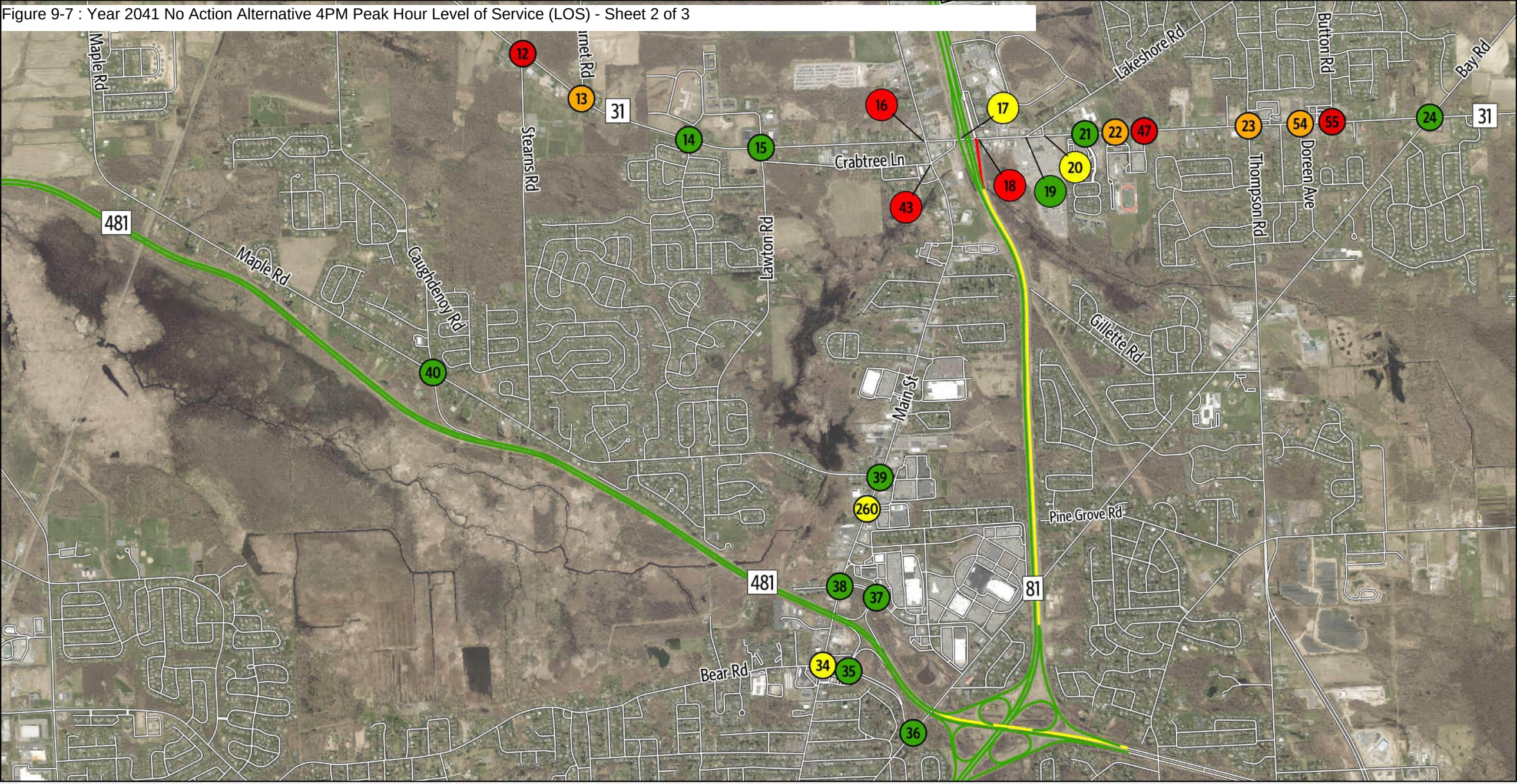
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 1 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-7 : Year 2041 No Action Alternative 4PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

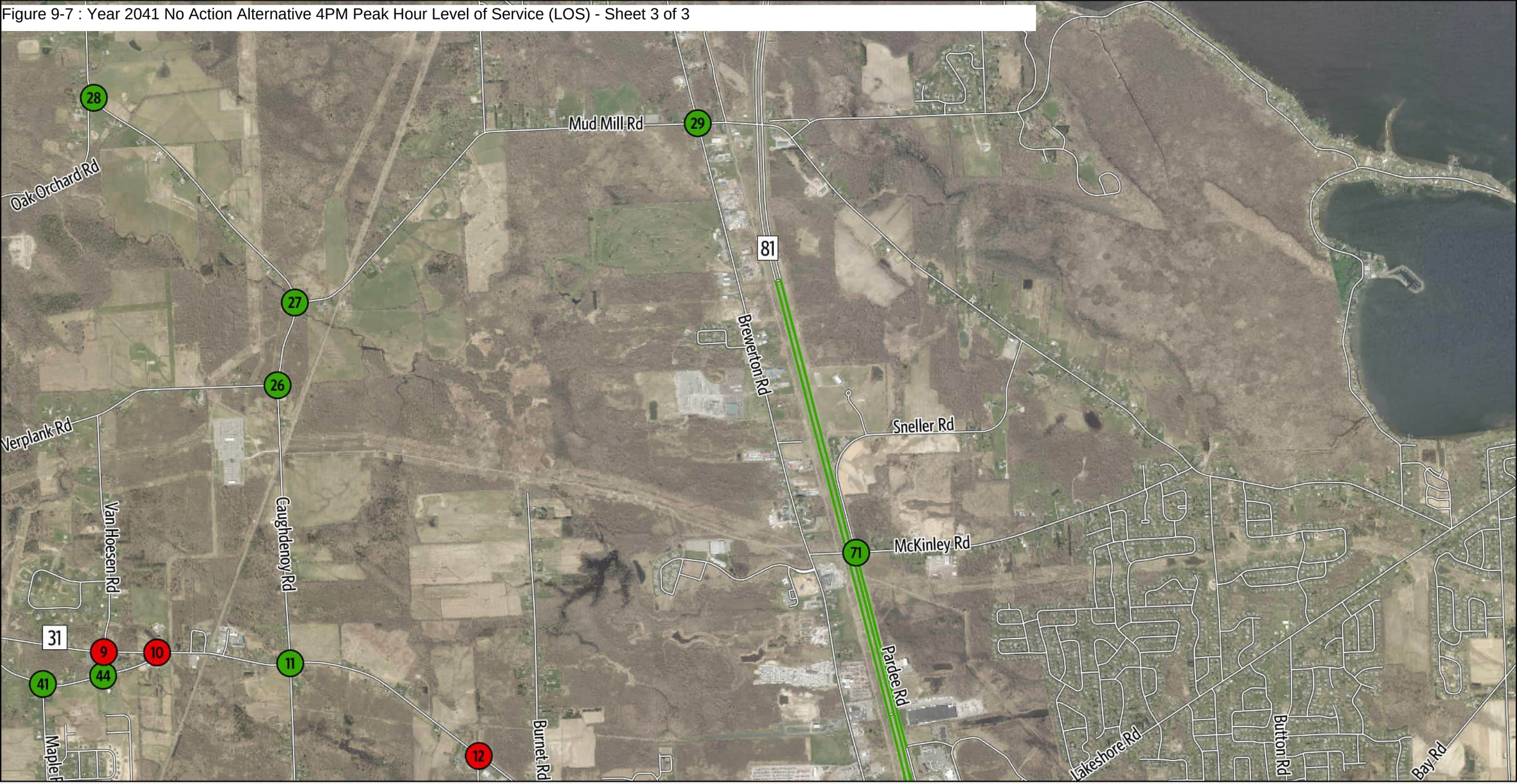
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 2 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-7 : Year 2041 No Action Alternative 4PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

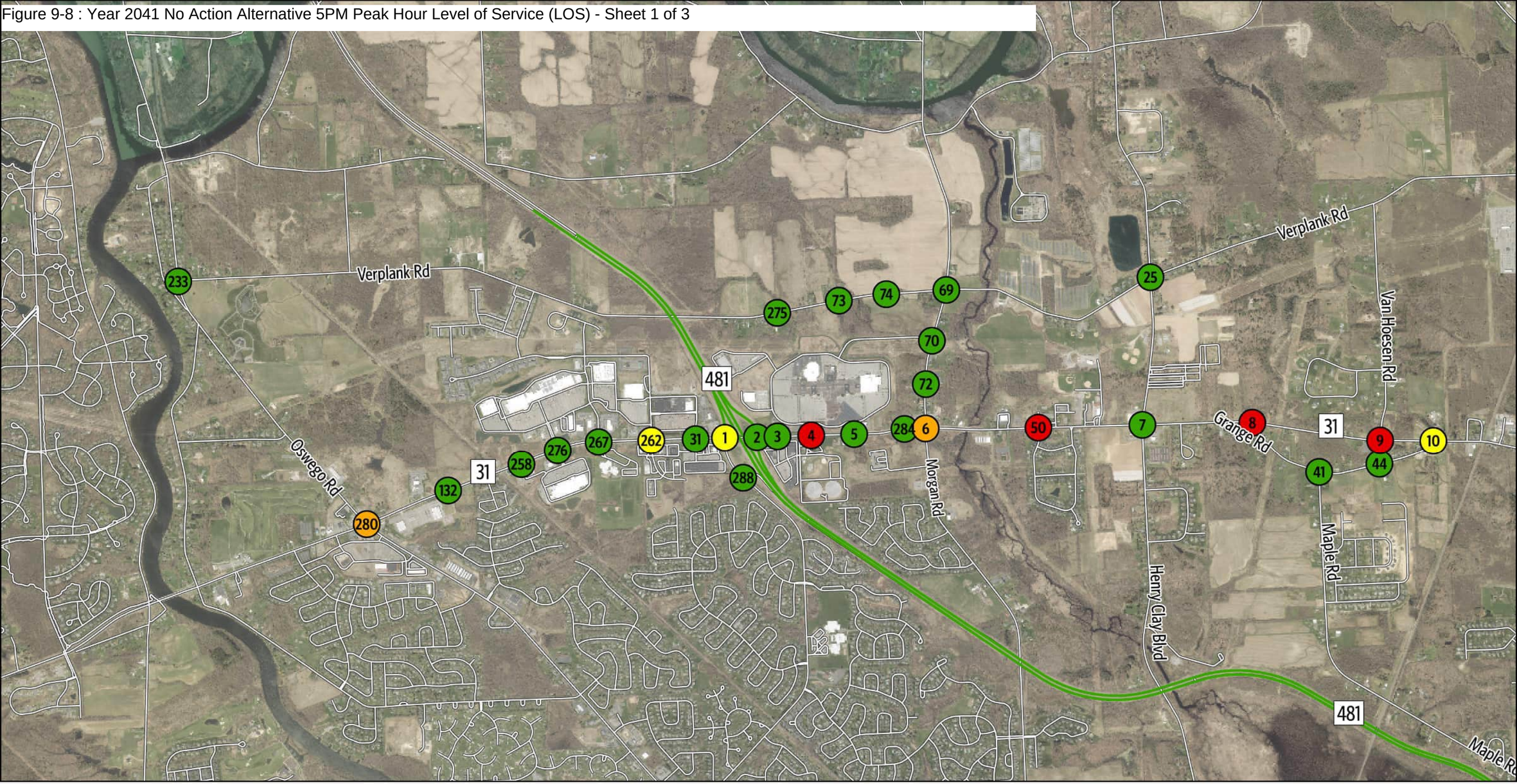
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 3 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-8 : Year 2041 No Action Alternative 5PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A. B. C
- E
- F
- Streets

N

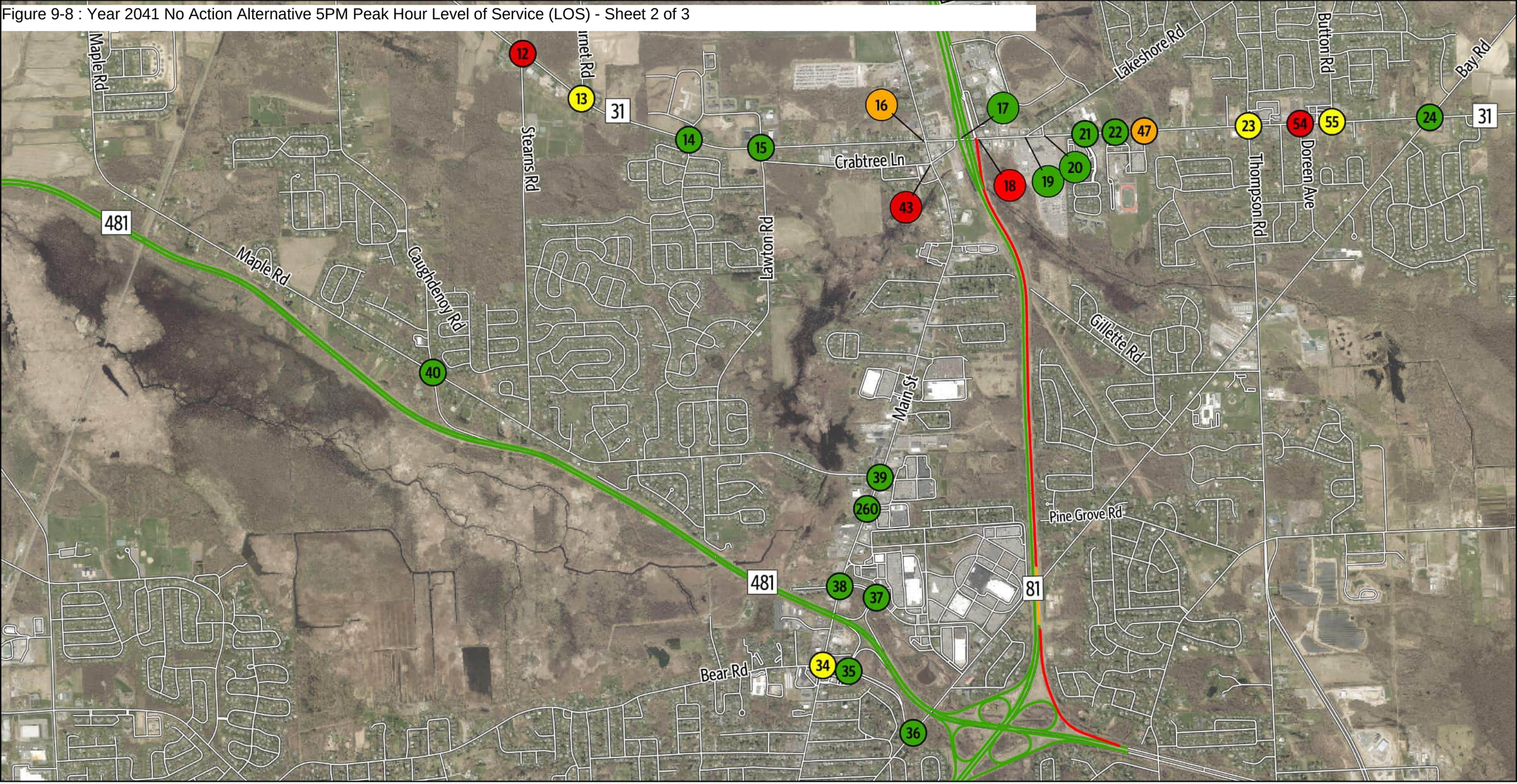
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 1 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-8 : Year 2041 No Action Alternative 5PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A. B. C
- E
- F
- Streets

N

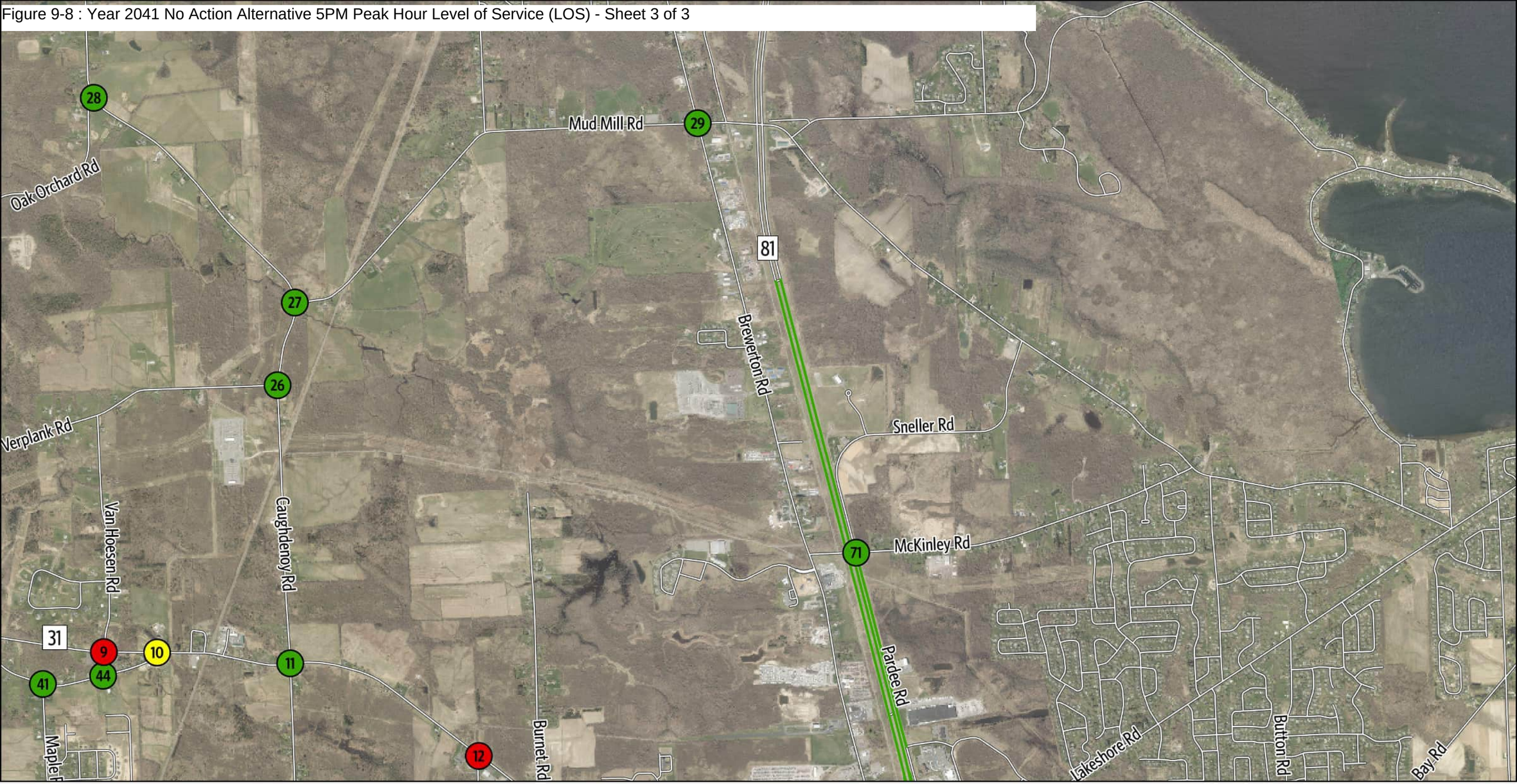
0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 2 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-8 : Year 2041 No Action Alternative 5PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A. B. C
- E
- F
- Streets

N

0 2,000 4,000 Feet

2041 No Action Alternative

Sheet 3 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Table 9-1. Year 2041 No Action Alternative AM and PM Peak Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection name	Intersection Control	6 AM			7 AM			4 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	8.4	A	0.64	8.1	A	0.71	68.0	E	1.15	41.8	D	1.03
2	NYS Route 31 and NYS Route 481 NB	Signalized	12.0	B	0.41	13.4	B	0.61	51.3	D	1.08	27.4	C	0.98
3	Marketfair Plaza and NYS Route 31	Signalized	4.3	A	0.32	1.2	A	0.49	7.3	A	0.75	6.2	A	0.83
4	NYS Route 31 and GNM West	Signalized	15.9	B	0.58	19.8	B	0.82	141.8	F	1.40	83.0	F	1.20
5	Parking Lot/GNM East and NYS Route 31	Signalized	14.4	B	0.57	24.9	C	0.85	50.8	D	1.04	30.2	C	1.01
6	Morgan Road and NYS Route 31	Signalized	25.4	C	0.66	34.0	C	0.88	71.0	E	1.09	59.4	E	1.01
7	Henry Clay Boulevard and NYS Route 31	Signalized	20.0	C	0.50	29.2	C	0.66	26.9	C	0.85	27.4	C	0.86
8	Grange Road W and NYS Route 31	Unsignalized	22.9	C	N/A	100.2	F	N/A	>300	F	N/A	>300	F	N/A
9	Van Hoesen Road and NYS Route 31	Unsignalized	19.5	C	N/A	42.1	E	N/A	108.3	F	N/A	83.0	F	N/A
10	Grange Road E and NYS Route 31	Unsignalized	12.1	B	N/A	15.7	C	N/A	60.9	F	N/A	30.3	D	N/A
11	Caughdenoy Road and NYS Route 31	Signalized	5.7	A	0.24	7.6	A	0.44	21.8	C	0.90	11.9	B	0.69
12	Stearns Road and NYS Route 31	Unsignalized	18.3	C	N/A	65.5	F	N/A	62.7	F	N/A	70.0	F	N/A
13	NYS Route 31 and Burnet Road	Unsignalized[a]	14.6	B	N/A	23.3	C	N/A	39.4	E	N/A	28.6	D	N/A
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	12.2	B	N/A	17.5	C	N/A	16.1	C	N/A	14.9	B	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	8.0	A	0.49	13.1	B	0.75	34.0	C	0.86	27.9	C	1.01
16	U.S. Route 11 and NYS Route 31	Signalized	26.7	C	0.74	40.0	D	1.07	89.9	F	1.20	60.1	E	1.09
17	NYS Route 31 and I-81 SB Ramp	Signalized	18.1	B	0.79	51.0	D	1.15	36.8	D	0.98	23.9	C	0.91
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	23.6	C	0.60	39.9	D	0.92	100.8	F	1.67	88.8	F	1.62
19	NYS Route 31 and Lakeshore Road	Signalized	14.9	B	0.38	7.5	A	0.61	16.9	B	0.69	8.7	A	0.63
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	5.2	A	0.48	8.0	A	0.66	47.8	D	1.18	32.2	C	1.07
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	6.5	A	0.33	7.9	A	0.47	9.2	A	0.71	8.5	A	0.55
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	10.0	A	0.39	14.7	B	0.57	72.3	E	1.63	19.5	B	0.90
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	6.4	A	N/A	10.5	B	N/A	67.3	E	N/A	36.1	D	N/A
24	South Bay Road and NYS Route 31	Signalized	13.4	B	0.60	21.1	C	0.82	32.2	C	0.93	23.7	C	0.84
25	Henry Clay Boulevard and Verplank Road	Signalized	12.2	B	0.15	9.5	A	0.31	11.9	B	0.52	12.4	B	0.45
26	Caughdenoy Road and Verplank Road	Unsignalized	9.6	A	N/A	10.6	B	N/A	16.5	C	N/A	13.7	B	N/A
27	Caughdenoy Road and Mud Mill Road	Unsignalized	9.9	A	N/A	11.6	B	N/A	13.3	B	N/A	12.2	B	N/A
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	9.4	A	N/A	10.1	B	N/A	14.1	B	N/A	12.5	B	N/A
29	U.S. Route 11 and Mud Mill Road	Signalized	10.5	B	0.08	8.8	A	0.15	7.6	A	0.25	7.3	A	0.21
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	15.6	B	0.55	13.9	B	0.68	29.4	C	0.94	26.4	C	0.84

Intersection ID	Intersection name	Intersection Control	6 AM			7 AM			4 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
32	Henry Clay Boulevard and Wetzel Road	Signalized	17.7	B	0.28	19.4	B	0.45	26.1	C	0.74	24.3	C	0.66
33	Allen Road and Bear Road	Signalized	8.6	A	0.25	9.1	A	0.51	15.0	B	0.57	11.7	B	0.60
34	U.S. Route 11 and Bear Road	Signalized	29.7	C	0.56	36.6	D	0.80	50.4	D	0.94	46.1	D	0.96
35	Bear Road and NYS Route 481 EB On/Off-Ramp	Signalized	15.8	B	0.33	14.2	B	0.44	11.1	B	0.38	14.1	B	0.35
36	South Bay Road and Bear Road	Signalized	8.6	A	0.25	9.1	A	0.42	15.3	B	0.75	14.5	B	0.75
37	NYS Route 481 WB On/Off-Ramp and Circle Drive E	Signalized	19.4	B	0.19	11.9	B	0.47	16.5	B	0.66	28.0	C	0.52
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	7.4	A	0.39	9.0	A	0.61	30.5	C	0.91	20.6	C	0.82
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	21.7	C	0.36	24.0	C	0.77	26.8	C	0.66	24.4	C	0.65
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Unsignalized	9.6	A	N/A	10.9	B	N/A	10.6	B	N/A	10.1	B	N/A
41	Maple Road and Grange Road	Unsignalized	9.2	A	N/A	9.6	A	N/A	11.4	B	N/A	10.5	B	N/A
43	U.S. Route 11 and Crabtree Lane	Unsignalized	17.5	C	N/A	19.7	C	N/A	>300	F	N/A	>300	F	N/A
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	8.7	A	N/A	8.7	A	N/A	8.9	A	N/A	8.9	A	N/A
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	11.1	B	N/A	13.6	B	N/A	137.8	F	N/A	35.0	E	N/A
50	McNamara Drive/Driveway and NYS Route 31	Unsignalized	26.1	D	N/A	>300	F	N/A	>300	F	N/A	>300	F	N/A
54	Doreen Avenue and NYS Route 31	Unsignalized	12.5	B	N/A	16.9	C	N/A	47.9	E	N/A	53.3	F	N/A
55	NYS Route 31 and Button Road	Unsignalized	10.4	B	N/A	12.3	B	N/A	51.1	F	N/A	28.7	D	N/A
56	NYS Route 31 and Weller Canning Road	Unsignalized	15.2	C	N/A	29.1	D	N/A	229.1	F	N/A	129.5	F	N/A
69	Morgan Road and Verplank Road	Signalized	6.9	A	0.46	10.7	B	0.63	23.6	C	0.84	18.7	B	0.82
70	Morgan Road and GNM Driveway 1	Signalized	10.3	B	0.42	15.0	B	0.61	18.6	B	0.76	15.8	B	0.69
71	Pardee Road and McKinley Road	Unsignalized	9.2	A	N/A	9.6	A	N/A	9.8	A	N/A	9.6	A	N/A
72	Morgan Road and GNM Driveway 2	Unsignalized	11.7	B	N/A	16.9	C	N/A	33.0	D	N/A	23.4	C	N/A
73	GNM Driveway 3 and Verplank Road	Unsignalized	9.3	A	N/A	9.9	A	N/A	11.3	B	N/A	10.8	B	N/A
74	GNM Driveway 4 and Verplank Road	Unsignalized	9.3	A	N/A	9.9	A	N/A	11.9	B	N/A	11.3	B	N/A
132	Davidson and NYS Route 31	Signalized	10.8	B	0.58	15.5	B	0.70	40.9	D	1.07	31.8	C	0.96
233	Oswego Road and Verplank Road	Unsignalized	11.8	B	N/A	17.1	C	N/A	18.7	C	N/A	16.6	C	N/A
246	U.S. Route 11 and Hogan Drive	Signalized	8.6	A	0.31	25.7	C	0.53	44.0	D	0.96	19.6	B	0.89
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	20.1	C	0.64	12.8	B	0.70	14.1	B	0.93	12.9	B	0.83
260	U.S. Route 11 and Chick-fil-A	Signalized	6.3	A	0.32	6.7	A	0.52	54.3	D	1.11	9.4	A	0.80
262	NYS Route 31 and Carling Road	Signalized	17.0	B	0.67	17.1	B	0.83	58.0	E	1.08	51.9	D	1.03
267	NYS Route 31 and Dell Center Drive	Signalized	22.3	C	0.47	12.1	B	0.57	35.2	D	0.93	27.9	C	0.82
275	Verplank Road and Proposed Access #1	Unsignalized	9.5	A	N/A	10.3	B	N/A	8.5	A	N/A	8.2	A	N/A

Intersection ID	Intersection name	Intersection Control	6 AM			7 AM			4 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
276	Lowes/Home Depot and NYS Route 31	Signalized	9.7	A	0.45	15.2	B	0.55	30.1	C	0.88	24.0	C	0.80
280	NYS Route 31 and Oswego Road	Signalized	25.0	C	0.70	43.0	D	0.92	101.0	F	1.18	68.6	E	1.01
284	NYS Route 31 and Proposed Access	Unsignalized	9.9	A	N/A	10.5	B	N/A	10.8	B	N/A	10.8	B	N/A
287	Proposed Access #2 and Verplank Road	Unsignalized	9.3	A	N/A	10.0	A	N/A	8.8	A	N/A	8.5	A	N/A
288	Soule Rd and Carling Rd and NYS Route 481 SB Ramp	Roundabout	7.6	A	N/A	8.2	A	N/A	20.7	C	N/A	16.5	B	N/A

[a] Signalized in Preferred Action Scenario

9.1.2.1 AM Peak Period

All intersections operate acceptably at LOS D or better in the 6:00 a.m. peak hour. However, because of additional volume demand, the three unsignalized intersections (#8, #12, and #50) along NYS Route 31 at Grange Road West, Sterns Road and McNamara Drive operate at LOS F and Intersection #9 operates at Van Hoesen Road operates at LOS E in the 7:00 a.m. peak hour. Volumes on the single-lane approaches with stop-control for the side-street movements experience delay turning onto and crossing the single-lane free-flowing arterial roadway.

9.1.2.2 PM Peak Period

The evening peak period demand generally results in higher average delays and lower LOS at several intersections beginning in the 4:00 p.m. peak hour; four signalized intersections operate at LOS F and four signalized intersections operate at LOS E. As with the morning peak hour, the delay is high for side-street movements at several unsignalized intersections. Several signalized intersections in the northwestern portion of the Transportation Evaluation Area around GNM operate at LOS E or LOS F overall in both evening peak hours, likely because of high-demand volumes for several approaches and limited green time within the signal cycle available to adequately serve each approach. The following movements at unsignalized intersections and roundabouts operate at LOS E or LOS F in the 4:00 p.m. and 5:00 p.m. peak hour:

- #8: NYS Route 31 and Grange Road West: Northbound to westbound left-turn movement is LOS F (4:00 p.m. and 5:00 p.m.).
- #9: NYS Route 31 and Van Hoesen Road – LOS F
- #10: NYS Route 31 and Grange Road East – LOS F (4:00 p.m. only)
- #12: NYS Route 31 and Stearns Road – LOS F
- #13: NYS Route 31 and Burnet Road – LOS E (4:00 p.m. only)
- #23: Thompson Road and NYS Route 31 – LOS E (4:00 p.m. only)
- #43: U.S. Route 11 and Crabtree Lane: Eastbound left-turn movement is LOS F
- #47: NYS Route 31 and Cicero-North Syracuse High School East Driveway – LOS F during 4:00 p.m. and LOS E during 5:00 p.m.
- #50: NYS Route 31 and McNamara Road: Northbound and southbound left-turn movements are LOS F
- #54: NYS Route 31 and Doreen Avenue – LOS E during 4:00 p.m.; LOS F during 5:00 p.m.
- #55: NYS Route 31 and Button Road – LOS F (4:00 p.m. only)
- #56: NYS Route 31 and Weller Canning Road – LOS F

These signalized intersections operate at LOS E or LOS F overall with some individual movements also at LOS E or LOS F in the 4:00 p.m. and 5:00 p.m. peak hours:

- #1: NYS Route 31 and NYS Route 481 Southbound Ramps: LOS E operations result from inadequate green time available for conflicting through movements at the crossover intersections within the DDI during 4:00 p.m.
- #4: NYS Route 31 and GNM West Entrance: LOS F operations overall in both 4:00p.m. and 5:00 p.m. with the southbound left turn at LOS F because green time for this high-demand movement is sacrificed to the heavy westbound through movement.

- #6: NYS Route 31 and Morgan Road: LOS E (4:00 p.m. and 5:00 p.m.) operations overall but the westbound through movement is at LOS F because inadequate green time is available to service this demand with the competing eastbound left-turn movement.
- #16: NYS Route 31 and U.S. Route 11: LOS F during 4:00 p.m. and LOS E during 5:00 p.m. operations overall because adequate green time is not available to service competing high-demand movements.
- #18: NYS Route 31 and Pardee Road/I-81 Northbound Ramps: LOS F (4:00 p.m. and 5:00 p.m.) operations overall because of competing movement volumes; the northbound off-ramp approach is at LOS F because demand is not adequately serviced by the green time provided to the heavy through movement volumes on NYS Route 31.
- #22: NYS Route 31 and Cicero-North Syracuse High School West Driveway: Single left- and right-turn lanes do not provide adequate capacity for the heavy afternoon demand; LOS E overall operations in the 4:00 p.m. peak hour improve to LOS B in the 5:00 p.m. peak hour.
- #262: NYS Route 31 and Carling Road – LOS E overall operations in the 4:00 p.m. peak hour
- #280: NYS Route 31 and Oswego Road – LOS F during 4:00 p.m. and LOS E during 5:00 p.m.

The delay values for most of the LOS E intersections are at the lower end of the LOS E delay range shown in Table 2-3 (refer to Section 2.4.2), indicating that operations are congesting but not yet at unacceptable or congested conditions during the first hour of the evening peak period. Although LOS E or LOS F conditions persist into the 5:00 p.m. peak hour, the average overall delay decreases for all these intersections. The delay reductions at the NYS Route 31/U.S. Route 11 and NYS Route31/Oswego Road intersections improve operating conditions from LOS F to LOS E.

9.1.3 Freeway Operations

Table 9-2 and 9-3 summarize the I-81 and the NYS Route 481 freeway densities and corresponding LOS expressed as a letter designation and by the color coding shown in Table 2-3. Generally, the I-81 and the NYS Route 481 freeways operate in relatively uncongested conditions in both peak periods (LOS D or better). For locations where the demand increases in the second hour of each peak period, the corresponding increases in density do not cause a drop to unacceptable operating conditions for most of the Transportation Evaluation Area. However, the northbound segment of I-81 between the off-ramps to NYS Route 481 and NYS Route 31 operates in congested LOS E or LOS F conditions in the 5:00 p.m. evening peak hour. Issues with the diverge to the NYS Route 31 off-ramp begin in the 4:00 p.m. peak hour and perpetuate into the 5:00 p.m. peak hour. In addition, eastbound NYS Route 481 experiences LOS E between NYS Route 31 and Caughdenoy Road, the off-ramps to and from Bear Road, and U.S. Route 11 and I-81 in the 7:00 a.m. peak hour.

Table 9-2. Year 2041 No Action Alternative AM and PM Peak-Hour Freeway I-81 Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 NB	I-81 NB Between E Taft Road and NYS Route 481	Basic	1,252	1,233	66	6.2	A	1,951	1,946	66	9.9	A	3,817	3,810	65	19.6	C	3,564	3,566	65	18.4	C
	I-81 NB Off-Ramp to NYS Route 481	Diverge	1,252	1,225	64	4.8	A	1,951	1,938	64	7.6	A	3,817	3,795	62	15.3	B	3,564	3,560	60	15.1	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Basic	1,051	1,031	66	5.2	A	1,760	1,744	66	8.8	A	3,569	3,563	64	18.5	C	3,321	3,330	60	21.5	C
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Weave	1,052	1,030	62	4.2	A	1,760	1,742	61	7.1	A	3,598	3,595	58	15.4	B	3,344	3,352	53	22.7	C
	I-81 NB after Off-Ramp to NYS Route 481	Basic	636	621	61	5.1	A	1,056	1,052	61	8.7	A	2,149	2,171	56	19.4	C	1,999	1,986	40	43.4	E
	I-81 NB On-Ramp from NYS Route 481	Merge	882	860	67	3.2	A	1,461	1,463	66	5.5	A	3,167	3,181	56	17.6	B	2,945	2,930	27	69.6	F
	I-81 NB Between NYS Route 481 and NYS Route 31	Basic	882	853	67	4.3	A	1,461	1,459	66	7.3	A	3,167	3,065	32	44.6	E	2,945	2,888	8	131.6	F
	I-81 NB Off-Ramp to NYS Route 31	Diverge	882	844	63	3.4	A	1,461	1,450	59	6.1	A	3,167	2,776	8	110.5	F	2,945	2,839	5	147.6	F
	I-81 NB Between Off/On-Ramps to/from NYS Route 31	Basic	491	475	67	2.4	A	837	838	67	4.2	A	2,106	1,868	61	10.2	A	1,959	1,910	58	11.0	A
	I-81 NB On-Ramp from NYS Route 31	Merge	660	616	64	2.4	A	1,095	1,034	64	4.0	A	2,866	2,412	55	10.9	B	2,688	2,419	54	11.3	B
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	660	615	67	3.1	A	1,095	1,031	67	5.1	A	2,866	2,407	54	14.9	B	2,688	2,424	53	15.2	B
	I-81 NB Between Sneller Rd and Bartell Road	Basic	660	601	67	3.0	A	1,095	1,021	67	5.1	A	2,866	2,427	52	15.6	B	2,688	2,397	52	15.4	B
	I-81 NB Off-Ramp to Bartell Road	Diverge	660	595	64	2.3	A	1,095	1,016	64	4.0	A	2,866	2,431	48	12.6	B	2,688	2,384	45	13.3	B
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	541	488	67	2.4	A	884	821	67	4.1	A	2,229	1,870	52	12.0	B	2,086	1,856	52	12.0	B
	I-81 On-Ramp from Bartell Road	Merge	593	536	65	2.1	A	984	918	65	3.5	A	2,455	2,090	53	9.9	A	2,289	2,053	53	9.7	A
	I-81 NB Between Bartell Road and East Avenue	Basic	593	537	67	2.7	A	984	918	67	4.6	A	2,455	2,098	54	13.0	B	2,289	2,054	54	12.6	B
I-81 SB	I-81 SB Between East Ave and Bartell Road	Basic	1,446	1,440	67	7.1	A	2,331	2,326	67	11.6	B	1,380	1,379	68	6.8	A	1,294	1,292	68	6.4	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	1,446	1,426	66	5.4	A	2,331	2,308	65	8.9	A	1,380	1,368	65	5.3	A	1,294	1,285	65	4.9	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	1,364	1,349	67	6.7	A	2,207	2,202	66	11.1	B	1,176	1,178	67	5.8	A	1,115	1,112	68	5.5	A
	I-81 SB On-Ramp from Bartell Road	Merge	1,769	1,737	65	6.7	A	2,868	2,851	64	11.2	B	1,670	1,668	65	6.5	A	1,602	1,594	65	6.2	A
	I-81 SB Between Bartell Road and Sneller Road	Basic	1,769	1,728	67	8.7	A	2,868	2,848	65	14.6	B	1,670	1,672	67	8.3	A	1,602	1,602	67	8.0	A
	I-81 SB Between Sneller Road and NYS Route 31	Basic	1,769	1,710	66	8.6	A	2,868	2,827	65	14.6	B	1,670	1,676	67	8.4	A	1,602	1,605	67	8.0	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	1,769	1,700	65	6.5	A	2,868	2,817	61	11.6	B	1,670	1,676	64	6.6	A	1,602	1,603	58	7.7	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	1,431	1,383	67	6.9	A	2,334	2,280	65	11.7	B	1,289	1,295	67	6.4	A	1,241	1,236	67	6.1	A

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 SB (continued)	I-81 SB On-Ramp from NYS Route 31	Merge	2,348	2,165	62	8.7	A	3,712	3,202	61	13.1	B	2,195	2,020	64	7.9	A	2,179	2,017	63	8.0	A
	I-81 SB Between NYS Route 31 and I-81	Basic	2,348	2,160	66	10.9	A	3,712	3,209	64	16.8	B	2,195	2,027	66	10.2	A	2,179	2,024	66	10.1	A
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	2,348	2,160	66	10.9	B	3,712	3,209	64	16.8	B	2,195	2,027	66	10.2	B	2,179	2,024	66	10.1	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	1,564	1,421	65	10.9	A	2,421	2,058	63	16.3	B	1,566	1,447	66	11.0	A	1,523	1,425	66	10.8	A
	I-81 SB Off-Ramp to I-81 WB	Diverge	1,564	1,420	65	7.3	A	2,421	2,055	64	10.7	B	1,566	1,450	65	7.4	A	1,523	1,423	65	7.3	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	1,519	1,381	65	10.6	A	2,400	2,028	64	15.9	B	1,464	1,353	66	10.2	A	1,429	1,331	66	10.1	A
	I-81 SB On-Ramp from NYS Route 481 WB	Merge	1,702	1,560	65	8.0	A	2,660	2,283	65	11.8	B	1,652	1,537	66	7.8	A	1,604	1,503	66	7.6	A
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	2,832	2,441	50	12.2	B	4,042	3,636	47	19.3	B	2,999	2,751	47	14.8	B	2,892	2,713	47	14.5	B
	I-81 SB Between NYS Route 481 and E Taft Road	Basic	2,832	2,444	51	15.9	B	4,042	3,657	45	26.8	D	2,999	2,764	46	19.9	C	2,892	2,732	47	19.4	C

Table 9-3. Year 2041 No Action Alternative AM and PM Peak-Hour Freeway NYS Route 481 Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 EB	NYS Route 481 EB Between Verplank Rd and NYS Route 31	Basic	1,130	1,058	63	8.3	A	1,643	1,636	62	13.2	B	1,309	1,305	62	10.5	A	1,203	1,210	62	9.8	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	1,130	1,056	52	6.7	A	1,643	1,637	49	11.2	B	1,309	1,305	47	9.2	A	1,203	1,211	44	10.2	B
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	683	657	66	4.9	A	972	965	65	7.4	A	654	660	67	4.9	A	605	609	67	4.5	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	1,807	1,689	36	15.5	B	2,536	2,517	35	24.0	C	2,206	1,973	35	18.9	B	2,038	1,873	35	18.0	B
	NYS Route 481 EB Between NYS Route 31 and Bear Road	Basic	1,807	1,655	32	25.7	C	2,536	2,519	30	42.0	E	2,206	1,963	32	30.3	D	2,038	1,864	33	28.7	D
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	1,807	1,431	32	14.9	B	2,536	2,453	29	27.9	C	2,206	1,953	30	21.5	C	2,038	1,906	30	20.9	C
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	1,610	1,295	31	21.2	C	2,293	2,236	27	41.4	E	1,743	1,554	32	24.1	C	1,616	1,525	32	23.7	C
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	2,398	2,015	34	19.9	B	3,382	3,232	29	36.9	E	2,548	2,340	32	24.7	C	2,385	2,285	32	24.0	C
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	1,268	1,087	40	9.1	A	2,001	1,854	34	18.2	B	1,201	1,114	44	8.4	A	1,097	1,051	45	7.9	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	1,267	1,078	40	13.6	B	2,000	1,858	34	27.5	D	1,172	1,082	45	12.1	B	1,074	1,029	45	11.3	B
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	1,467	1,269	41	10.4	B	2,192	2,052	33	20.6	C	1,420	1,323	45	9.7	A	1,317	1,275	46	9.2	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	2,252	1,987	50	9.9	A	3,482	3,188	44	18.0	B	2,049	1,903	54	8.9	A	1,973	1,879	54	8.7	A
	NYS Route 481 EB Between I-81 and Northern Blvd	Basic	2,252	1,976	52	12.8	B	3,482	3,176	44	23.8	C	2,049	1,902	56	11.4	B	1,973	1,879	56	11.2	B

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 WB	NYS Route 481 WB Between Northern Blvd and I-81	Basic	947	933	67	6.9	A	1,569	1,563	67	11.7	B	2,897	2,888	66	22.0	C	2,733	2,726	66	20.7	C
	NYS Route 481 WB Off-Ramp to I-81	Diverge	947	931	67	4.6	A	1,569	1,566	66	7.9	A	2,897	2,897	65	15.0	B	2,733	2,732	65	14.1	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	701	684	51	6.8	A	1,164	1,151	50	11.4	B	1,879	1,877	50	18.9	C	1,787	1,782	50	17.9	B
	NYS Route 481 WB Between On-Ramp and Off-Ramp to I-81	Weave	1,117	1,084	60	6.0	A	1,868	1,829	59	10.3	B	3,328	3,300	57	19.2	B	3,131	3,134	58	18.2	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	933	900	65	7.0	A	1,607	1,580	63	12.5	B	3,139	3,124	62	25.3	C	2,956	2,974	62	24.0	C
	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	978	934	65	4.8	A	1,629	1,603	64	8.3	A	3,241	3,223	64	16.8	B	3,051	3,065	64	16.0	B
	NYS Route 481 WB Off-Ramp and On-Ramp from Cir Drive	Basic	610	569	64	4.5	A	987	968	64	7.6	A	2,129	2,119	63	16.7	B	1,929	1,938	64	15.2	B
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	820	748	62	4.0	A	1,287	1,266	61	6.9	A	2,618	2,606	57	15.4	B	2,356	2,369	58	13.7	B
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	820	742	66	5.6	A	1,287	1,262	65	9.7	A	2,618	2,606	63	20.6	C	2,356	2,373	64	18.6	C
	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	820	724	63	3.8	A	1,287	1,237	61	6.8	A	2,618	2,562	56	15.3	B	2,356	2,341	57	13.7	B
	NYS Route 481 WB Between Caughdenoy Rd and NYS Route 31	Basic	763	659	66	5.0	A	1,136	1,098	65	8.5	A	2,144	2,152	63	17.0	B	1,989	2,013	64	15.8	B
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	763	641	65	2.5	A	1,136	1,088	65	4.2	A	2,144	2,139	61	8.7	A	1,989	2,008	61	8.3	A
	NYS Route 481 WB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	321	276	67	2.1	A	486	461	67	3.5	A	565	571	67	4.3	A	524	533	67	4.0	A
	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	561	495	62	2.6	A	853	819	61	4.5	A	1,423	1,293	58	7.5	A	1,282	1,201	58	6.9	A
	NYS Route 481 WB Between Hwy 31 and Verplank Road	Basic	561	492	64	3.8	A	853	817	63	6.5	A	1,423	1,289	62	10.4	A	1,282	1,200	62	9.6	A

9.2 Preferred Action Alternative

The following subsections present key MOEs and discuss the traffic operational analysis results for these recommended mitigations scenario of the highest-volume demand year 2041. Operations for the peak hour with the lowest LOS within the peak period of the freeway mainline segments, merge/diverge areas, weaving areas, ramp segments, ramp terminal intersections, and surface street intersections are expressed as LOS based on the color coding shown in Tables 2-3 and 2-4 in Section 2.4.2. Appendix D summarizes the model output that details the link and node results summarized in the figures and tables.

9.2.1 Traffic Volumes

The traffic volumes shown in Figures 9-9 through 9-12 are higher than in the No Action scenario because of the addition of Proposed Project-generated trips. The roadway network is the same as the No Action scenario and, therefore, does not reflect any physical capacity improvements to support the additional Proposed Project-generated trips; however, the timing at each signalized intersection was optimized to account for the additional Micron trips. There is a minor shift of background traffic observed from NYS Route 31 to alternative roads based on the accumulated congestion from additional Micron trips.

Figure 9-9: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 1 of 5

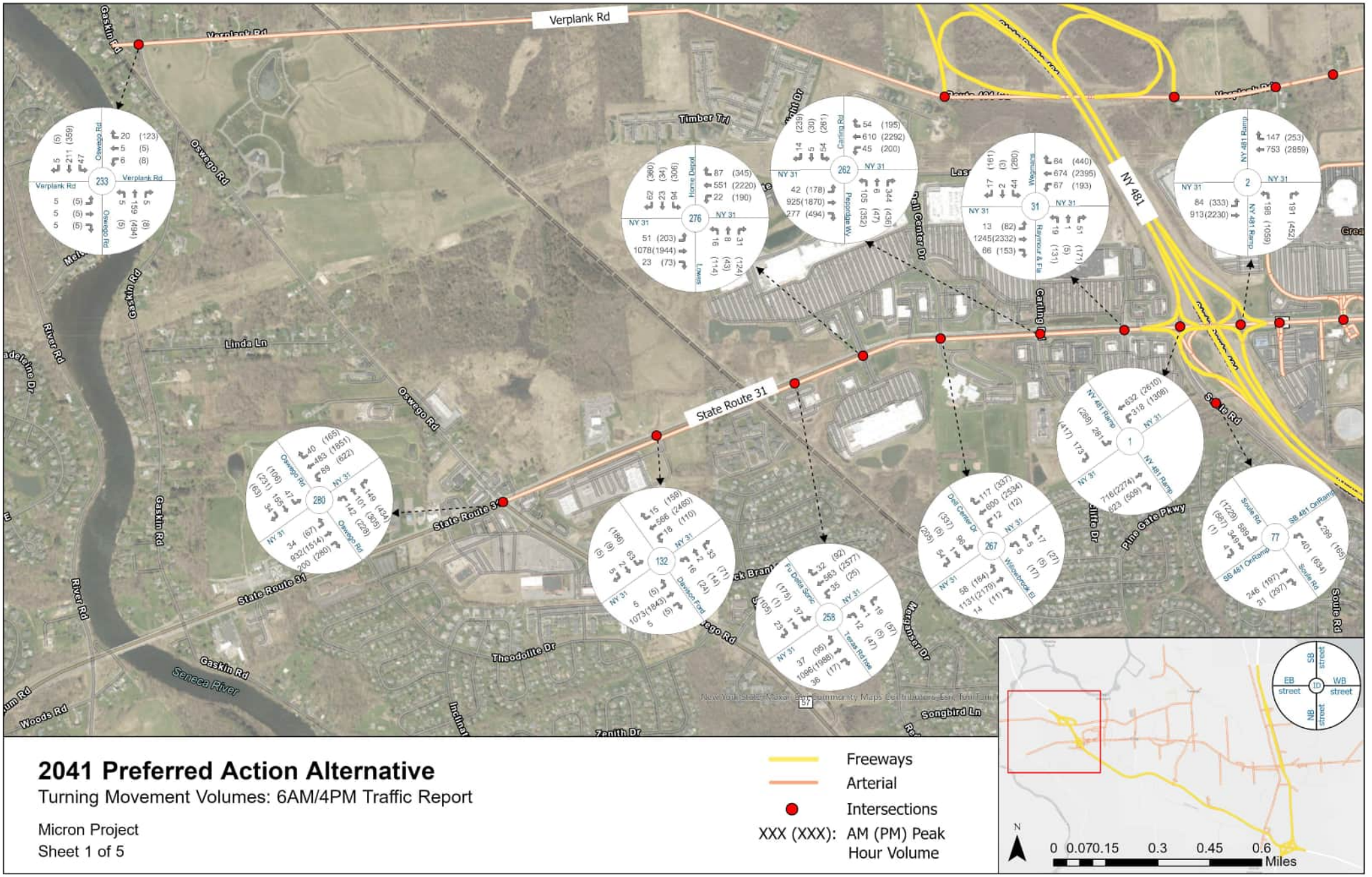


Figure 9-9: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 2 of 5

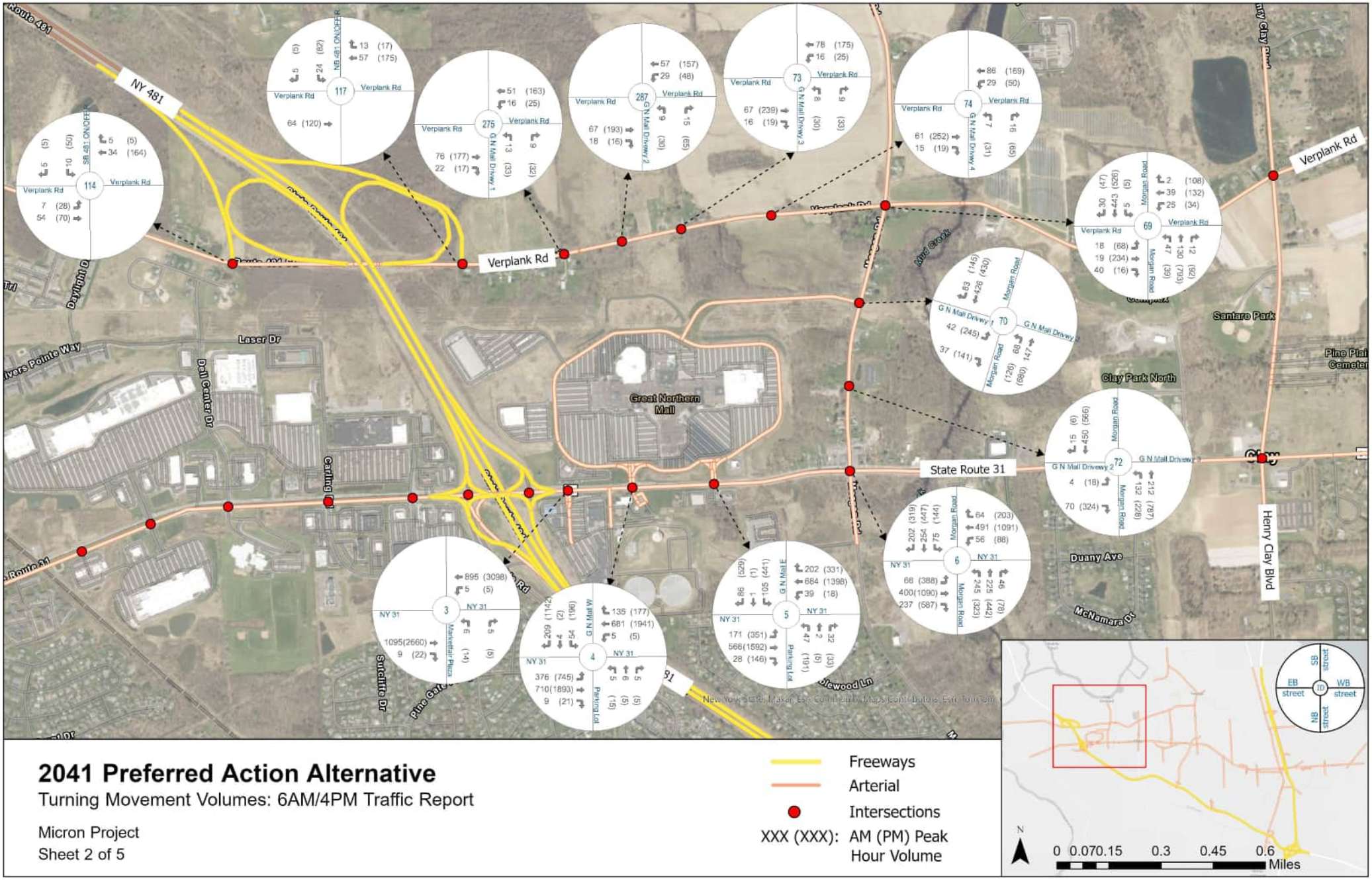


Figure 9-9: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 3 of 5

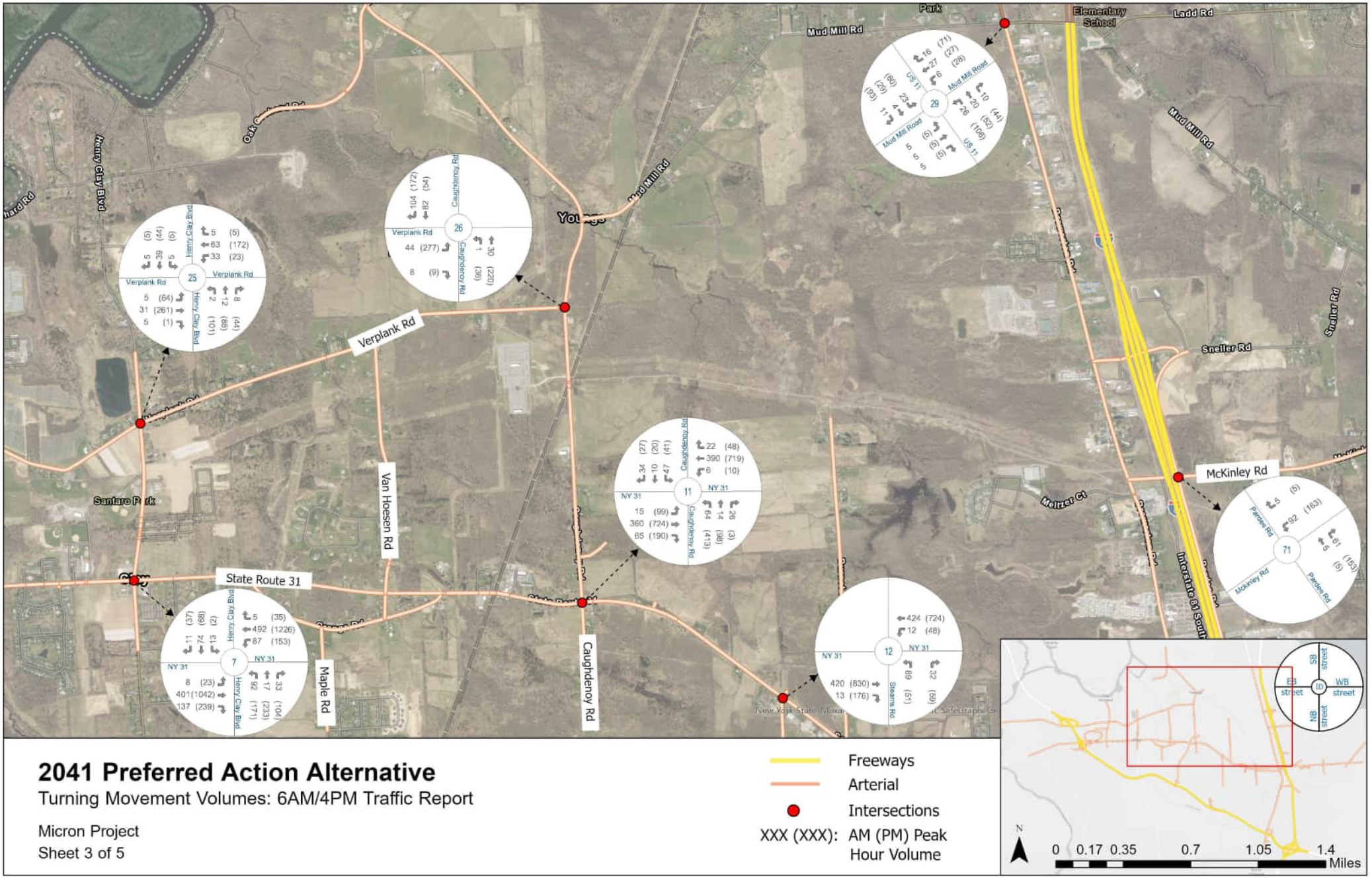


Figure 9-9: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 4 of 5

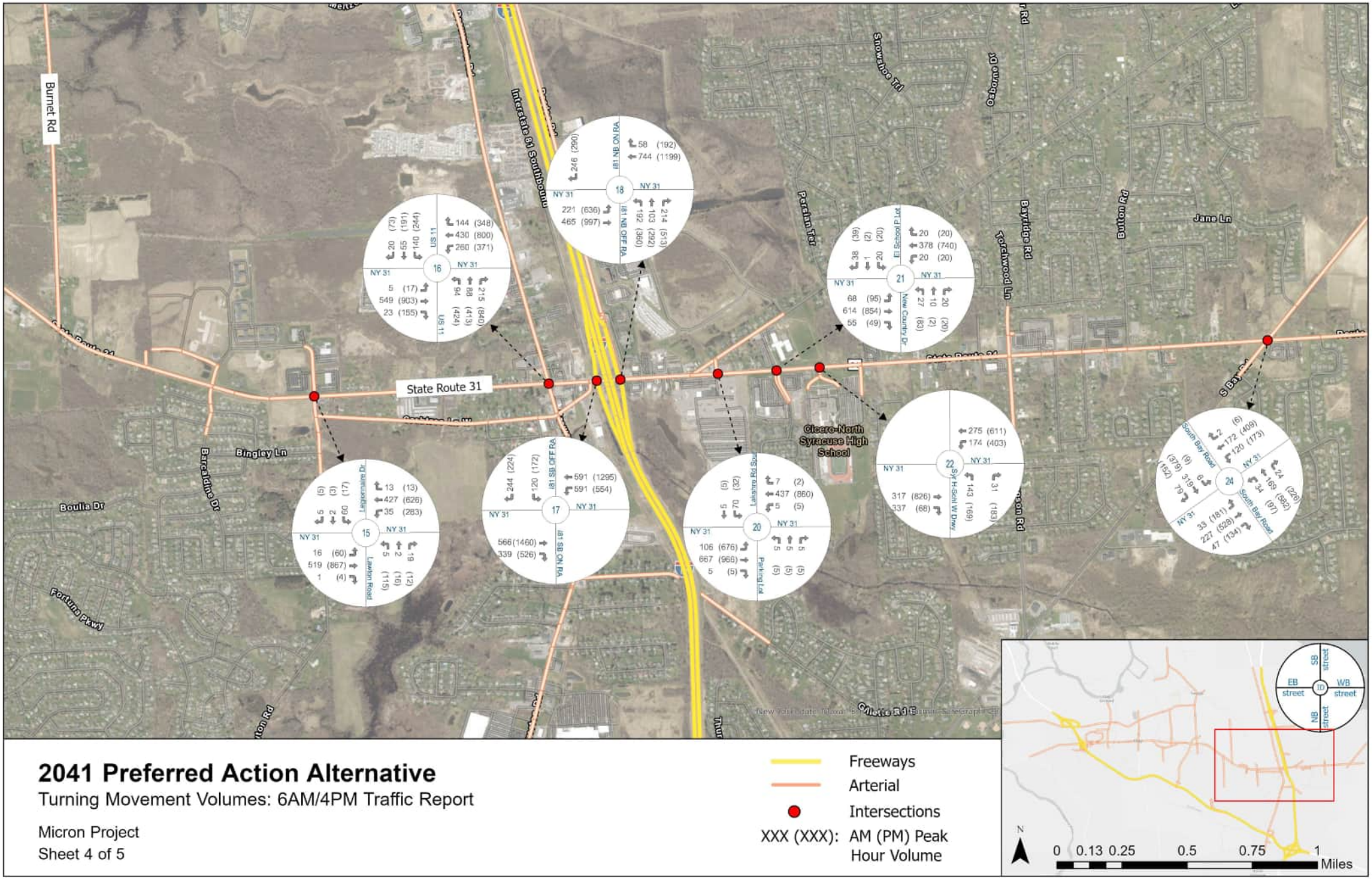
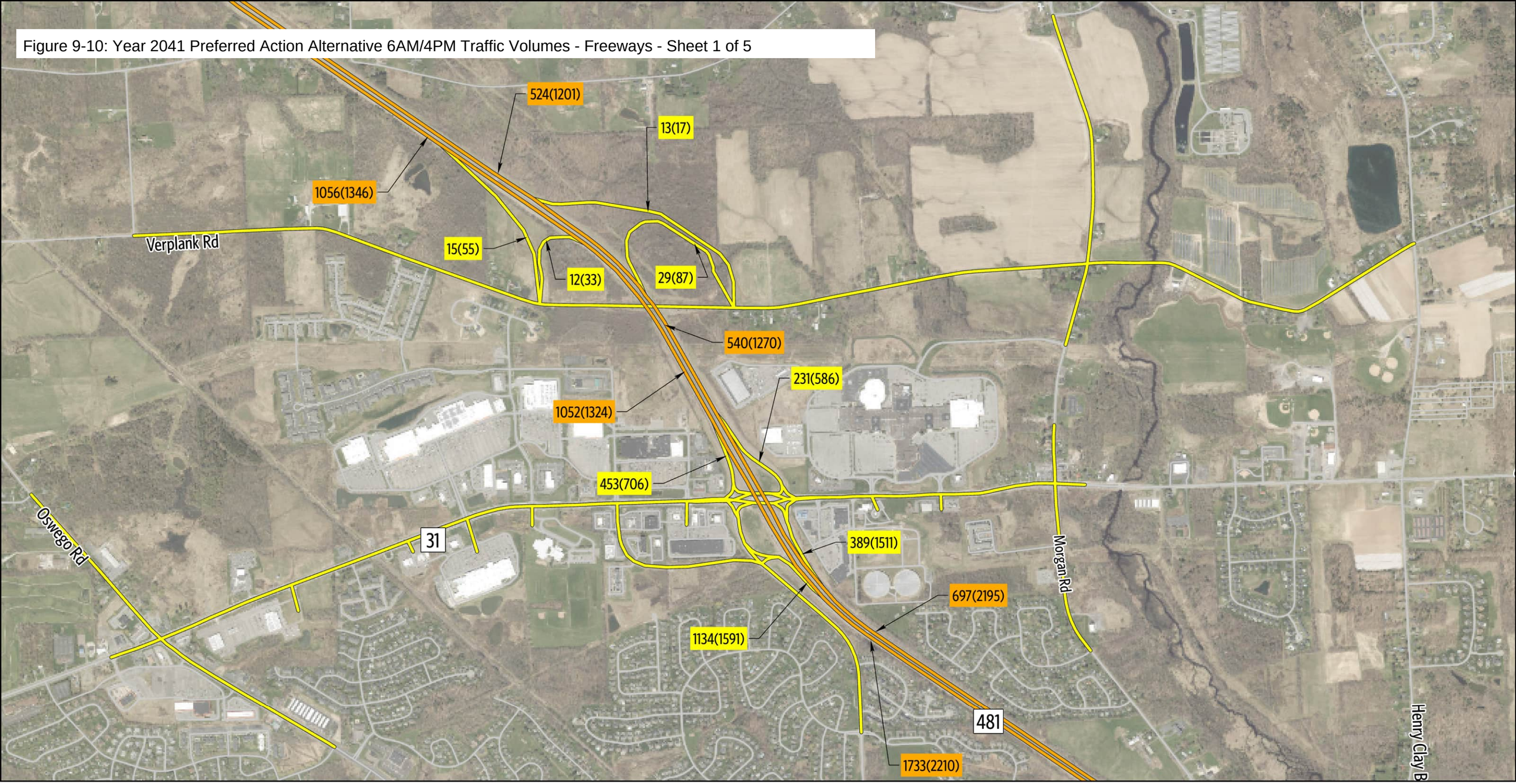


Figure 9-9: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Intersections - Sheet 5 of 5

Figure 9-10: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 1 of 5



Mainline Volumes

Freeway

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 1 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-10: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 2 of 5

Mainline Volumes
Freeway

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

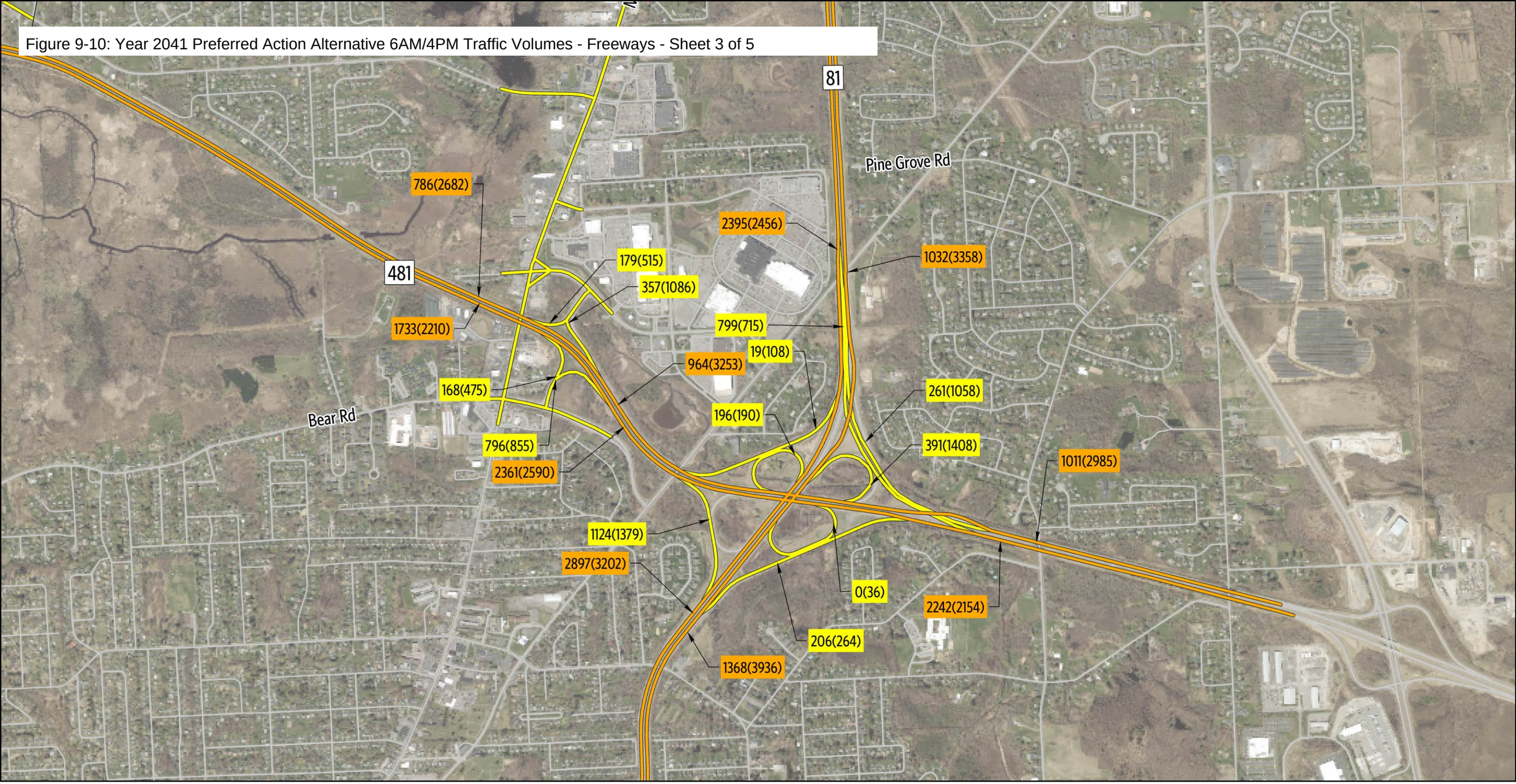
0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 2 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-10: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 3 of 5



Mainline Volumes — Freeway

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

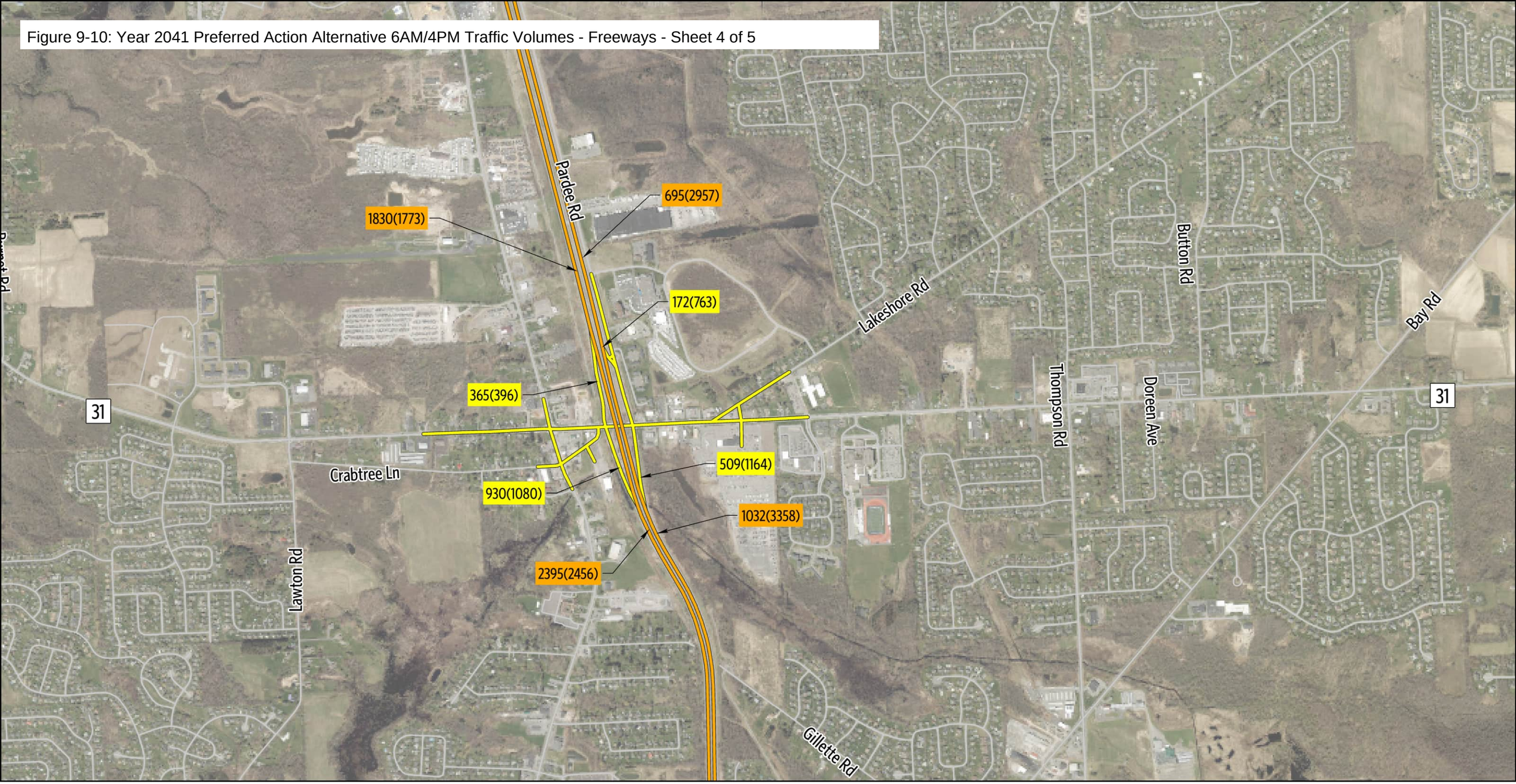
0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 3 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-10: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 4 of 5



Mainline Volumes
Freeway

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 4 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-10: Year 2041 Preferred Action Alternative 6AM/4PM Traffic Volumes - Freeways - Sheet 5 of 5

Mainline Volumes
Freeway

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 5 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-11: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 1 of 5

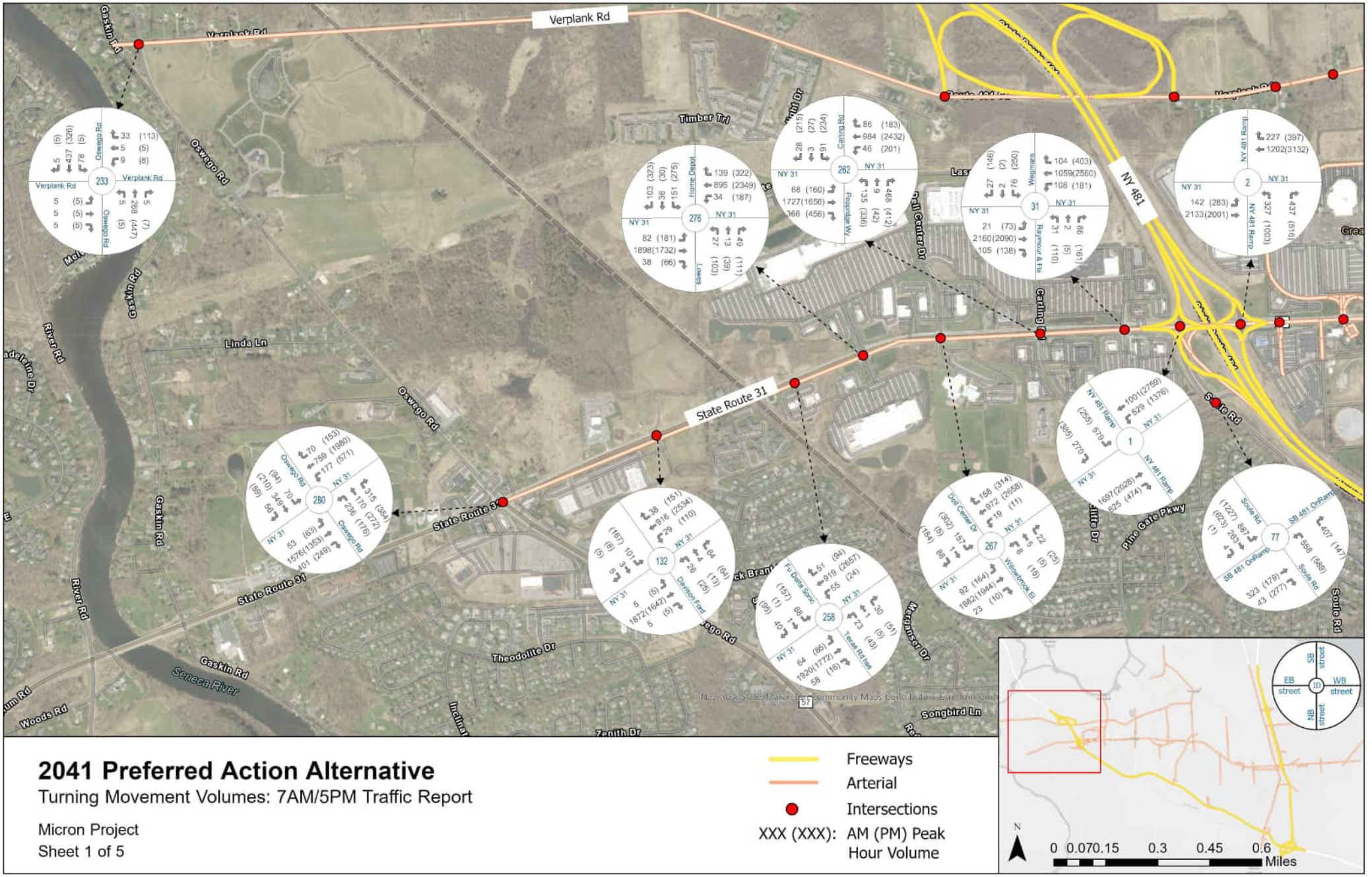


Figure 9-11: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 2 of 5

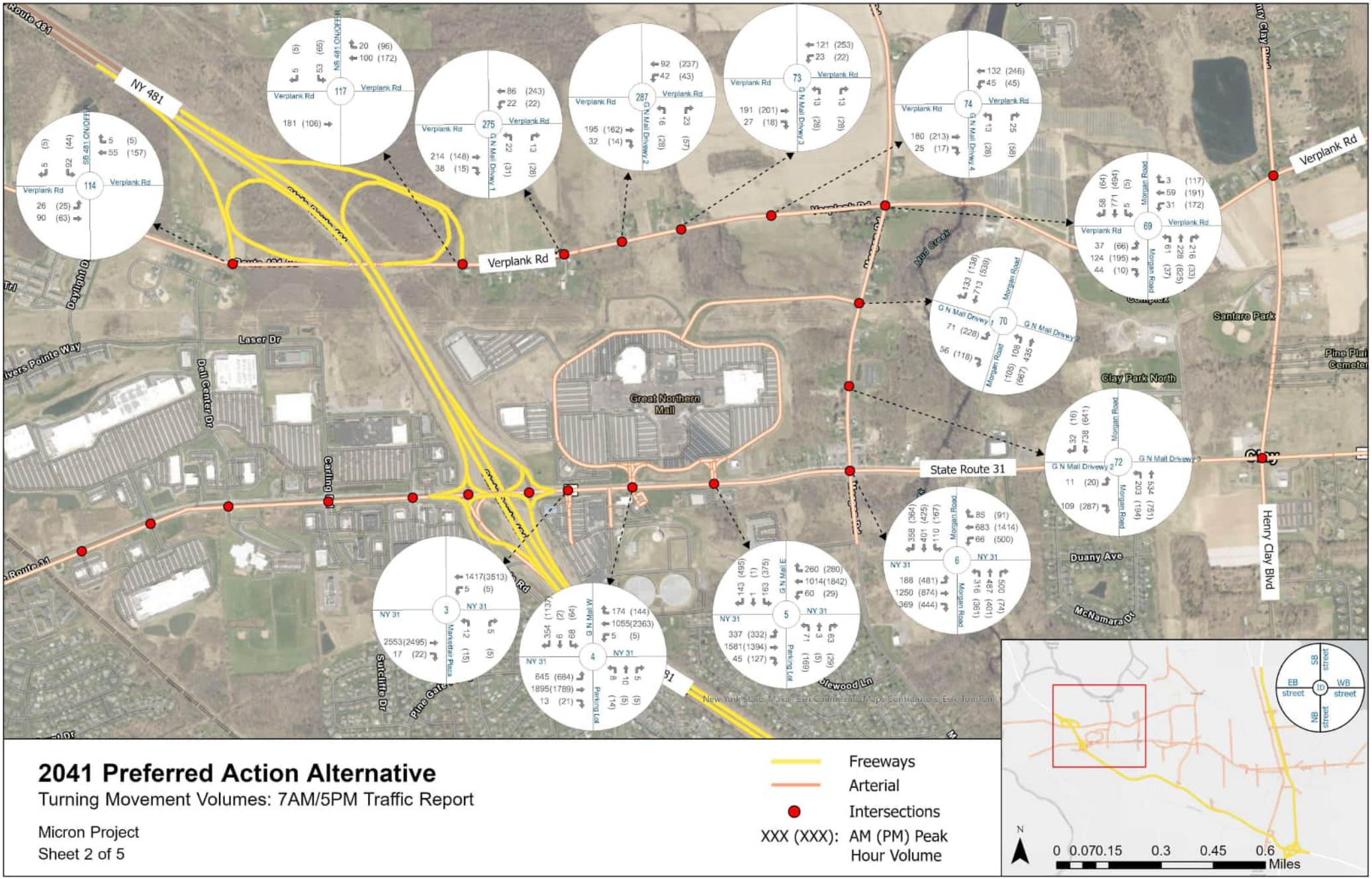


Figure 9-11: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 3 of 5

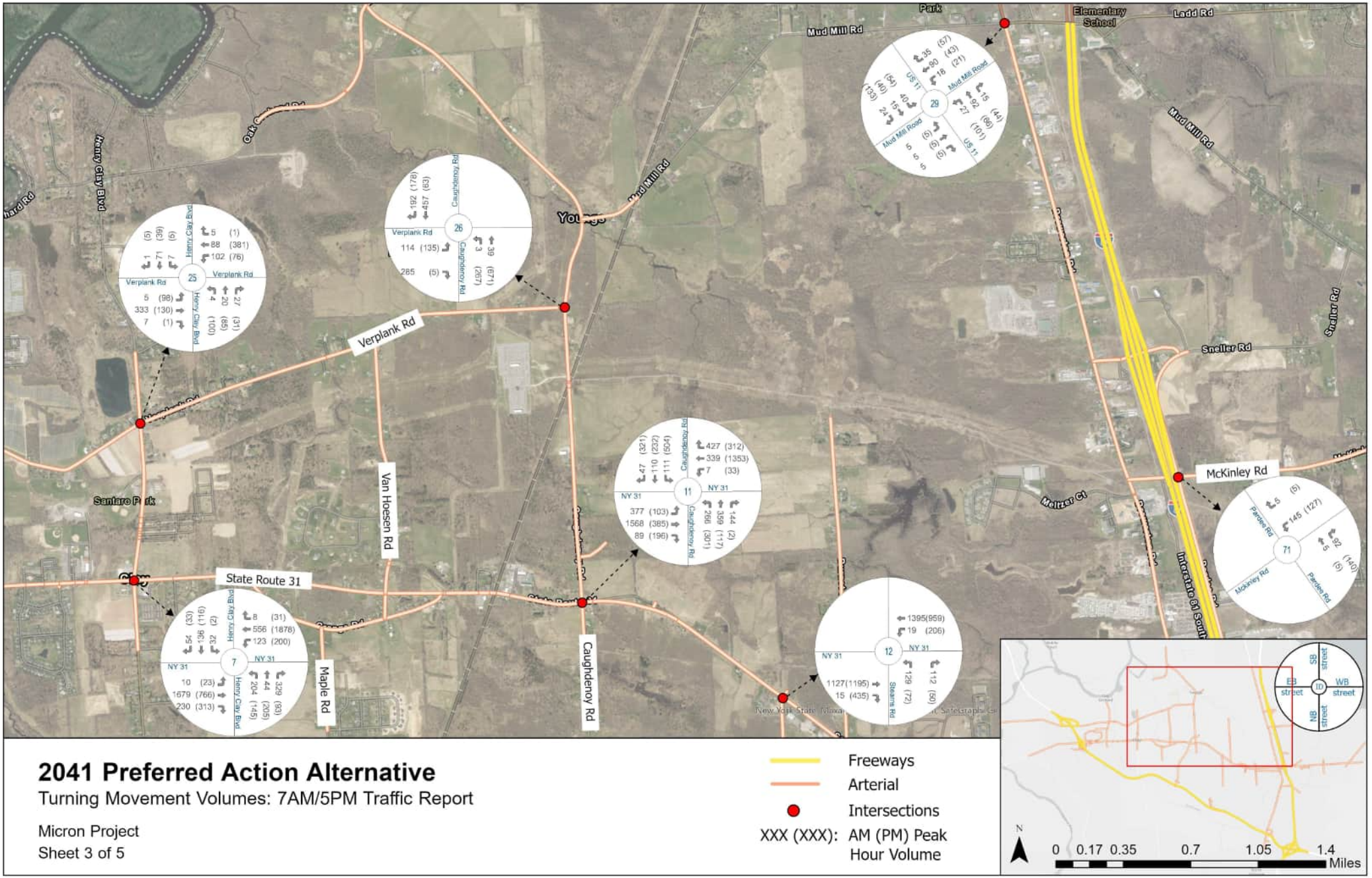


Figure 9-11: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 4 of 5

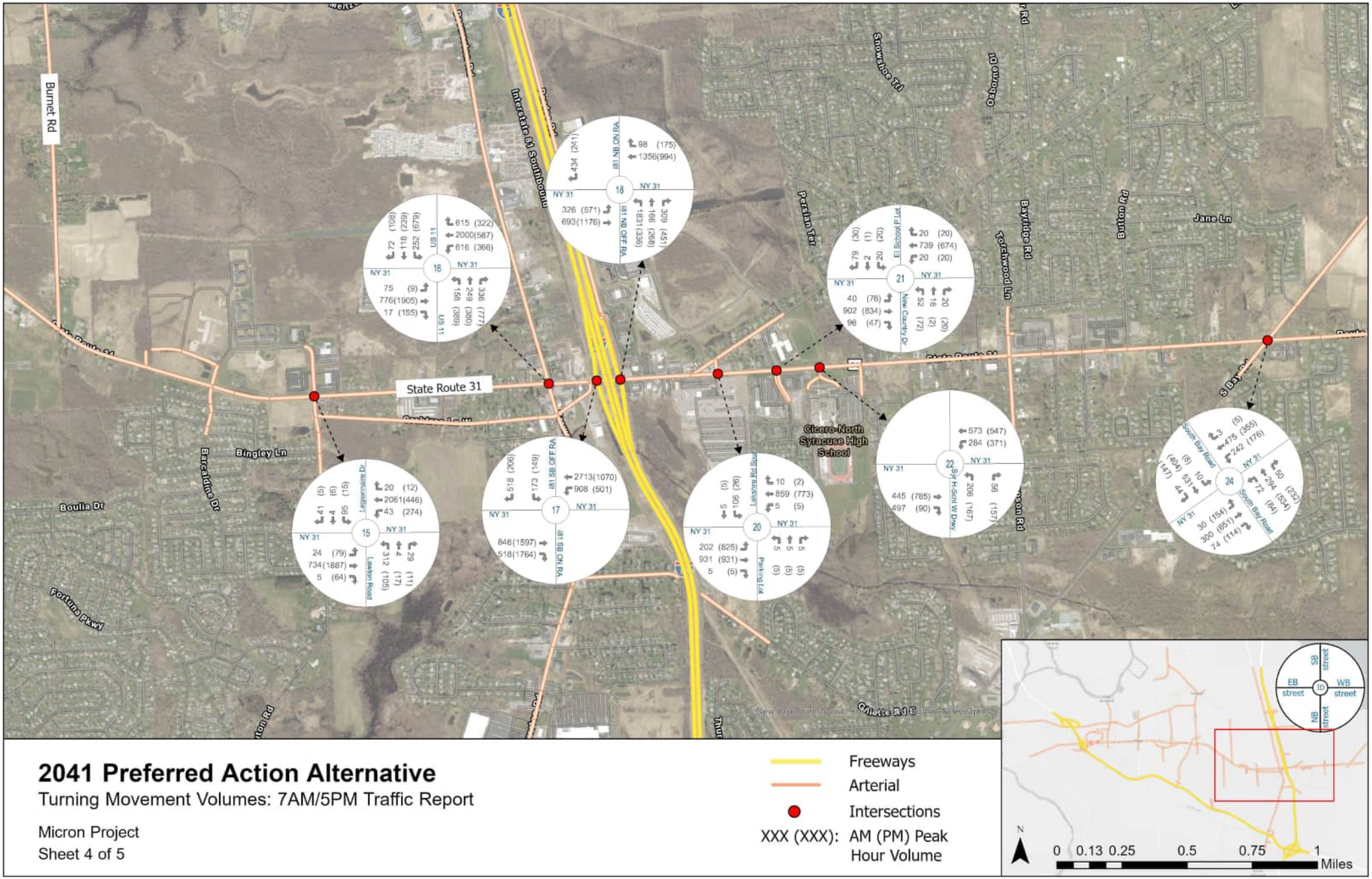


Figure 9-11: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Intersections - Sheet 5 of 5

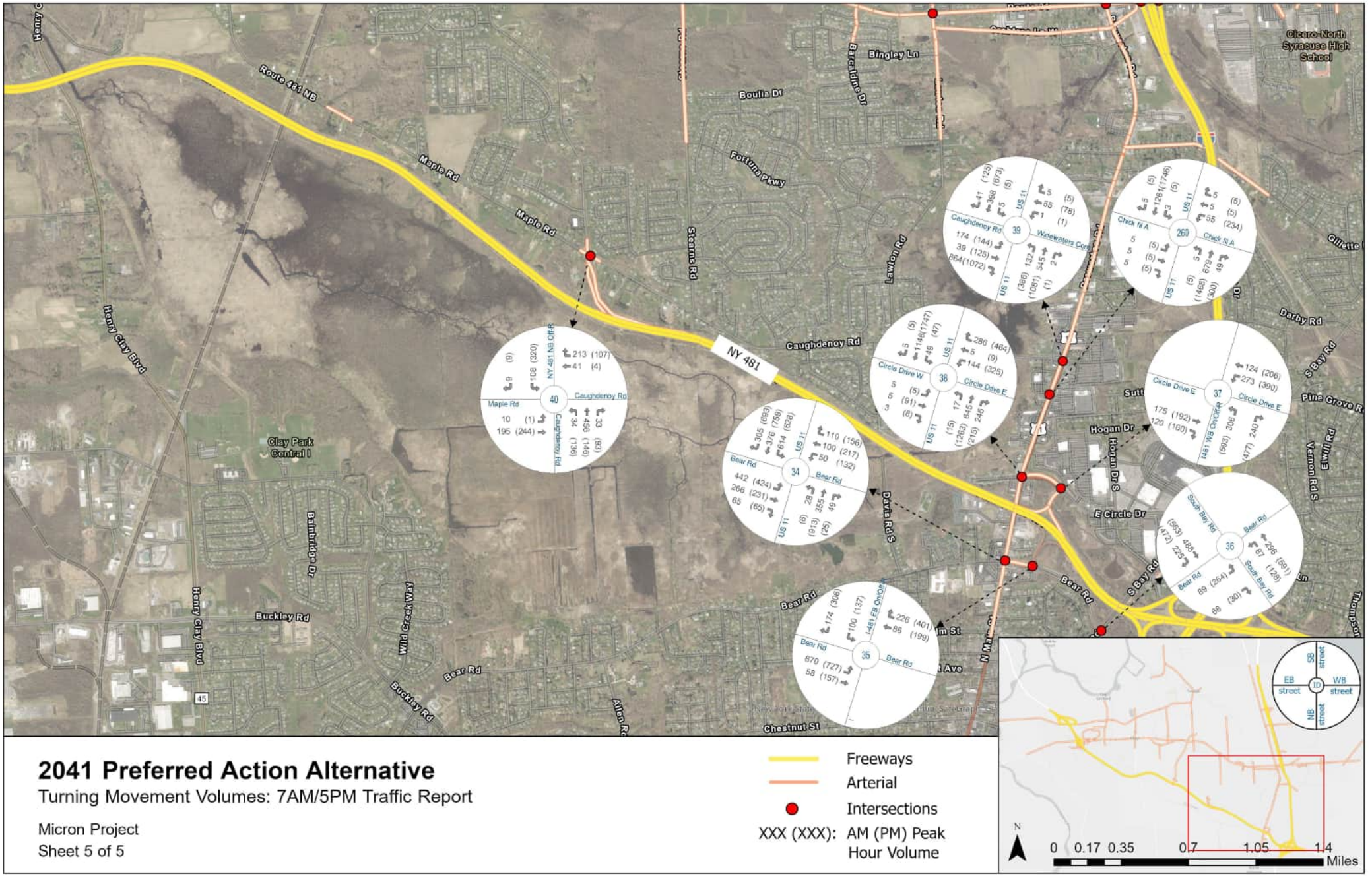
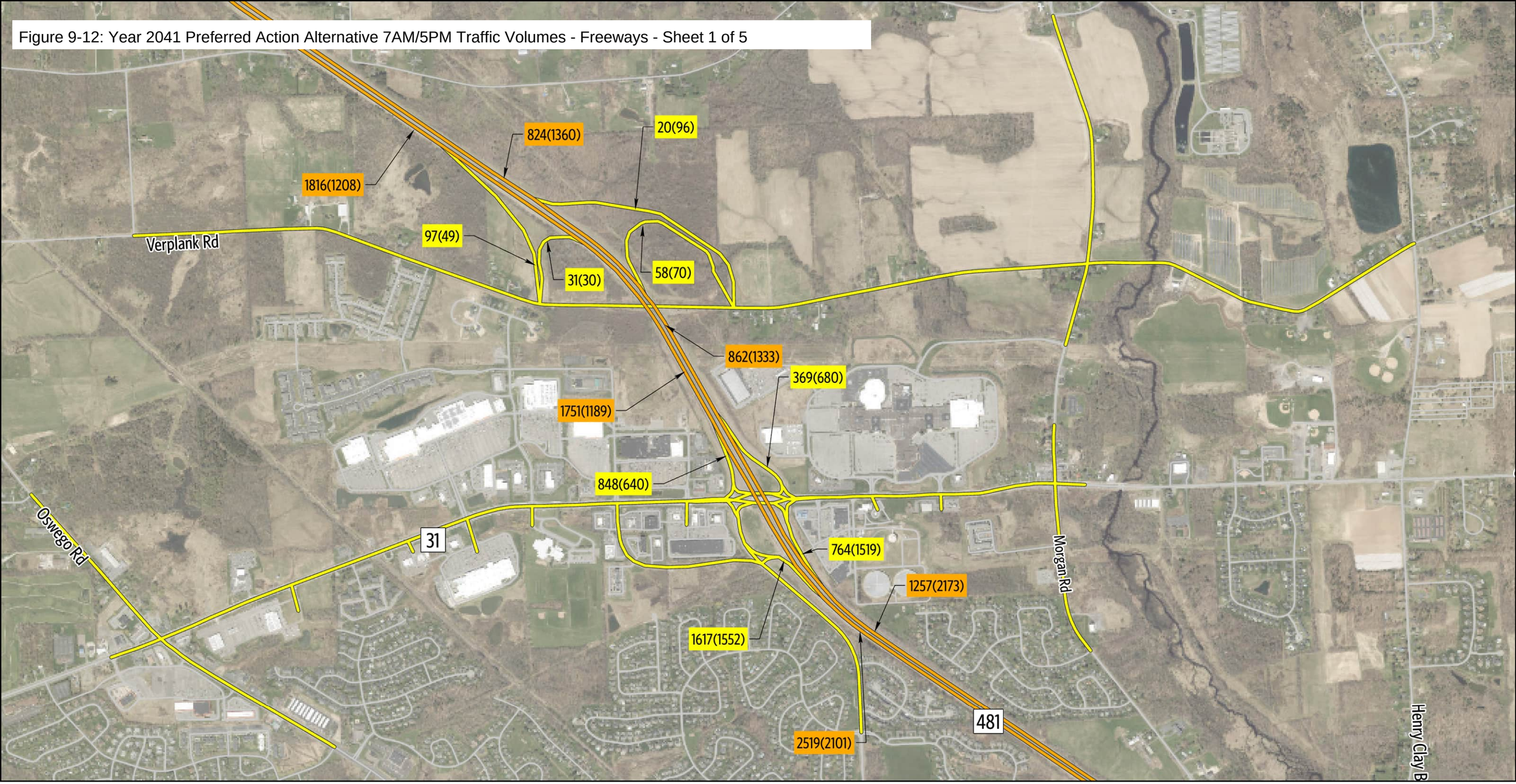


Figure 9-12: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 1 of 5



Mainline Volumes **Ramp Volumes** XXX(XXX) - AM Volumes(PM Volumes)

Freeway Ramps

N

0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 1 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-12: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 2 of 5

Mainline Volumes
Freeway

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

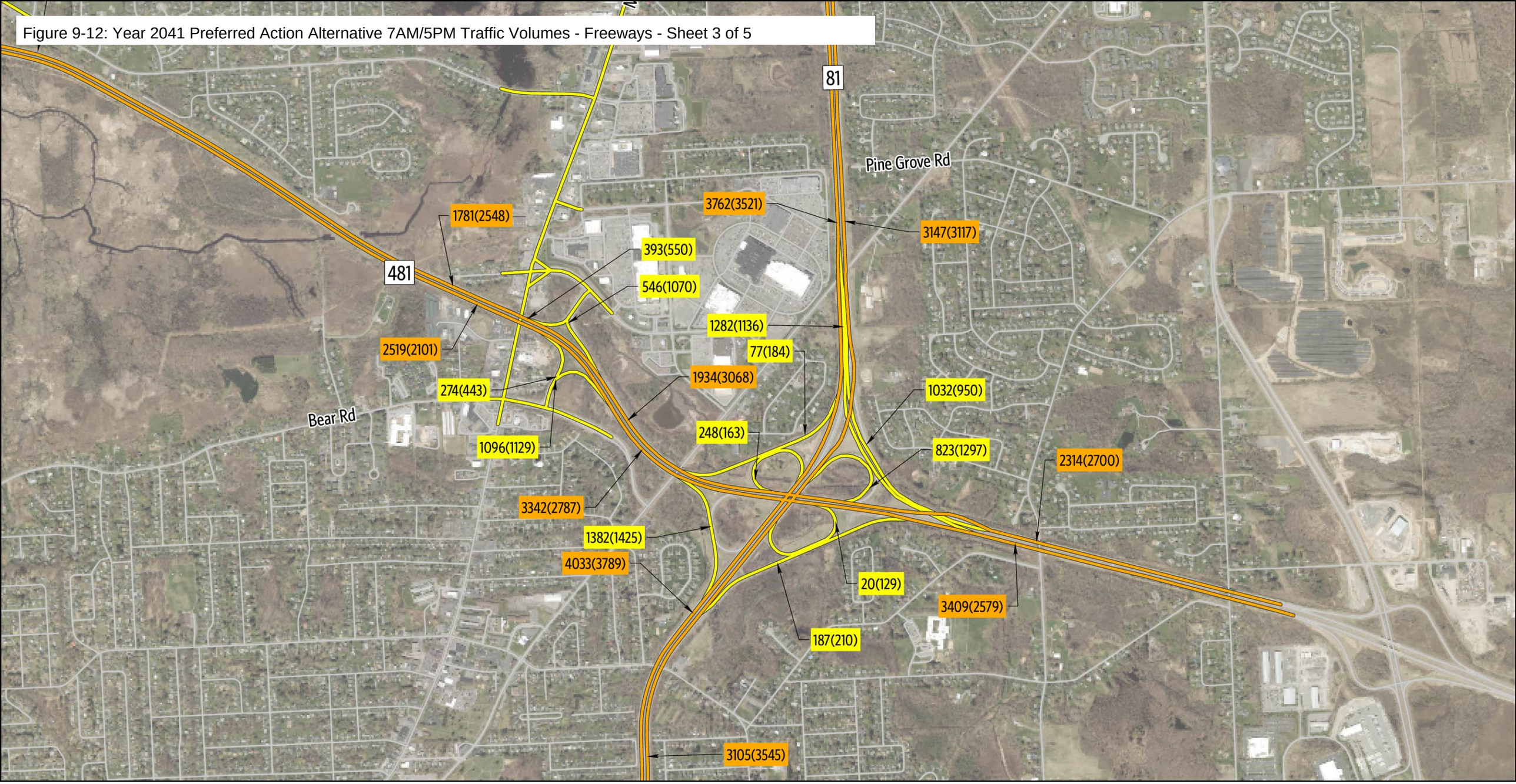
0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 2 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-12: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 3 of 5



Mainline Volumes
Freeway

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

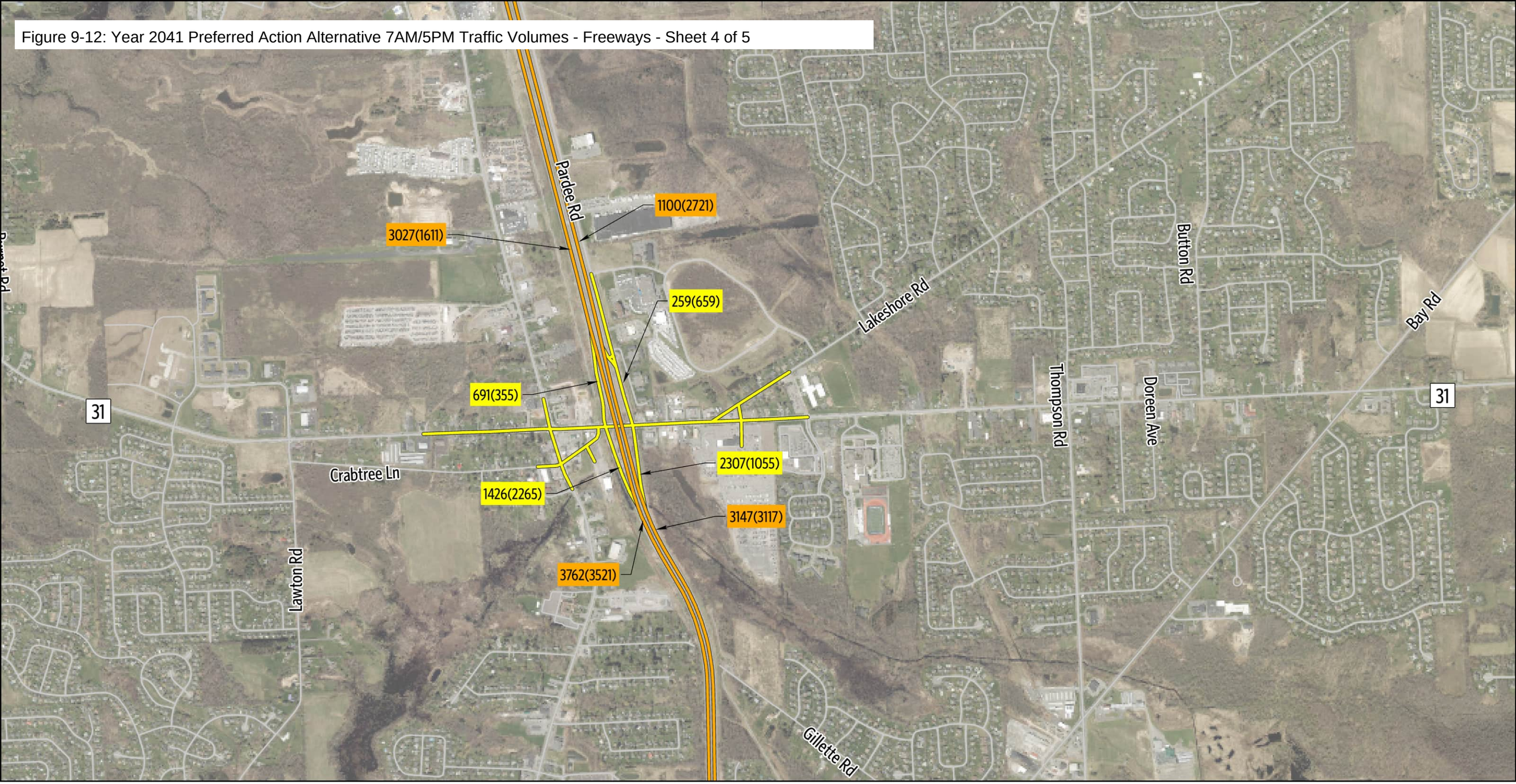
0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 3 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-12: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 4 of 5



Mainline Volumes

Freeway

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Preferred Action Alternative

Sheet 4 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-12: Year 2041 Preferred Action Alternative 7AM/5PM Traffic Volumes - Freeways - Sheet 5 of 5

Mainline Volumes
Freeway

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Preferred Action Alternative

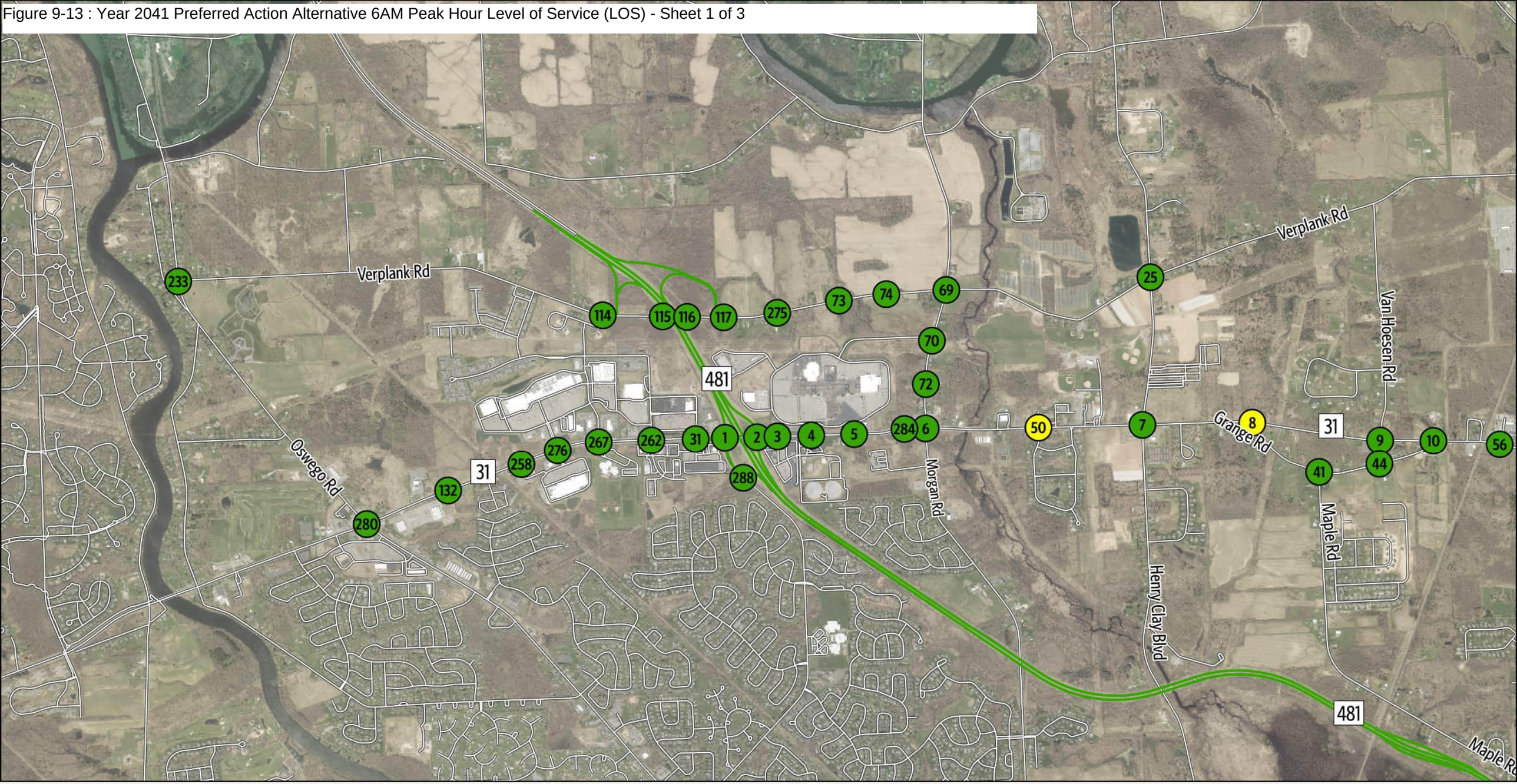
Sheet 5 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

9.2.2 Intersection Operations

Table 9-4 summarizes the results for the 70 intersections in the Preferred Action roadway network including delay values and LOS expressed as a letter designation and by the color coding shown in Table 2-3. Except for the Lowe's/Home Depot driveway the intersections with lower LOS discussed in the 2041 No Action scenario (refer to Section 8.1.2) all experience the same or worse LOS with the peak period demand increases resulting from the projected-generated trips. The following subsections discuss only the additional intersections that operate at LOS E or F in this Preferred Action Alternative scenario. Figures 9-13 through 9-16 present the results of operational analysis.

Figure 9-13 : Year 2041 Preferred Action Alternative 6AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

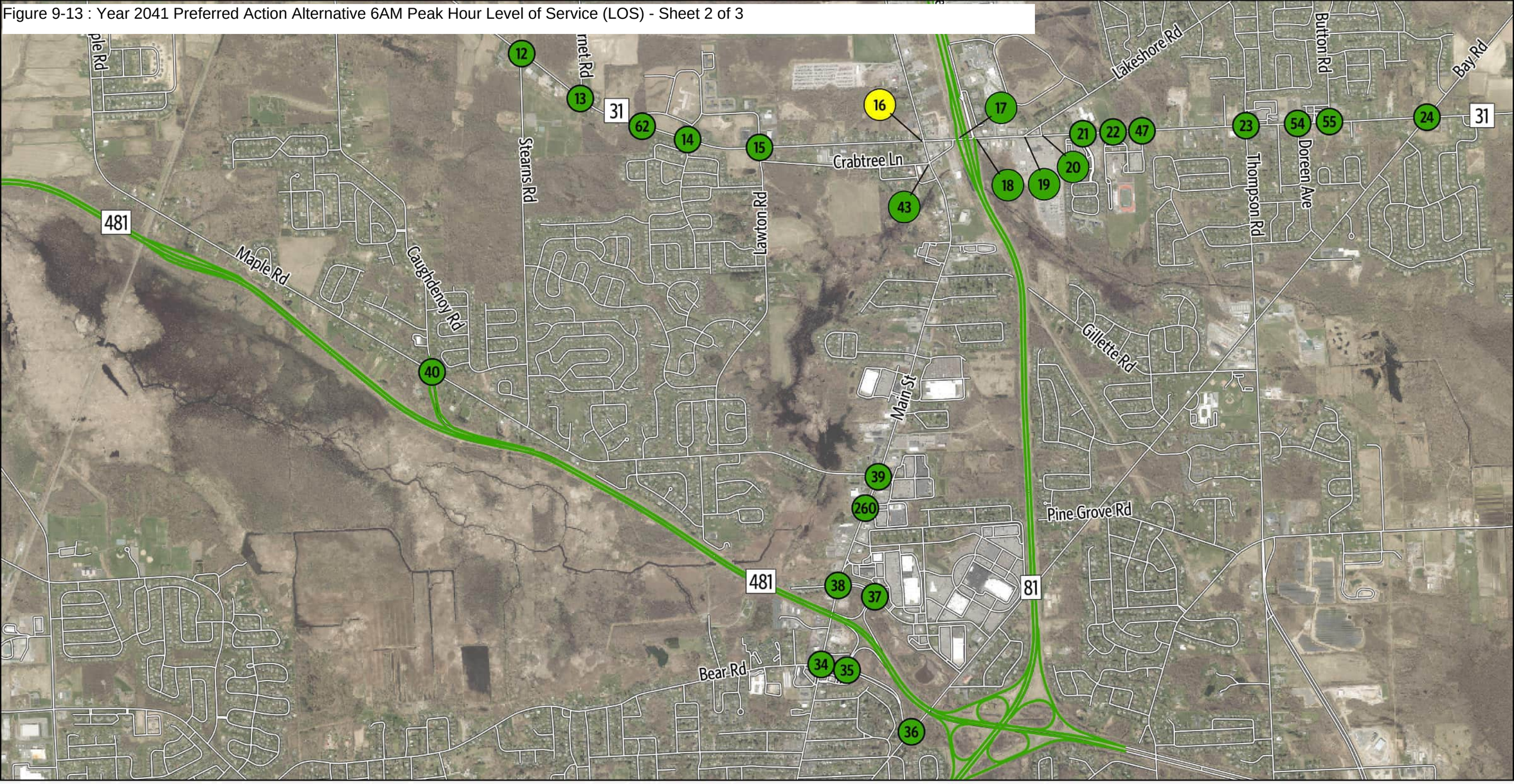
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 1 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-13 : Year 2041 Preferred Action Alternative 6AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

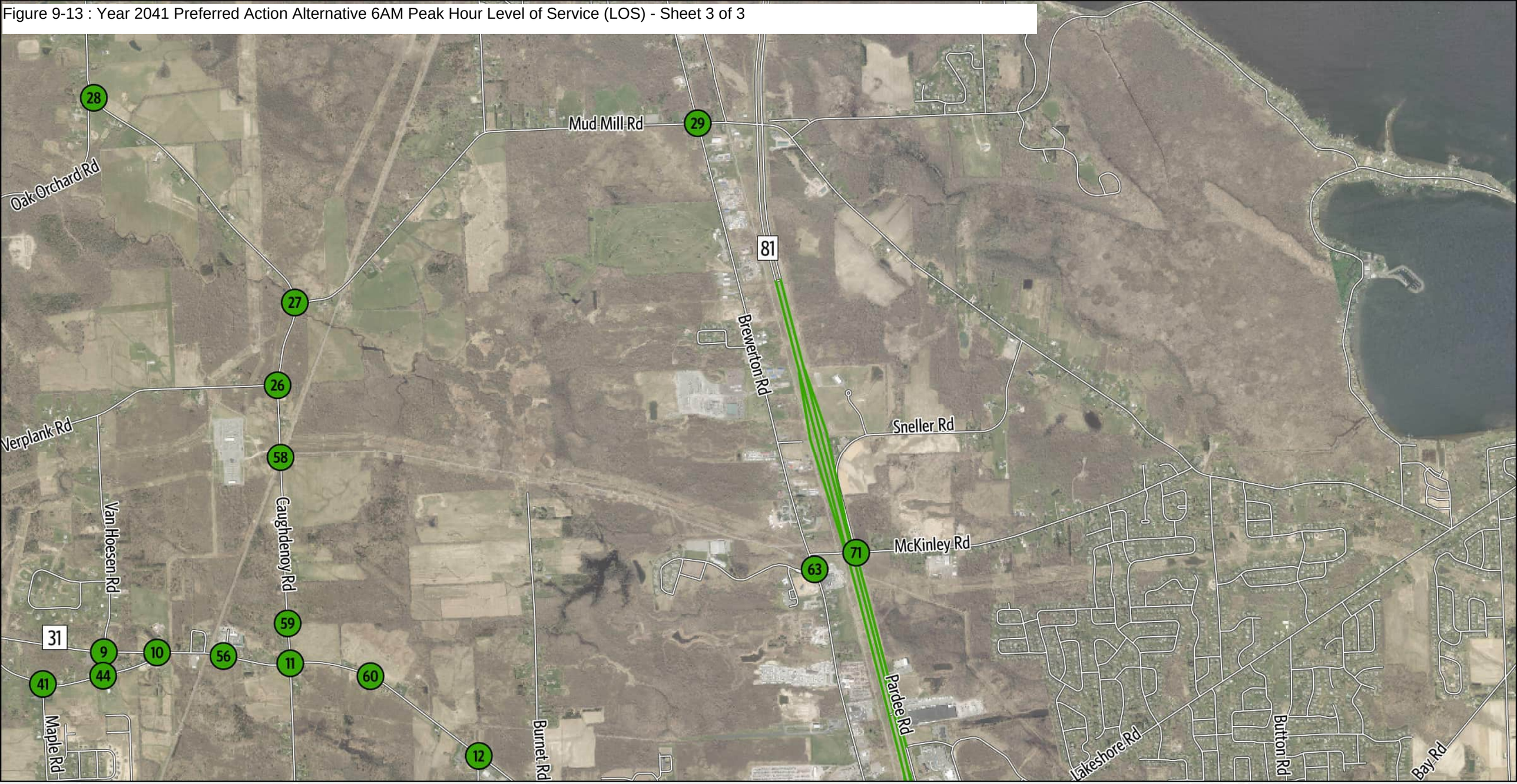
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 2 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-13 : Year 2041 Preferred Action Alternative 6AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

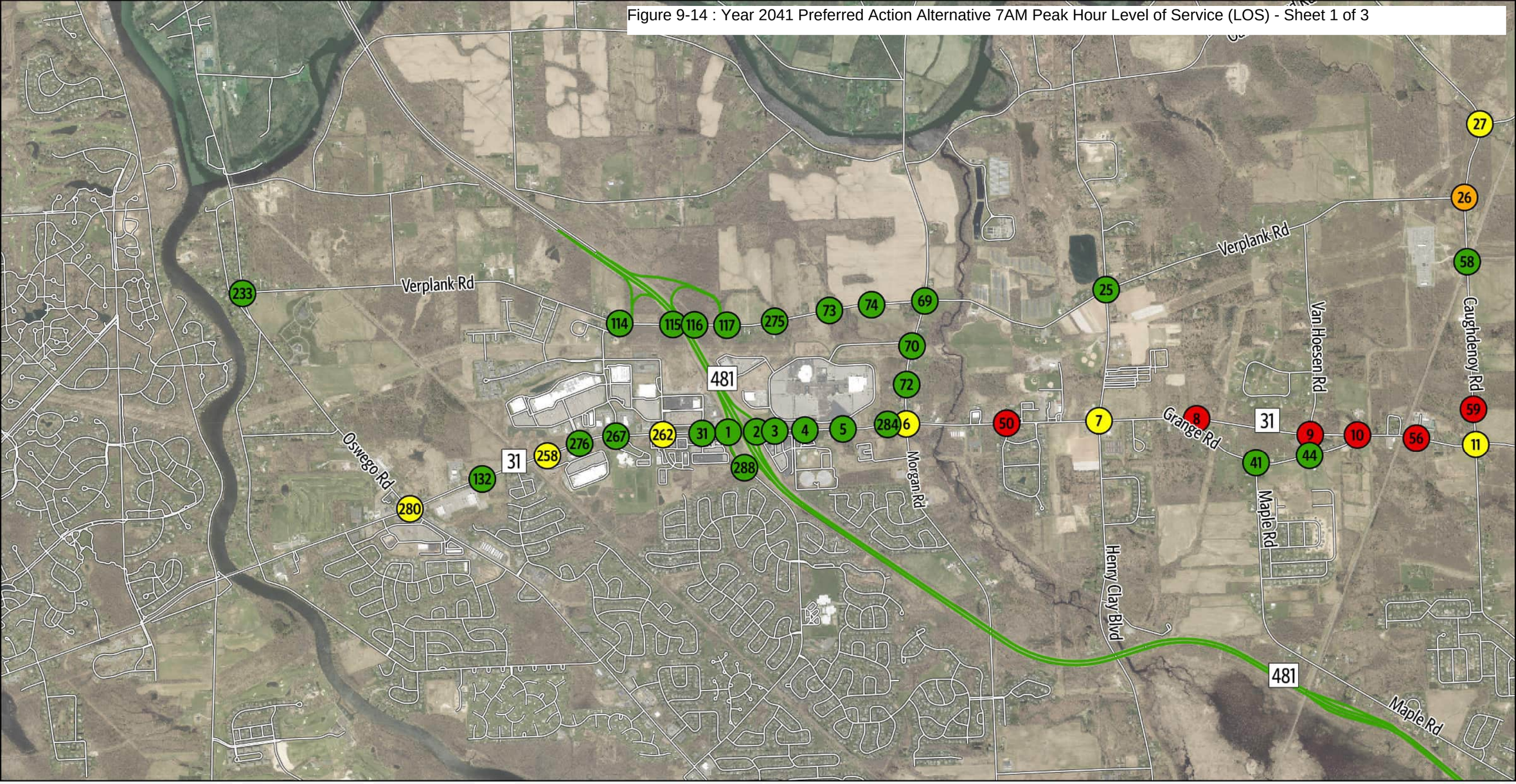
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 3 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-14 : Year 2041 Preferred Action Alternative 7AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

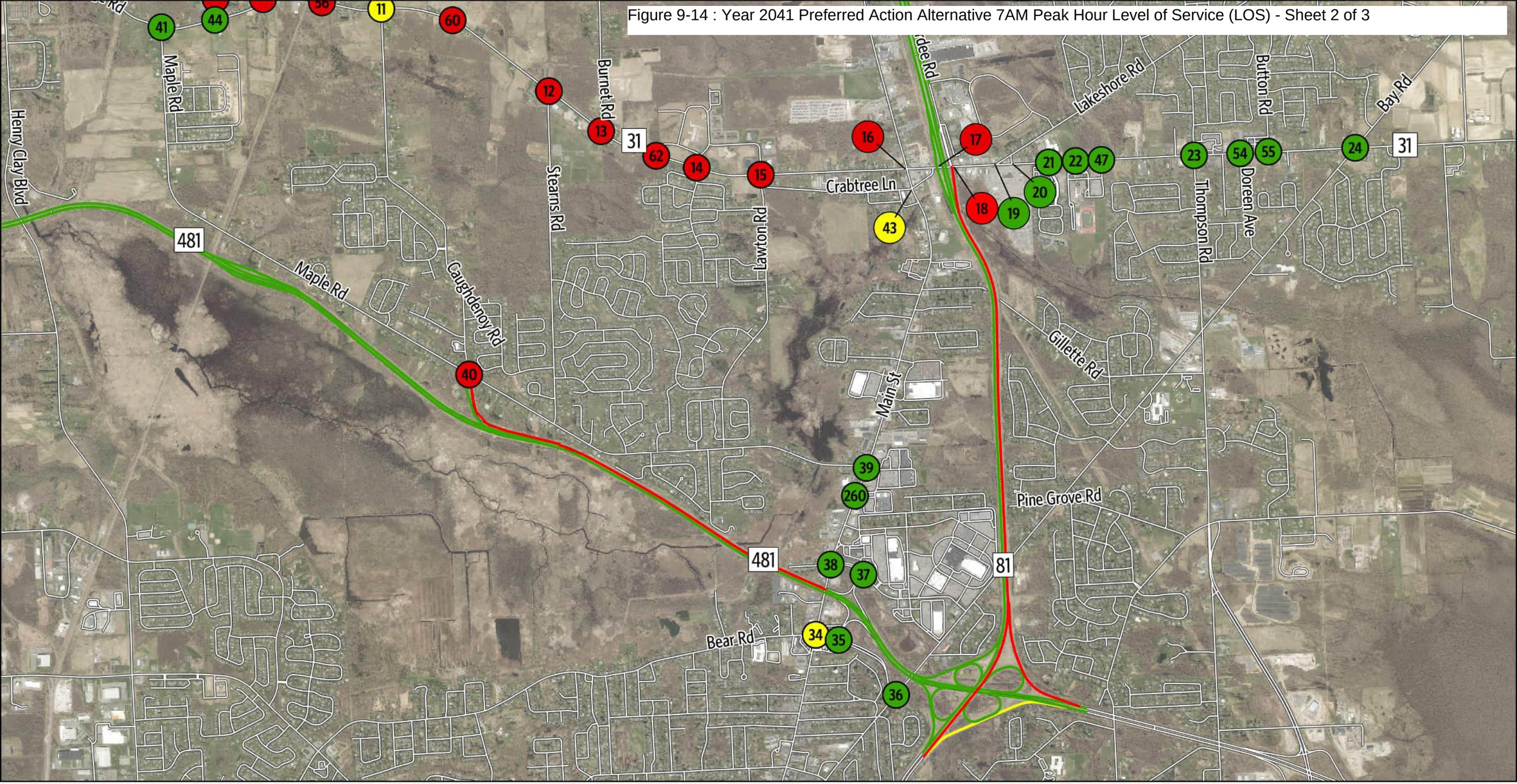
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 1 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-14 : Year 2041 Preferred Action Alternative 7AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

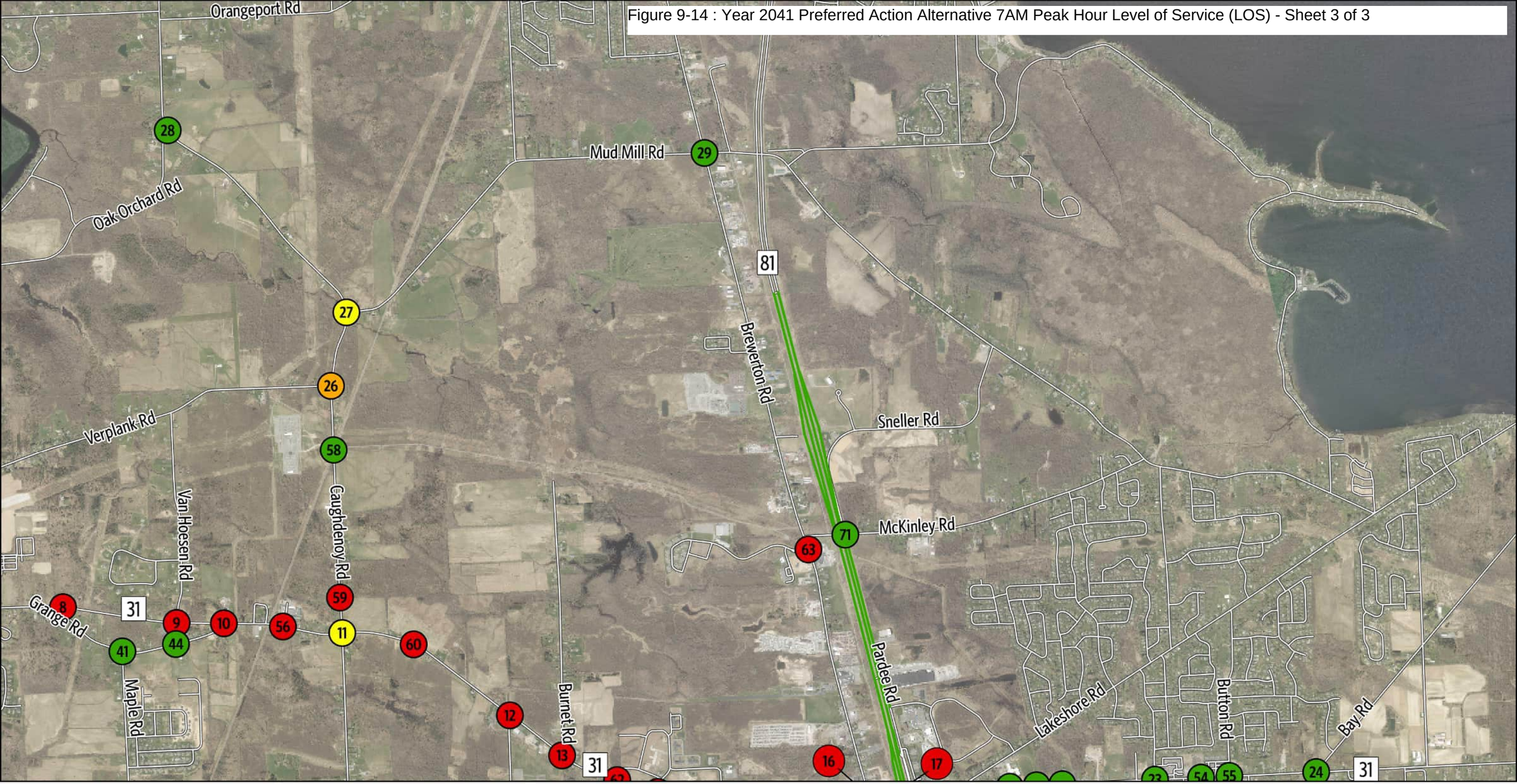
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 2 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-14 : Year 2041 Preferred Action Alternative 7AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

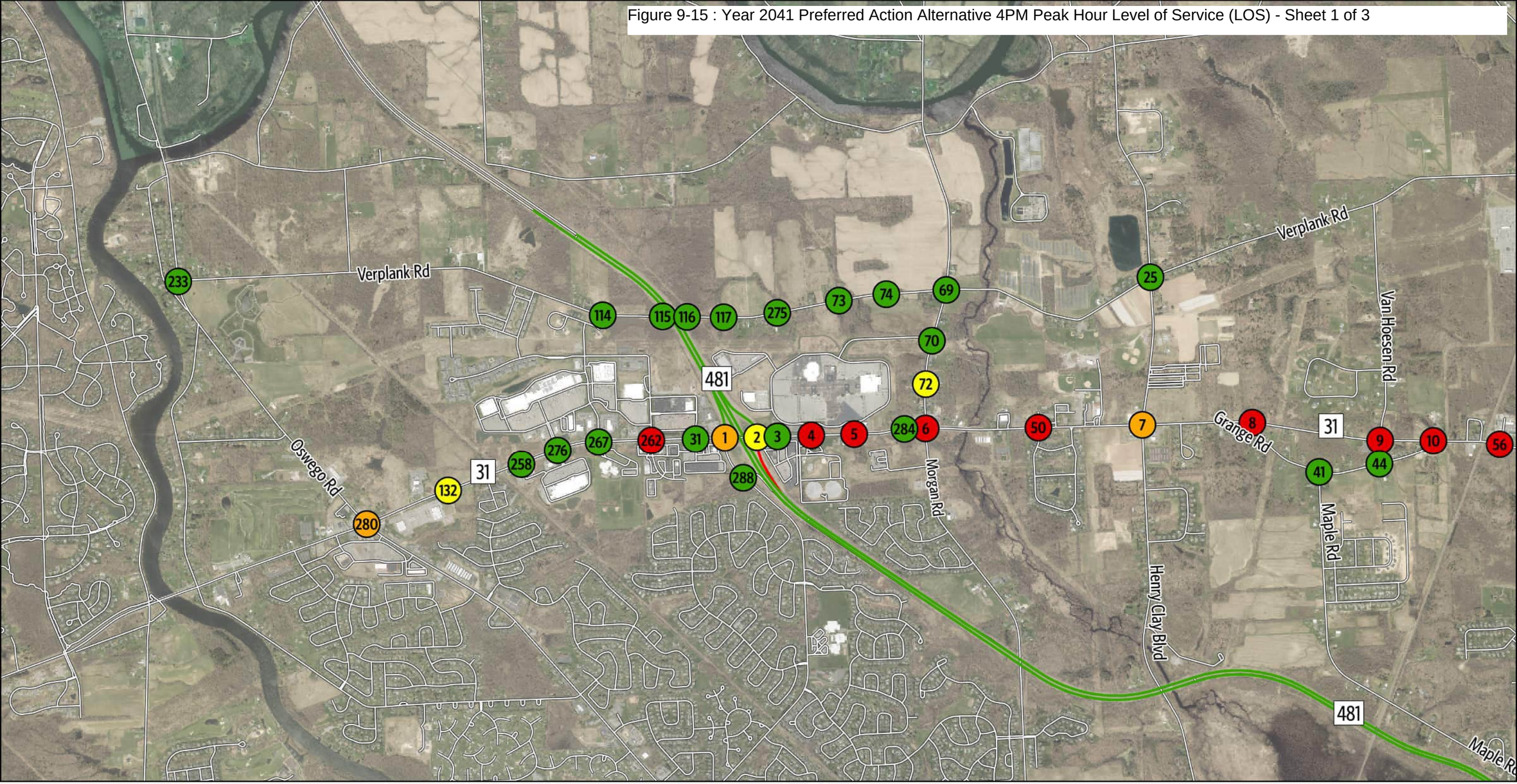
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 3 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-15 : Year 2041 Preferred Action Alternative 4PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A,B,C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

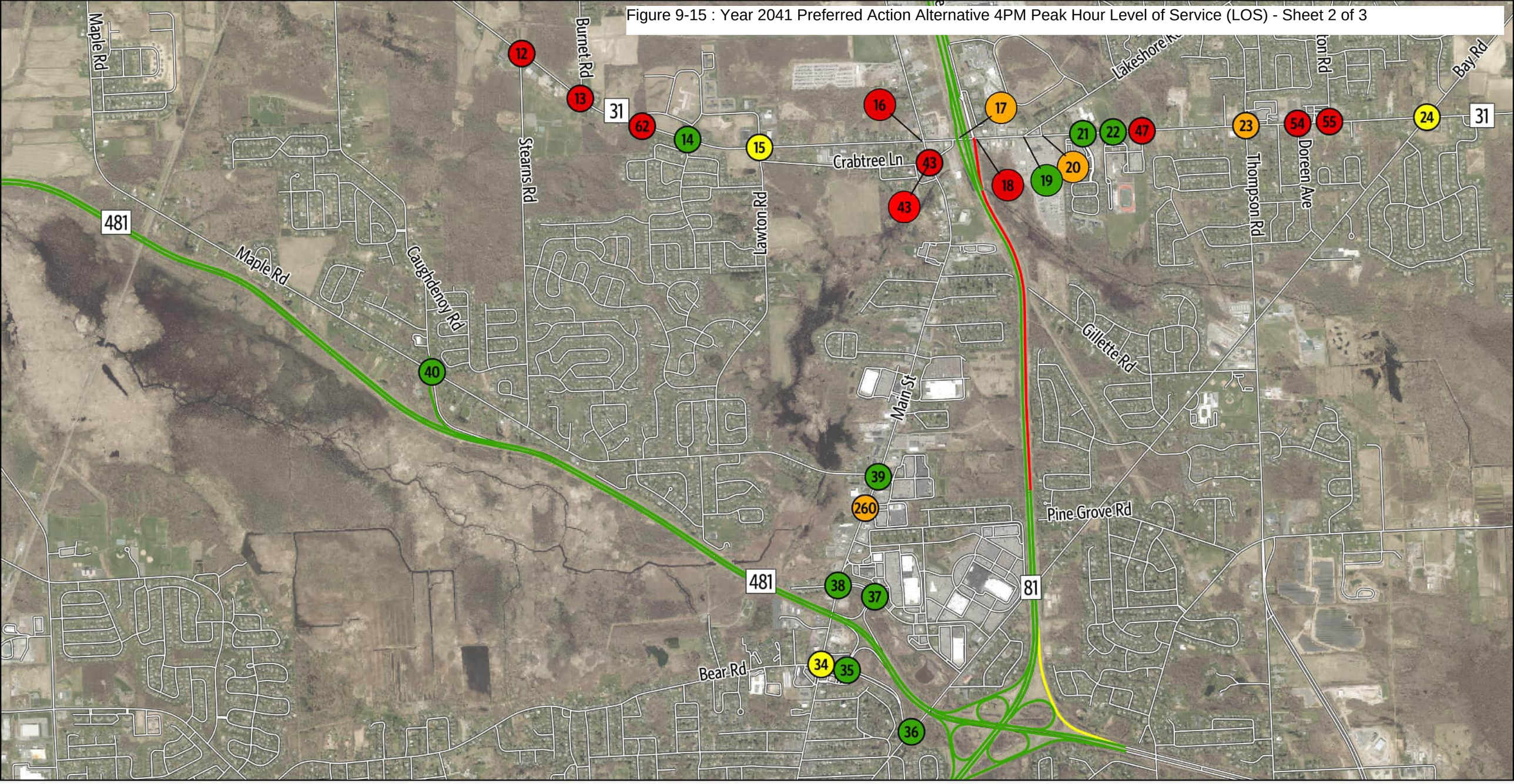
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 1 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-15 : Year 2041 Preferred Action Alternative 4PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A,B,C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

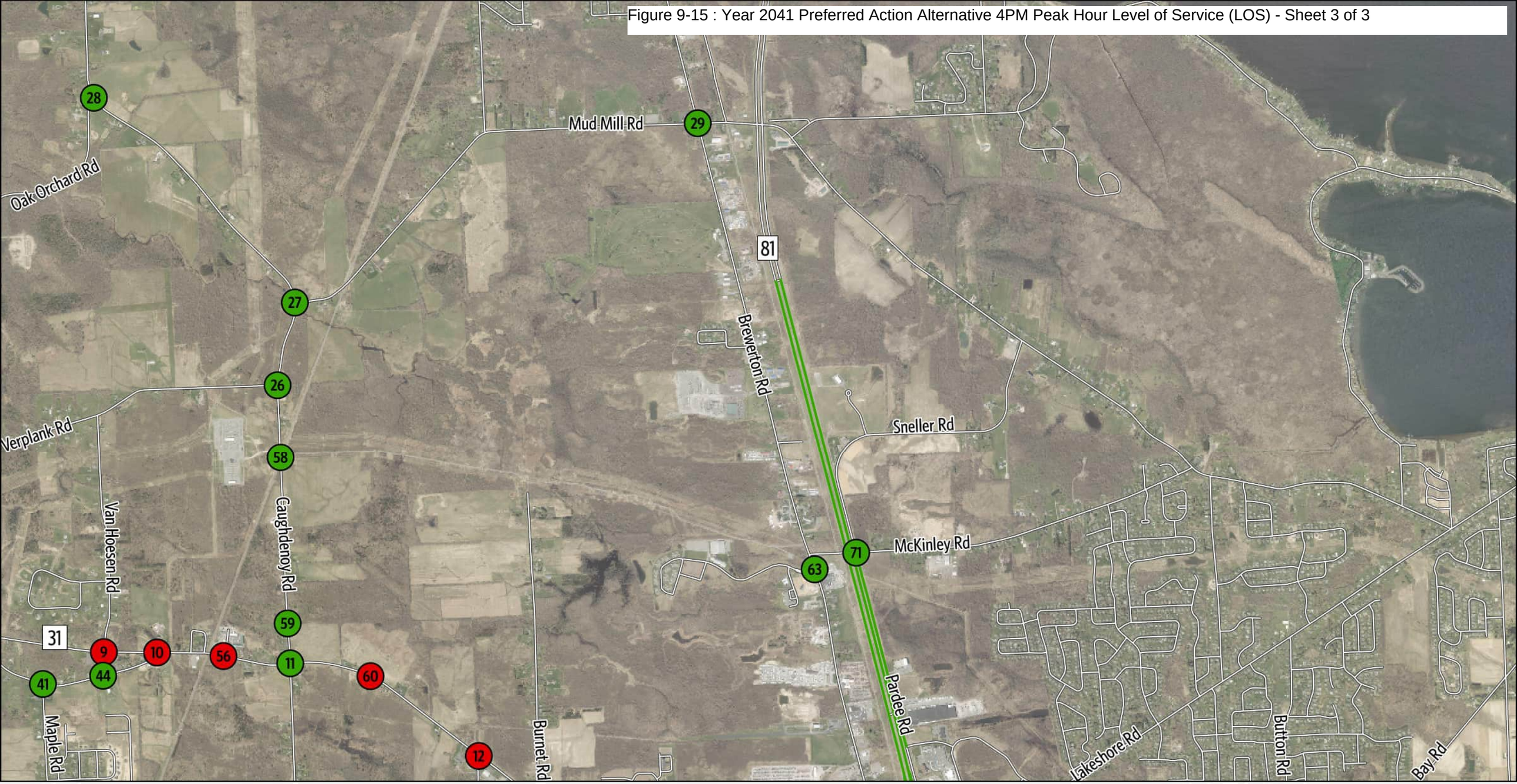
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 2 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-15 : Year 2041 Preferred Action Alternative 4PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A,B,C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- F
- Streets

N

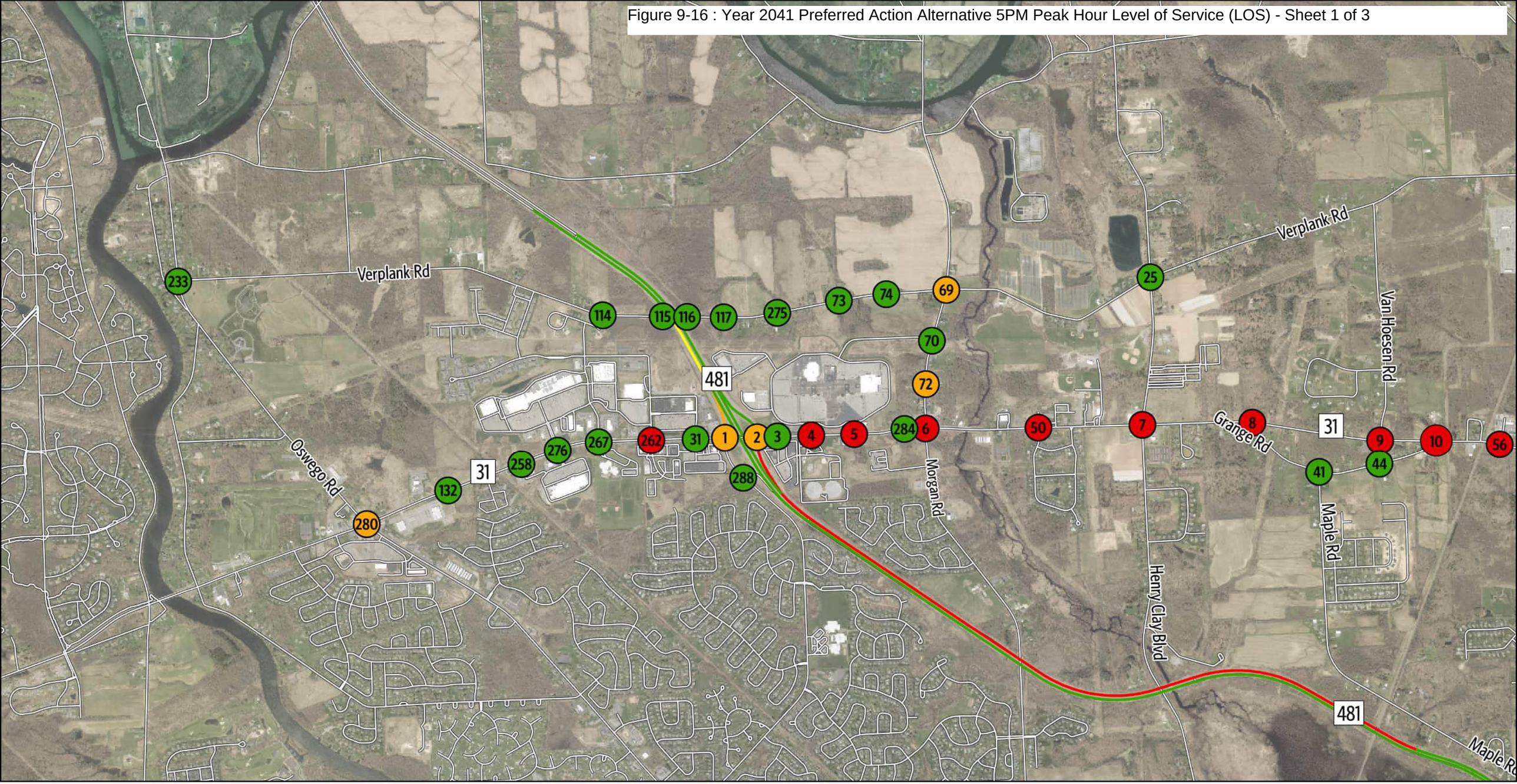
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 3 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-16 : Year 2041 Preferred Action Alternative 5PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- E
- F
- Streets

N

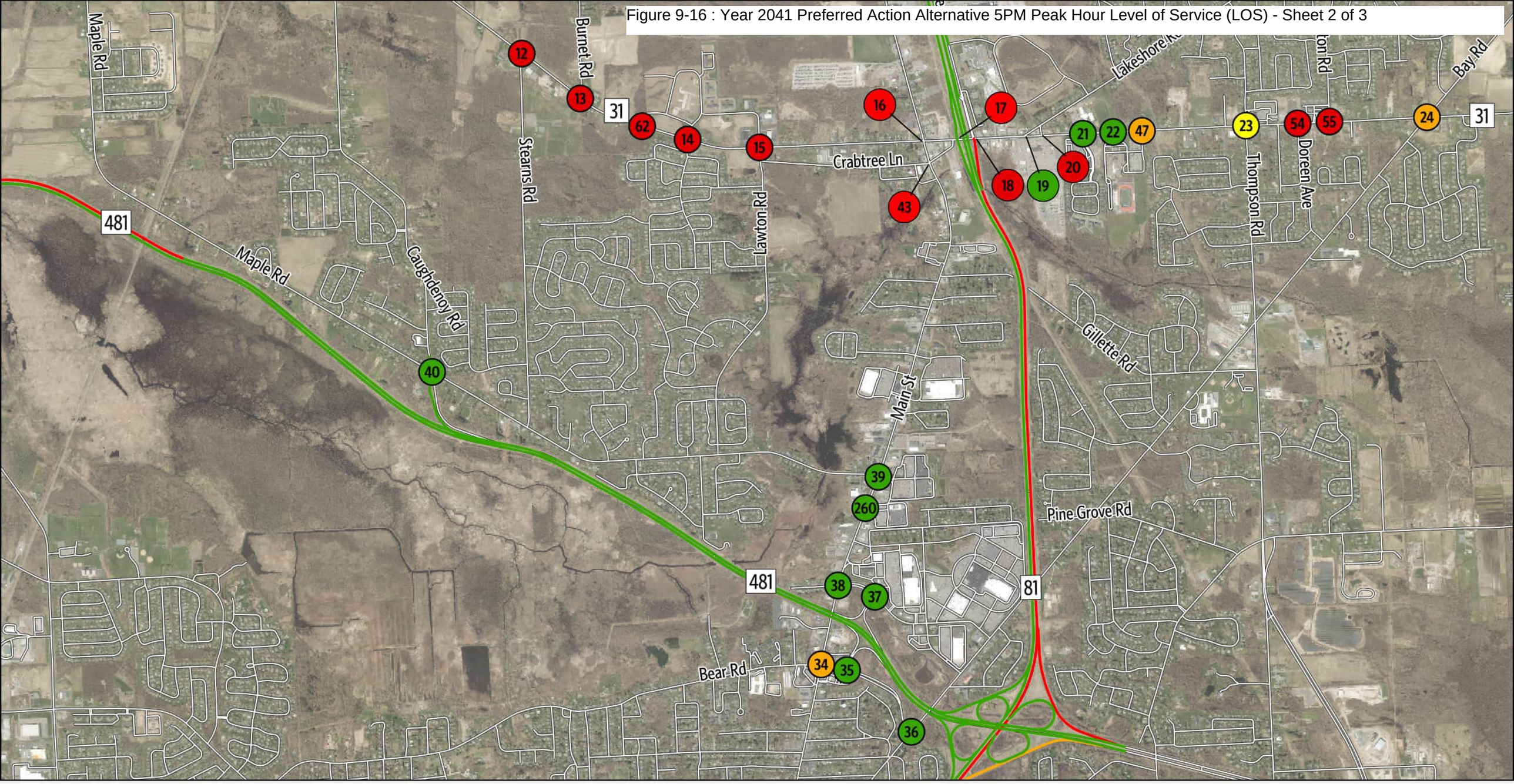
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 1 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-16 : Year 2041 Preferred Action Alternative 5PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- E
- F
- Streets

N

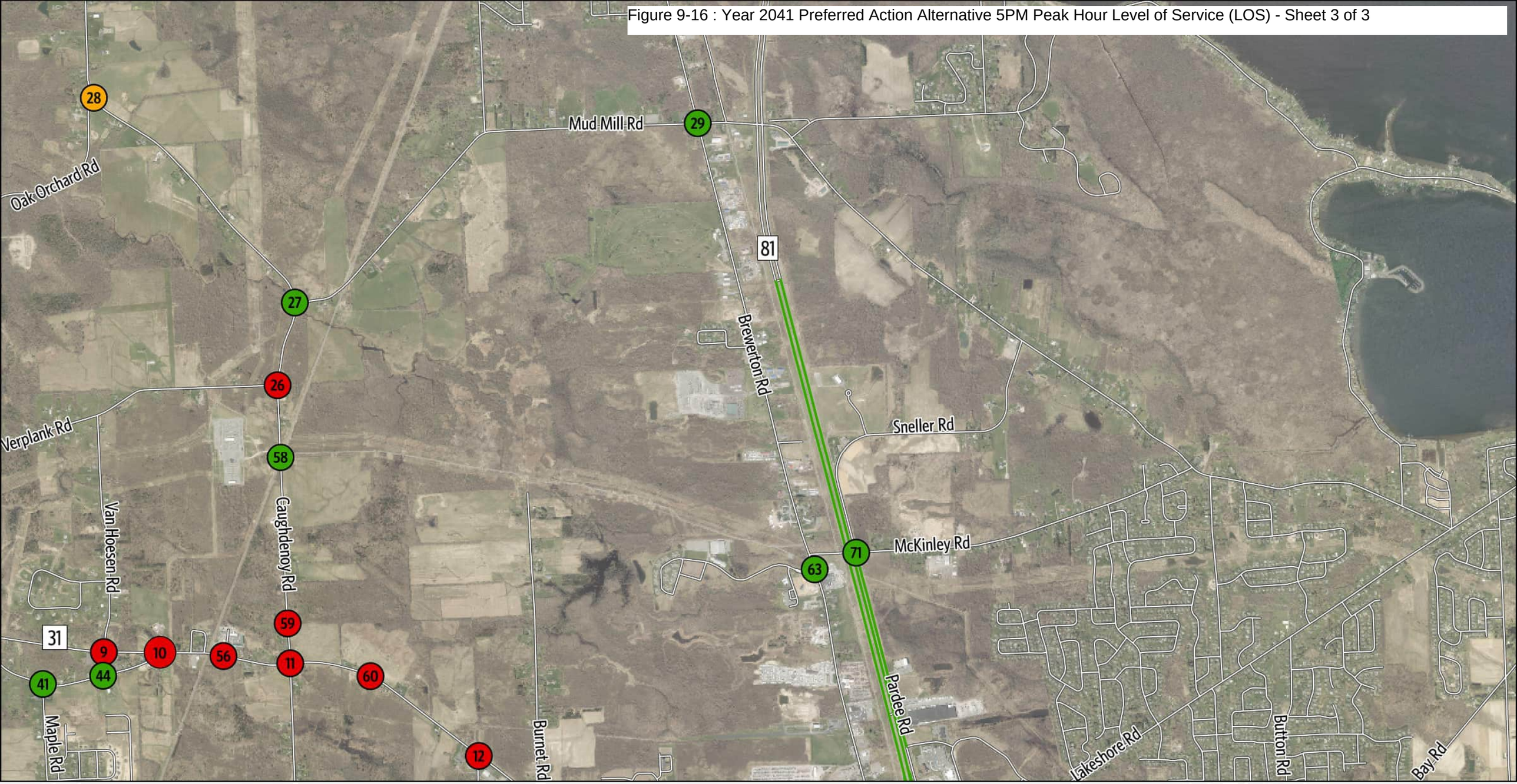
0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 2 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-16 : Year 2041 Preferred Action Alternative 5PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- D
- E
- F
- Streets

N

0 2,000 4,000 Feet

2041 Preferred Action Alternative

Sheet 3 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Table 9-4. Year 2041 Preferred Action Alternative AM and PM Peak Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection Name	Intersection Control	6 AM			7 AM			4 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	11.4	B	0.51	13.3	B	0.87	69.8	E	1.14	64.2	E	1.13
2	NYS Route 31 and NYS Route 481 NB	Signalized	8.1	A	0.50	19.2	B	0.85	54.0	D	1.08	57.1	E	1.07
3	Marketfair Plaza and NYS Route 31	Signalized	4.1	A	0.30	3.3	A	0.68	4.3	A	0.79	4.3	A	0.88
4	NYS Route 31 and GNM West	Signalized	20.6	C	0.50	19.9	B	0.85	147.4	F	1.46	165.3	F	1.52
5	Parking Lot/GNM East and NYS Route 31	Signalized	23.3	C	0.55	29.5	C	0.84	82.5	F	1.25	109.3	F	1.35
6	Morgan Road and NYS Route 31	Signalized	33.0	C	0.54	50.3	D	1.10	81.9	F	1.16	153.0	F	1.56
7	Henry Clay Boulevard and NYS Route 31	Signalized	22.5	C	0.51	54.1	D	0.99	63.8	E	1.00	121.5	F	1.09
8	Grange Road W and NYS Route 31	Unsignalized	25.0	D	N/A	>300	F	N/A	>300	F	N/A	>300	F	N/A
9	Van Hoesen Road and NYS Route 31	Unsignalized	20.7	C	N/A	>300	F	N/A	127.2	F	N/A	>300	F	N/A
10	Grange Road E and NYS Route 31	Unsignalized	12.5	B	N/A	>300	F	N/A	70.8	F	N/A	40.6	E	N/A
11	Caughdenoy Road and NYS Route 31	Signalized	11.0	B	0.33	47.1	D	0.96	28.1	C	0.94	177.1	F	1.17
12	Stearns Road and NYS Route 31	Unsignalized	21.4	C	N/A	>300	F	N/A	116.2	F	N/A	>300	F	N/A
13	NYS Route 31 and Burnet Road	Unsignalized[a]	18.9	B	0.33	>300	F	6.59	145.3	F	0.75	291.3	F	1.61
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	11.4	B	N/A	236.2	F	N/A	19.6	C	N/A	>300	F	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	8.1	A	0.51	245.6	F	1.59	46.4	D	1.01	227.4	F	1.61
16	U.S. Route 11 and NYS Route 31	Signalized	43.1	D	0.65	94.3	F	1.28	155.0	F	1.32	>300	F	2.01
17	NYS Route 31 and I-81 SB Ramp	Signalized	20.2	C	0.77	114.0	F	1.33	70.8	E	1.15	165.5	F	1.71
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	27.1	C	0.66	>300	F	2.24	118.4	F	1.75	82.1	F	1.56
19	NYS Route 31 and Lakeshore Road	Signalized	30.2	C	0.38	11.1	B	0.79	21.8	C	0.74	9.4	A	0.66
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	9.7	A	0.57	16.5	B	0.89	63.5	E	1.28	93.2	F	1.49
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	7.9	A	0.32	10.4	B	0.61	10.9	B	0.61	10.2	B	0.55
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	13.0	B	0.36	15.5	B	0.57	34.7	C	1.13	22.3	C	0.96
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	6.6	A	N/A	13.6	B	N/A	71.6	E	N/A	42.6	D	N/A
24	South Bay Road and NYS Route 31	Signalized	13.7	B	0.60	25.2	C	0.85	38.3	D	1.05	61.0	E	1.35
25	Henry Clay Boulevard and Verplank Road	Signalized	12.7	B	0.15	8.4	A	0.42	12.1	B	0.53	12.5	B	0.67
26	Caughdenoy Road and Verplank Road	Unsignalized	9.7	A	N/A	40.8	E	N/A	18.7	C	N/A	213.0	F	N/A
27	Caughdenoy Road and Mud Mill Road	Unsignalized	10.0	A	N/A	26.0	D	N/A	14.2	B	N/A	24.5	C	N/A
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	9.4	A	N/A	12.5	B	N/A	15.3	C	N/A	35.6	E	N/A
29	U.S. Route 11 and Mud Mill Road	Signalized	10.1	B	0.08	8.8	A	0.23	7.6	A	0.27	7.4	A	0.29
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	9.8	A	0.46	12.3	B	0.78	28.4	C	0.93	25.0	C	0.97
32	Henry Clay Boulevard and Wetzel Road	Signalized	17.8	B	0.28	19.8	B	0.50	26.5	C	0.74	24.5	C	0.73
33	Allen Road and Bear Road	Signalized	7.0	A	0.31	9.9	A	0.56	13.3	B	0.66	12.0	B	0.64
34	U.S. Route 11 and Bear Road	Signalized	34.3	C	0.52	44.6	D	0.78	49.0	D	0.98	62.1	E	1.08
35	Bear Road and NYS Route 481 EB On/Off-Ramp	Signalized	11.6	B	0.39	14.8	B	0.49	18.6	B	0.40	17.1	B	0.55
36	South Bay Road and Bear Road	Signalized	8.7	A	0.26	9.6	A	0.44	19.7	B	0.64	16.5	B	0.74

Intersection ID	Intersection Name	Intersection Control	6 AM			7 AM			4 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
37	NYS Route 481 WB On/Off-Ramp and Circle Drive E	Signalized	13.3	B	0.25	21.7	C	0.43	25.1	C	0.59	18.0	B	0.78
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	12.2	B	0.41	13.7	B	0.61	25.4	C	0.87	25.5	C	0.90
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	19.8	B	0.35	24.0	C	0.58	26.2	C	0.71	28.0	C	0.71
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Unsignalized	10.0	B	N/A	>300	F	N/A	10.9	B	N/A	15.9	C	N/A
41	Maple Road and Grange Road	Unsignalized	9.2	A	N/A	9.3	A	N/A	11.4	B	N/A	11.2	B	N/A
43	U.S. Route 11 and Crabtree Lane	Unsignalized	18.0	C	N/A	30.3	D	N/A	>300	F	N/A	>300	F	N/A
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	8.7	A	N/A	9.0	A	N/A	8.8	A	N/A	9.0	A	N/A
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	11.3	B	N/A	14.3	B	N/A	77.9	F	N/A	42.1	E	N/A
50	McNamara Drive/Driveway and NYS Route 31	Unsignalized	27.7	D	N/A	>300	F	N/A	>300	F	N/A	>300	F	N/A
54	Doreen Avenue and NYS Route 31	Unsignalized	12.7	B	N/A	20.1	C	N/A	51.0	F	N/A	56.5	F	N/A
55	NYS Route 31 and Button Road	Unsignalized	10.5	B	N/A	15.4	C	N/A	84.7	F	N/A	>300	F	N/A
56	NYS Route 31 and Weller Canning Road	Unsignalized	15.8	C	N/A	>300	F	N/A	>300	F	N/A	>300	F	N/A
58	Caughdenoy Road and Micron Driveway 1	Unsignalized	8.9	A	N/A	12.5	B	N/A	10.0	B	N/A	17.5	C	N/A
59	Caughdenoy Road and Access Road/Micron Driveway 2	Signalized	8.9	A	0.07	>300	F	2.84	4.1	A	0.18	273.9	F	1.29
60	NYS Route 31 and Micron Driveway 3	Signalized	13.4	B	0.31	>300	F	8.89	100.4	F	0.67	>300	F	1.79
62	NYS Route 31 and Micron Driveway 5	Signalized	20.0	B	0.35	>300	F	4.73	173.8	F	0.79	>300	F	1.57
63	U.S. Route 11 and Micron Driveway 6	Signalized	9.4	A	0.11	>300	F	1.45	14.9	B	0.36	14.7	B	0.65
64	Caughdenoy Road and Healthcare Center Driveway	Unsignalized	8.7	A	N/A	9.4	A	N/A	9.3	A	N/A	11.9	B	N/A
65	Caughdenoy Road and Childcare Center Driveway	Unsignalized	8.7	A	N/A	10.3	B	N/A	9.3	A	N/A	12.1	B	N/A
66	White Pines South Driveway and NYS Route 31	Unsignalized	17.8	C	N/A	>300	F	N/A	63.5	F	N/A	>300	F	N/A
67	Caughdenoy Road and White Pines South Driveway 1	Unsignalized	9.0	A	N/A	16.1	C	N/A	12.4	B	N/A	11.2	B	N/A
68	Caughdenoy Road and White Pines South Driveway 2	Unsignalized	9.1	A	N/A	15.2	C	N/A	11.1	B	N/A	15.8	C	N/A
69	Morgan Road and Verplank Road	Signalized	6.9	A	0.47	15.4	B	0.77	25.6	C	0.86	56.9	E	1.01
70	Morgan Road and GNM Driveway 1	Signalized	14.3	B	0.39	16.3	B	0.64	21.3	C	0.65	20.5	C	0.63
71	Pardee Road and McKinley Road	Unsignalized	9.2	A	N/A	9.6	A	N/A	9.8	A	N/A	9.5	A	N/A
72	Morgan Road and GNM Driveway 2	Unsignalized	11.9	B	N/A	19.5	C	N/A	34.2	D	N/A	35.7	E	N/A
73	GNM Driveway 3 and Verplank Road	Unsignalized	9.3	A	N/A	10.6	B	N/A	11.4	B	N/A	11.4	B	N/A
74	GNM Driveway 4 and Verplank Road	Unsignalized	9.3	A	N/A	10.6	B	N/A	12.0	B	N/A	11.8	B	N/A
101	Caughdenoy Road and Micron Driveway X	Unsignalized	8.8	A	N/A	12.4	B	N/A	10.0	A	N/A	17.3	C	N/A
132	Davidson and NYS Route 31	Signalized	16.1	B	0.54	31.3	C	0.91	45.9	D	1.08	31.3	C	1.07
233	Oswego and Verplank Road	Unsignalized	12.0	B	N/A	18.0	C	N/A	19.6	C	N/A	17.8	C	N/A
246	U.S. Route 11 and Hogan Drive	Signalized	10.1	B	0.33	10.6	B	0.45	29.7	C	1.02	35.0	C	1.29
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	15.6	B	0.57	36.0	D	0.97	15.0	B	0.94	21.8	C	0.89
260	U.S. Route 11 and Chick-fil-A	Signalized	6.8	A	0.31	8.0	A	0.52	71.5	E	1.17	18.3	B	0.83
262	NYS Route 31 and Carling Road	Signalized	16.4	B	0.58	36.6	D	0.99	83.4	F	1.12	81.7	F	1.11
267	NYS Route 31 and Dell Center Drive	Signalized	22.2	C	0.41	15.1	B	0.71	23.3	C	0.92	19.4	B	0.92

Intersection ID	Intersection Name	Intersection Control	6 AM			7 AM			4 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
275	Verplank Road and Proposed Access #1	Unsignalized	9.5	A	N/A	11.0	B	N/A	8.6	A	N/A	9.0	A	N/A
276	Lowes/Home Depot and NYS Route 31	Signalized	9.3	A	0.40	12.4	B	0.69	28.0	C	0.86	27.3	C	0.87
280	NYS Route 31 and Oswego Road	Signalized	27.4	C	0.66	89.2	F	1.18	100.8	F	1.14	78.6	E	1.07
284	NYS Route 31 and Proposed Access	Unsignalized	10.0	B	N/A	10.7	B	N/A	13.1	B	N/A	14.9	B	N/A
287	Proposed Access #2 and Verplank Road	Unsignalized	9.3	A	N/A	10.7	B	N/A	8.9	A	N/A	9.3	A	N/A
288	Soule Road and Carling Road and NYS Route 481 SB Ramp	Roundabout[a]	8.4	A	N/A	11.4	B	N/A	23.4	C	N/A	24.0	C	N/A

[a] Signalized in Preferred Action Scenario

9.2.2.1 AM Peak Period

All intersections operate acceptably at LOS D or better in the 6:00 a.m. peak hour. In the 7:00 a.m. peak hour when Micron workers are commuting to the campus., the LOS for eight signalized and nine unsignalized intersections operate at LOS F with the additional demand increasing through movement volumes on the primary roads such as NYS Route 31 and Caughdenoy Road. Furthermore, one unsignalized intersection would operate at LOS E. The degradation in operations is due to additional through movement volume decreasing the turning gaps for the side streets at unsignalized intersections as well as reducing the available green time for turning movements and side street through movements at signalized intersections. These unsignalized intersections are all located along likely commuting routes to the campus:

- #8: NYS Route 31 and Grange Road west - LOS F
- #9: NYS Route 31 and Van Hoesen Road - LOS F
- #10: NYS Route 31 and Grange Road east - LOS F
- #12: NYS Route 31 and Stearns Road – LOS F
- #13: NYS Route 31 and Burnet Road – LOS F
- #14: Barcaldine Drive/Legionnaire Drive and NYS Route 31 – LOS F
- #26: Caughdenoy Road and Verplank Road – LOS E
- #40: NYS Route 481 Northbound Off-ramp and Caughdenoy Road/Maple Road: Northbound through movement is at LOS F with excessive delay; this stop-controlled movement volume significantly increases with Micron commuters.
- #50: NYS Route 31 and McNamara Drive: northbound left- and right-turn movements are LOS F.
- #56: NYS Route 31 and Weller Canning Road – LOS F
- #66: White Pines South Driveway and NYS Route 31 – LOS F

These signalized intersections are likewise located along likely commuting routes to the campus. and provide LOS F operations because the available capacity cannot accommodate the hourly demand with optimized signal timing that allocates more green time to the NYS Route 31 through movements toward the Micron Campus:

- #15: NYS Route 31 and Lawton Road/Legionnaire Drive: LOS F overall with the northbound approach and the westbound approach that includes Micron commuters experiencing excessive delay.
- #16: NYS Route 31 and U.S. Route 11: LOS F overall with failing operations for left-turn movements; the single westbound lane on NYS Route 31 does not provide enough capacity for the demand and requires additional green time.
- #17: NYS Route 31 and I-81 Southbound Ramps: The off-ramp movements do not receive adequate green time so the timing can favor the arterial through movement toward the Micron Campus (which includes Micron commuters from northbound I-81).
- #18: NYS Route 31 and Pardee Road/I-81 Northbound Ramps: The demand volume is too high for the capacity provided by the lane configuration.
- #59: Caughdenoy Road and Access Road/Micron Driveway 2 – LOS F
- #60: NYS Route 31 and Micron Driveway 3 – LOS F

- #62: NYS Route 31 and Micron Driveway 5 – LOS F
- #63: U.S. Route 11 and Micron Driveway 6 – LOS F
- #280: NYS Route 31 and Oswego Road – LOS F

9.2.2.2 PM Peak Period

The evening peak period demand generally results in higher average delays and lower LOS at several intersections beginning in the 4:00 p.m. peak hour. As with the morning peak hour, delay is high for side-street movements at several unsignalized intersections, including most noted in the morning peak period discussion. These additional unsignalized intersections are all located along likely commuting routes from the campus. and operate at LOS E or LOS F conditions in either one or both evening peak hours:

- #8: NYS Route 31 and Grange Road west - LOS F during 4:00 p.m. and 5:00 p.m.
- #9: NYS Route 31 and Van Hoesen Road - LOS F during 4:00 p.m. and 5:00 p.m.
- #10: NYS Route 31 and Grange Road east - LOS F during 4:00 p.m. and LOS E at 5:00 p.m.
- #12: NYS Route 31 and Stearns Road – LOS F during 4:00 p.m. and 5:00 p.m.
- #13: NYS Route 31 and Burnet Road – LOS F during 4:00 p.m. and 5:00 p.m.
- #14: Barcaldine Drive/Legionnaire Drive and NYS Route 31 – LOS F during 5:00 p.m.
- #23: Thompson Road and NYS Route 31 – LOS E during 4:00 p.m.
- #26: Caughdenoy Road and Verplank Road – LOS F during 5:00 p.m.
- #28: Caughdenoy Road and Oak Orchard Road – LOS E during 5:00 p.m.
- #43: U.S. Route 11 and Crabtree Lane - LOS F during 4:00 p.m. and 5:00 p.m.
- #47: NYS Route 31 and Cicero-North Syracuse High School East Driveway – LOS F during 4:00 p.m. and LOS E during 5:00 p.m.
- #50: NYS Route 31 and McNamara Drive: northbound left- and right-turn movements are LOS F.
- #54: NYS Route 31 and Doreen Avenue: LOS F during 4:00 p.m. and 5:00 p.m.
- #55: NYS Route 31 and Button Road LOS F during 4:00 p.m. and 5:00 p.m.
- #56: NYS Route 31 and Weller Canning Road – LOS F during 4:00 p.m. and 5:00 p.m.
- #66: White Pines South Driveway and NYS Route 31 – LOS F during 4:00 p.m. and 5:00 p.m.
- #72: Morgan Road and GNM Driveway 2 – LOS E during 5:00 p.m.

The operational issues associated with the lower LOS for the signalized intersections near the GNM redevelopment site and the NYS Route 31 interchange with NYS Route 481 are exacerbated by the additional volume on NYS Route 31 generated by the Proposed Project. Also, congesting or congested conditions during the morning peak period perpetuate at the same signalized intersections in the evening peak period. These other signalized intersections are likewise located along likely commuting routes to the campus. and provide LOS E or LOS F peak-hour operations because the available capacity cannot accommodate the hourly demand:

- #1: NYS Route 31 and NYS Route 481 SB: LOS E during 4:00 p.m. and 5:00 p.m.
- #2: NYS Route 31 and NYS Route 481 NB: LOS E during 5:00 p.m.

- #4: NYS Route 31 and GNM West Entrance: LOS F during both 4:00 p.m. and 5:00 p.m.
- #5: NYS Route 31 and Parking Lot/GNM East: LOS F during both 4:00 p.m. and 5:00 p.m.
- #6: NYS Route 31 and Morgan Road: LOS F during both 4:00 p.m. and 5:00 p.m.
- #7: NYS Route 31 and Henry Clay Boulevard: LOS E during 4:00 p.m. and LOS F during 5:00 p.m.
- #11: NYS Route 31 and Caughdenoy Road: LOS F during 5:00 p.m.
- #15: NYS Route 31 and Lawton Road: LOS F during 5:00 p.m.
- #16: NYS Route 31 and U.S. Route 11: LOS F during both 4:00 p.m. and 5:00 p.m. operations overall because adequate green time is not available to service competing high-demand movements
- #17: NYS Route 31 and I-81 SB Ramp: LOS E during 4:00 p.m. and LOS F during 5 p.m.
- #18: NYS Route 31 and Pardee Road/I-81 Northbound Ramps: LOS F (4:00 p.m. and 5:00 p.m.)
- #20: NYS Route 31 and Parking Lot/Lakeshore Spur: LOS E during 4 p.m. and LOS F during 5 p.m.
- #24: NYS Route 31 South Bay Road: LOS E in the 5:00 p.m. peak hour
- #34: U.S. Route 11 and Bear Road: LOS E in the 5:00 p.m. peak hour
- #59: Caughdenoy Road and Access Road/Micron Driveway 2: LOS F in the 5:00 p.m. peak hour
- #60: NYS Route 31 and Micron Driveway 3 – LOS F during 4:00 p.m. and 5:00 p.m.
- #62: NYS Route 31 and Micron Driveway 5 – LOS F during 4:00 p.m. and 5:00 p.m.
- #69: Morgan Road and Verplank Road – LOS E during 5:00 p.m.
- #260: U.S. Route 11 and Chick-fil-a – LOS E during 4:00 p.m.
- #280: NYS Route 31 and Oswego Road – LOS F during 4:00 p.m. and LOS E during 5:00 p.m.

9.2.3 Freeway Operations

Tables 9-5 and 9-6 summarize the freeway densities and corresponding LOS expressed as a letter designation and by the color coding shown in Table 2-3. The additional trips generated by the Proposed Project increase density, resulting in congested and unacceptable operating conditions for several freeway segments within the Transportation Evaluation Area. In the 7:00 a.m. peak hour, the density increases for northbound I-81 in the vicinity of the NYS Route 481 and NYS Route 31 interchanges, resulting in a significant decrease to LOS F operating conditions (LOS A operating conditions resume north of the NYS Route 31 interchange). Northbound I-81 through the NYS Route 31 interchange will likely be a primary access route for employees commuting to the Micron Campus during this morning peak hour. The No Action evening peak period congestion issues for northbound I-81 between the NYS Route 481 and NYS Route 31 interchanges increase with the additional volume. LOS F operating conditions perpetuate from the No Action conditions. In the southbound direction, the additional Proposed Project-generated volume exiting I-81 to NYS Route 31 causes an LOS decrease from LOS A to LOS F; however, the density value is just over the LOS E/LOS F threshold shown in Table 2-4.

The NYS Route 481 westbound diverge to Caughdenoy Road drops to LOS F operating conditions because of Proposed Project-generated trips accessing the Micron Campus in the 7:00 a.m. peak hour. NYS Route 481 eastbound segments adjacent to the service interchange with U.S. Route 11/Bear Road/Circle Drive experience density increases and corresponding drops in LOS with congested conditions resulting in the 7:00 a.m. peak hour.

During the 4:00 p.m. and 5:00 p.m. hours, constrained conditions are only present along northbound I-81 at the off-ramp to NYS Route 31 resulting in LOS F and LOS E for several segments (two segments during the 4:00 p.m. hours and three segments during the 5:00 p.m. hour).

Table 9-5. Year 2041 Preferred Action Alternative AM and PM Peak-Hour Freeway I-81 Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS
I-81 NB	I-81 NB Between E Taft Rd and NYS Route 481	Basic	1,267	1,212	66	6.1	A	3,106	2,898	30	32.4	D	3,939	3,929	65	20.2	C	3,545	3,548	65	18.2	C
	I-81 NB Off-Ramp to NYS Route 481	Diverge	1,267	1,205	64	4.7	A	3,106	2,679	19	36.0	E	3,939	3,914	62	15.7	B	3,545	3,544	63	14.1	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Basic	1,098	1,038	66	5.2	A	2,919	2,415	14	56.3	F	3,675	3,668	64	19.0	C	3,335	3,348	64	17.3	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Weave	1,161	1,075	59	4.6	A	2,938	2,300	10	57.4	F	3,794	3,761	58	16.3	B	3,464	3,471	57	15.3	B
	I-81 NB after Off-Ramp to NYS Route 481	Basic	598	541	58	4.7	A	1,988	1,232	6	106.7	F	2,384	2,374	55	21.7	C	2,167	2,169	46	31.1	D
	I-81 NB On-Ramp from NYS Route 481	Merge	822	747	64	2.9	A	3,021	1,727	4	118.2	F	3,444	3,430	61	14.1	B	3,117	3,114	34	44.8	E
	I-81 NB Between I-481 and NYS Route 31	Basic	822	743	64	3.9	A	3,021	1,263	3	152.7	F	3,444	3,373	38	35.3	E	3,117	3,059	12	112.0	F
	I-81 NB Off-Ramp to NYS Route 31	Diverge	822	738	57	3.2	A	3,021	716	1	164.1	F	3,444	3,157	8	102.0	F	3,117	3,002	5	140.5	F
	I-81 NB Between Off/On-Ramps to/from NYS Route 31	Basic	409	391	67	1.9	A	840	217	62	1.2	A	2,229	2,056	60	11.4	B	2,062	1,969	56	11.7	B
	I-81 NB On-Ramp from NYS Route 31	Merge	689	641	62	2.6	A	1,100	406	61	1.7	A	2,996	2,530	56	11.4	B	2,726	2,350	54	10.9	B
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	689	640	67	3.2	A	1,100	410	67	2.0	A	2,996	2,532	55	15.5	B	2,726	2,352	53	14.8	B
	I-81 NB Between Sneller Rd and Bartell Road	Basic	689	625	67	3.1	A	1,100	427	67	2.1	A	2,996	2,543	53	16.1	B	2,726	2,357	52	15.1	B
	I-81 NB Off-Ramp to Bartell Rd	Diverge	689	618	64	2.4	A	1,100	432	64	1.7	A	2,996	2,543	48	13.1	B	2,726	2,357	47	12.7	B
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	562	505	67	2.5	A	881	361	67	1.8	A	2,308	1,936	53	12.2	B	2,126	1,806	52	11.5	B
	I-81 On-Ramp from Bartell Road	Merge	682	619	64	2.4	A	986	466	63	1.8	A	2,561	2,180	53	10.2	B	2,406	2,082	53	9.8	A
	I-81 NB Between Bartell Rd and East Ave	Basic	682	619	67	3.1	A	986	468	67	2.3	A	2,561	2,186	55	13.4	B	2,406	2,089	55	12.6	B
I-81 SB	I-81 SB Between East Ave and Bartell Road	Basic	1,356	1,304	67	6.5	A	2,594	2,591	66	13.0	B	1,449	1,445	67	7.1	A	1,296	1,294	68	6.4	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	1,356	1,291	66	4.9	A	2,594	2,568	63	10.1	B	1,449	1,435	65	5.5	A	1,296	1,285	65	4.9	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	1,240	1,190	67	5.9	A	2,337	2,326	66	11.8	B	1,237	1,237	67	6.1	A	1,106	1,100	68	5.4	A
	I-81 SB On-Ramp from Bartell Road	Merge	1,603	1,521	65	5.8	A	3,027	3,002	64	11.8	B	1,790	1,766	64	6.9	A	1,611	1,602	64	6.2	A
	I-81 SB Between Bartell Rd and Sneller Road	Basic	1,603	1,514	67	7.6	A	3,027	2,994	65	15.4	B	1,790	1,771	67	8.8	A	1,611	1,611	67	8.0	A
	I-81 SB Between Sneller Rd and NYS Route 31	Basic	1,603	1,499	67	7.5	A	3,027	2,958	59	16.8	B	1,790	1,772	67	8.9	A	1,611	1,621	67	8.1	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	1,603	1,492	66	5.7	A	3,027	2,931	23	46.7	F	1,790	1,772	59	8.1	A	1,611	1,620	62	6.7	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	1,295	1,218	67	6.1	A	2,336	2,251	62	12.1	B	1,391	1,380	67	6.9	A	1,256	1,262	67	6.3	A
	I-81 SB On-Ramp from NYS Route 31	Merge	2,234	1,977	62	8.0	A	3,764	3,195	60	13.2	B	2,954	2,585	61	10.5	B	3,864	2,578	61	10.5	B
	I-81 SB Between NYS Route 31 and I-81	Basic	2,234	1,970	66	9.9	A	3,764	3,199	64	16.8	B	2,954	2,596	65	13.2	B	3,864	2,597	66	13.2	B
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	2,234	1,970	66	9.9	A	3,764	3,199	64	16.8	B	2,954	2,596	65	13.2	B	3,864	2,597	66	13.2	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	1,538	1,336	66	10.2	A	2,482	2,085	63	16.5	B	1,994	1,758	65	13.6	B	2,517	1,772	65	13.7	B
	I-81 SB Off-Ramp to I-81 WB	Diverge	1,538	1,334	64	6.9	A	2,482	2,081	64	10.9	B	1,994	1,758	64	9.1	A	2,517	1,771	64	9.2	A

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	1,352	1,210	66	9.2	A	2,405	1,996	64	15.6	B	1,789	1,602	66	12.2	B	2,333	1,647	65	12.6	B
I-81 SB (continued)	I-81 SB On-Ramp from NYS Route 481 WB	Merge	1,524	1,375	66	7.0	A	2,653	2,240	65	11.5	B	1,979	1,788	66	9.1	A	2,496	1,809	66	9.2	A
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	3,028	2,509	47	13.4	B	4,035	3,640	47	19.5	B	3,363	3,003	47	15.9	B	3,921	3,035	48	15.9	B
	I-81 NB Between NYS Route 481 and E Taft Road	Basic	3,028	2,517	47	17.9	B	4,035	3,661	45	27.4	D	3,363	3,019	47	21.5	C	3,921	3,053	47	21.6	C

Table 9-6. Year 2041 Preferred Action Alternative AM and PM Peak-Hour Freeway NYS Route 481 Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 EB	NYS Route 481 EB Between Verplank Road and NYS Route 31	Basic	1,325	1,139	62	9.2	A	1,797	1,793	54	21.5	C	1,375	1,357	62	10.9	A	1,205	1,210	62	9.7	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	1,325	1,137	48	8.0	A	1,797	1,794	33	29.8	D	1,375	1,359	47	9.6	A	1,205	1,213	47	8.6	A
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	683	610	66	4.6	A	992	985	64	7.7	A	700	700	67	5.2	A	609	614	67	4.6	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	2,431	2,044	35	19.3	B	2,608	2,632	35	25.1	C	2,400	2,099	35	20.1	C	2,161	1,977	35	18.9	B
	NYS Route 481 EB Between NYS Route 31 and Maple Road	Basic	2,431	2,018	32	32.0	D	2,608	2,635	30	44.1	E	2,400	2,085	32	32.4	D	2,161	1,966	32	30.4	D
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	2,431	1,806	31	19.1	B	2,608	2,569	30	28.9	D	2,400	2,066	30	23.0	C	2,161	2,018	30	22.1	C
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	2,087	1,597	30	26.7	D	2,335	2,302	27	42.2	E	1,878	1,639	32	25.5	C	1,718	1,617	32	25.2	C
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	2,841	2,280	32	23.7	C	3,431	3,335	29	38.1	E	2,742	2,452	32	25.7	C	2,847	2,447	31	26.1	C
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	1,336	1,096	40	9.1	A	2,049	1,904	35	18.0	B	1,358	1,212	43	9.5	A	1,422	1,205	42	9.5	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	1,273	1,050	40	13.1	B	2,029	1,874	35	26.8	D	1,238	1,116	45	12.4	B	1,294	1,086	45	12.2	B
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	1,443	1,213	41	9.8	A	2,216	2,041	34	20.1	C	1,502	1,376	45	10.1	B	1,504	1,299	45	9.6	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	2,139	1,827	50	9.1	A	3,498	3,141	45	17.4	B	2,462	2,210	54	10.2	B	2,851	2,135	54	9.8	A
	NYS Route 481 EB Between I-81 and Northern Blvd	Basic	2,139	1,817	52	11.7	B	3,498	3,135	45	23.1	C	2,462	2,209	56	13.2	B	2,851	2,136	56	12.7	B
NYS Route 481 WB	NYS Route 481 WB Between Northern Blvd and I-81	Basic	924	865	67	6.4	A	2,315	2,305	66	17.4	B	2,988	2,979	65	22.8	C	2,700	2,694	66	20.5	C
	NYS Route 481 WB Off-Ramp to I-81	Diverge	924	865	67	4.3	A	2,315	2,306	65	11.8	B	2,988	2,988	64	15.5	B	2,700	2,699	65	13.9	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	700	649	51	6.4	A	1,283	1,268	50	12.6	B	1,929	1,931	50	19.5	C	1,750	1,744	50	17.5	B
	NYS Route 481 WB Between On-Ramp and Off-Ramp to I-81	Weave	1,263	1,172	59	6.6	A	2,233	2,041	59	11.6	B	3,339	3,315	57	19.2	B	3,047	3,052	58	17.6	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	1,091	1,003	64	7.8	A	1,984	1,802	63	14.3	B	3,149	3,138	62	25.5	C	2,884	2,905	62	23.5	C
	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	1,277	1,121	65	5.8	A	2,061	1,884	64	9.8	A	3,354	3,293	64	17.2	B	3,068	3,030	64	15.8	B
	NYS Route 481 WB Off-Ramp and On-Ramp from Cir Drive	Basic	888	742	64	5.8	A	1,390	1,284	63	10.1	A	2,268	2,216	63	17.5	B	1,998	1,966	63	15.5	B
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	1,318	983	62	5.3	A	1,796	1,673	60	9.3	A	2,806	2,737	55	16.6	B	2,548	2,509	55	15.1	B
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	1,318	977	66	7.4	A	1,796	1,667	52	16.9	B	2,806	2,735	63	21.7	C	2,548	2,515	63	19.9	C

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Throughput (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Throughput (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Throughput (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Throughput (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 WB (continued)	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	1,318	952	63	5.1	A	1,796	1,610	15	49.9	F	2,806	2,688	55	16.2	B	2,548	2,481	56	14.6	B
	NYS Route 481 WB Between Caughdenoy Road and NYS Route 31	Basic	1,216	858	65	6.5	A	1,192	1,135	65	8.8	A	2,315	2,258	63	17.9	B	2,172	2,158	63	17.1	B
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	1,216	837	65	3.2	A	1,192	1,040	23	43.9	E	2,315	2,248	60	9.3	A	2,172	2,152	59	9.3	A
	NYS Route 481 WB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	418	305	67	2.3	A	497	441	66	3.3	A	591	589	67	4.4	A	554	551	67	4.1	A
	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	942	679	58	3.9	A	868	836	61	4.6	A	1,479	1,297	58	7.5	A	1,433	1,232	58	7.0	A
	NYS Route 481 WB Between NYS Route 31 and Verplank Road	Basic	942	676	61	5.5	A	868	836	63	6.6	A	1,479	1,295	62	10.4	A	1,433	1,230	63	9.8	A

9.3 Mitigation Scenario A

The following subsections present key MOEs and discuss the traffic operational analysis results for this Mitigation Scenario A of the highest-volume demand year 2041. Operations for the peak hour with the lowest LOS within the peak period of the freeway mainline segments, merge/diverge areas, weaving areas, ramp segments, ramp terminal intersections, and surface street intersections are expressed as LOS based on the color coding shown in Tables 2-3 and 2-4 in Section 2.4.2. Appendix D summarizes the model output that details the link and node results, summarized in the figures and tables.

9.3.1 Traffic Volumes

The traffic volumes shown in Figures 9-17 through 9-20 are higher than in the No Action scenario because of the addition of Proposed Project-generated trips. To accommodate this higher-volume demand, the roadway network is modified to add an interchange to I-81 at Sneller Road, upgrade the existing NYS Route 31/I-81 and NYS Route 31/NYS Route 481 interchanges, and widen NYS Route 31 and U.S. Route 11 within the Transportation Evaluation Area. The new interchange at Sneller Road attracts trips from the NYS Route 31 interchange with I-81 and from NYS Route 31 and its associated intersections between the interstate and the Micron Campus, thus reducing the peak period volume demand for this principal arterial.

Figure 9-17: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Intersections - Sheet 1 of 5

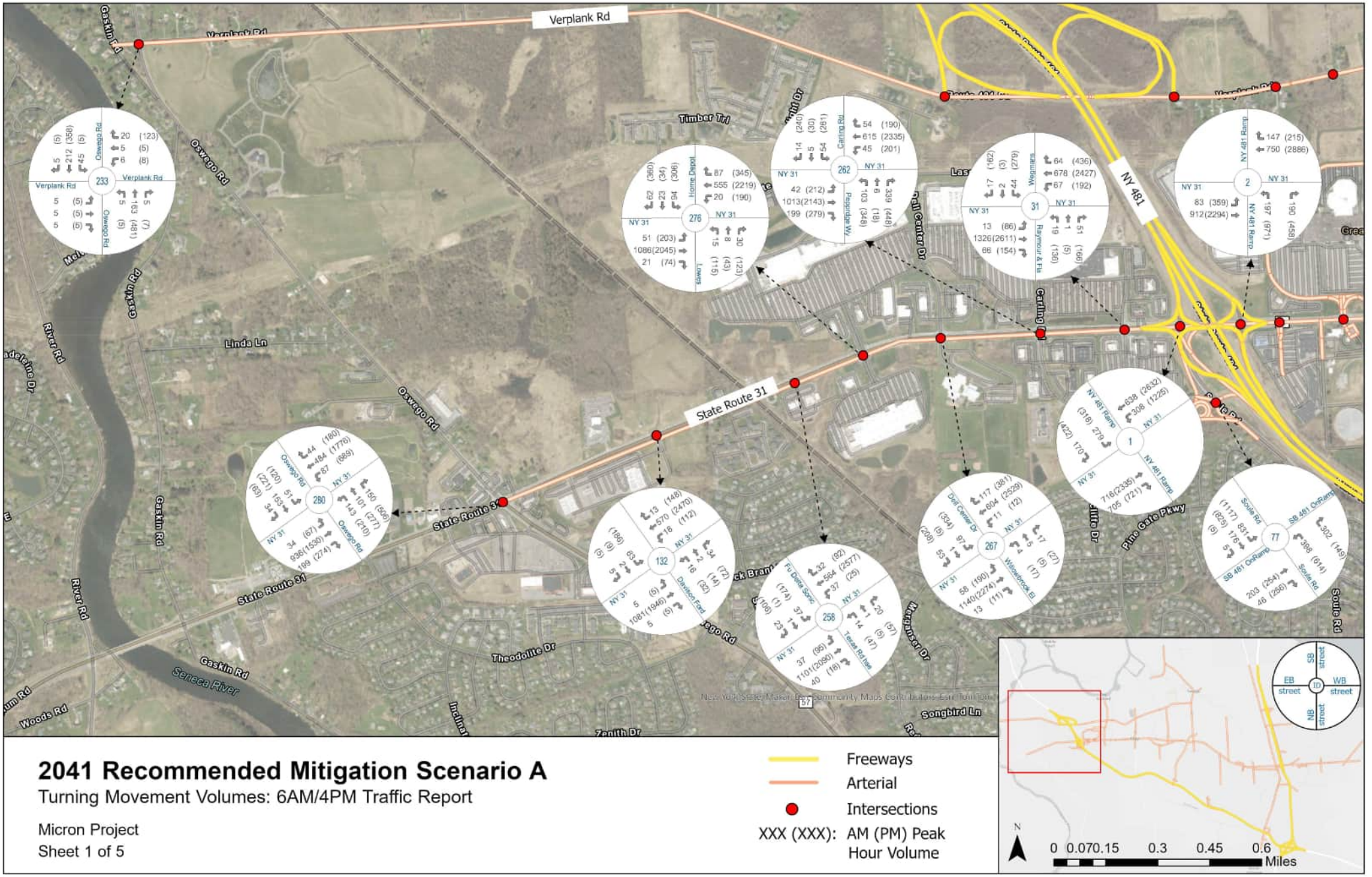


Figure 9-17: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Intersections - Sheet 2 of 5

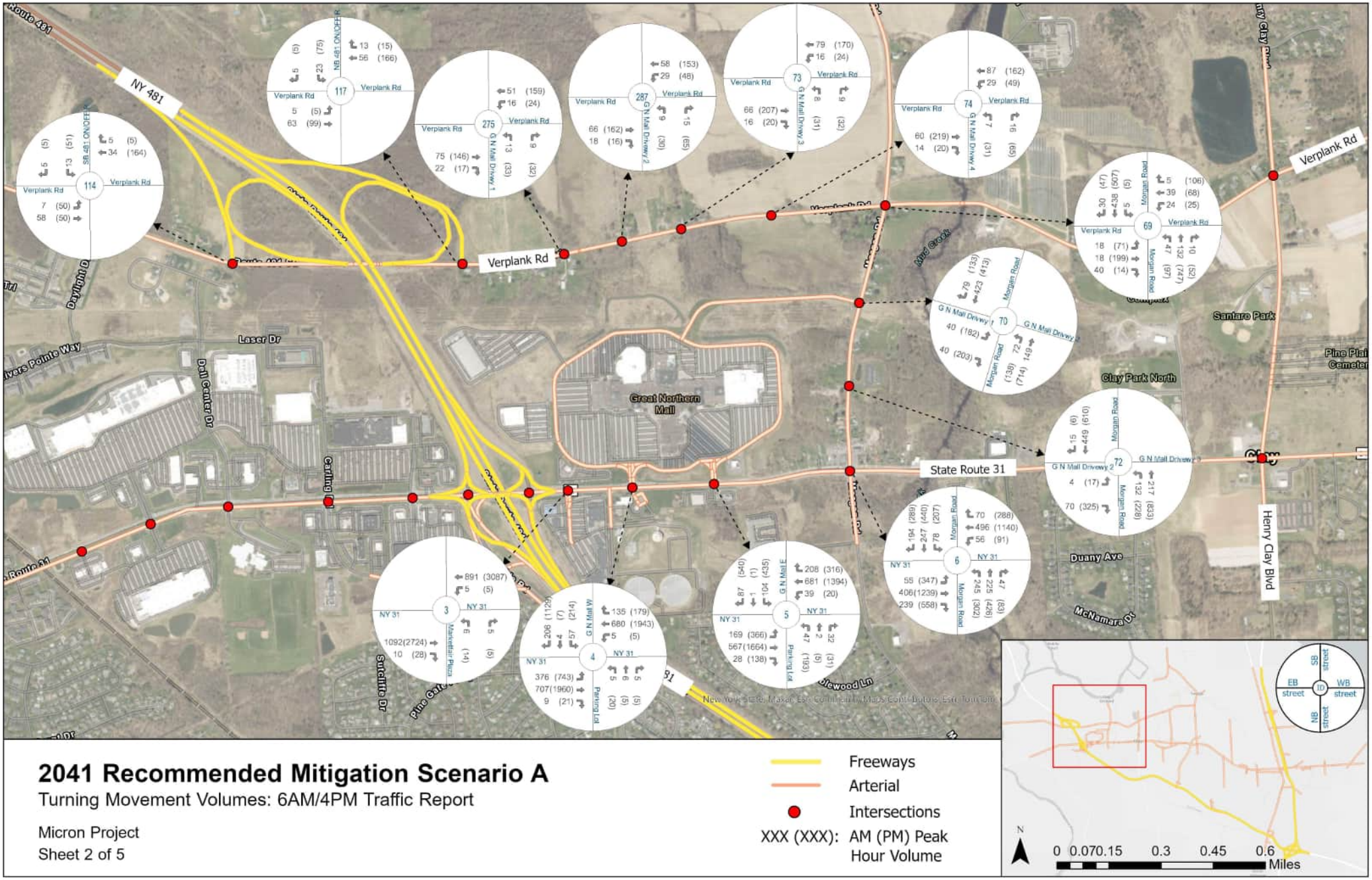


Figure 9-17: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Intersections - Sheet 3 of 5

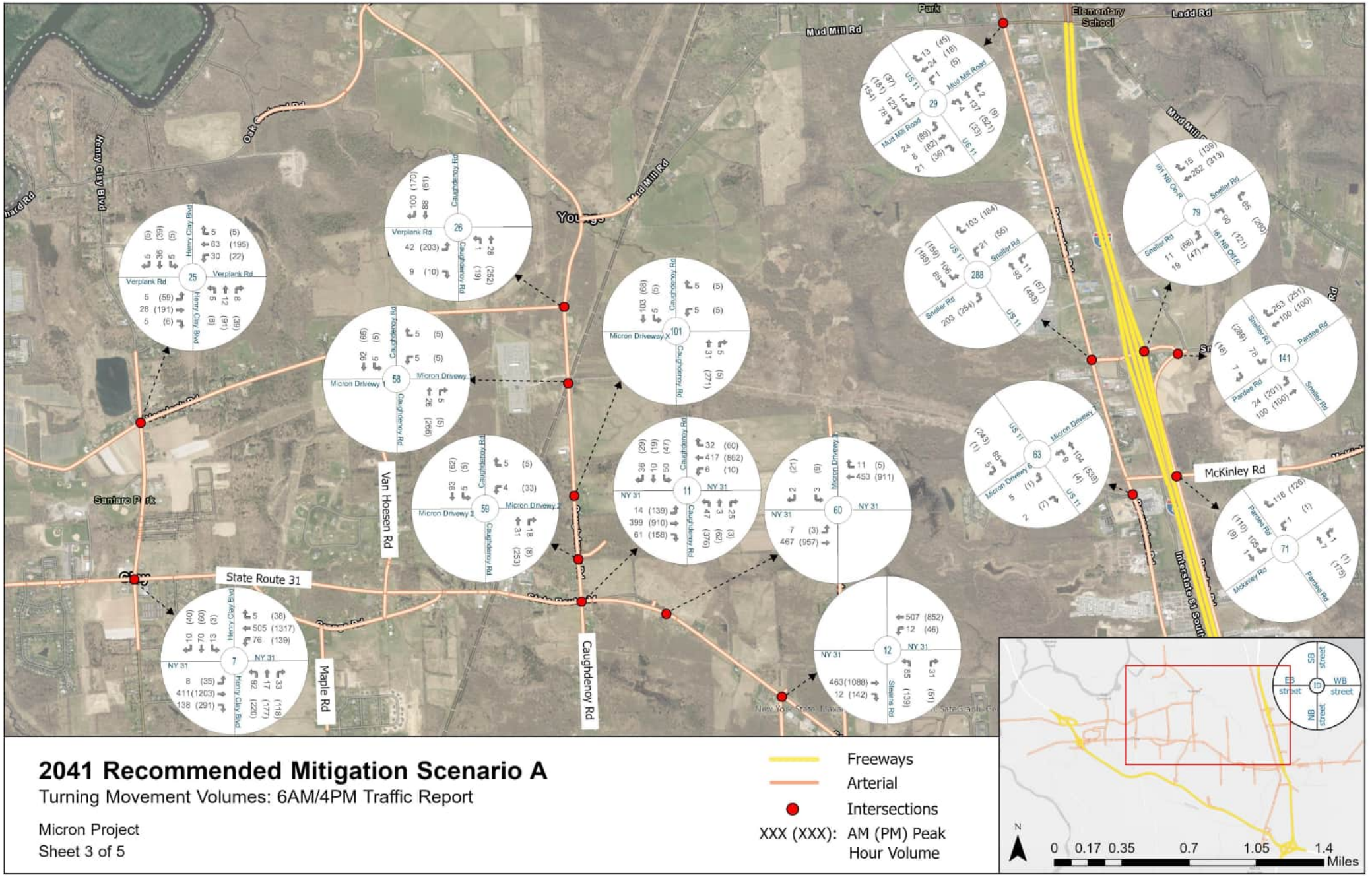


Figure 9-17: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Intersections - Sheet 4 of 5

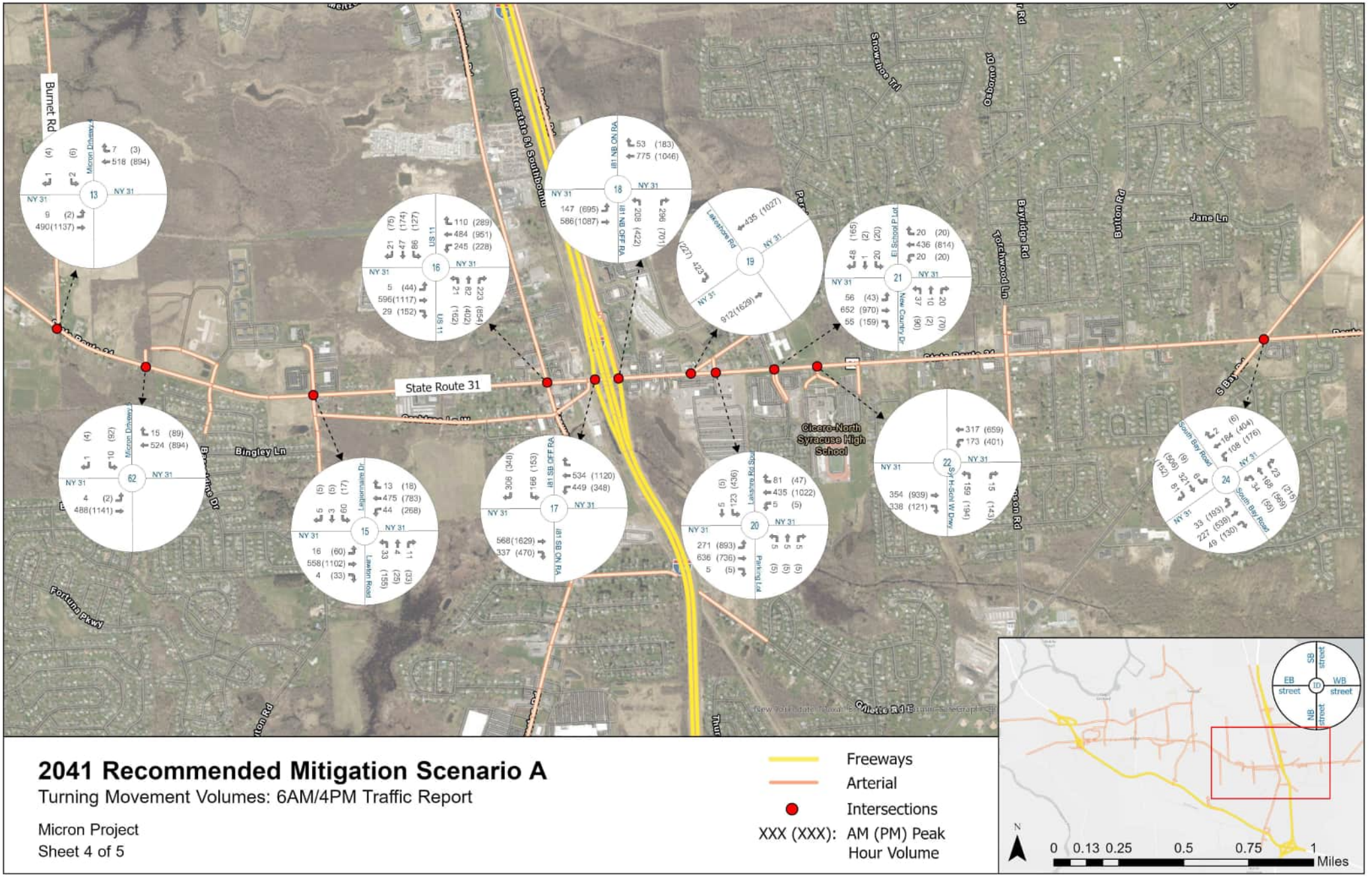
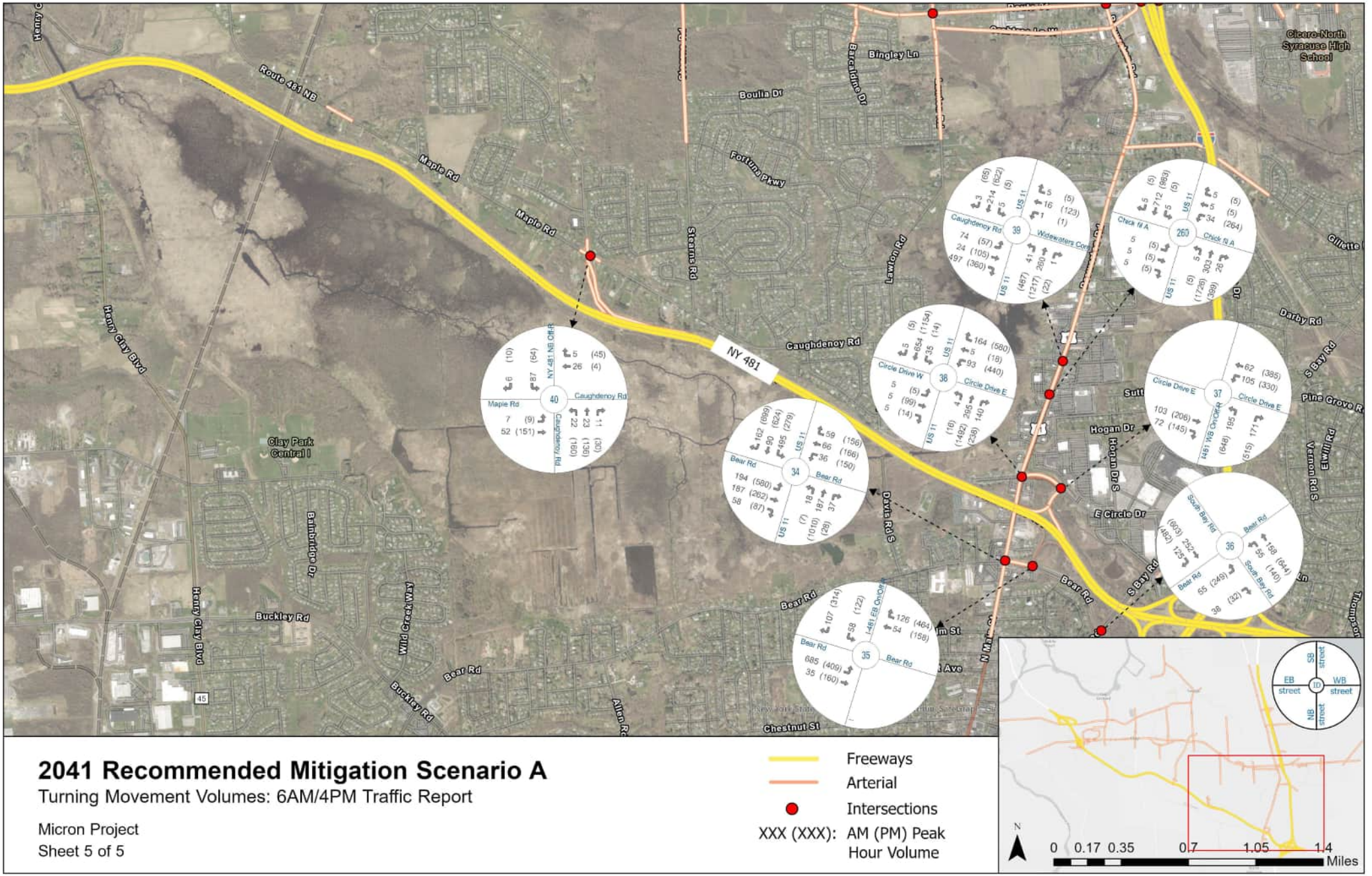


Figure 9-17: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Intersections - Sheet 5 of 5



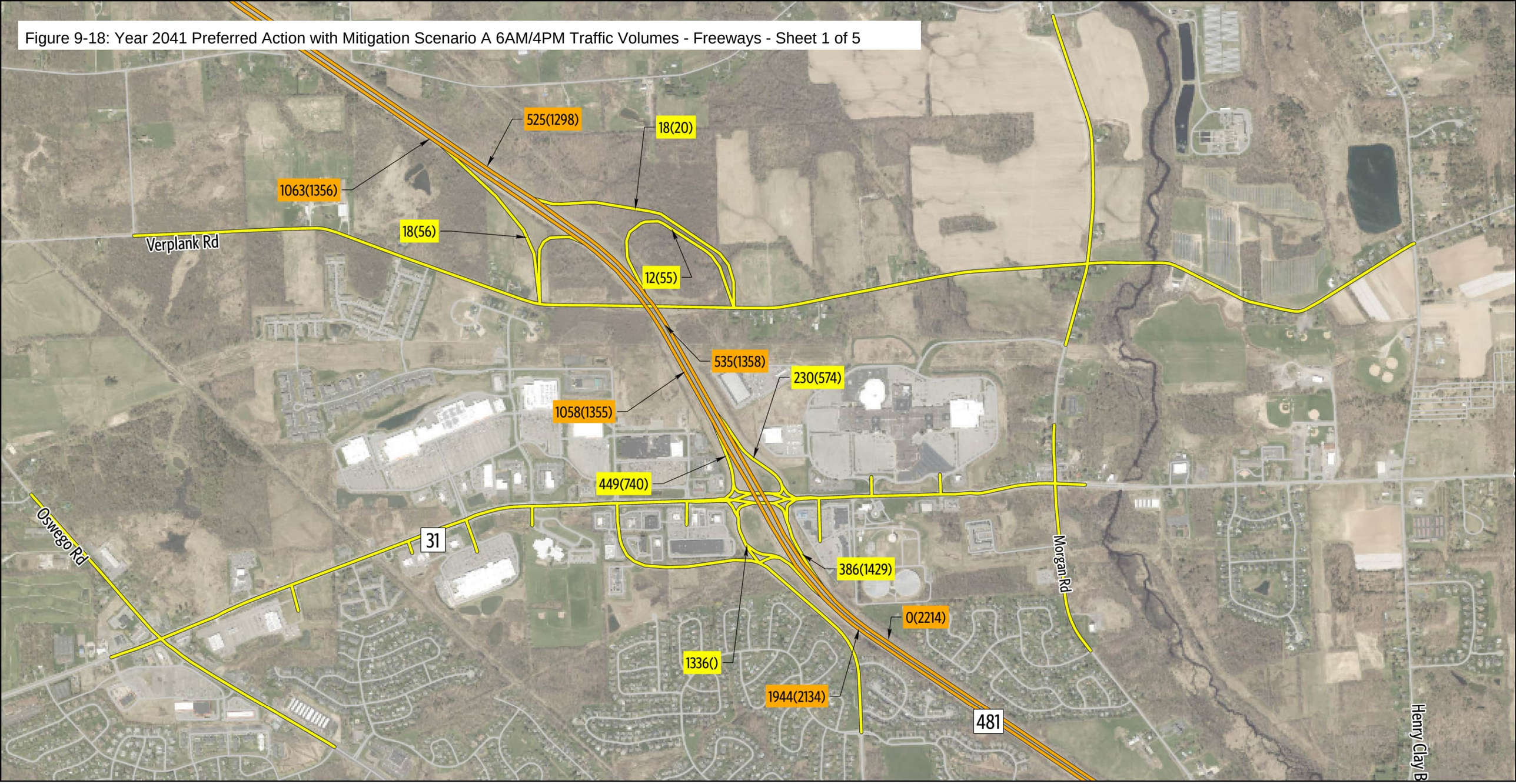
2041 Recommended Mitigation Scenario A

Turning Movement Volumes: 6AM/4PM Traffic Report

Micron Project
Sheet 5 of 5

Freeways
Arterial
Intersections
XXX (XXX): AM (PM) Peak Hour Volume

Figure 9-18: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Freeways - Sheet 1 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-18: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Freeways - Sheet 2 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

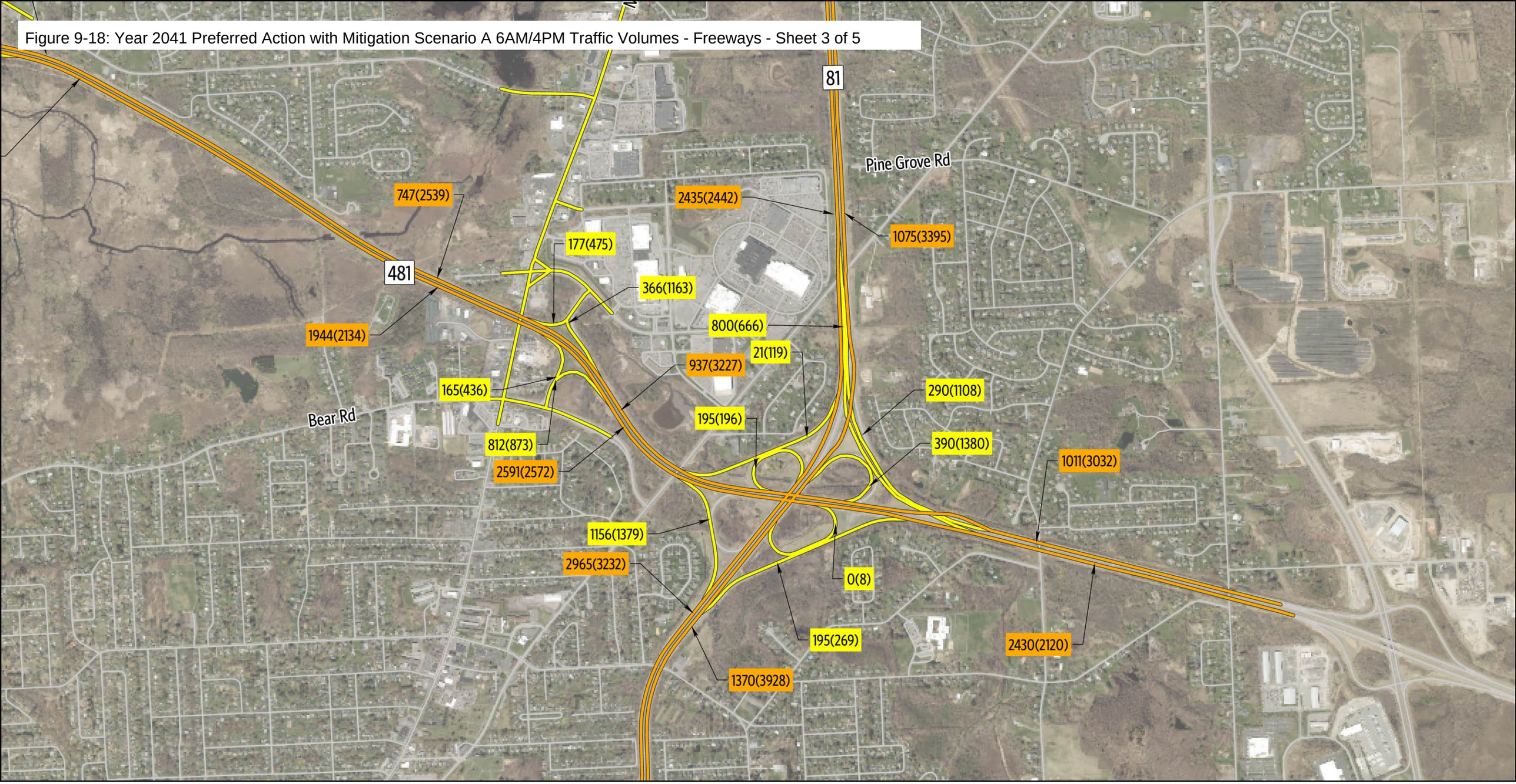
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-18: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Freeways - Sheet 3 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

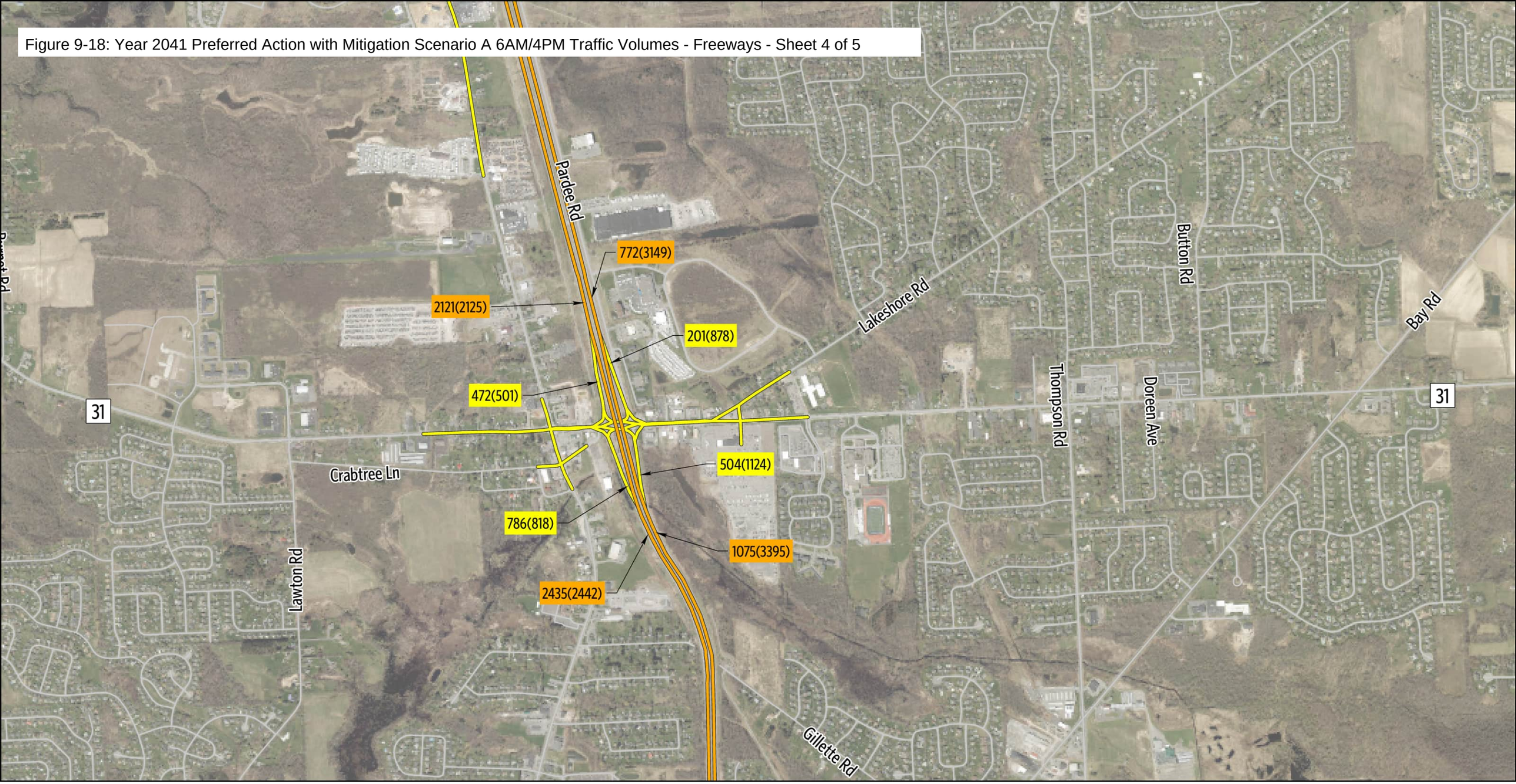
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-18: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Freeways - Sheet 4 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

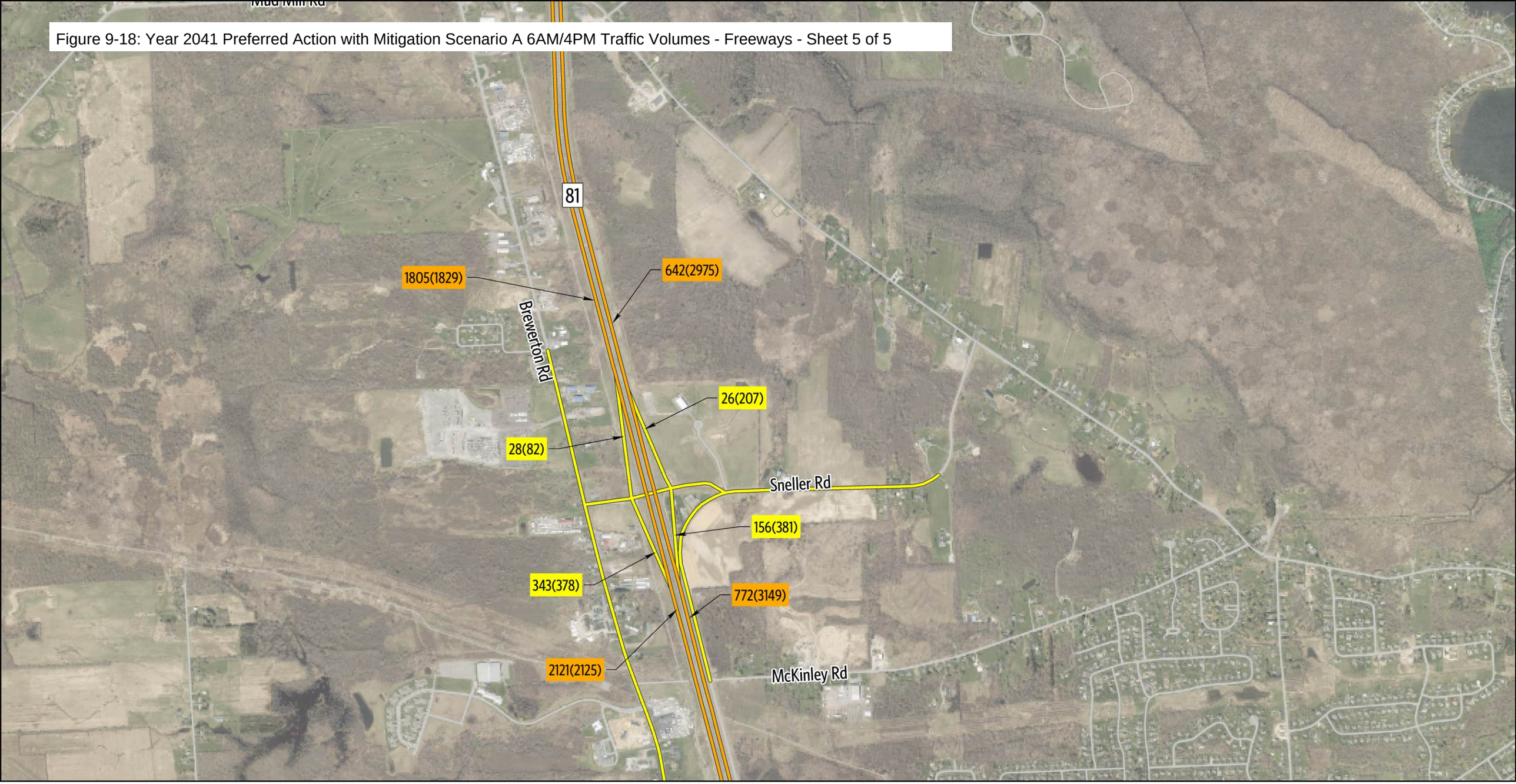
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 4 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-18: Year 2041 Preferred Action with Mitigation Scenario A 6AM/4PM Traffic Volumes - Freeways - Sheet 5 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 5 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-19: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Intersections - Sheet 1 of 5

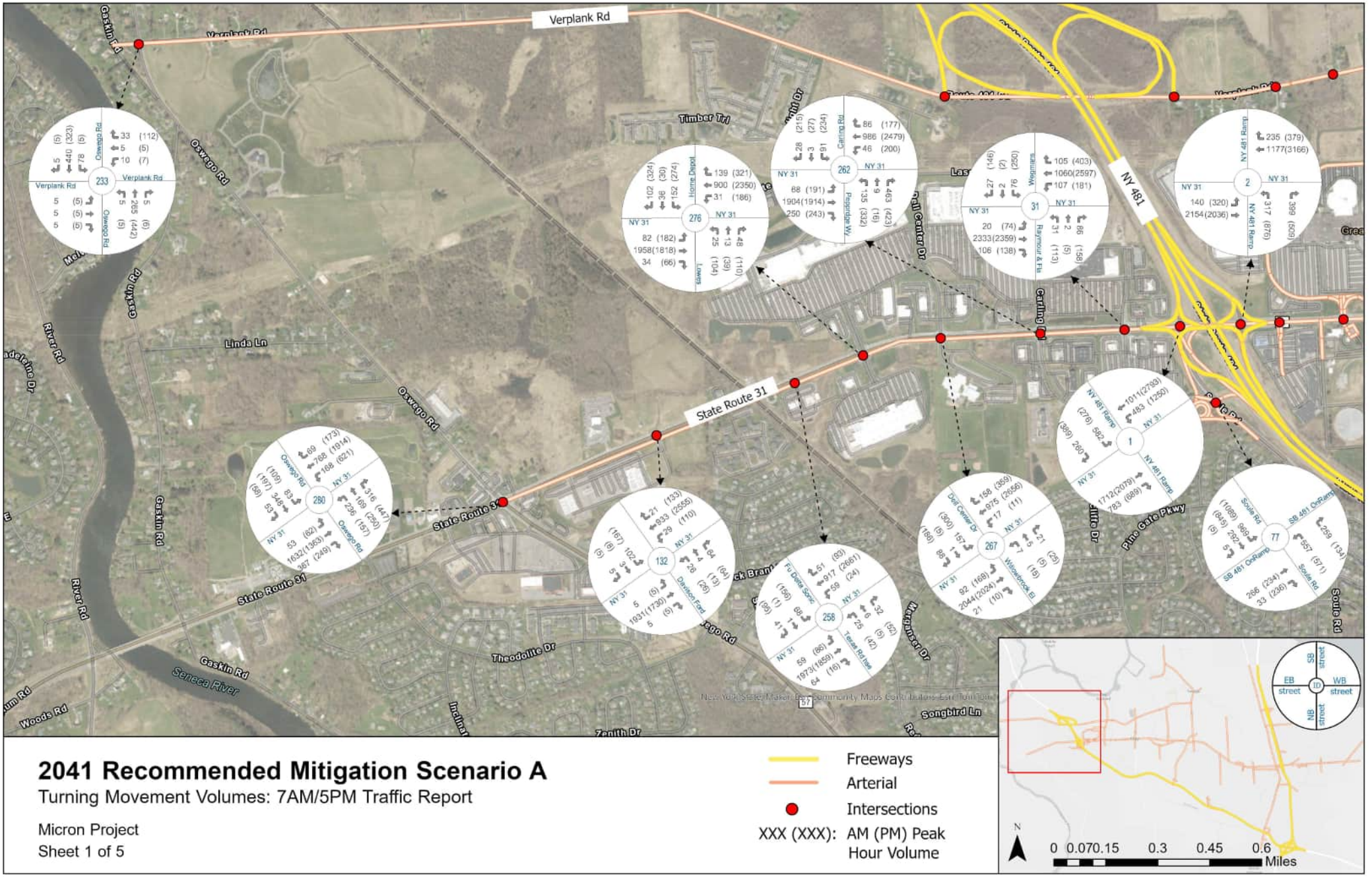


Figure 9-19: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Intersections - Sheet 2 of 5

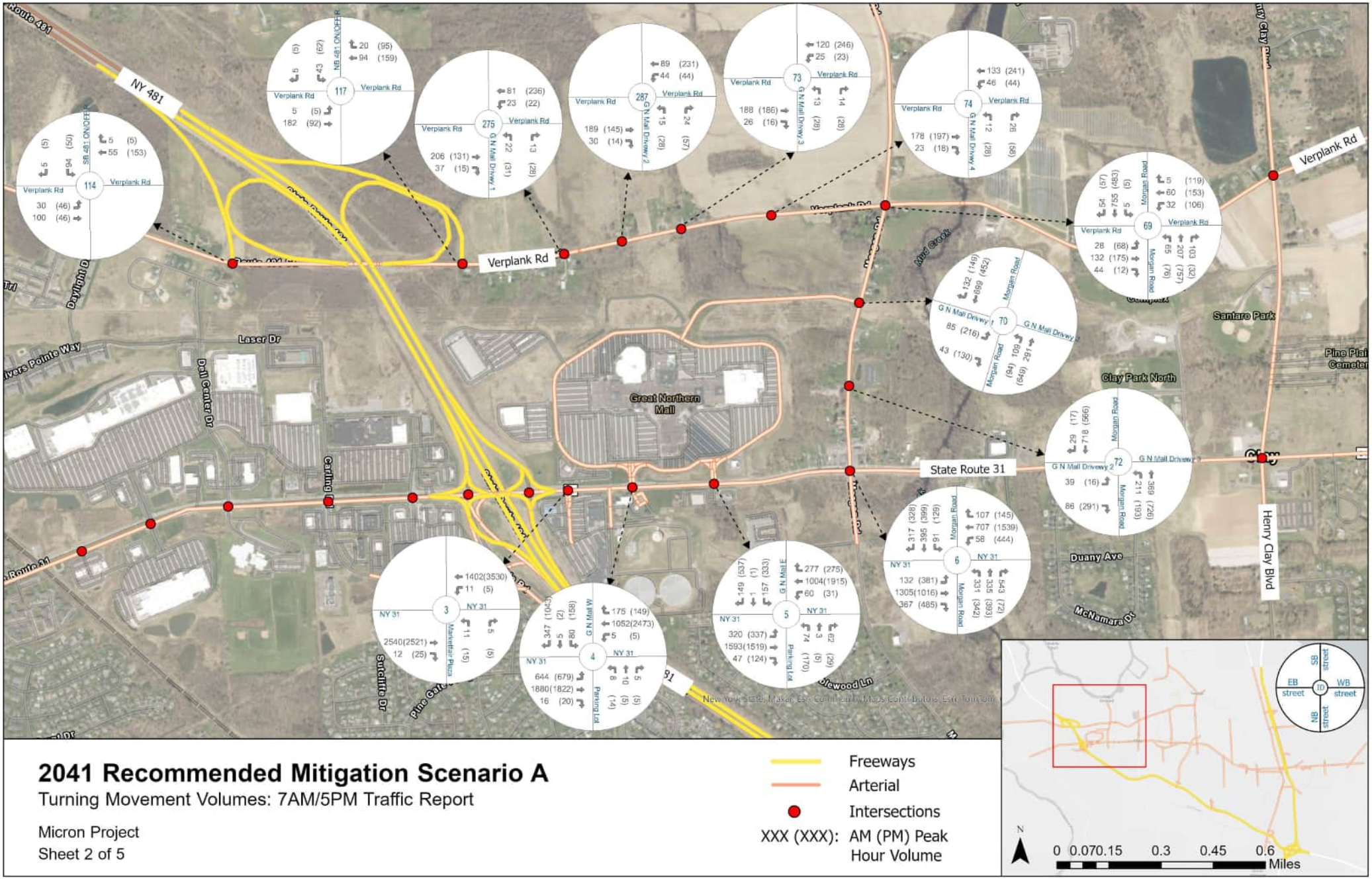


Figure 9-19: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Intersections - Sheet 3 of 5

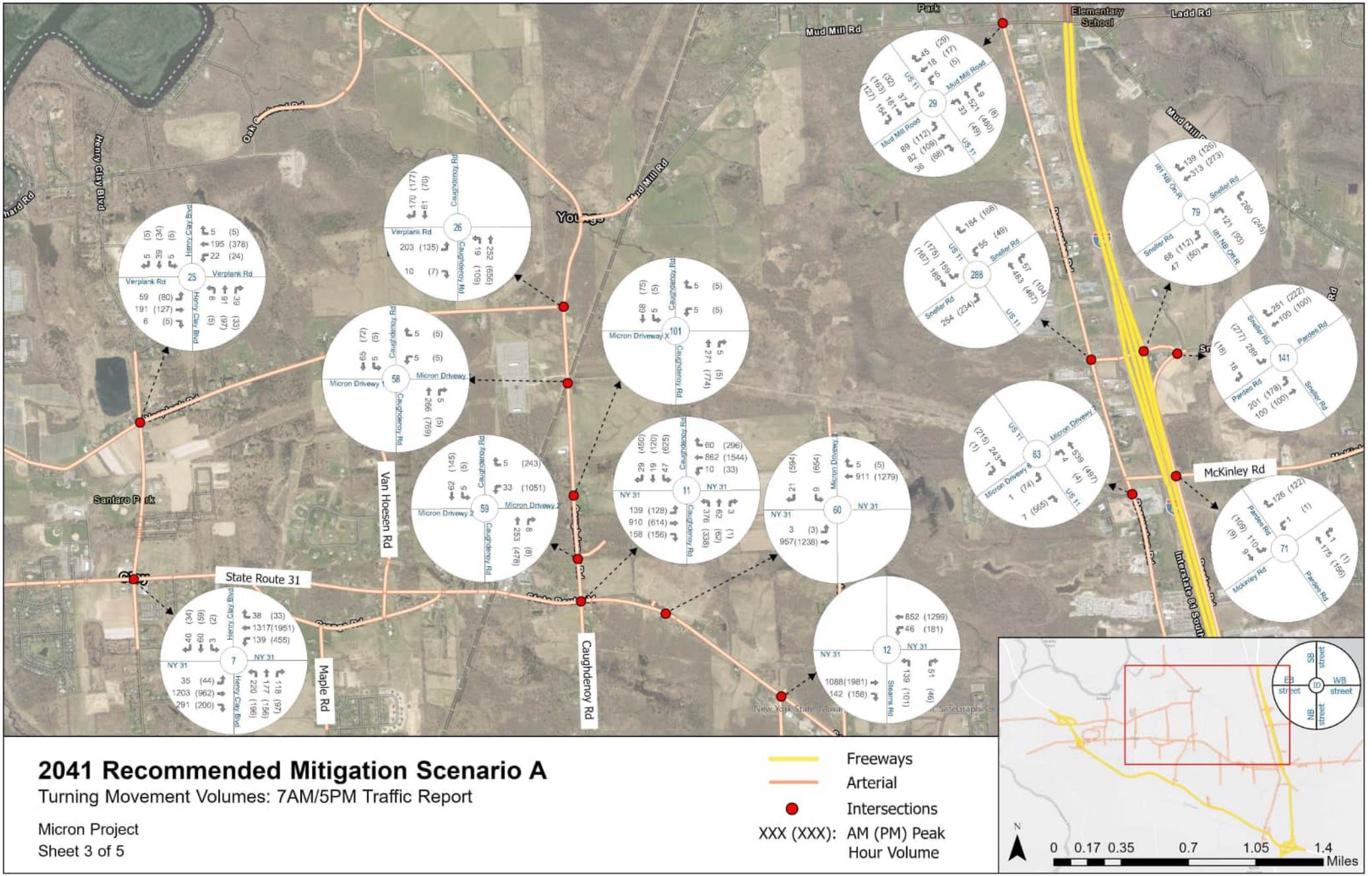


Figure 9-19: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Intersections - Sheet 4 of 5

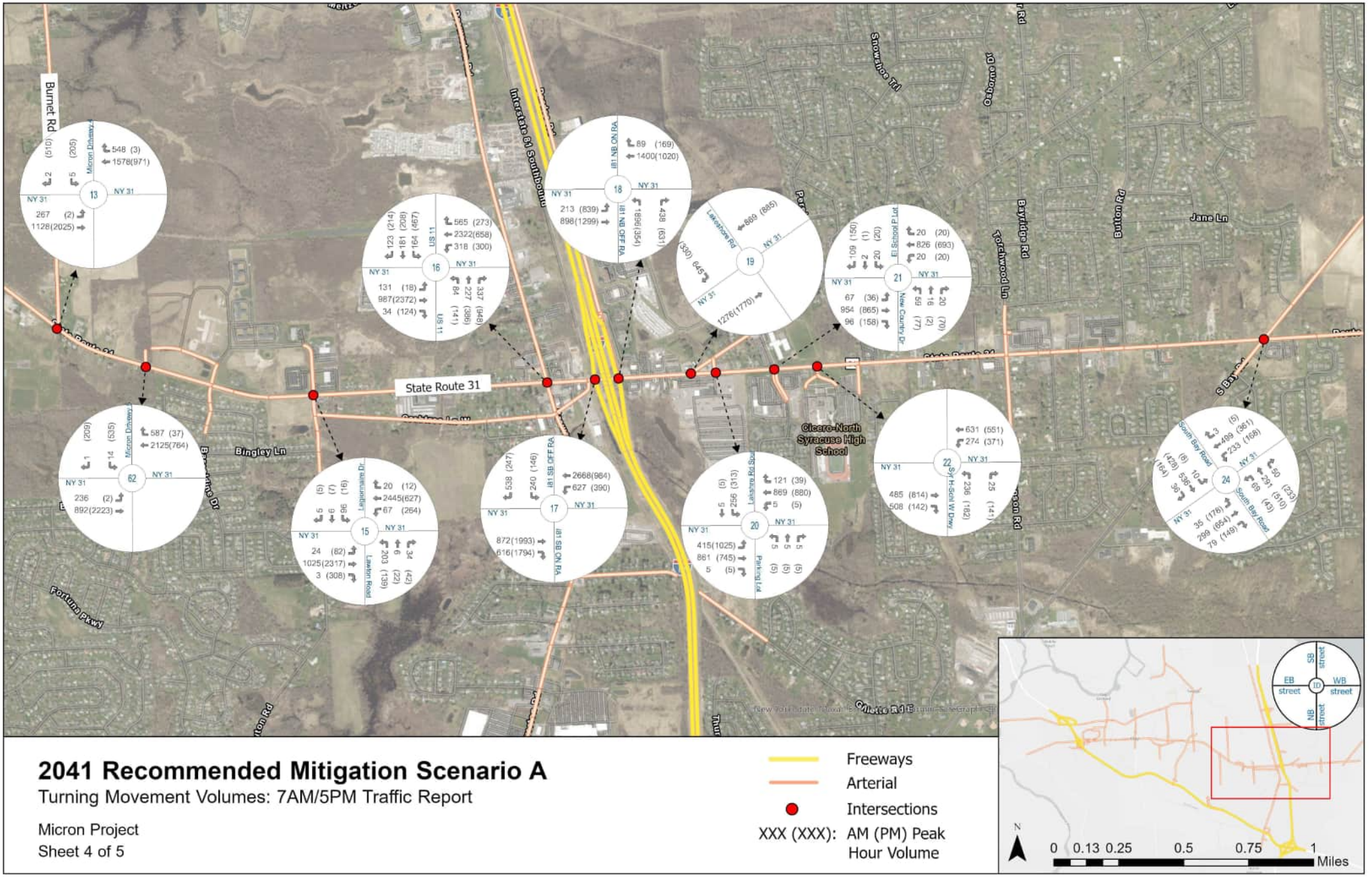


Figure 9-19: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Intersections - Sheet 5 of 5

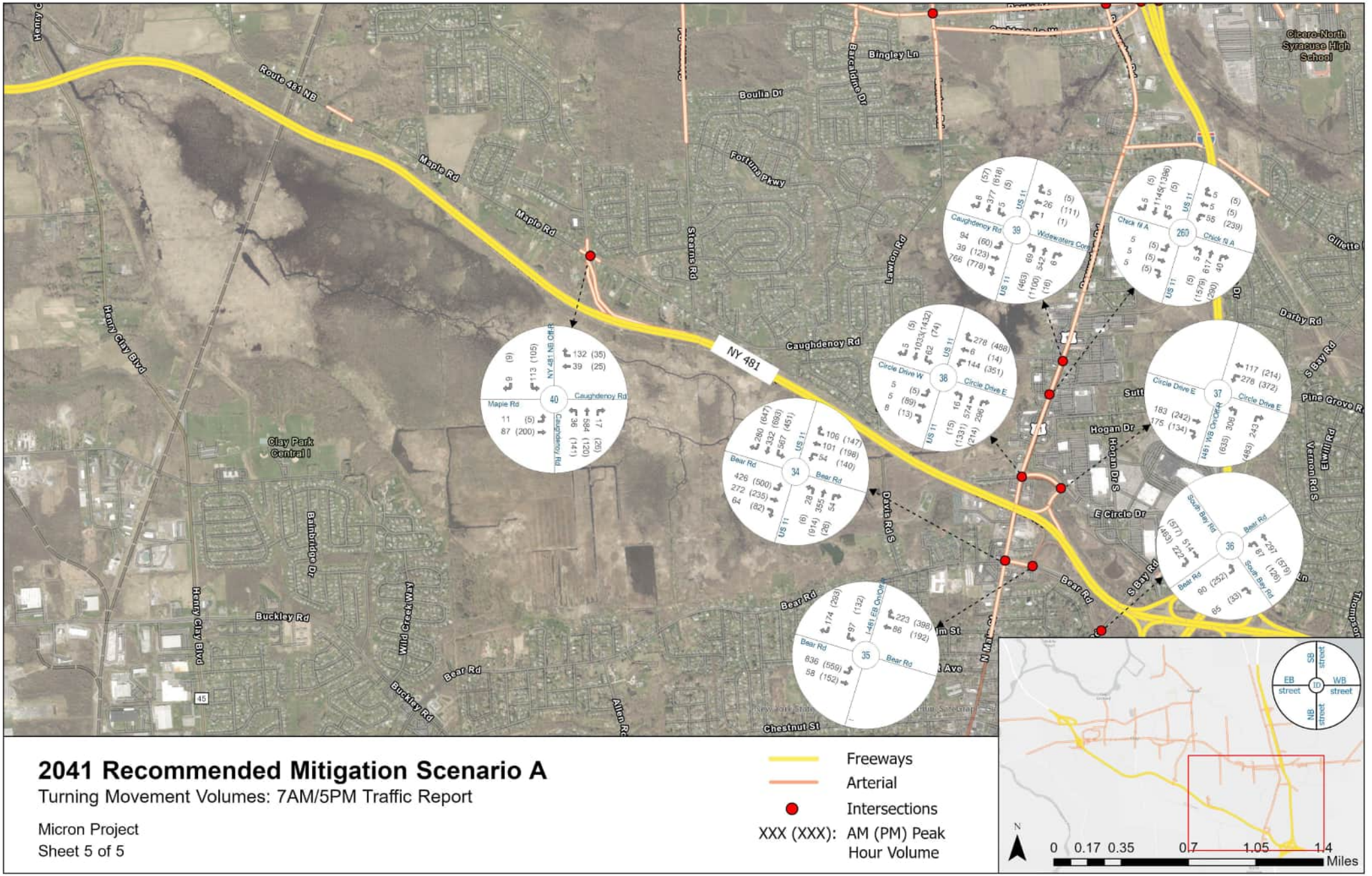
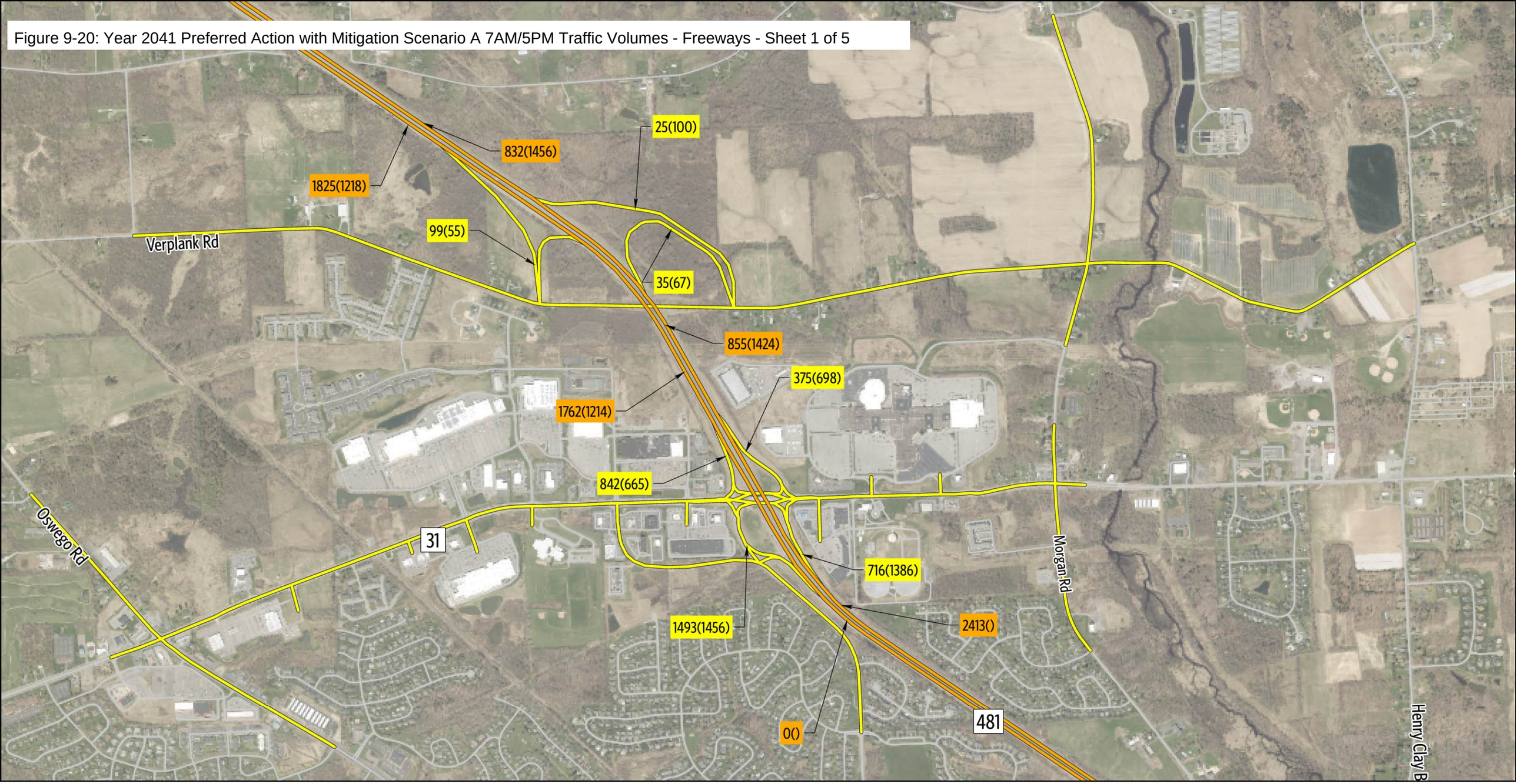


Figure 9-20: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Freeways - Sheet 1 of 5



Mainline Volumes

Freeways

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-20: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Freeways - Sheet 2 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

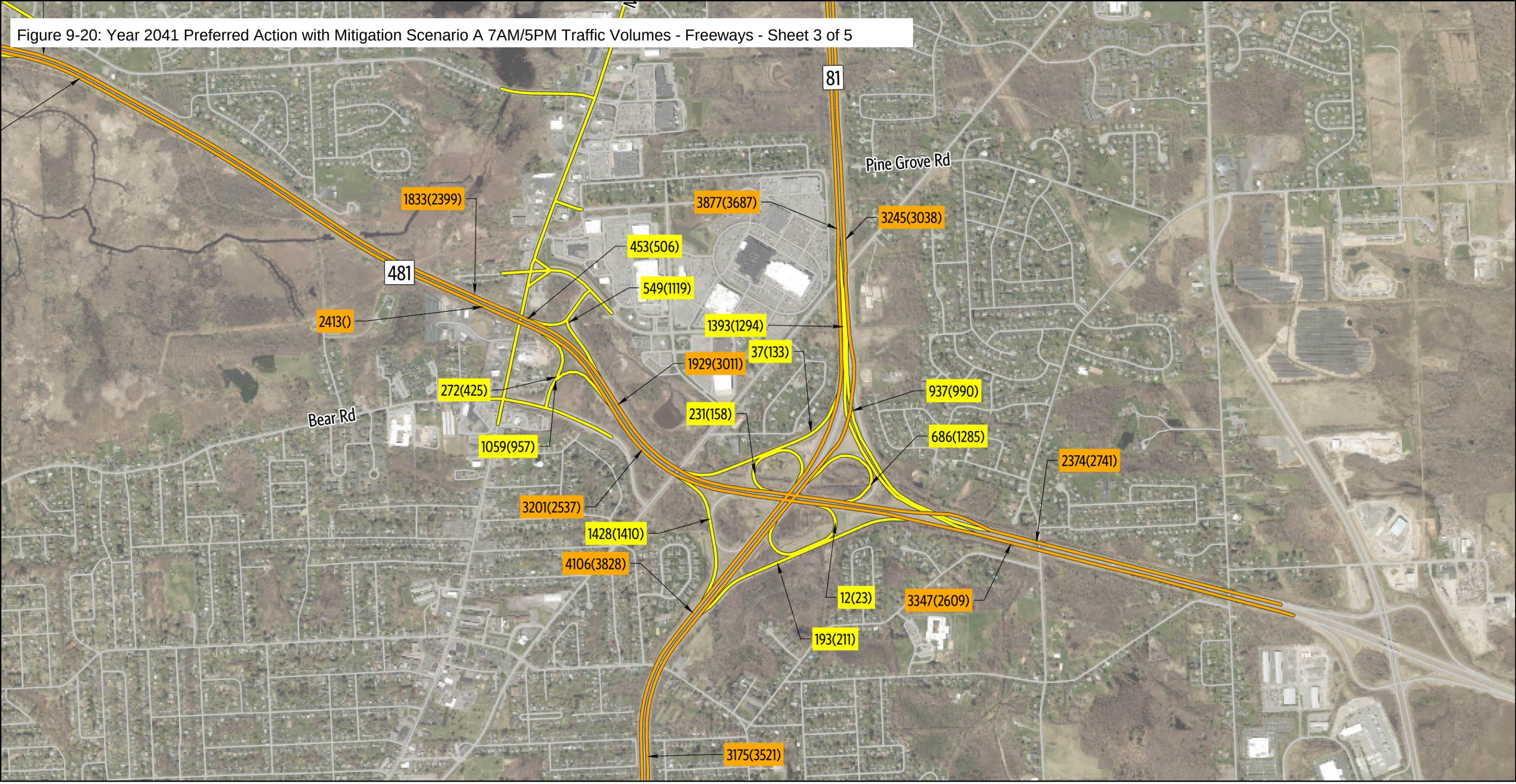
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-20: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Freeways - Sheet 3 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-20: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Freeways - Sheet 4 of 5

Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 4 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-20: Year 2041 Preferred Action with Mitigation Scenario A 7AM/5PM Traffic Volumes - Freeways - Sheet 5 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario A

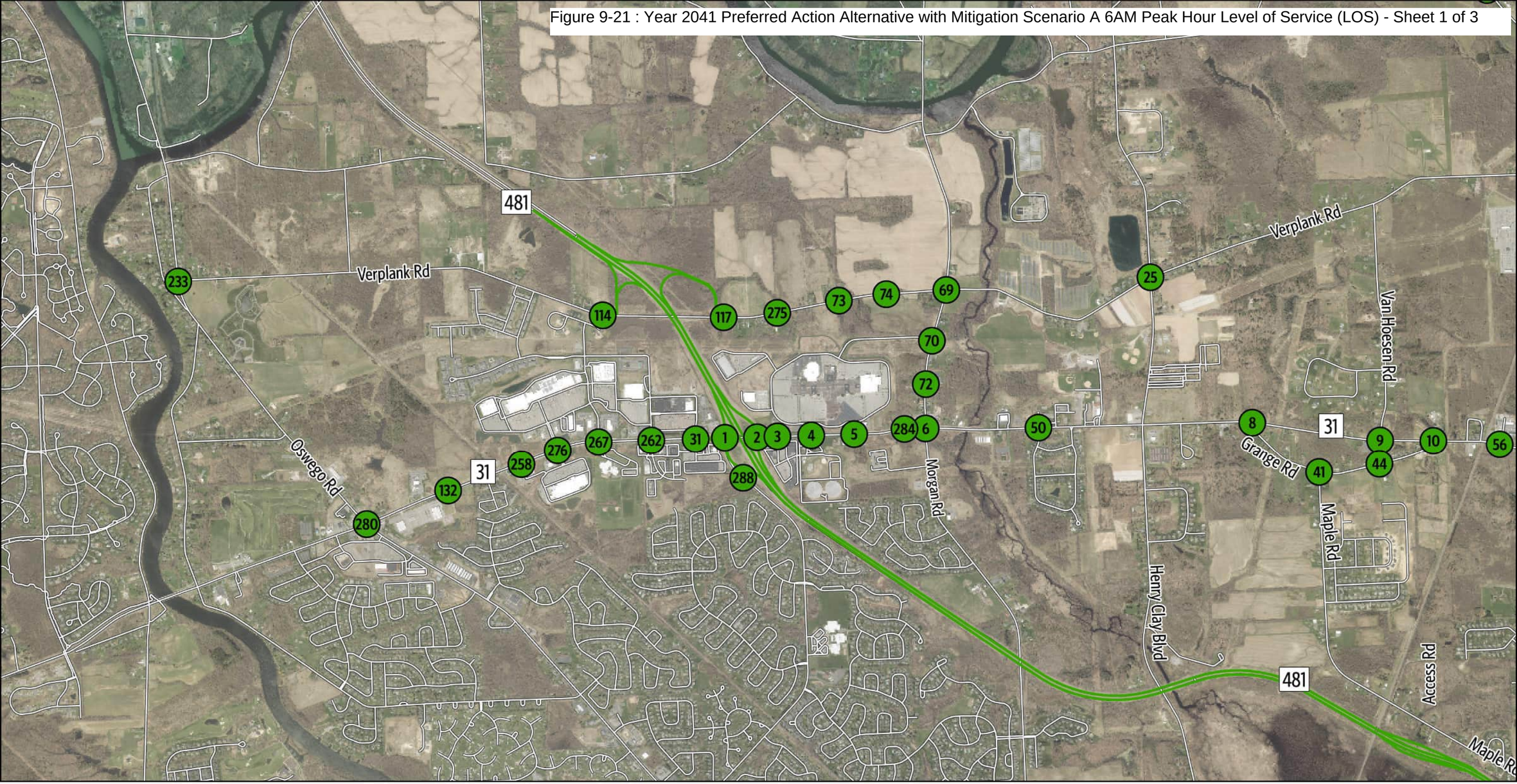
Sheet 5 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

9.3.2 Intersection Operations

Table 9-7 summarizes the results for intersections under Mitigation Scenario A, including average delay values and LOS expressed as a letter designation and by the color coding shown in Table 2-3. The delay values reflect the overall intersection LOS for signalized intersections and roundabouts; refer to the model output in Appendix D for movement and approach LOS. For the unsignalized intersections, the table shows the average delay for the highest-delay movement. Figures 9-21 through 9-24 show the results of traffic operations.

Figure 9-21 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 6AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

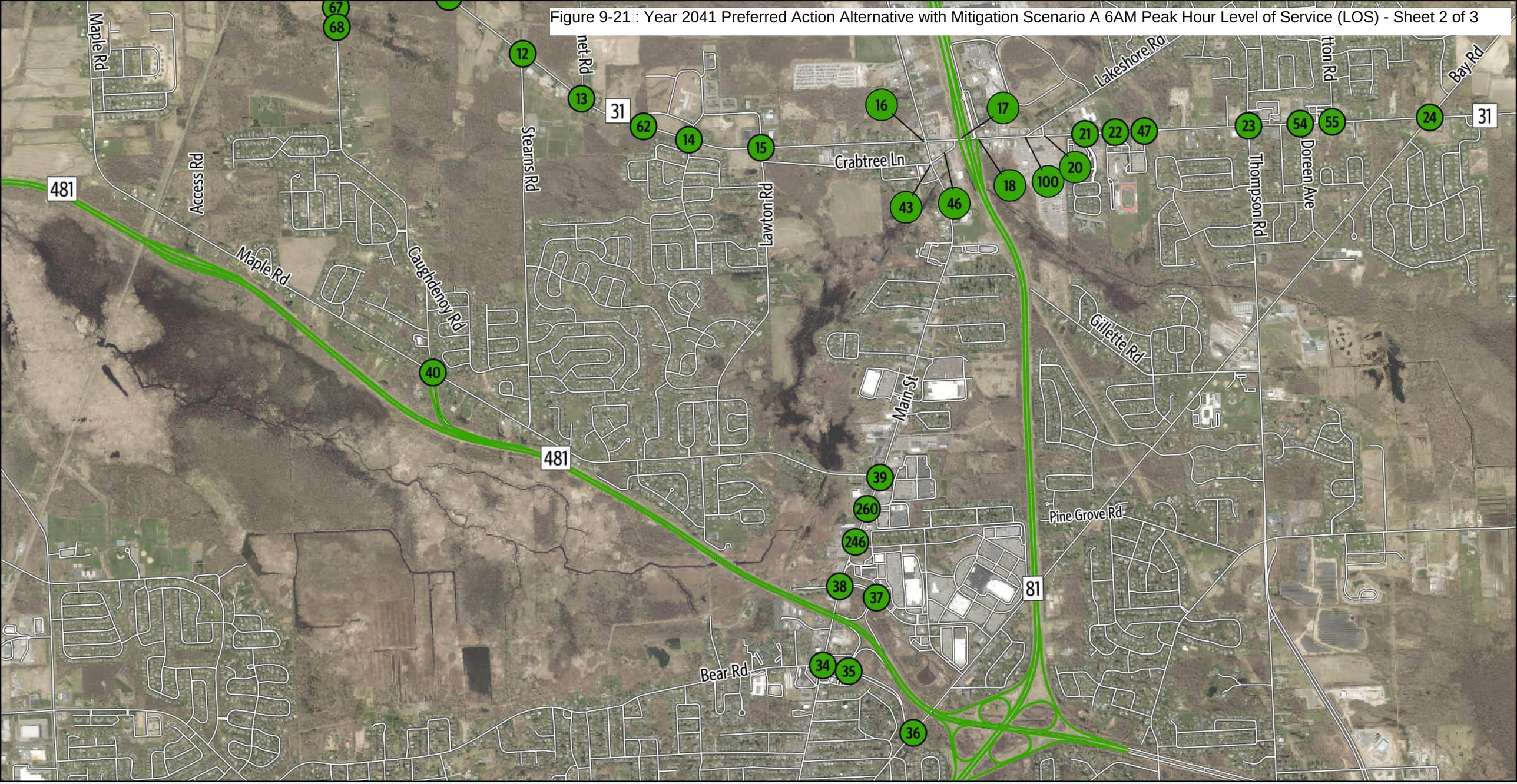
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-21 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 6AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

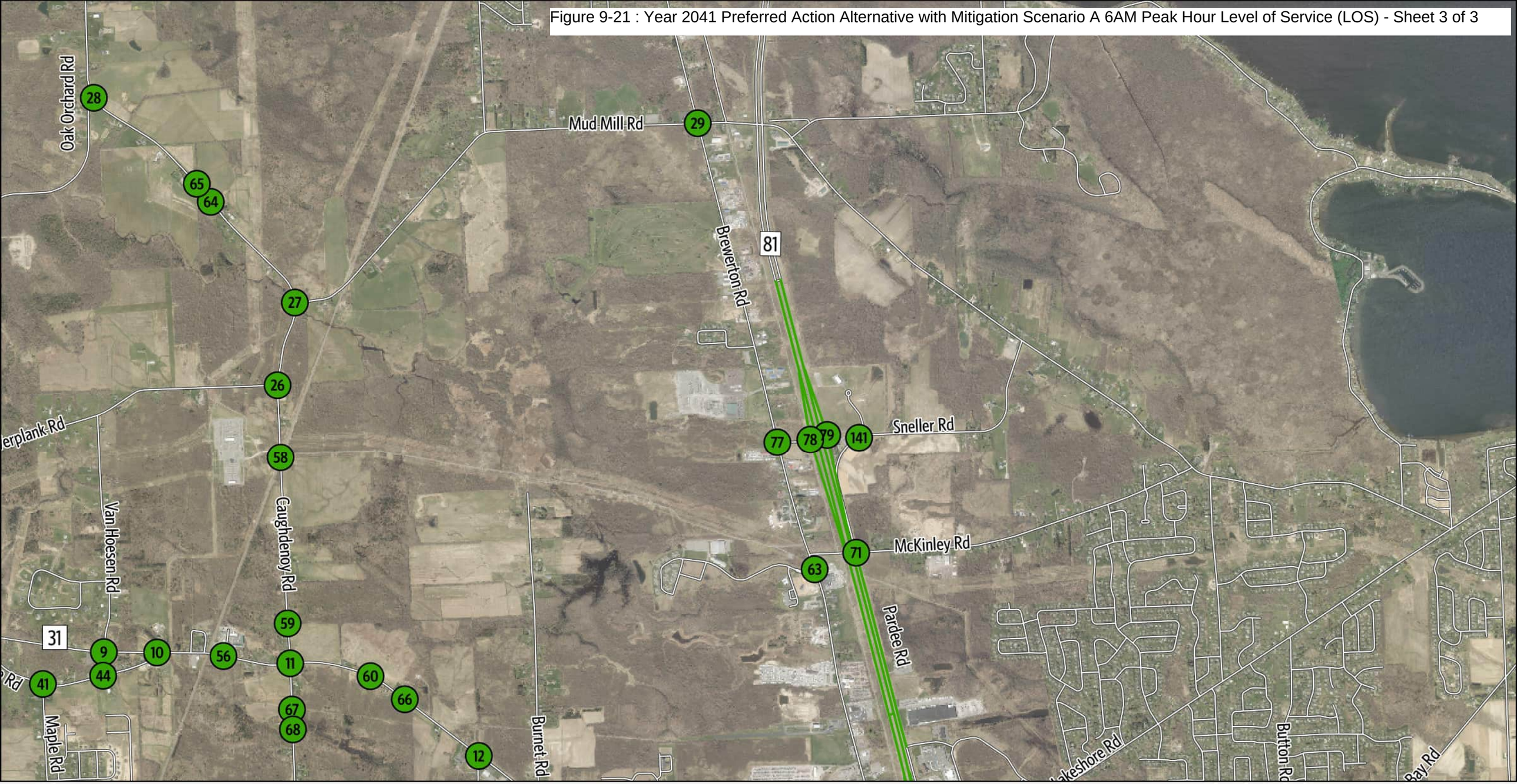
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-21 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 6AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C

Roadway Level Of Service

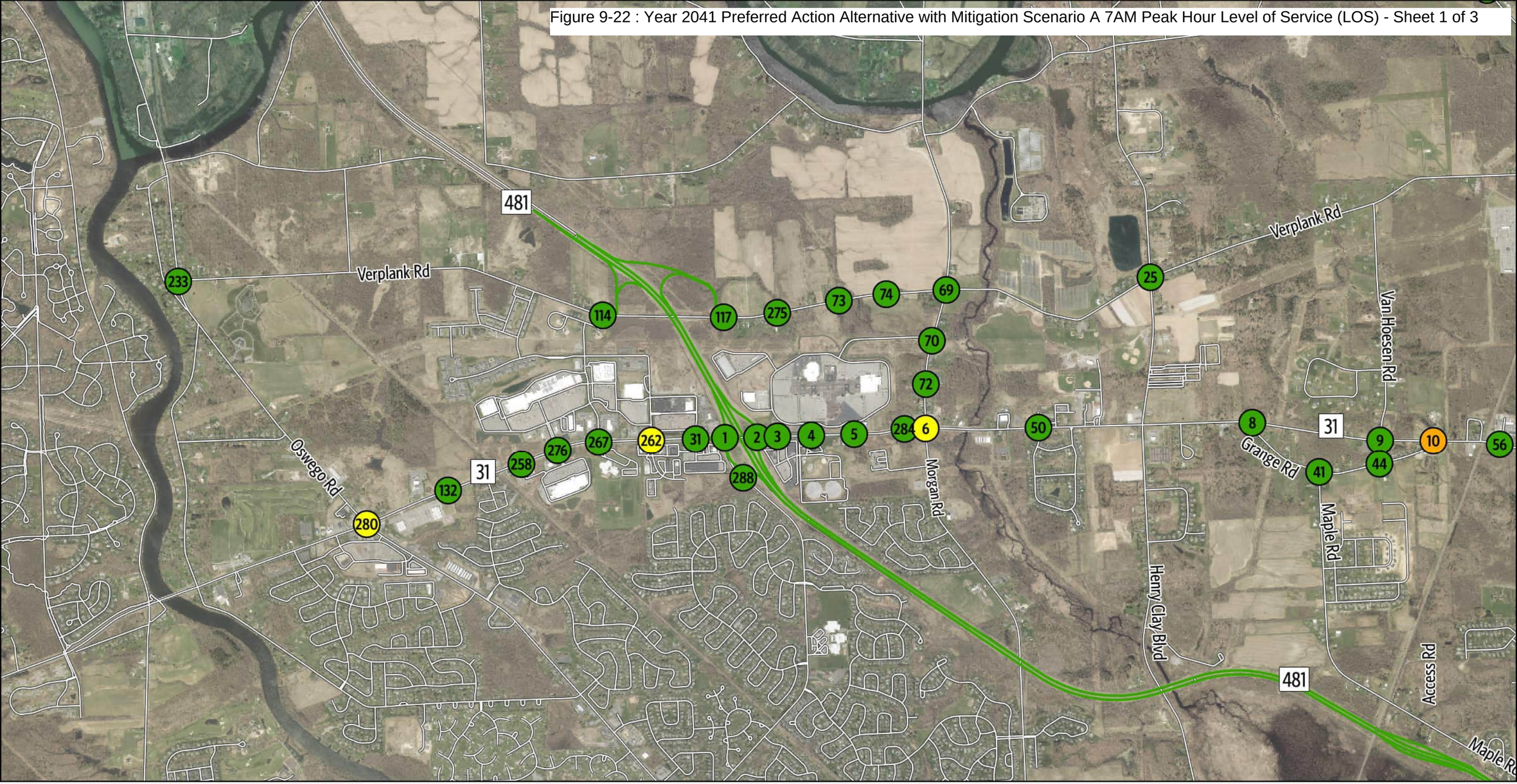
- A, B, C
- Streets

2041 Recommended Mitigation Scenario A

Sheet 3 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-22 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 7AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- E
- F
- Streets

N

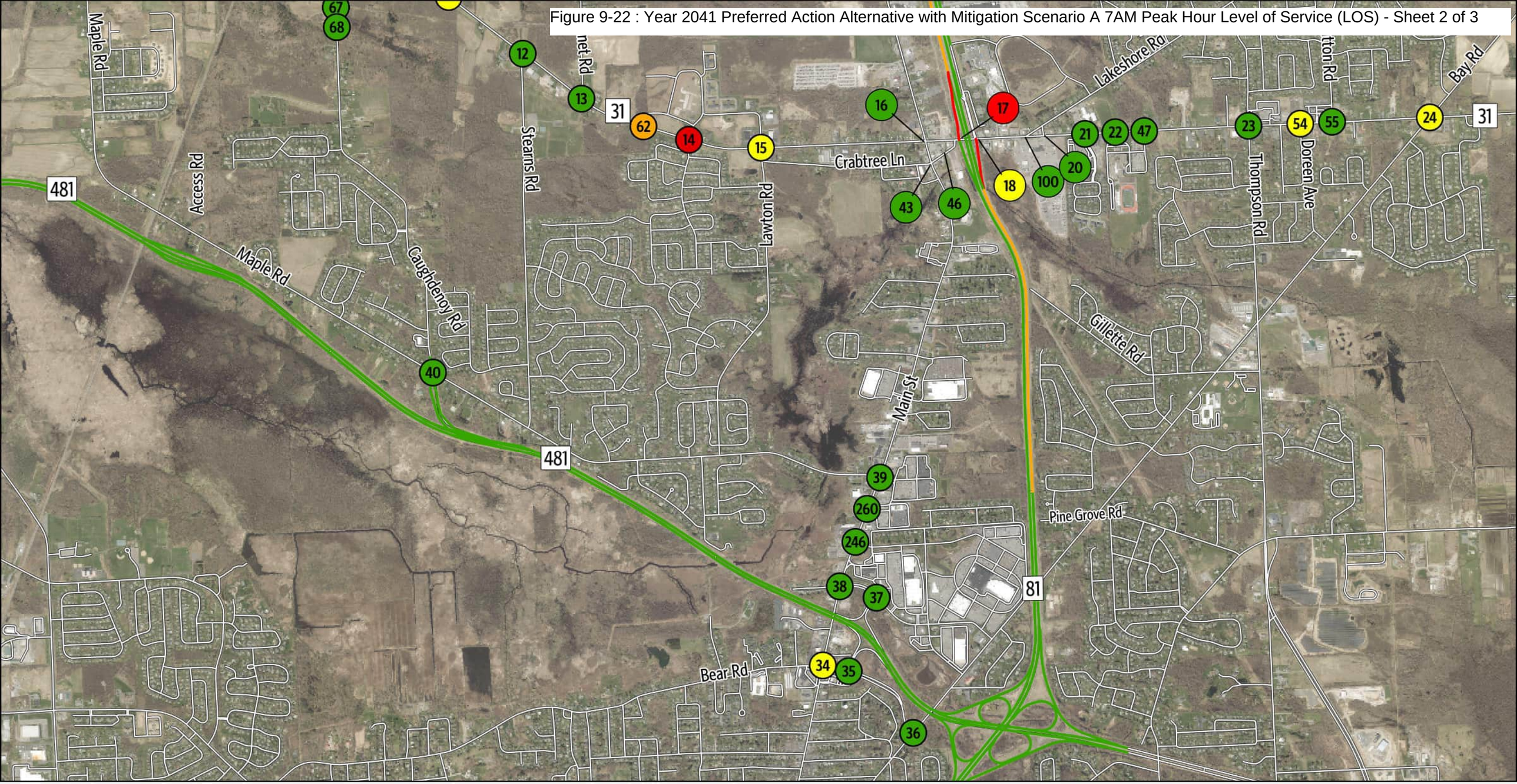
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-22 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 7AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- E
- F
- Streets

N

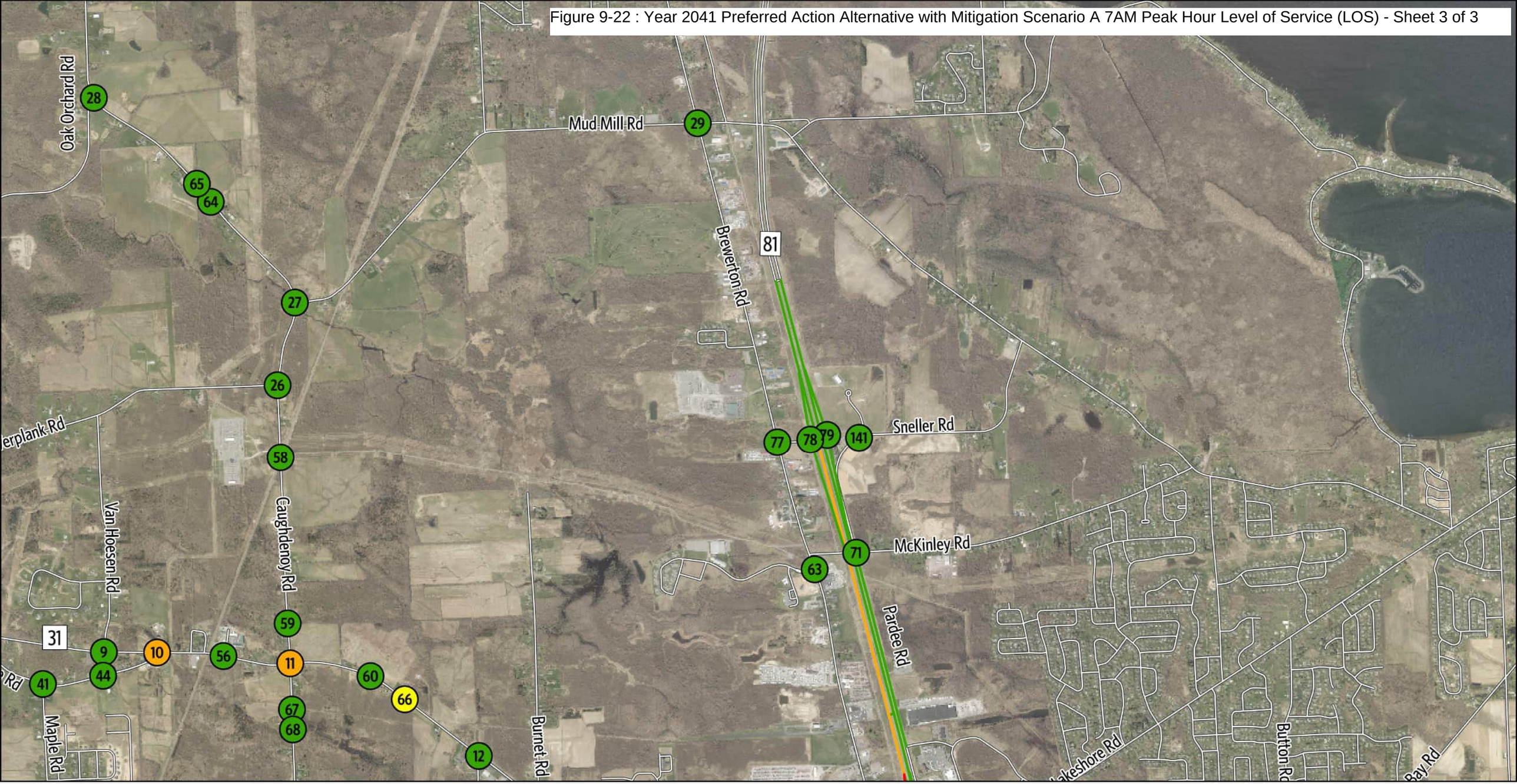
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-22 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 7AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- E
- F
- Streets

N

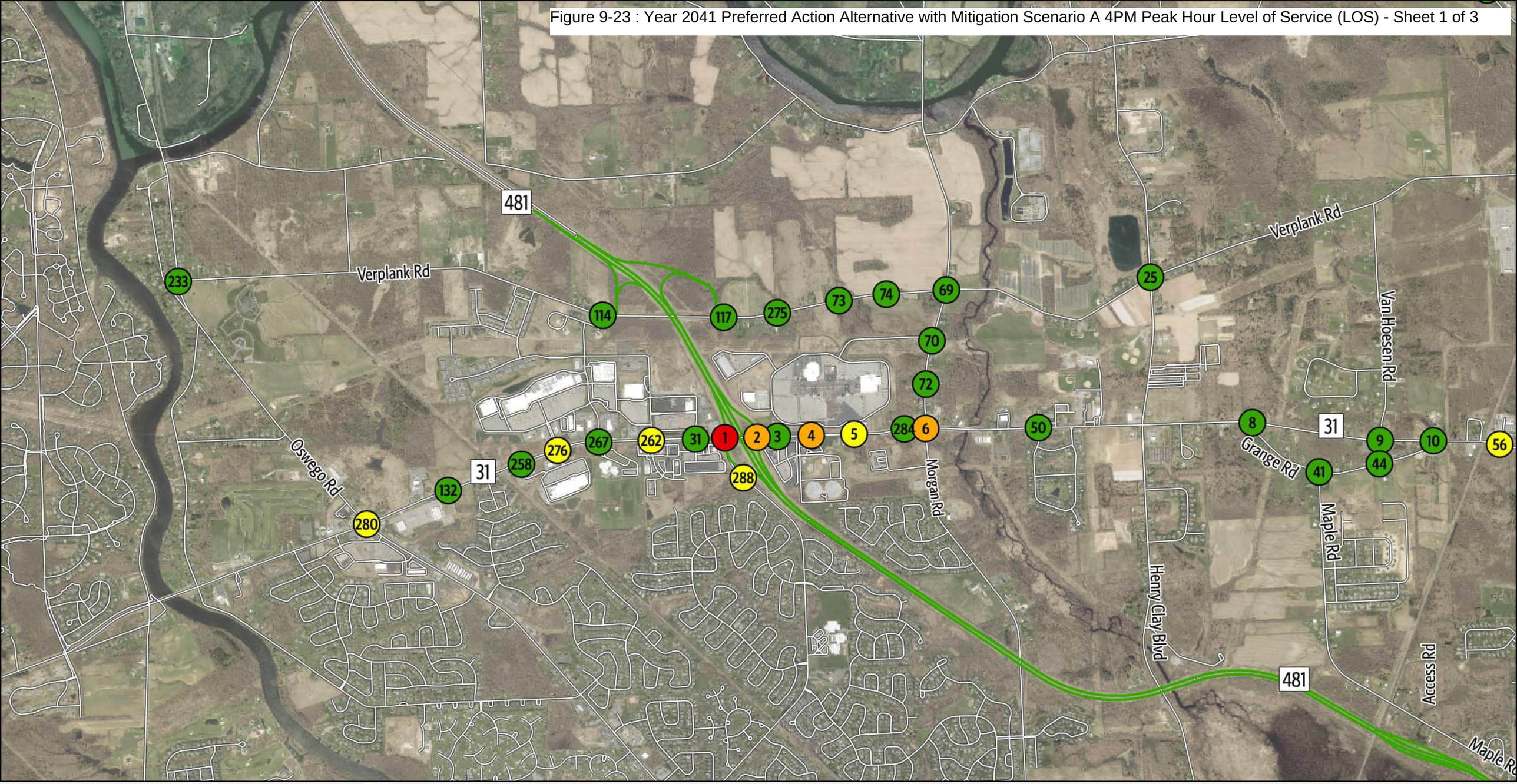
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-23 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 4PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

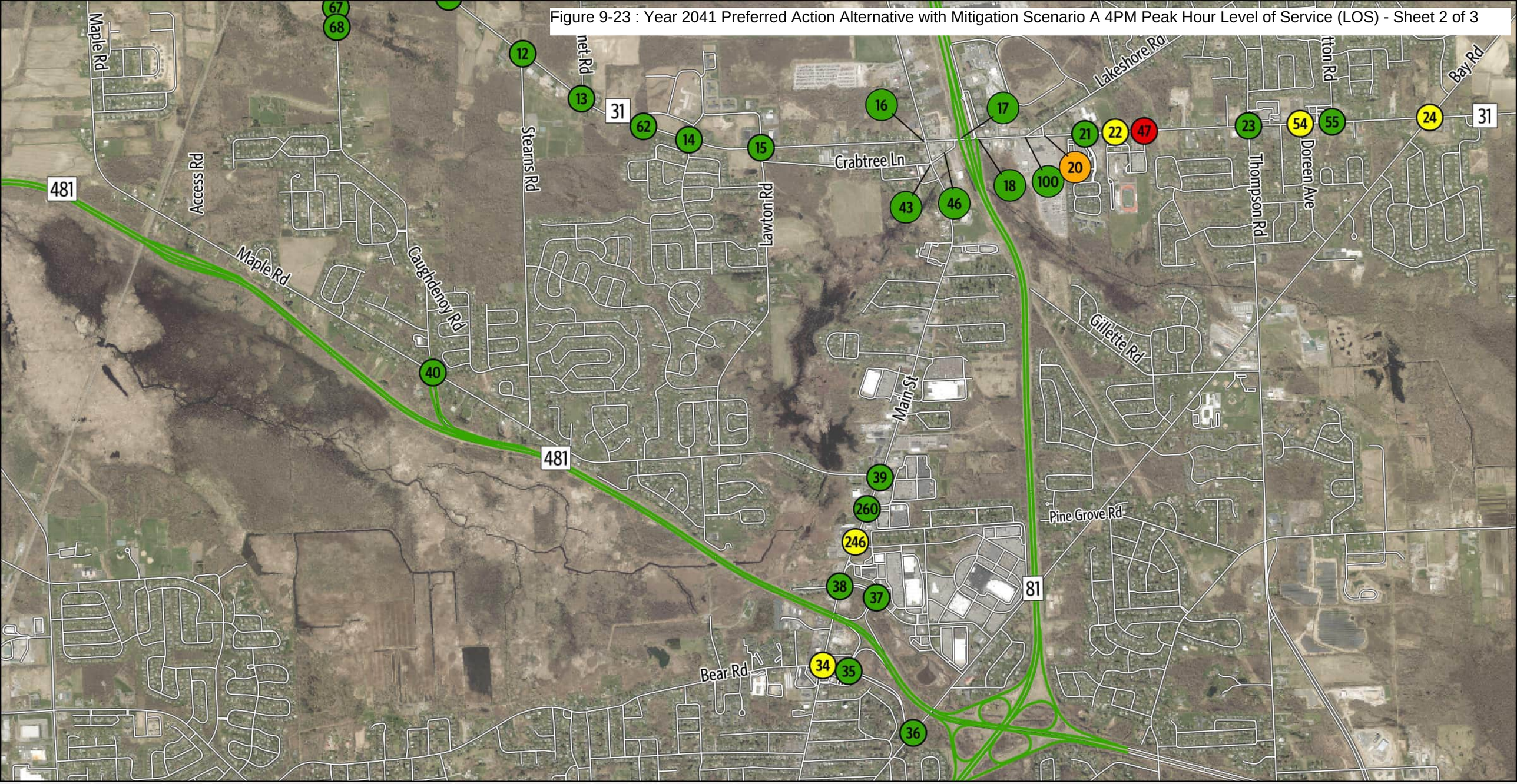
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-23 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 4PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

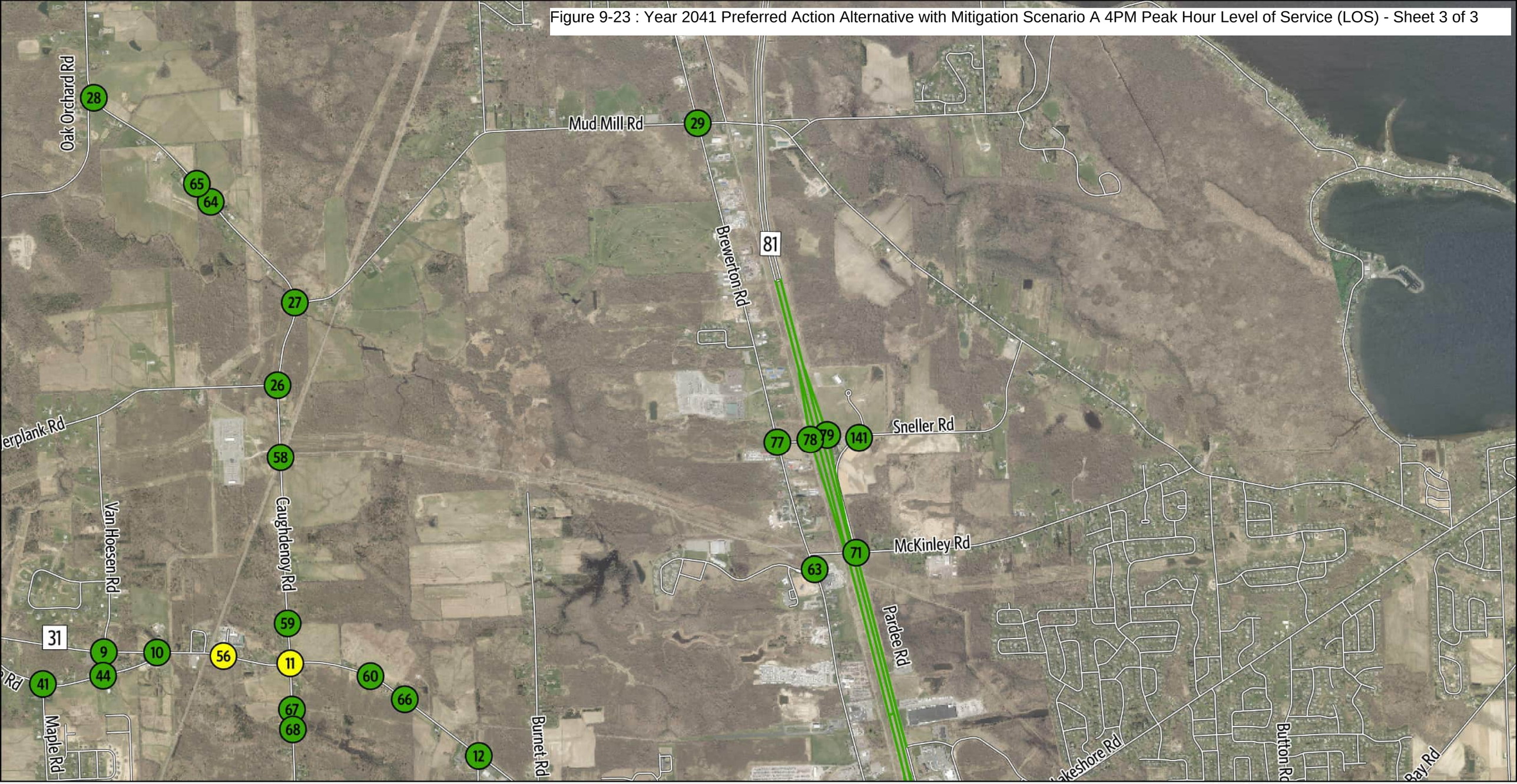
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-23 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 4PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

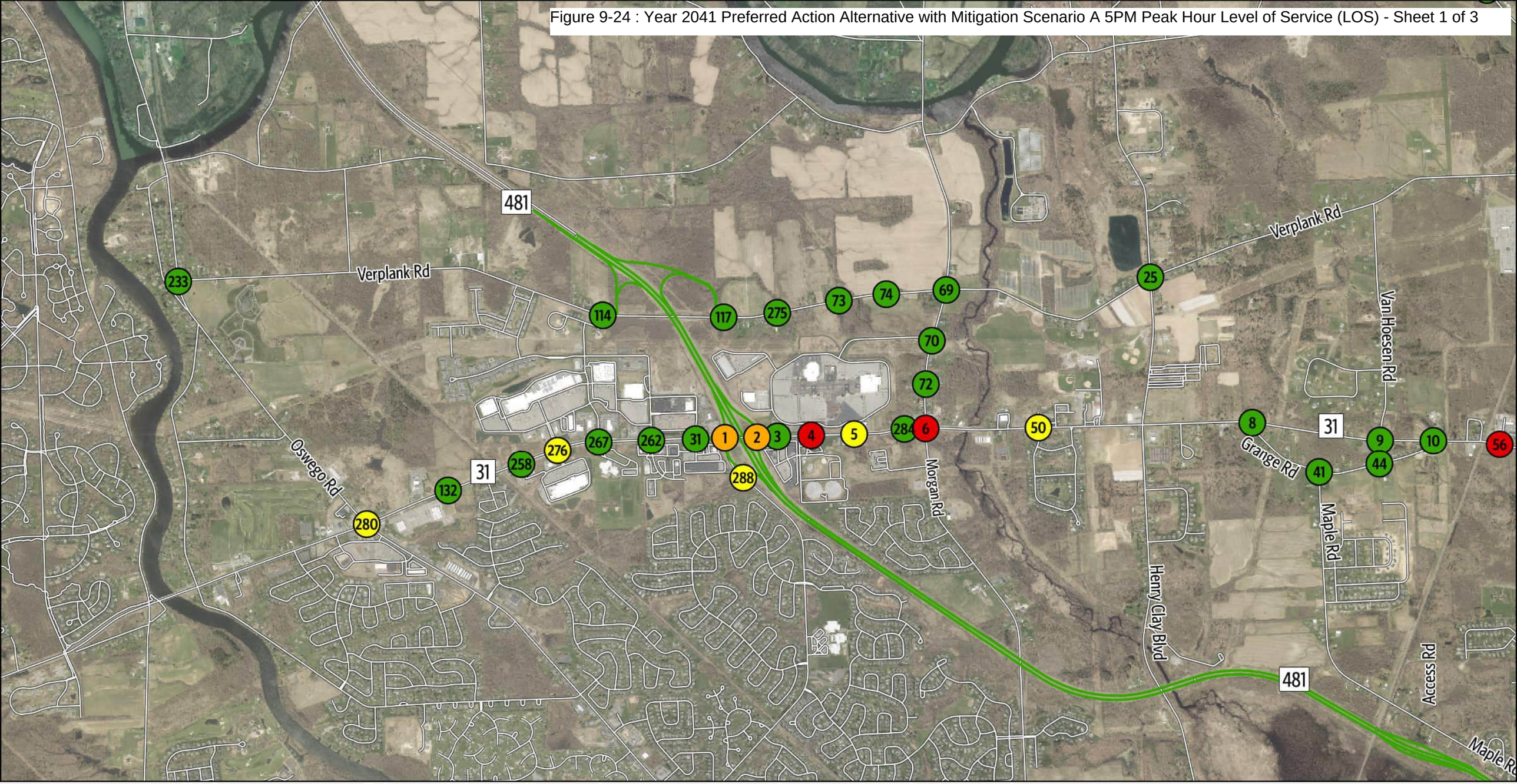
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-24 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 5PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

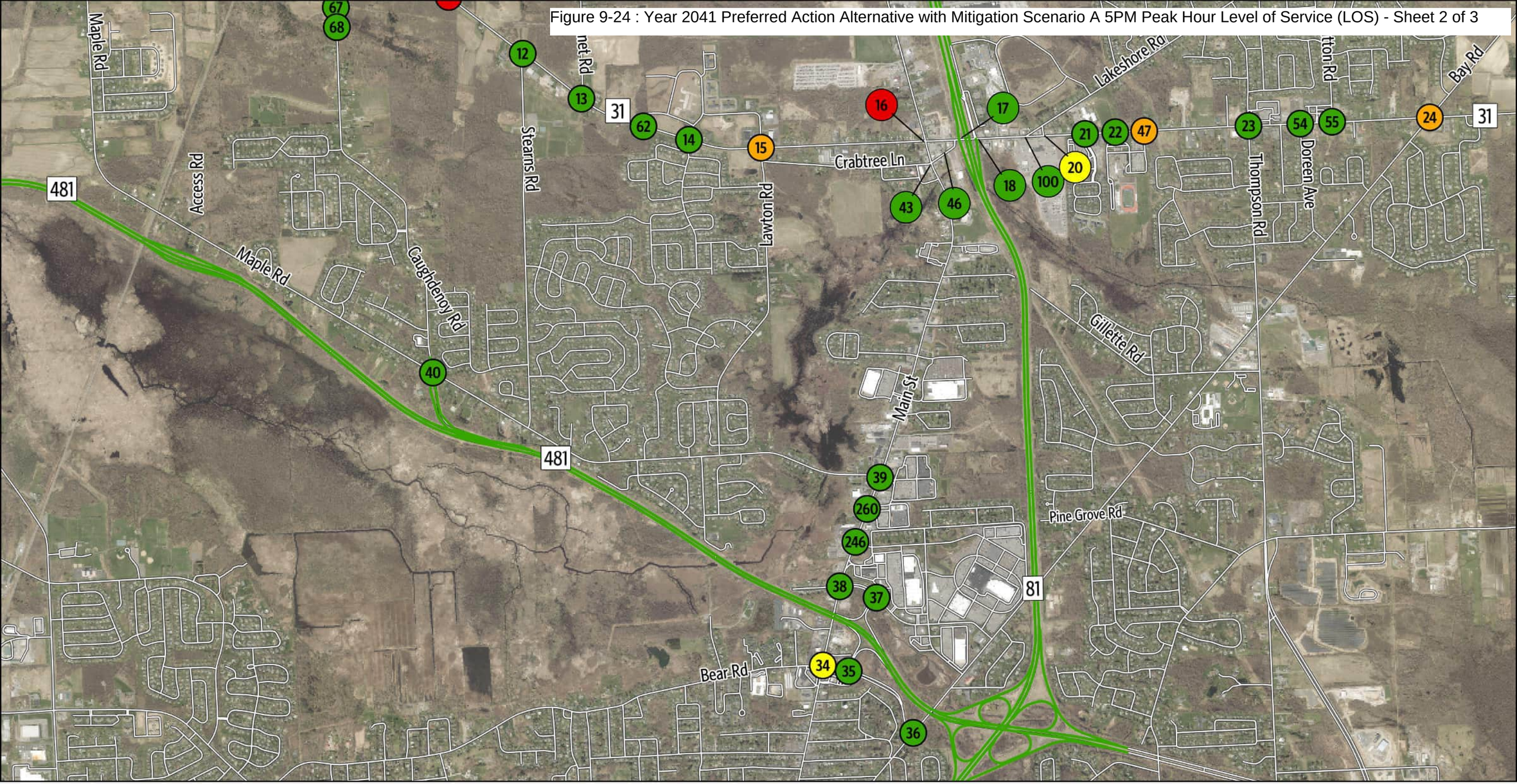
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 1 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-24 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 5PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

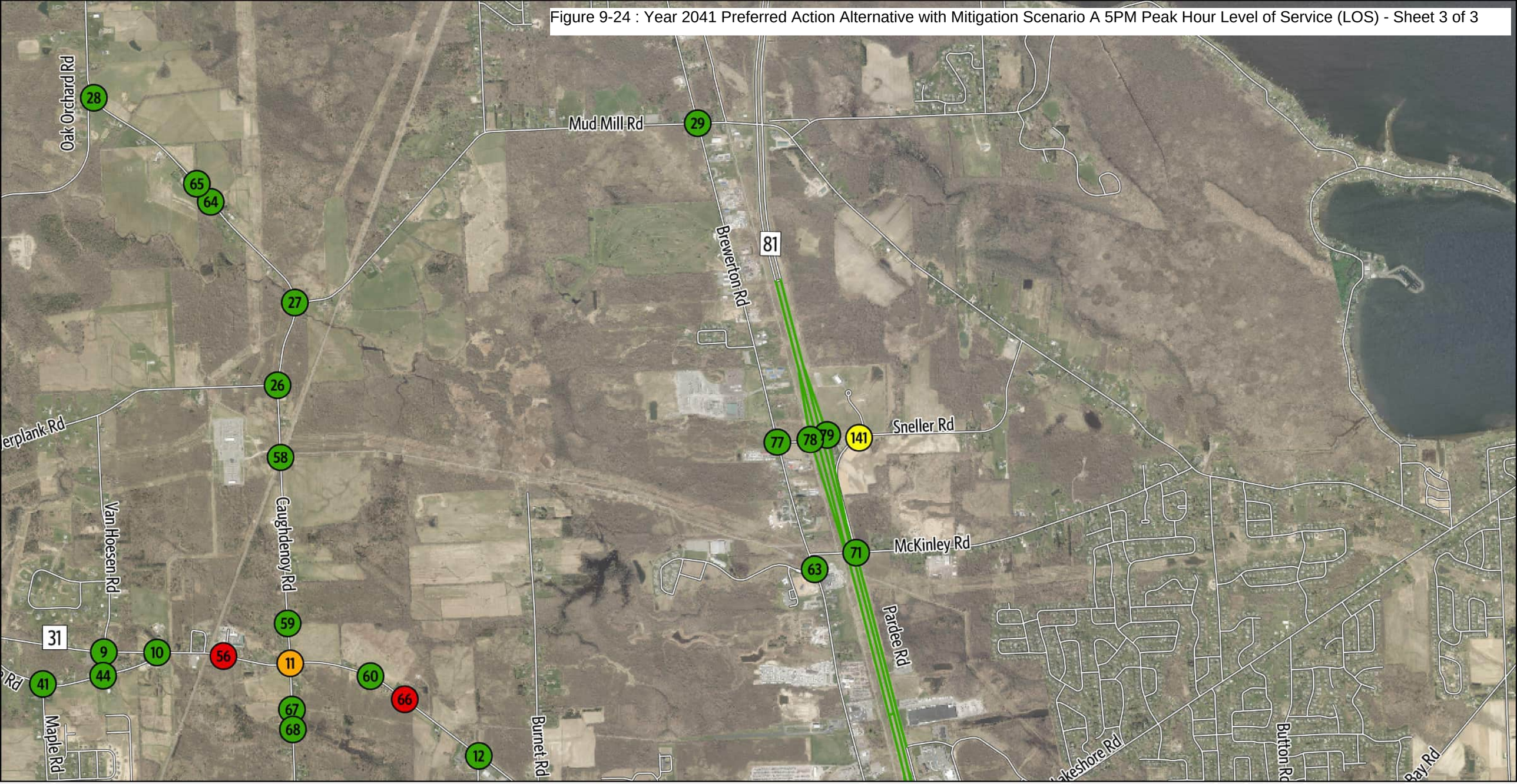
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 2 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-24 : Year 2041 Preferred Action Alternative with Mitigation Scenario A 5PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario A

Sheet 3 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Table 9-7. Year 2041 Mitigation Scenario A AM and PM Peak-Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	8.9	A	0.80	14.4	B	0.88	83.5	F	1.20	75.9	E	1.17
2	NYS Route 31 and NYS Route 481 NB	Signalized	9.4	A	0.53	18.4	B	0.83	69.1	E	1.12	60.3	E	1.11
3	Marketfair Plaza and NYS Route 31	Signalized	2.4	A	0.44	1.9	A	0.65	4.9	A	0.76	7.7	A	0.86
4	NYS Route 31 and GNM West	Signalized	21.8	C	0.43	21.1	C	0.66	75.7	E	1.12	90.6	F	1.21
5	Parking Lot/GNM East and NYS Route 31	Signalized	19.8	B	0.38	24.7	C	0.67	46.0	D	1.00	39.8	D	1.11
6	Morgan Road and NYS Route 31	Signalized	24.9	C	0.55	46.1	D	1.07	59.6	E	0.97	104.5	F	1.10
8	Grange Road W and NYS Route 31	Signalized	4.8	A	0.28	4.1	A	0.79	13.2	B	0.63	10.6	B	0.87
9	Van Hoesen Road and NYS Route 31	Signalized	3.6	A	0.24	2.0	A	0.75	1.2	A	0.50	6.1	A	0.79
10	Grange Road E and NYS Route 31	Unsignalized	10.3	B	0.00	39.4	E	0.00	14.3	B	0.00	15.2	C	0.00
11	Caughdenoy Road and NYS Route 31	Signalized	12.5	B	0.23	64.4	E	1.07	42.6	D	0.94	72.5	E	1.13
12	Stearns Road and NYS Route 31	Signalized	6.4	A	0.37	9.4	A	0.75	10.3	B	0.69	26.1	C	0.94
13	NYS Route 31 and Micron Driveway 4	Signalized	1.9	A	0.31	7.5	A	0.76	1.8	A	0.50	17.0	B	0.96
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	10.7	B	0.00	59.8	F	0.00	12.7	B	0.00	17.0	C	0.00
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	9.7	A	0.30	39.0	D	1.08	27.0	C	0.89	68.2	E	1.14
16	U.S. Route 11 and NYS Route 31	Signalized	19.5	B	0.34	23.1	C	0.90	28.3	C	0.77	88.0	F	1.20
17	NYS Route 31 and I-81 SB Ramp	Signalized	14.2	B	0.51	115.1	F	1.22	17.4	B	0.76	15.2	B	0.92
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	13.8	B	0.52	45.3	D	1.00	16.3	B	0.73	20.5	C	0.90
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	18.1	B	0.42	24.2	C	0.76	71.1	E	1.08	47.0	D	0.98
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	8.0	A	0.38	10.9	B	0.70	18.2	B	0.74	14.5	B	0.63
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	7.0	A	0.41	11.0	B	0.55	38.4	D	1.19	21.0	C	0.94
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	5.6	A	0.00	9.6	A	0.00	18.9	B	0.00	13.5	B	0.00
24	South Bay Road and NYS Route 31	Signalized	26.8	C	0.62	41.3	D	0.86	46.7	D	0.89	57.9	E	1.00
25	Henry Clay Boulevard and Verplank Road	Signalized	7.0	A	0.34	7.2	A	0.43	7.7	A	0.47	8.1	A	0.55
26	Caughdenoy Road and Verplank Road	Signalized	5.2	A	0.17	8.6	A	0.60	7.5	A	0.40	7.0	A	0.58
27	Caughdenoy Road and Mud Mill Road	Signalized	7.1	A	0.33	12.0	B	0.61	9.4	A	0.53	15.0	B	0.65
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	9.4	A	0.00	11.7	B	0.00	13.9	B	0.00	22.8	C	0.00
29	U.S. Route 11 and Mud Mill Road	Signalized	6.9	A	0.20	9.2	A	0.52	11.4	B	0.65	13.7	B	0.69
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	10.3	B	0.47	10.0	A	0.75	26.7	C	0.99	24.1	C	0.91
32	Henry Clay Boulevard and Wetzel Road	Signalized	25.2	C	0.27	17.8	B	0.46	25.5	C	0.71	22.2	C	0.70
33	Allen Road and Bear Road	Signalized	6.5	A	0.36	8.7	A	0.59	18.0	B	0.81	13.4	B	0.75
34	U.S. Route 11 and Bear Road	Signalized	30.1	C	0.54	37.0	D	0.69	41.8	D	0.86	44.3	D	0.91
35	Bear Road and NYS Route 481 EB On/Off-Ramp	Signalized	14.9	B	0.37	16.1	B	0.49	7.1	A	0.41	14.6	B	0.47
36	South Bay Road and Bear Road	Signalized	9.5	A	0.26	9.3	A	0.50	15.6	B	0.74	19.6	B	0.61
37	NYS Route 481 WB On/Off-Ramp and Circle Drive E	Signalized	12.1	B	0.28	15.8	B	0.54	17.0	B	0.68	18.1	B	0.77
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	8.8	A	0.37	11.9	B	0.54	24.1	C	0.91	21.1	C	0.86

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	22.5	C	0.24	27.4	C	0.65	26.5	C	0.69	28.1	C	0.84
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Signalized	11.0	B	0.13	12.3	B	0.53	9.3	A	0.36	9.4	A	0.37
41	Maple Road and Grange Road	Unsignalized	9.2	A	0.00	9.4	A	0.00	11.1	B	0.00	11.5	B	0.00
43	U.S. Route 11 and Crabtree Lane	Signalized	4.6	A	0.18	5.9	A	0.31	8.3	A	0.59	29.9	C	0.83
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	8.8	A	0.00	9.0	A	0.00	8.9	A	0.00	8.9	A	0.00
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	11.9	B	0.00	14.9	B	0.00	133.1	F	0.00	37.9	E	0.00
50	McNamara Drive/Driveway and NYS Route 31	Signalized	12.4	B	0.27	17.8	B	0.78	15.1	B	0.74	36.7	D	0.98
54	Doreen Avenue and NYS Route 31	Unsignalized	13.5	B	0.00	30.6	D	0.00	25.4	D	0.00	23.5	C	0.00
55	NYS Route 31 and Button Road	Signalized	5.8	A	0.29	7.8	A	0.52	6.2	A	0.60	12.9	B	0.74
56	NYS Route 31 and Weller Canning Road	Unsignalized	11.4	B	0.00	20.2	C	0.00	31.9	D	0.00	>300	F	0.00
58	Caughdenoy Road and Micron Driveway 1	Signalized	3.2	A	0.08	2.8	A	0.42	2.7	A	0.22	3.7	A	0.53
59	Caughdenoy Road and Access Road/Micron Driveway 2	Signalized	4.7	A	0.09	12.0	B	0.73	5.9	A	0.16	22.3	C	0.74
60	NYS Route 31 and Micron Driveway 3	Signalized	2.8	A	0.25	14.8	B	0.83	2.6	A	0.43	34.0	C	1.02
62	NYS Route 31 and Micron Driveway 5	Signalized	2.1	A	0.22	56.0	E	1.01	4.2	A	0.52	19.1	B	1.00
63	U.S. Route 11 and Micron Driveway 6	Signalized	4.1	A	0.07	14.8	B	0.85	3.0	A	0.27	7.6	A	0.47
64	Caughdenoy Road and Healthcare Center Driveway	Unsignalized	8.7	A	0.00	9.5	A	0.00	9.5	A	0.00	12.0	B	0.00
65	Caughdenoy Road and Childcare Center Driveway	Unsignalized	8.7	A	0.00	10.3	B	0.00	9.5	A	0.00	12.4	B	0.00
66	White Pines South Driveway and NYS Route 31	Unsignalized	15.6	C	0.00	26.4	D	0.00	23.2	C	0.00	50.1	F	0.00
67	Caughdenoy Road and White Pines South Driveway 1	Unsignalized	8.9	A	0.00	19.4	C	0.00	12.2	B	0.00	11.6	B	0.00
68	Caughdenoy Road and White Pines South Driveway 2	Unsignalized	8.8	A	0.00	16.5	C	0.00	10.0	A	0.00	11.1	B	0.00
69	Morgan Road and Verplank Road	Signalized	9.3	A	0.40	17.3	B	0.72	21.0	C	0.77	25.8	C	0.80
70	Morgan Road and GNM Driveway 1	Signalized	6.2	A	0.41	10.2	B	0.61	14.4	B	0.70	13.3	B	0.68
71	Pardee Road and McKinley Road	Unsignalized	8.9	A	0.00	9.6	A	0.00	10.1	B	0.00	9.9	A	0.00
72	Morgan Road and GNM Driveway 2	Signalized	8.5	A	0.40	18.2	B	0.64	14.6	B	0.63	15.9	B	0.73
73	GNM Driveway 3 and Verplank Road	Unsignalized	9.3	A	0.00	10.5	B	0.00	11.0	B	0.00	11.1	B	0.00
74	GNM Driveway 4 and Verplank Road	Unsignalized	9.3	A	0.00	10.5	B	0.00	11.6	B	0.00	11.6	B	0.00
77	Sneller Road and U.S. Route 11	Signalized	11.0	B	0.18	12.3	B	0.48	11.7	B	0.49	14.8	B	0.49
78	Carling Road South/Carling Road North and NYS Route 31	Signalized	10.4	B	0.28	16.8	B	0.40	12.7	B	0.30	10.4	B	0.29
79	I-81 NB Off-Ramp/I-81 NB On-Ramp and Sneller Road	Signalized	10.2	B	0.34	11.3	B	0.50	14.5	B	0.40	14.5	B	0.39
100	NYS Route 31 and Lakeshore Road	Signalized	8.4	A	0.34	5.7	A	0.56	4.0	A	0.44	6.2	A	0.52
101	Caughdenoy Road and Micron Driveway X	Unsignalized	8.9	A	0.00	11.1	B	0.00	10.2	B	0.00	16.1	C	0.00
113	Henry Clay Boulevard and NYS Route 31	Signalized	17.7	B	0.35	44.5	D	1.00	29.8	C	0.73	43.6	D	0.98
132	Davidson and NYS Route 31	Signalized	17.0	B	0.39	22.4	C	0.60	13.6	B	0.80	28.1	C	0.81
141	Sneller and Pardee Road	Signalized	17.0	B	0.21	21.5	C	0.28	23.4	C	0.34	48.2	D	0.27
233	Oswego and Verplank Road	Unsignalized	12.0	B	0.00	18.0	C	0.00	19.5	C	0.00	17.6	C	0.00
246	U.S. Route 11 and Hogan Drive	Signalized	3.6	A	0.29	4.2	A	0.53	52.9	D	1.89	22.6	C	0.94

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	11.1	B	0.41	21.4	C	0.64	18.3	B	0.79	12.4	B	0.80
260	U.S. Route 11 and Chick-fil-A	Signalized	7.4	A	0.40	9.9	A	0.57	33.5	C	1.01	15.4	B	0.91
262	NYS Route 31 and Carling Road	Signalized	16.1	B	0.63	38.7	D	0.97	49.6	D	1.09	30.2	C	1.00
267	NYS Route 31 and Dell Center Drive	Signalized	18.0	B	0.42	16.7	B	0.66	26.1	C	0.90	19.2	B	0.91
275	Verplank Road and Proposed Access #1	Unsignalized	9.5	A	0.00	10.9	B	0.00	10.5	B	0.00	10.8	B	0.00
276	Lowes/Home Depot and NYS Route 31	Signalized	19.3	B	0.45	14.5	B	0.70	39.2	D	0.99	35.0	D	0.94
280	NYS Route 31 and Oswego Road	Signalized	21.4	C	0.61	38.5	D	0.95	52.9	D	1.07	35.0	D	0.95
284	NYS Route 31 and Proposed Access	Unsignalized	8.7	A	0.00	9.0	A	0.00	11.0	B	0.00	11.2	B	0.00
287	Proposed Access #2 and Verplank Road	Unsignalized	9.3	A	0.00	10.6	B	0.00	10.6	B	0.00	10.6	B	0.00
288	Soule Road and Carling Road and NYS Route 481 SB Ramp	Roundabout	5.8	A	0.00	8.7	A	0.00	42.5	D	0.00	42.5	D	0.00

9.3.2.1 AM Peak Hour

All intersections operate acceptably at LOS D or better in the 6:00 a.m. hour. In the 7:00 a.m. hour, five intersections operate at LOS E or LOS F overall. Three of the five intersections are signalized, one being a Micron driveway intersection. This intersection performs poorly because of high-demand volume on several approaches and limited green time within the signal cycle available to adequately serve each approach. The following intersections operate at LOS E or LOS F overall:

- #10: Grange Road East and NYS Route 31 operates at LOS E overall.
- #11: Caughdenoy Road and NYS Route 31 experiences LOS E operations overall because of heavy eastbound and westbound traffic destined for the Micron Campus. The eastbound left- and westbound right-turns are severely delayed.
- #14: Barcaldine Drive/Legionnaire Drive and NYS Route 31 operates at LOS F overall.
- #17: NYS Route 31 and I-81 SB Ramps: LOS F operations overall because of heavy westbound traffic traveling toward the Micron Campus. This is the primary interchange for traffic destined for the Micron Campus from the south and east.
- #62: NYS Route 31 and Micron Driveway 5 operates at LOS E overall.

9.3.2.2 PM Peak Hour

The evening peak period demand generally results in higher average delays and worse LOS at several intersections beginning in the 4:00 p.m. peak hour. There are six intersections that operate at LOS E or LOS F in the 4:00 p.m. peak hour and 11 intersections that operate at LOS E or LOS F in the 5:00 p.m. peak hour. The intersections that operate at LOS F in the p.m. peak period are different than the intersections operating at LOS F in the a.m. peak period. The following intersections operate at LOS E or LOS F in the 4:00 p.m. peak hour:

- #1: NYS Route 31 and NYS Route 481 Southbound Ramps: LOS F operations overall because of heavy eastbound and westbound through traffic at the DDI crossover intersection. Eastbound through volume is greater than 2,000 vph and westbound through volume is greater than 2,500 vph.
- #2: NYS Route 31 and NYS Route 481 Northbound Ramps: LOS E operations overall because of heavy eastbound and westbound through traffic at the DDI crossover intersection and heavy northbound left-turn volume from the off-ramp. Eastbound through volume is greater than 2,000 vph and westbound through volume is greater than 2,500 vph. The northbound left turn from the I-81 off-ramp is nearly 1,000 vph.
- #4: GNM Redevelopment West Driveway and NYS Route 31: LOS E operations overall.
- #6: Morgan Road and NYS Route 31 operates at LOS E.
- #20: Lakeshore Spur and NYS Route 31 operates at LOS E.
- #47: Cicero-North Syracuse High School East Driveway and NYS Route 31 operates at LOS F overall.

The following intersections operate at LOS E or LOS F in the 5:00 p.m. peak hour:

- #1: NYS Route 31 and NYS Route 481 Southbound Ramps operate at LOS E.
- #2: NYS Route 31 and NYS Route 481 Northbound Ramps operate at LOS E.
- #4: GNM West Driveway and NYS Route 31 operates at LOS F.
- #6: Morgan Road and NYS Route 31 operates at LOS F.
- #11: Caughdenoy Road and NYS Route 31 operates at LOS E.

- #15: Lawton Road/Legionnaire Drive and NYS Route 31 operates at LOS E.
- #16: U.S. Route 11 and NYS Route 31 operates at LOS F.
- #24: South Bay Road and NYS Route 31 operates at LOS E.
- #47: Cicero-North Syracuse High School East Driveway and NYS Route 31 operates at LOS E overall.
- #56: Weller Canning Road and NYS Route 31 operates at LOS F.
- #66: White Pines South Driveway and NYS Route 31 operates at LOS F.

9.3.3 Freeway Operations

Table 9-8 and 9-9 summarize the I-81 and NYS Route 481 freeway densities and corresponding LOS. Generally, the I-81 and NYS Route 481 freeways operate under relatively uncongested conditions during a.m. and p.m. peak periods, achieving LOS C or better.

However, during 7: 00 a.m., along I-81 northbound between NYS Route 481 and NYS Route 31 would operate at LOS E, whereas. I-81 northbound off-ramp to NYS Route 31 would operate at LOS F. Similarly, along I-81 southbound between Sneller Road and NYS Route 31 as well as the off-ramp to NYS Route 31 would operate at LOS F. Westbound NYS Route 481 at the off-ramp to Caughdenoy Road would also operate at LOS F.

Traffic operations along basic freeway segments, merges, diverges and weaves in both the 4:00 p.m. and 5:00 p.m. hours will operate at LOS C or better. Adding the interchange at Sneller Road and implementing a higher-capacity DDI for the NYS Route 31 interchange effectively resolves the operational issues on northbound I-81 present in the No Action scenario during 4:00 p.m. and 5:00 p.m. peak hours. These improvements also accommodate commuters heading to Micron. However, the southbound route between Sneller Road and NYS Route 31 and the southbound off-ramp to NYS Route 31 operate at LOS F. Additionally, the northbound off-ramp to NYS Route 31 also operates at LOS F. In contrast, the northbound route between NYS Route 481 and NYS Route 31 operates at LOS E during the 7:00 a.m. peak period.

Table 9-8. Year 2041 Mitigation Scenario A AM and PM Peak-Hour Freeway I-81 Operations – Delay and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 NB	I-81 NB Between E Taft Road and NYS Route 481	Basic	1,165	1,158	67	5.8	A	3,175	3,165	66	16.1	B	3,930	3,925	65	20.0	C	3,521	3,524	66	17.9	B
	I-81 NB Off-Ramp to NYS Route 481	Diverge	1,165	1,151	64	4.5	A	3,175	3,147	64	12.3	B	3,930	3,912	62	15.7	B	3,521	3,519	63	14.0	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Basic	998	988	66	5.0	A	2,982	2,959	65	15.2	B	3,661	3,656	64	19.0	C	3,310	3,323	64	17.2	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Weave	998	988	62	4.0	A	2,994	2,960	63	11.8	B	3,774	3,754	58	16.1	B	3,333	3,361	59	14.2	B
	I-81 NB after Off-Ramp to NYS Route 481	Basic	642	630	61	5.2	A	2,308	2,265	59	19.1	C	2,393	2,368	60	19.8	C	2,048	2,083	60	17.3	B
	I-81 NB On-Ramp from NYS Route 481	Merge	861	837	67	3.1	A	3,245	3,164	64	12.4	B	3,502	3,480	66	13.3	B	3,038	3,084	66	11.7	B
	I-81 NB Between NYS Route 481 and NYS Route 31	Basic	861	831	67	4.2	A	3,245	2,974	26	40.3	E	3,502	3,476	65	17.8	B	3,038	3,091	65	15.7	B
	I-81 NB Off-Ramp to NYS Route 31	Diverge	861	826	67	2.5	A	3,245	2,539	5	99.3	F	3,502	3,474	66	10.6	B	3,038	3,095	66	9.4	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 31	Basic	403	387	67	1.9	A	910	695	66	3.5	A	2,348	2,324	66	11.7	B	2,052	2,102	66	10.5	A
	I-81 NB On-Ramp from NYS Route 31	Merge	578	552	64	2.2	A	1,213	972	64	3.8	A	3,240	3,109	61	12.7	B	3,097	2,764	62	11.1	B
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	578	553	67	2.8	A	1,213	973	67	4.9	A	3,240	3,106	65	15.8	B	3,097	2,771	66	14.1	B
	I-81 NB Off-Ramp to Sneller Road	Diverge	578	542	67	2.0	A	1,213	953	66	3.6	A	3,240	3,076	64	12.1	B	3,097	2,752	64	10.7	B
	I-81 NB Between Off/On-Ramps to/from Sneller Road	Basic	434	411	67	2.0	A	1,030	819	67	4.1	A	2,825	2,714	66	13.8	B	2,758	2,462	66	12.4	B
	I-81 NB On-Ramp from Sneller Road	Merge	454	427	67	1.6	A	1,068	859	67	3.2	A	3,034	2,914	65	11.2	B	2,996	2,697	65	10.4	B
	I-81 NB Between Sneller Road and Bartell Road	Basic	454	423	67	2.1	A	1,068	863	67	4.3	A	3,034	2,912	65	14.9	B	2,996	2,705	66	13.7	B
	I-81 NB Off-Ramp to Bartell Road	Diverge	454	419	65	1.6	A	1,068	861	64	3.3	A	3,034	2,915	58	12.5	B	2,996	2,714	60	11.3	B
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	405	374	67	1.9	A	887	715	67	3.6	A	2,439	2,341	64	12.2	B	2,467	2,177	65	11.2	B
	I-81 On-Ramp from Bartell Road	Merge	447	412	66	1.6	A	985	812	66	3.1	A	2,611	2,504	65	9.6	A	2,738	2,439	65	9.3	A
	I-81 NB Between Bartell Rd and East Avenue	Basic	447	411	67	2.0	A	985	814	67	4.1	A	2,611	2,512	66	12.7	B	2,738	2,445	66	12.3	B
I-81 SB	I-81 SB Between East Ave and Bartell Road	Basic	1,281	1,279	67	6.3	A	2,613	2,607	66	13.1	B	1,499	1,461	68	7.2	A	1,305	1,305	68	6.4	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	1,281	1,268	66	4.8	A	2,613	2,583	64	10.0	B	1,499	1,449	66	5.5	A	1,305	1,298	66	4.9	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	1,209	1,208	67	6.0	A	2,425	2,415	66	12.2	B	1,313	1,282	67	6.3	A	1,131	1,125	68	5.6	A
	I-81 SB On-Ramp from Bartell Road	Merge	1,543	1,535	65	5.9	A	3,005	2,984	64	11.7	B	1,865	1,829	65	7.1	A	1,628	1,616	65	6.2	A
	I-81 SB Between Bartell Rd and Sneller Road	Basic	1,543	1,530	67	7.6	A	3,005	2,973	64	15.6	B	1,865	1,833	67	9.1	A	1,628	1,628	67	8.1	A
	I-81 SB Off-Ramp to Sneller Road	Diverge	1,543	1,523	66	5.8	A	3,005	2,941	57	14.1	B	1,865	1,834	64	7.2	A	1,628	1,632	64	6.3	A
	I-81 SB Between Off-Ramp and On-Ramp to Sneller Road	Basic	1,520	1,498	67	7.5	A	2,902	2,799	54	20.9	C	1,783	1,753	67	8.8	A	1,551	1,564	67	7.8	A
	I-81 SB On-Ramp from Sneller Road	Merge	1,890	1,828	66	7.0	A	3,408	3,199	46	24.4	C	2,212	2,141	65	8.2	A	1,898	1,905	66	7.3	A
	I-81 SB Between Sneller Road and NYS Route 31	Basic	1,890	1,840	66	9.2	A	3,408	2,976	20	60.2	F	2,212	2,155	66	10.8	A	1,898	1,919	67	9.6	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	1,890	1,832	66	6.9	A	3,408	2,722	7	106.7	F	2,212	2,149	65	8.2	A	1,898	1,920	66	7.3	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	1,486	1,431	67	7.2	A	2,632	2,112	63	11.3	B	1,705	1,658	67	8.3	A	1,503	1,515	67	7.5	A
	I-81 SB On-Ramp from NYS Route 31	Merge	2,255	2,171	64	6.8	A	3,875	3,244	62	10.4	B	2,981	2,784	61	9.1	A	3,938	3,088	60	10.3	B
	I-81 SB Between NYS Route 31 and I-81	Basic	2,255	2,156	66	10.9	A	3,875	3,268	63	17.3	B	2,981	2,805	64	14.6	B	3,938	3,102	63	16.3	B
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	2,255	2,156	66	10.9	B	3,875	3,268	63	17.3	B	2,981	2,805	64	14.6	B	3,938	3,102	63	16.3	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	1,561	1,489	65	11.4	B	2,482	2,104	63	16.8	B	2,157	2,025	63	16.1	B	2,553	2,066	62	16.7	B
	I-81 SB Off-Ramp to I-81 WB	Diverge	1,561	1,486	65	7.6	A	2,482	2,103	64	10.9	B	2,157	2,020	65	10.4	B	2,553	2,067	65	10.6	B

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 SB (continued)	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	1,543	1,457	65	11.2	B	2,445	2,068	64	16.2	B	1,924	1,807	65	13.9	B	2,410	1,933	65	14.9	B
	I-81 SB On-Ramp from NYS Route 481 WB	Merge	1,715	1,614	65	8.2	A	2,676	2,309	65	11.9	B	2,120	1,997	66	10.1	B	2,568	2,098	66	10.7	B
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	2,819	2,586	64	10.1	B	4,045	3,655	63	14.6	B	3,539	3,357	64	13.1	B	4,008	3,501	64	13.7	B
	I-81 NB Between I-481 and E Taft Road	Basic	2,819	2,597	65	13.3	B	4,045	3,673	64	19.2	C	3,539	3,384	65	17.3	B	4,008	3,517	65	18.0	C

Table 9-9. Year 2041 Mitigation Scenario A AM and PM Peak-Hour Freeway NYS Route 481 Operations – Delay and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 EB	NYS Route 481 EB Between Verplank Rd and NYS Route 31	Basic	982	967	64	7.5	A	1,788	1,769	62	14.3	B	1,396	1,369	63	10.9	A	1,225	1,227	63	9.7	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	982	966	52	6.2	A	1,788	1,767	43	14.0	B	1,396	1,368	47	9.8	A	1,225	1,229	47	8.8	A
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	562	559	66	4.2	A	930	919	65	7.0	A	693	691	67	5.2	A	604	598	67	4.5	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	1,715	1,634	58	7.0	A	2,562	2,501	57	10.9	B	2,414	2,280	56	10.2	B	2,104	2,044	56	9.2	A
	NYS Route 481 EB Between NYS Route 31 and Maple Road	Basic	1,715	1,623	65	12.5	B	2,562	2,503	63	19.7	C	2,414	2,299	64	18.0	B	2,104	2,056	64	16.0	B
	NYS Route 481 EB Between Maple Rd and Caughdenoy Road	Basic	1,715	1,582	64	12.3	B	2,562	2,491	62	20.0	C	2,414	2,298	63	18.3	C	2,104	2,075	63	16.4	B
	NYS Route 481 Between Caughdenoy Rd and U.S. Route 11	Basic	1,715	1,564	64	12.2	B	2,562	2,485	62	20.1	C	2,414	2,302	62	18.5	C	2,104	2,085	63	16.6	B
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	1,715	1,539	58	8.8	A	2,562	2,458	54	15.1	B	2,414	2,280	51	14.9	B	2,104	2,066	51	13.4	B
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	1,558	1,402	64	11.0	B	2,291	2,227	61	18.2	C	1,916	1,845	64	14.5	B	1,669	1,662	64	13.0	B
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	2,316	2,121	62	11.4	B	3,354	3,280	60	18.3	B	2,793	2,683	58	15.3	B	2,625	2,603	58	15.1	B
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	1,212	1,108	66	5.6	A	1,986	1,920	64	10.0	A	1,374	1,303	66	6.6	A	1,185	1,189	66	6.0	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	1,212	1,105	66	8.3	A	1,974	1,915	65	14.8	B	1,261	1,207	67	9.1	A	1,163	1,157	66	8.7	A
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	1,379	1,267	65	6.5	A	2,167	2,109	63	11.2	B	1,530	1,477	64	7.6	A	1,374	1,370	65	7.0	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	2,072	1,918	66	7.2	A	3,560	3,265	65	12.6	B	2,354	2,259	67	8.5	A	2,759	2,388	66	9.0	A
	NYS Route 481 EB Between I-81 and Northern Blvd	Basic	2,072	1,910	67	9.6	A	3,560	3,264	65	16.7	B	2,354	2,262	67	11.3	B	2,759	2,386	66	12.0	B
NYS Route 481 WB	NYS Route 481 WB Between Northern Blvd and I-81	Basic	831	826	67	6.1	A	2,373	2,366	66	17.9	B	3,039	3,025	65	23.1	C	2,741	2,734	66	20.8	C
	NYS Route 481 WB Off-Ramp to I-81	Diverge	831	826	67	4.1	A	2,373	2,366	65	12.1	B	3,039	3,033	64	15.8	B	2,741	2,741	64	14.2	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	612	611	51	6.0	A	1,437	1,439	50	14.4	B	1,930	1,921	50	19.4	C	1,751	1,750	50	17.6	B
	NYS Route 481 WB Between On-Ramp and Off-Ramp to I-81	Weave	967	960	60	5.3	A	2,122	2,112	60	11.8	B	3,311	3,303	57	19.1	B	3,036	3,038	58	17.3	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	795	791	66	6.0	A	1,891	1,883	64	14.7	B	3,115	3,121	62	25.2	C	2,878	2,888	63	23.0	C
	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	814	813	66	4.1	A	1,928	1,913	65	9.8	A	3,348	3,332	64	17.3	B	3,021	3,026	65	15.6	B
	NYS Route 481 WB Off-Ramp and On-Ramp from Circle Drive	Basic	493	500	67	3.7	A	1,380	1,369	65	10.5	A	2,183	2,163	65	16.7	B	1,902	1,922	65	14.7	B
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	634	640	63	3.4	A	1,831	1,813	60	10.1	B	2,692	2,658	56	15.7	B	2,417	2,441	57	14.4	B
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	634	637	66	4.8	A	1,831	1,786	45	20.2	C	2,692	2,659	63	21.1	C	2,417	2,447	63	19.3	C

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ ln)	LOS
NYS Route 481 WB (continued)	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	634	622	64	3.2	A	1,831	1,668	10	55.1	F	2,692	2,652	55	16.0	B	2,417	2,444	55	14.7	B
	NYS Route 481 WB Between Caughdenoy Rd and Maple Road	Basic	592	588	66	4.4	A	1,196	1,159	65	8.9	A	2,364	2,333	64	18.3	C	2,129	2,159	64	16.9	B
	NYS Route 481 WB Between Maple Rd and NYS Route 31	Basic	592	577	66	4.4	A	1,196	1,147	65	8.8	A	2,364	2,330	63	18.5	C	2,129	2,177	63	17.2	B
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	592	566	66	2.1	A	1,196	1,129	65	4.3	A	2,364	2,310	62	9.3	A	2,129	2,178	63	8.7	A
	NYS Route 481 WB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	233	226	67	1.7	A	481	459	67	3.4	A	822	817	67	6.1	A	756	778	67	5.8	A
	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	445	434	62	2.3	A	855	816	62	4.4	A	1,535	1,520	56	9.1	A	1,520	1,513	56	9.0	A
	NYS Route 481 WB Between NYS Route 31 and Verplank Road	Basic	445	433	64	3.4	A	855	814	64	6.4	A	1,535	1,518	61	12.4	B	1,520	1,510	61	12.3	B

9.4 Mitigation Scenario B

The following subsections present key MOEs and discuss the traffic operational analysis results for this Mitigation Scenario B of the highest-volume demand year 2041. Operations for the peak hour with the lowest LOS within the peak period of the freeway mainline segments, merge/diverge areas, weaving areas, ramp segments, ramp terminal intersections, and surface street intersections expressed as LOS based on the color coding shown in Tables 2-3 and 2-4 in Section 2.4.2. Appendix D summarizes the model output that details the link and node results summarized in the figures and tables.

9.4.1 Traffic Volumes

The traffic volumes shown in Figures 9-25 through 9-28 are higher than in the No Action scenario due to the addition of Proposed Project-generated trips. The roadway network includes the Year 2041 Scenario A network and adds a new interchange on NYS Route 481 to service a new Micron Campus access road. This new access road attracts campus trips from NYS Route 31 and Caughdenoy Road, lowering the peak hour demand volumes on these roads.

Figure 9-25: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Intersections - Sheet 1 of 5

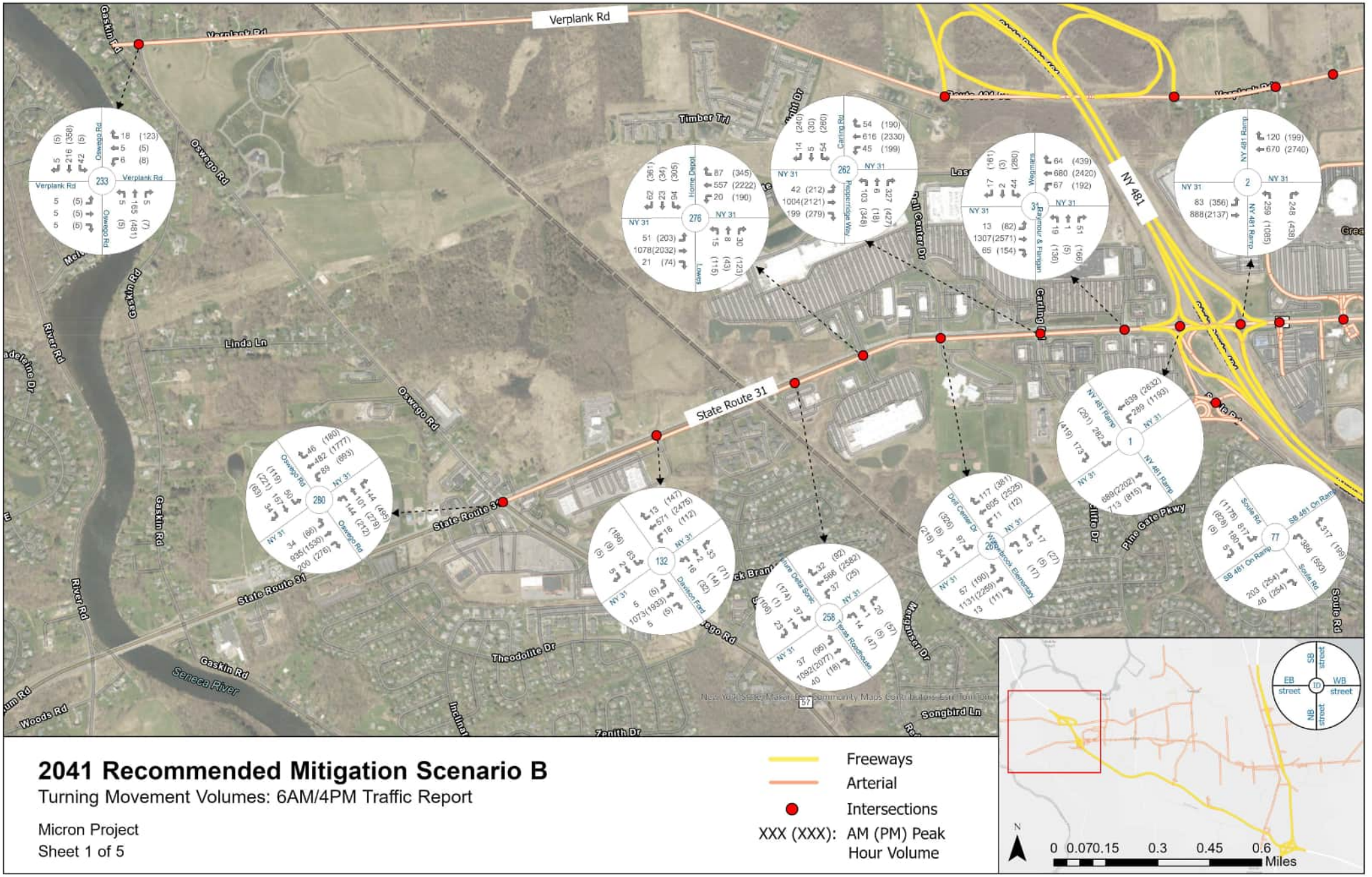


Figure 9-25: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Intersections - Sheet 2 of 5

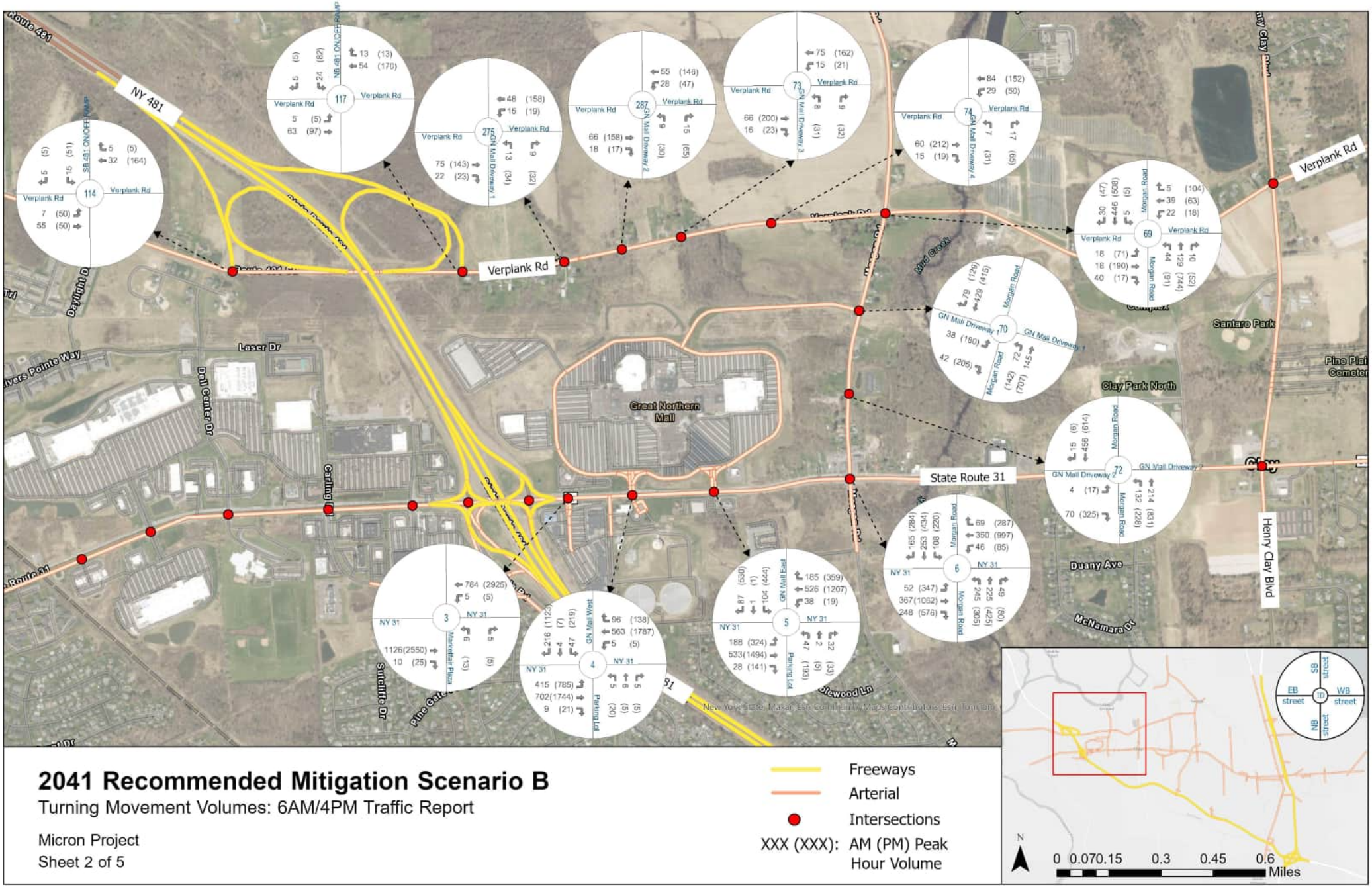


Figure 9-25: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Intersections - Sheet 3 of 5

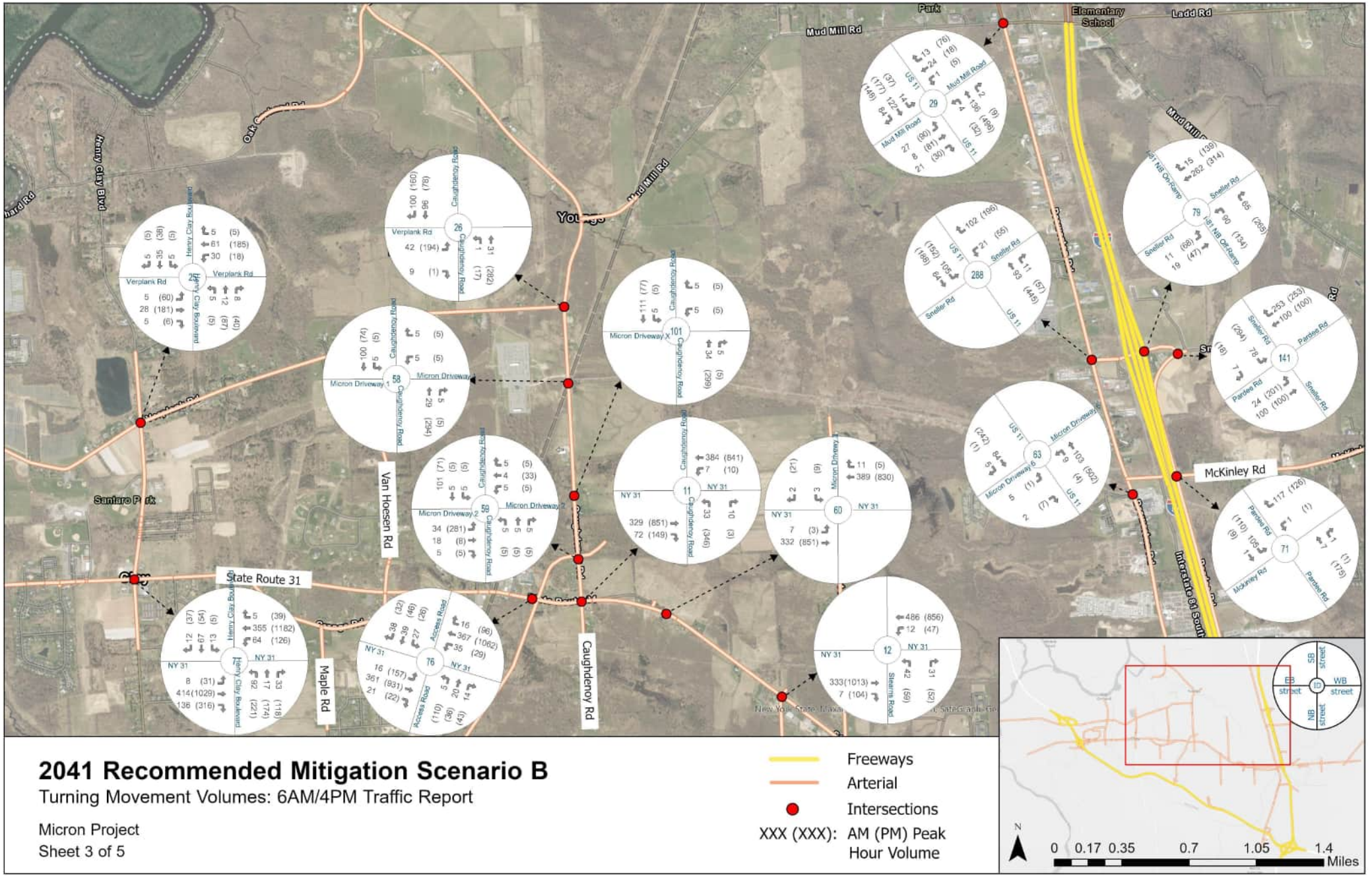


Figure 9-25: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Intersections - Sheet 4 of 5

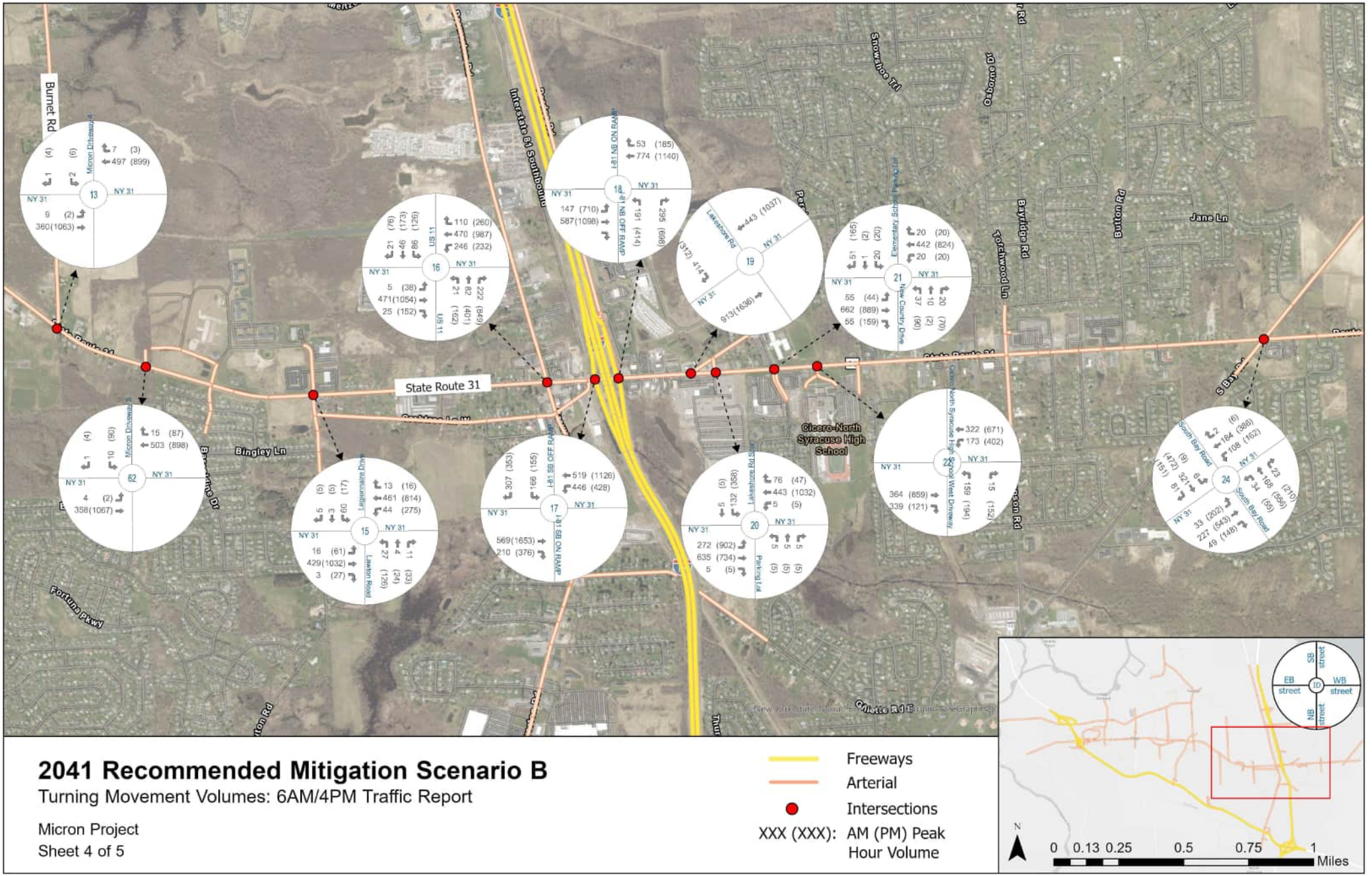


Figure 9-25: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Intersections - Sheet 5 of 5

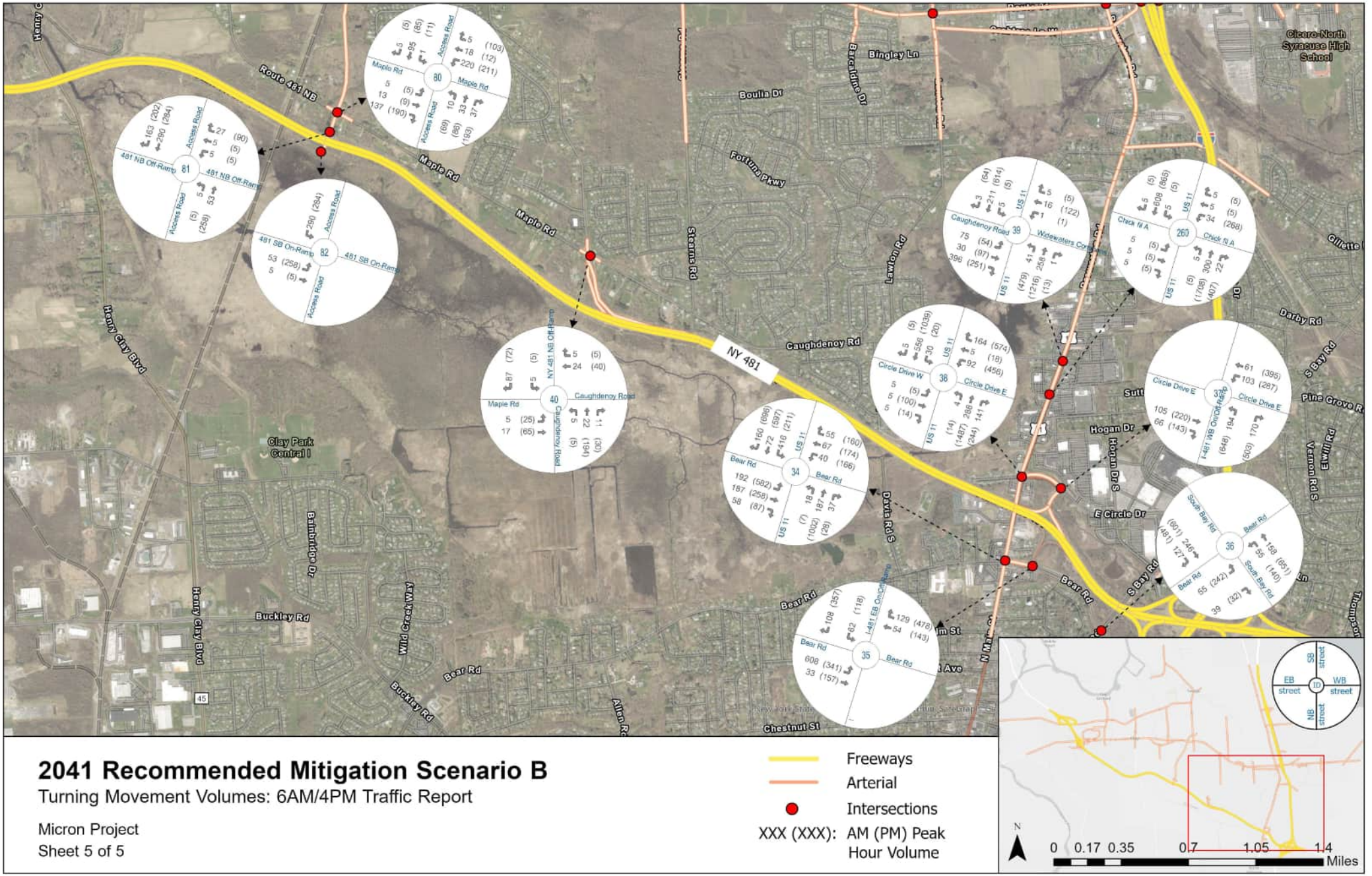
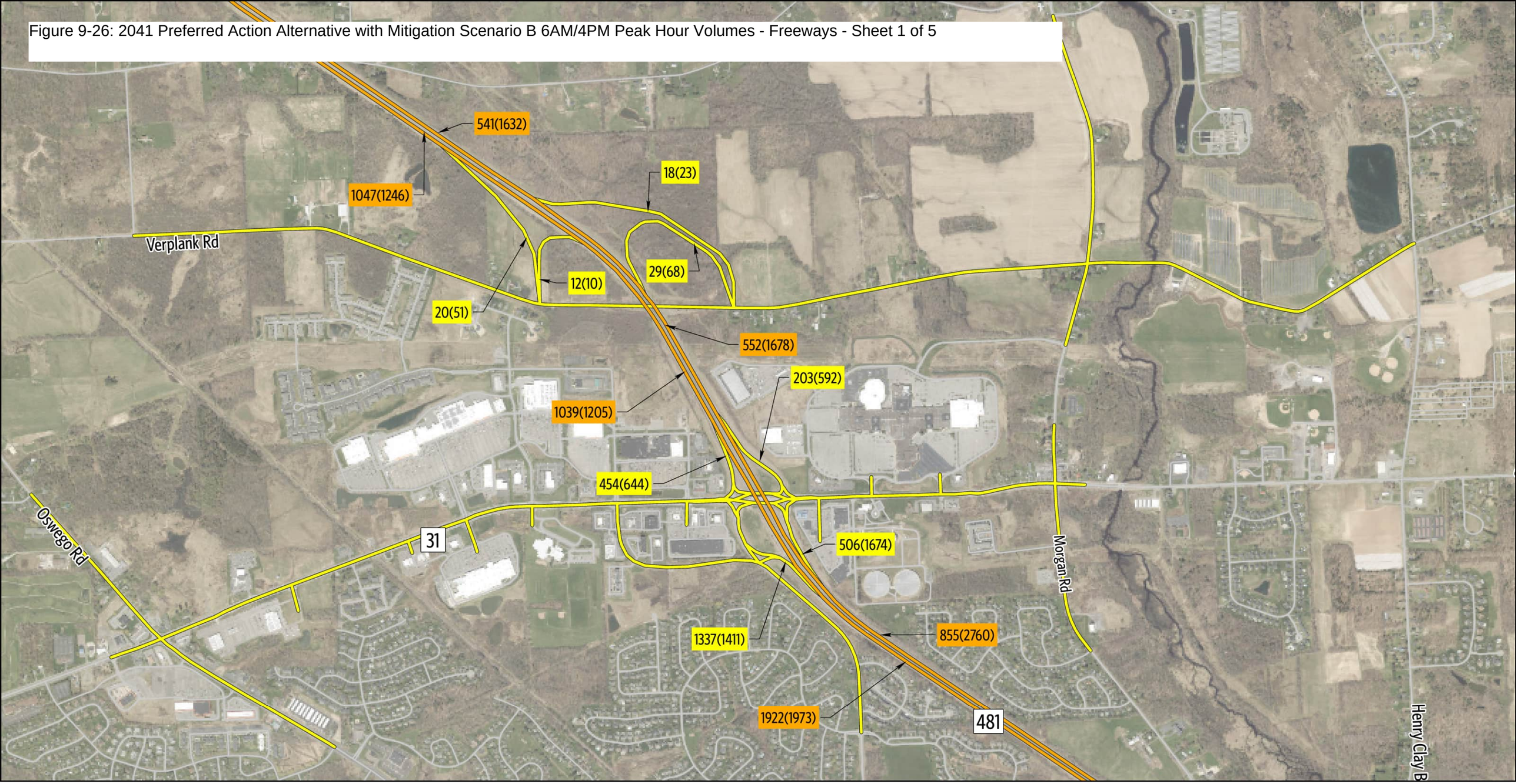


Figure 9-26: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Freeways - Sheet 1 of 5



Mainline Volumes **Ramp Volumes** XXX(XXX) - AM Volumes(PM Volumes)

Freeways Ramps

N

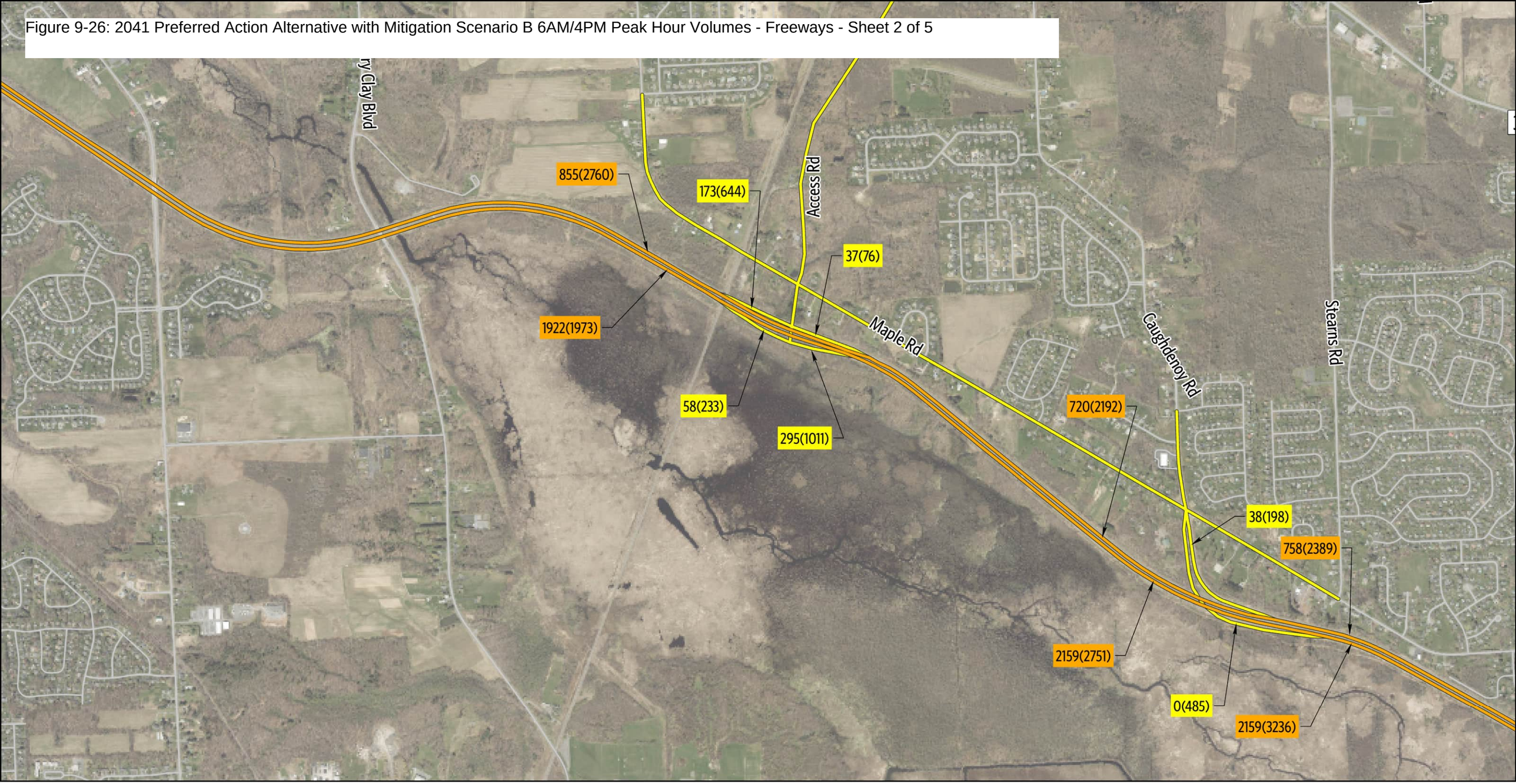
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 1 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-26: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Freeways - Sheet 2 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

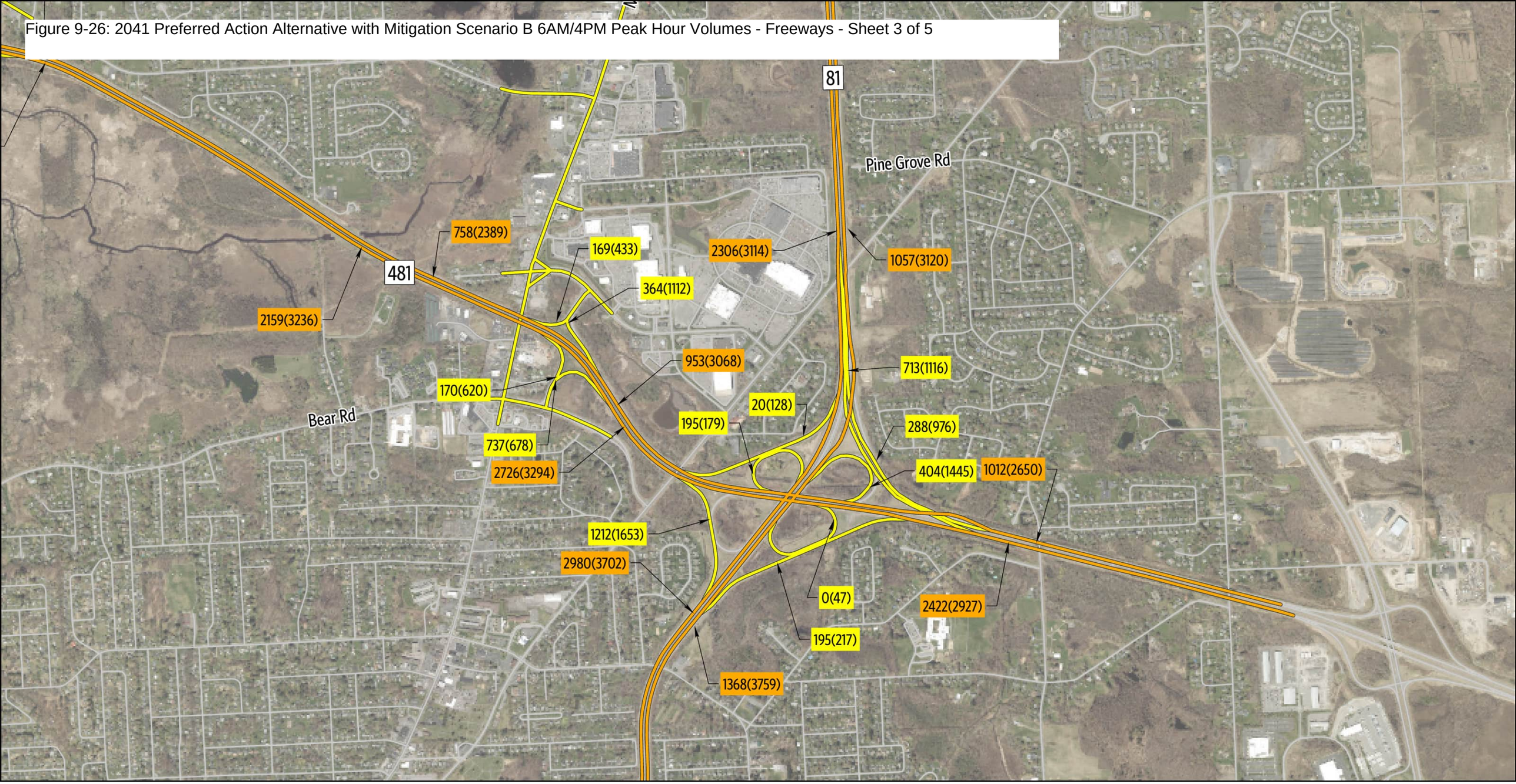
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 2 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-26: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Freeways - Sheet 3 of 5



Mainline Volumes

Freeways

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

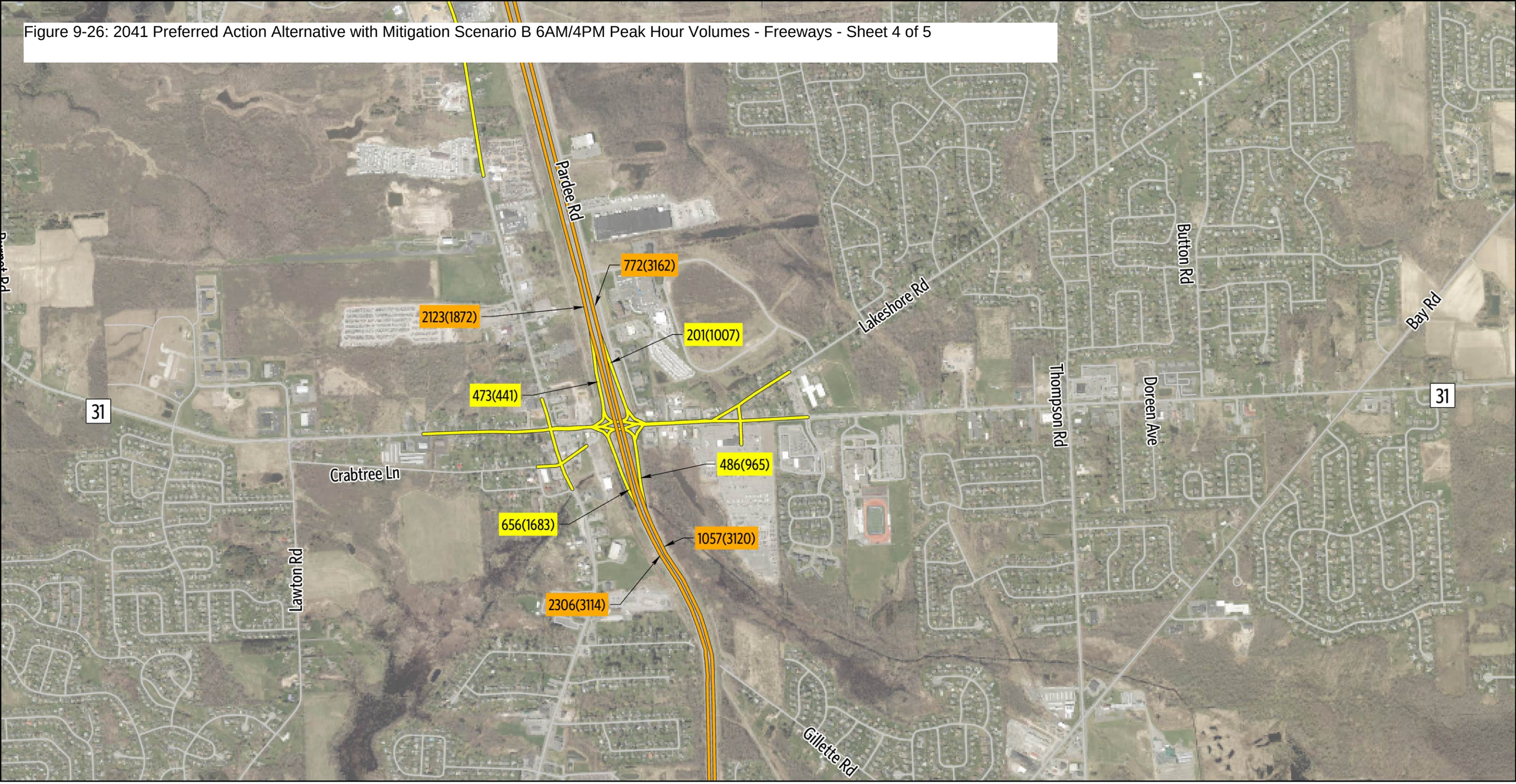
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 3 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-26: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Freeways - Sheet 4 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

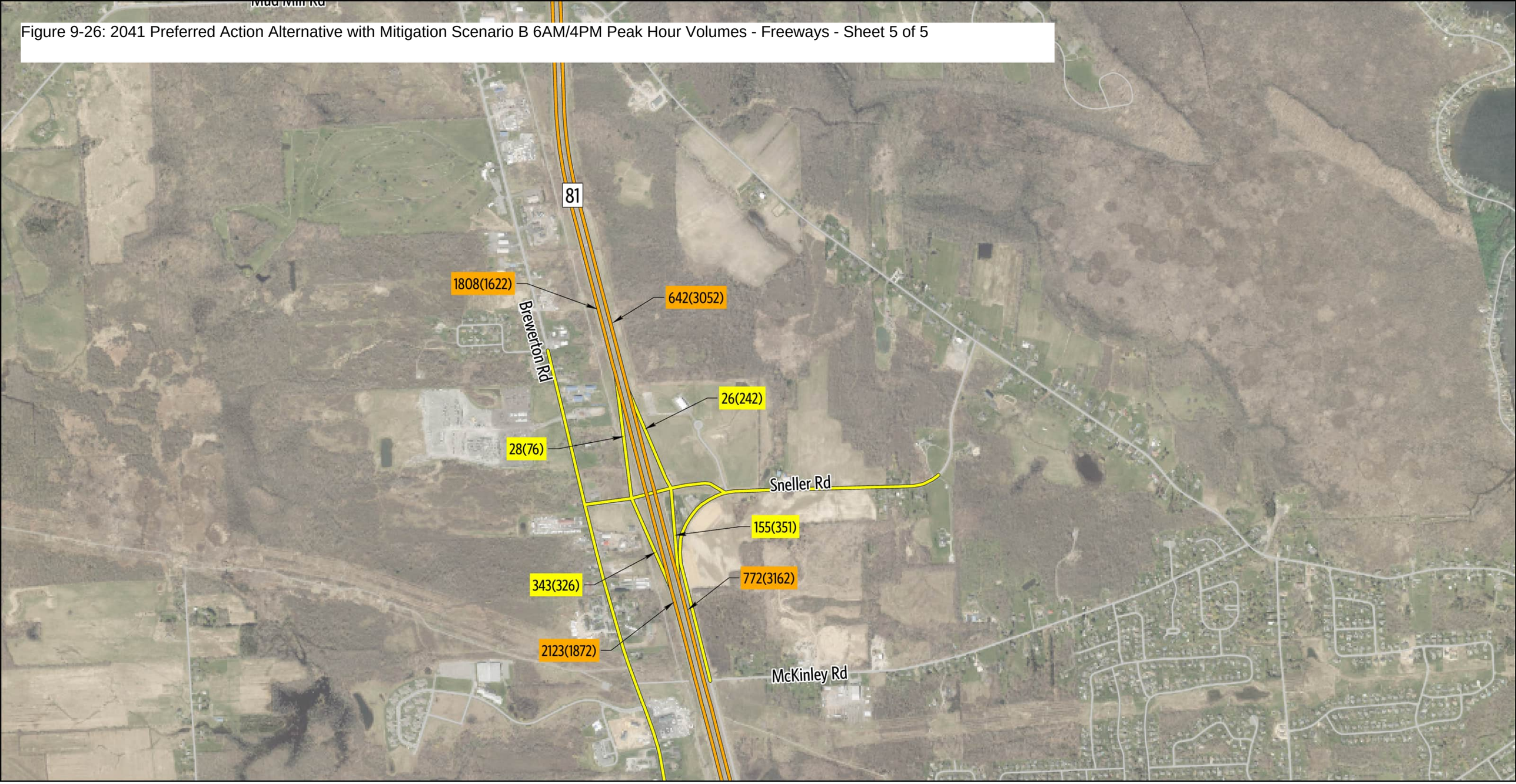
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 4 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-26: 2041 Preferred Action Alternative with Mitigation Scenario B 6AM/4PM Peak Hour Volumes - Freeways - Sheet 5 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 5 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-27: 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Intersections - Sheet 1 of 5

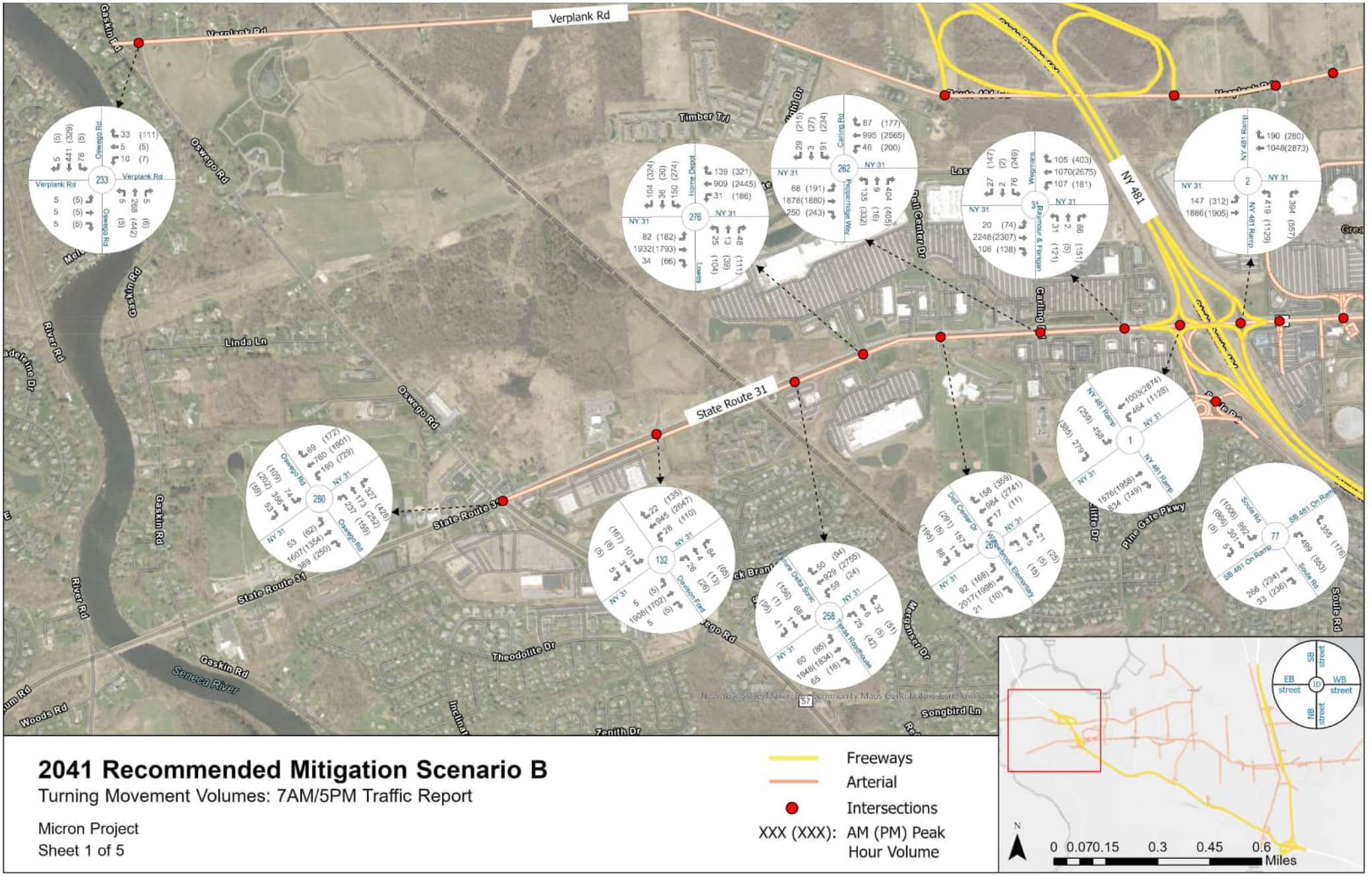


Figure 9-27: 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Intersections - Sheet 2 of 5

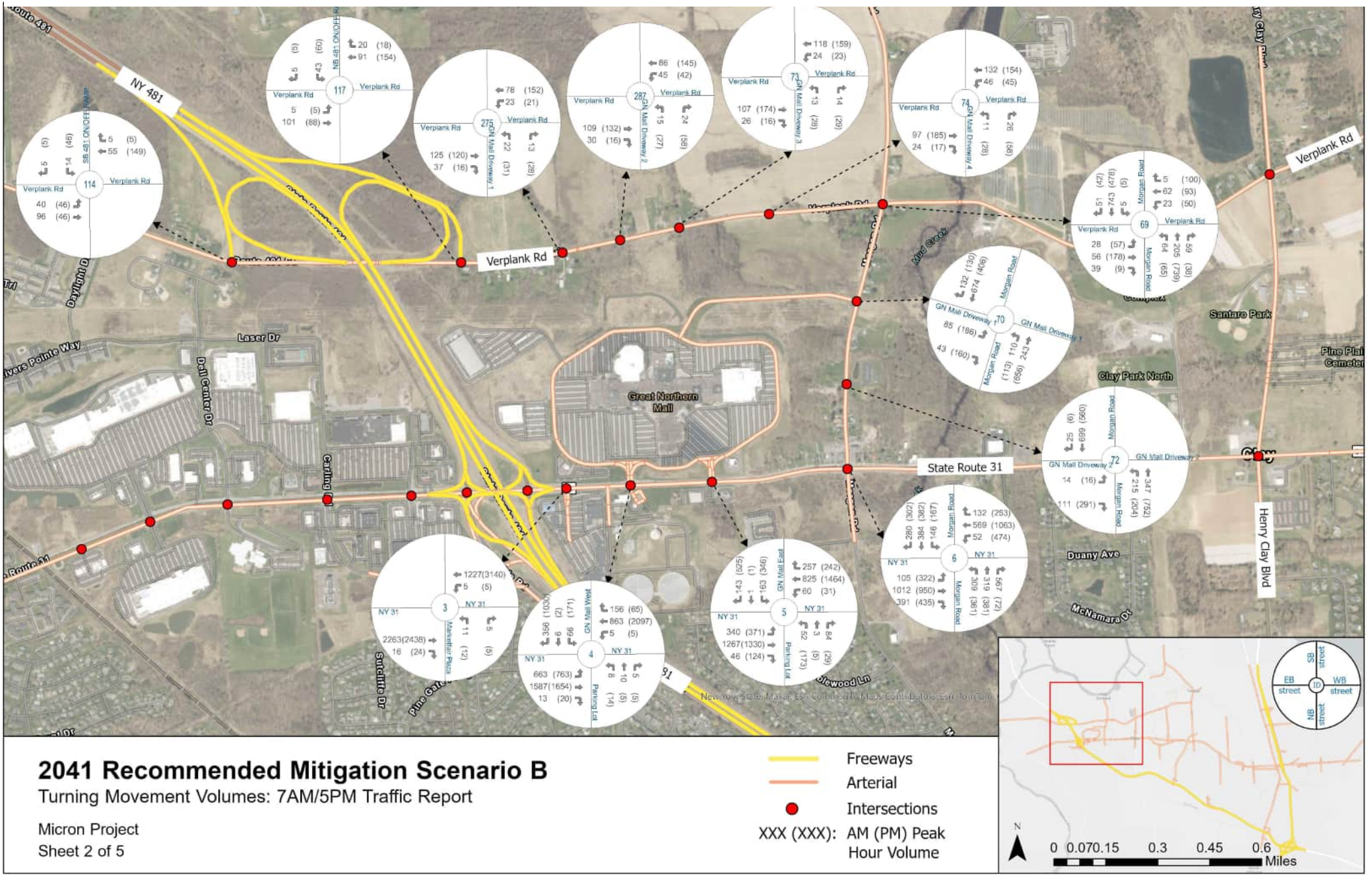


Figure 9-27: 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Intersections - Sheet 3 of 5

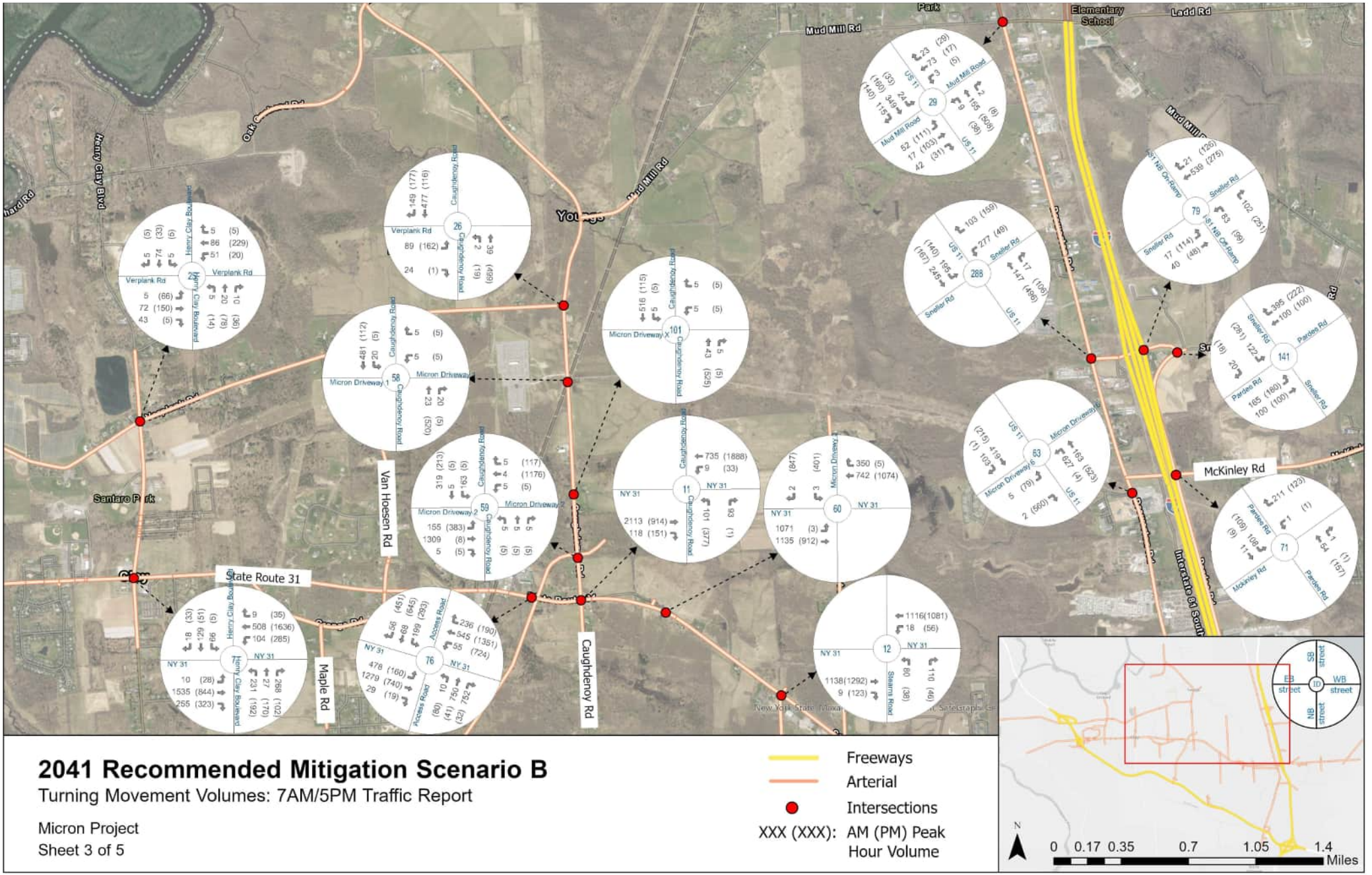


Figure 9-27: 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Intersections - Sheet 4 of 5

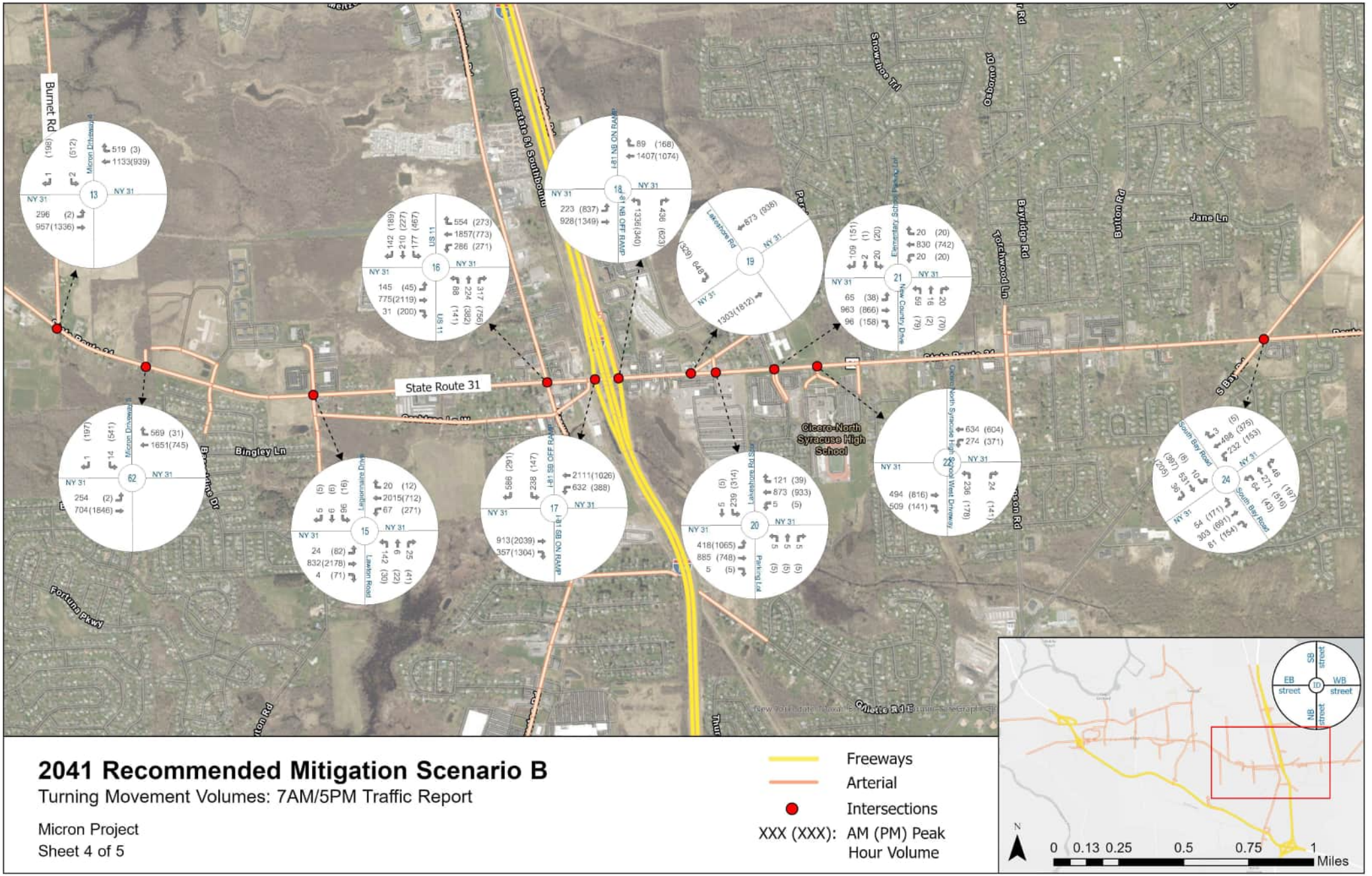


Figure 9-27: 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Intersections - Sheet 5 of 5

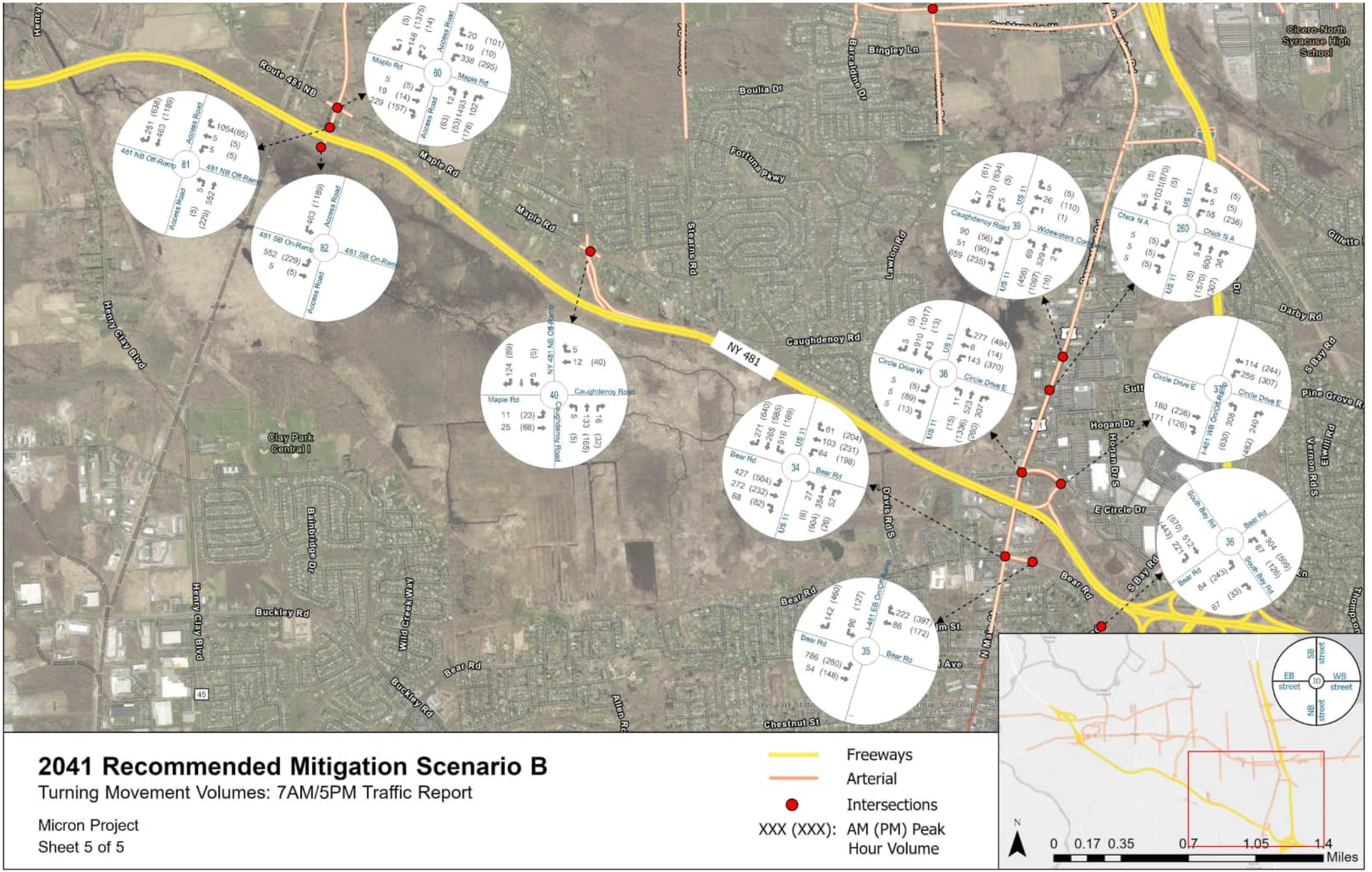
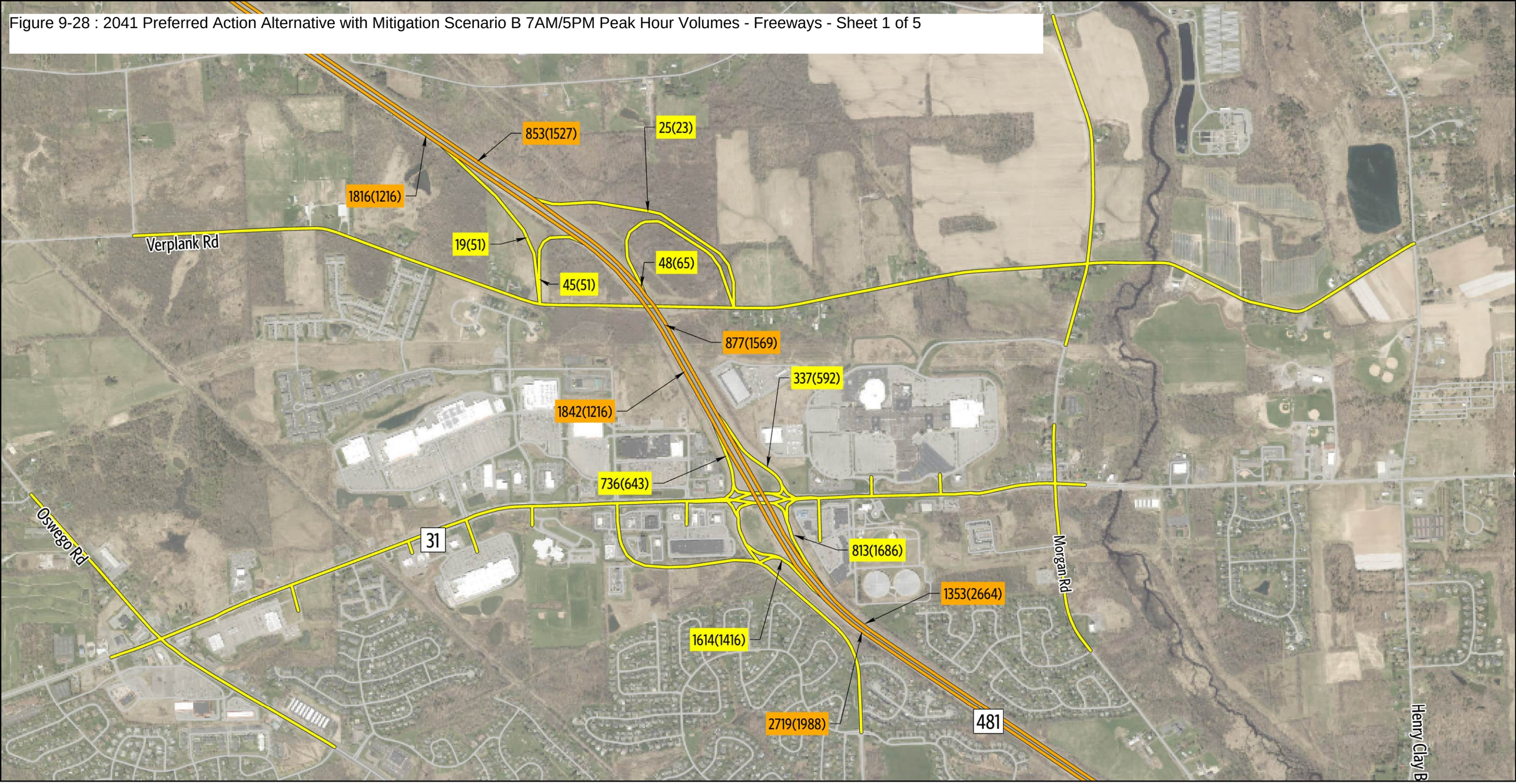


Figure 9-28 : 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Freeways - Sheet 1 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

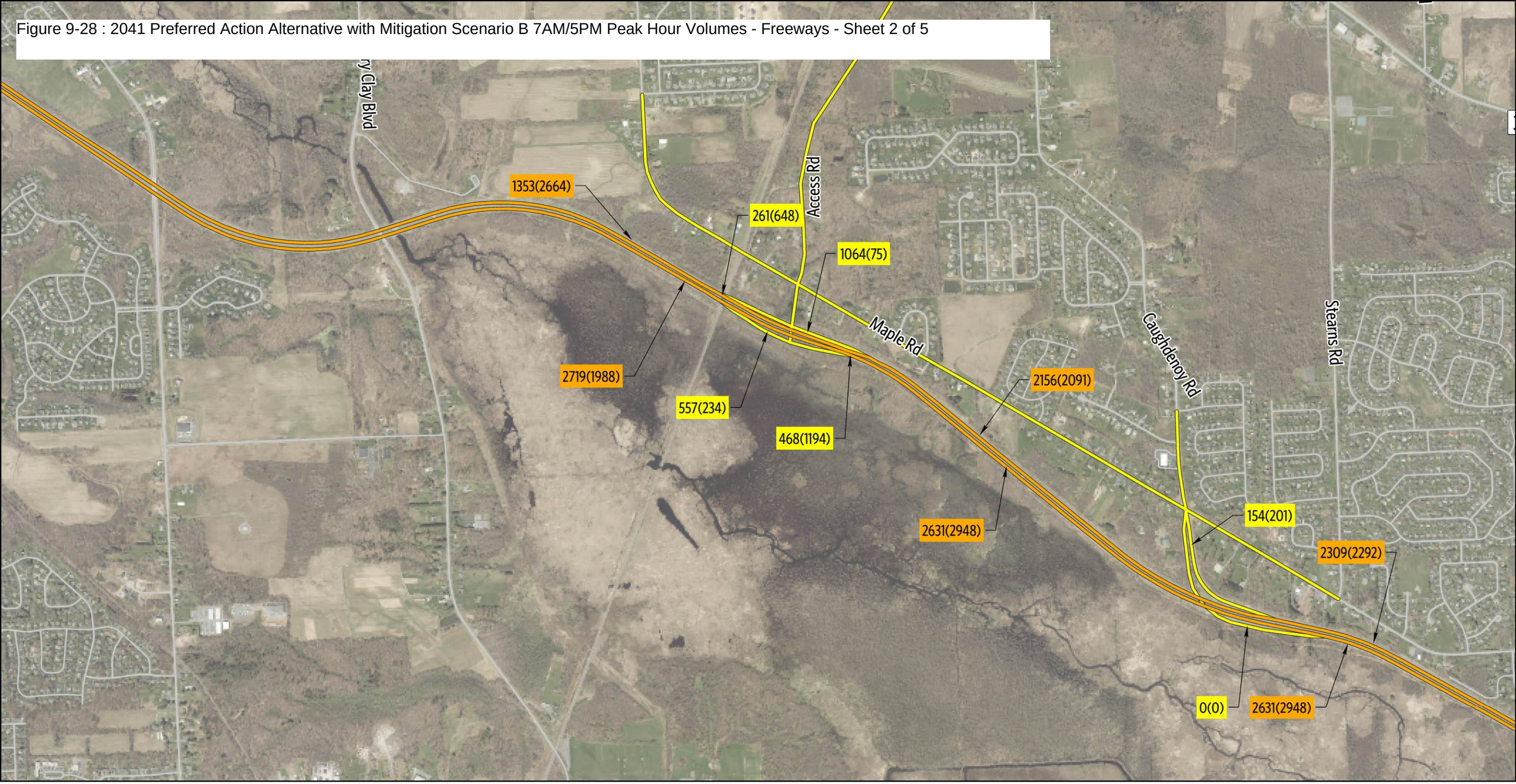
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 1 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-28 : 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Freeways - Sheet 2 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

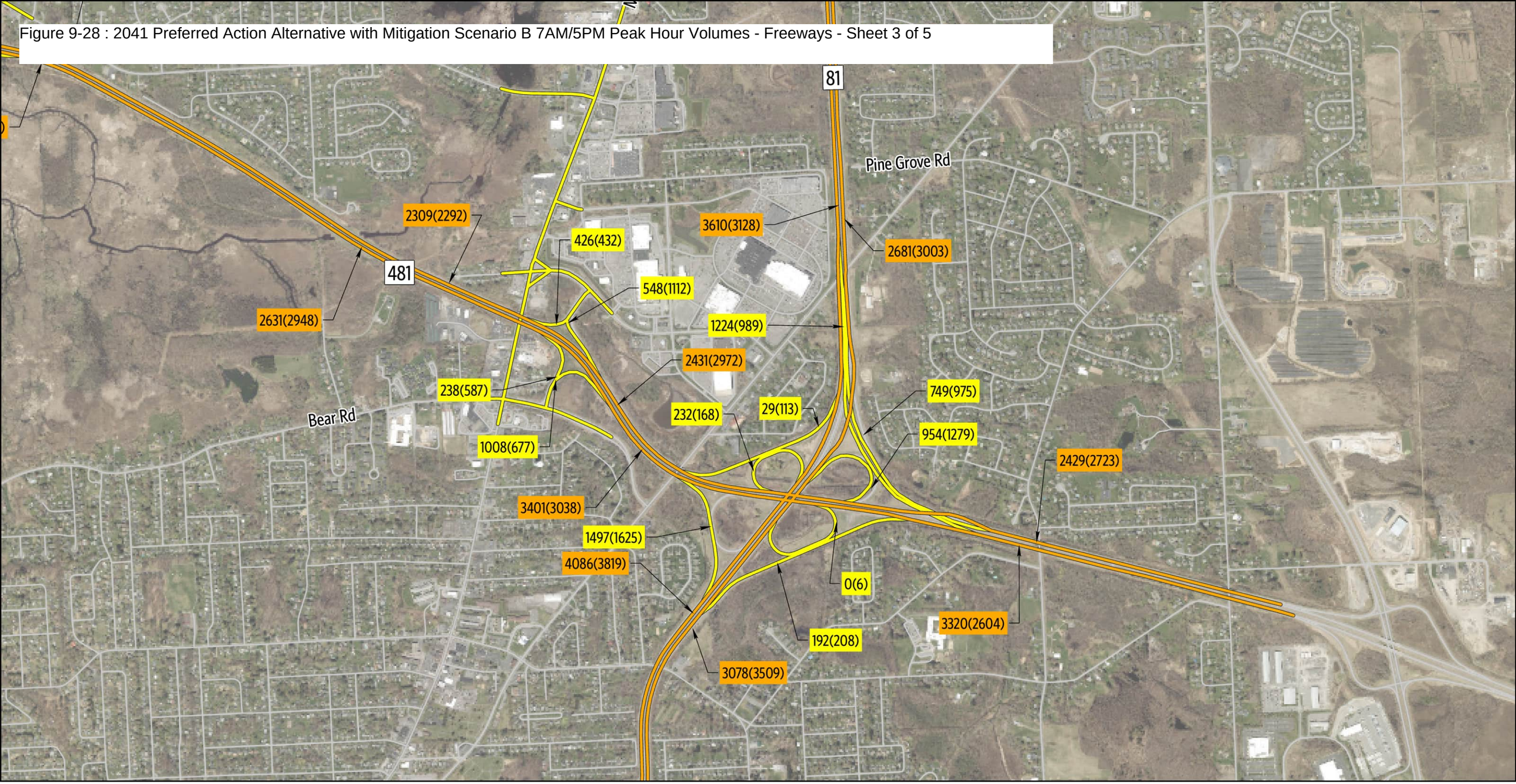
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 2 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-28 : 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Freeways - Sheet 3 of 5



Mainline Volumes

Freeways

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

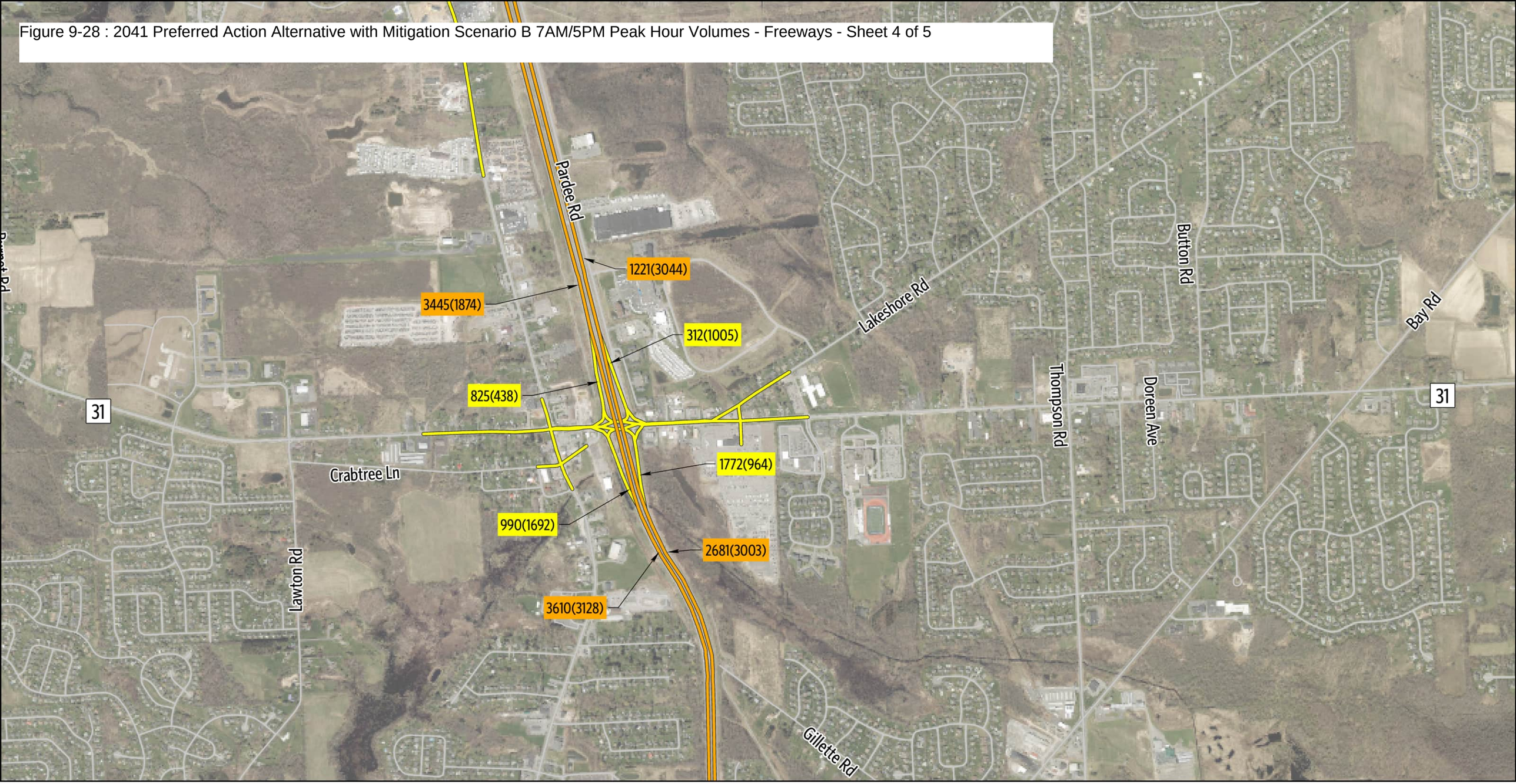
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 3 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-28 : 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Freeways - Sheet 4 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

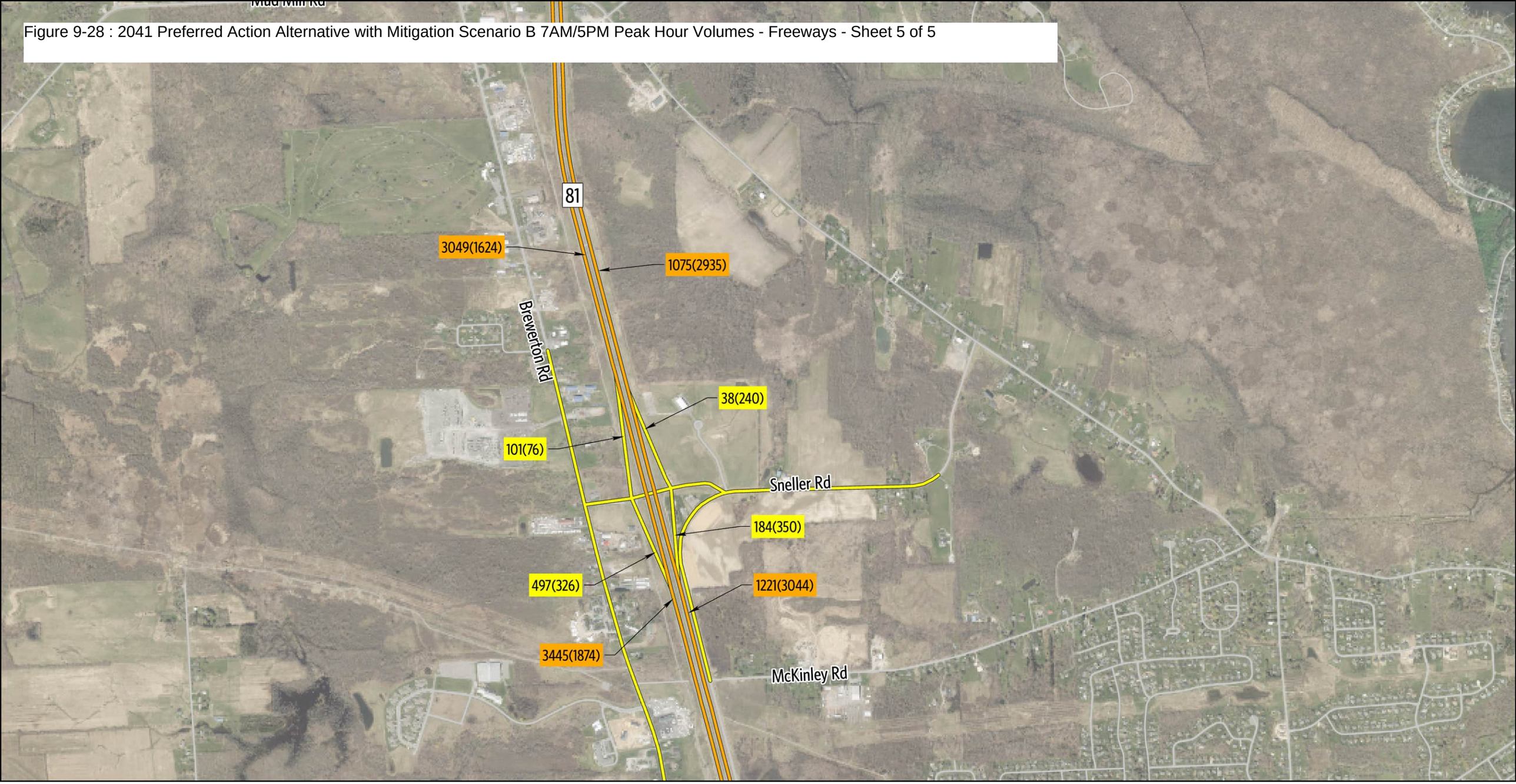
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 4 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-28 : 2041 Preferred Action Alternative with Mitigation Scenario B 7AM/5PM Peak Hour Volumes - Freeways - Sheet 5 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario B

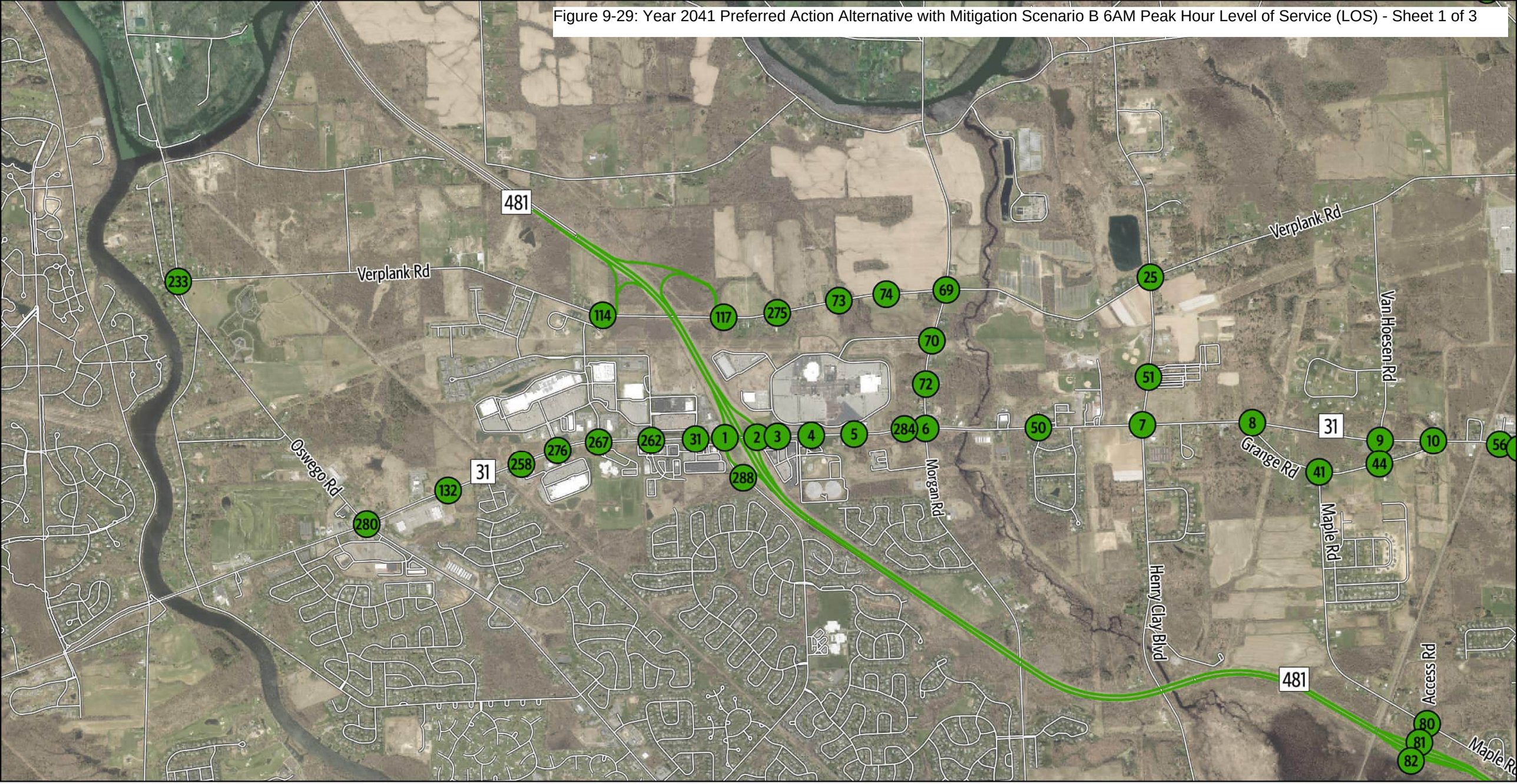
Sheet 5 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

9.4.2 Intersection Operations

Table 9-10 summarizes the results for intersections under Mitigation Scenario B to include average delay values and LOS expressed as a letter designation and by the color coding shown in Table 2-3. The delay values reflect the overall intersection LOS for signalized intersections and roundabouts; refer to the model output in Appendix D for movement and approach LOS. For the unsignalized intersections, the table shows the average delay for the highest-delay movement. Figures 9-29 through 9-32 show the results of traffic operations.

Figure 9-29: Year 2041 Preferred Action Alternative with Mitigation Scenario B 6AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

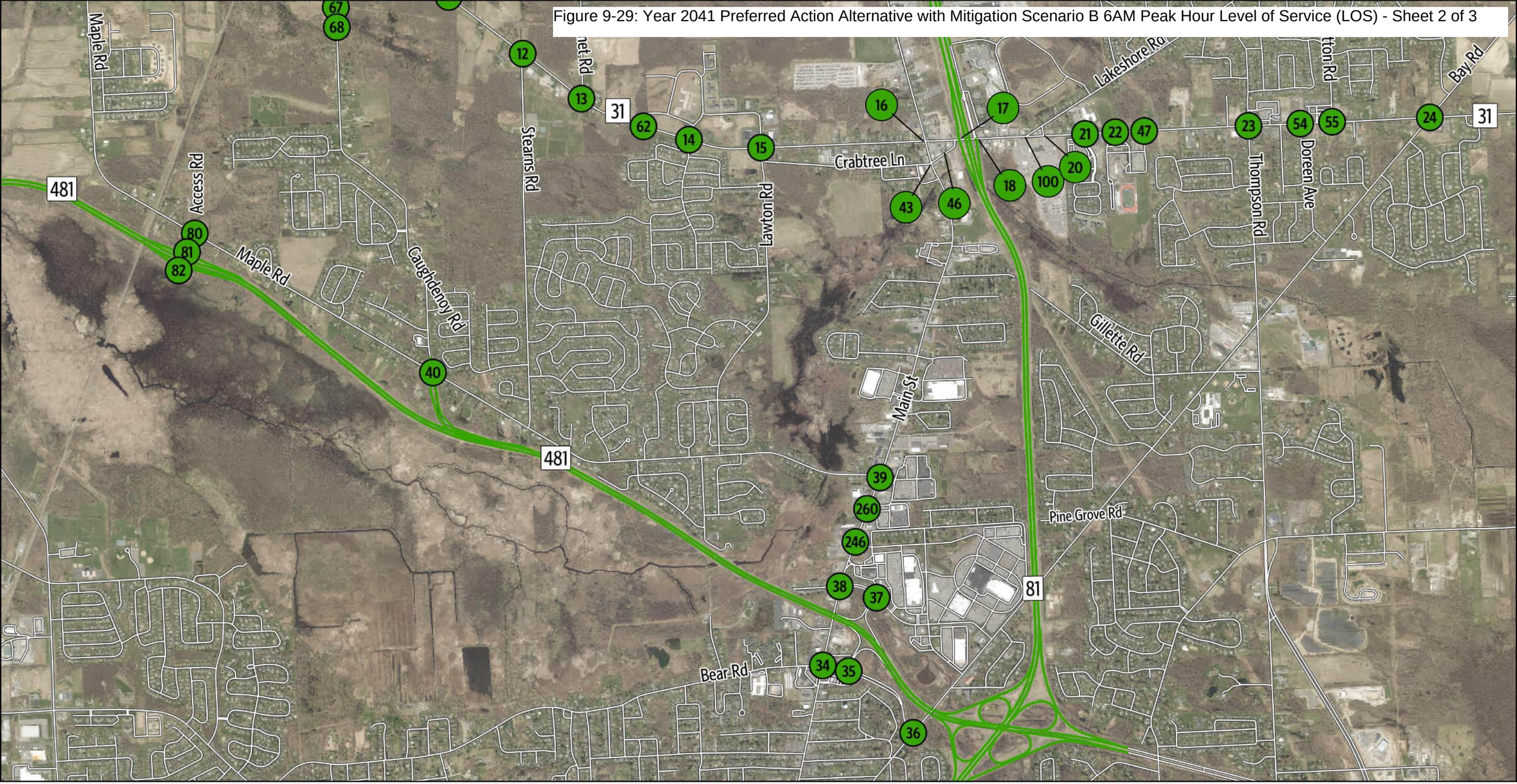
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 1 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-29: Year 2041 Preferred Action Alternative with Mitigation Scenario B 6AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

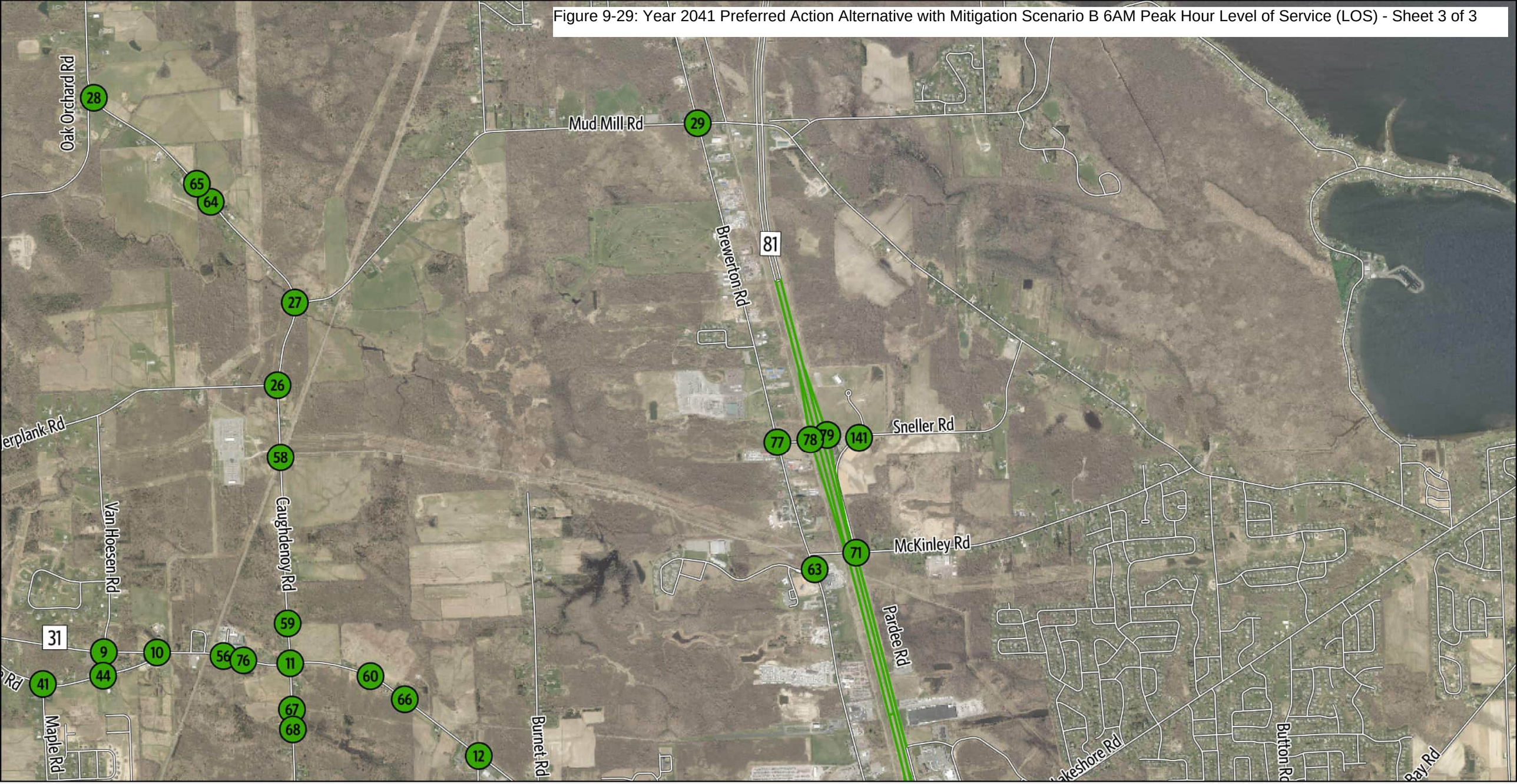
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 2 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-29: Year 2041 Preferred Action Alternative with Mitigation Scenario B 6AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

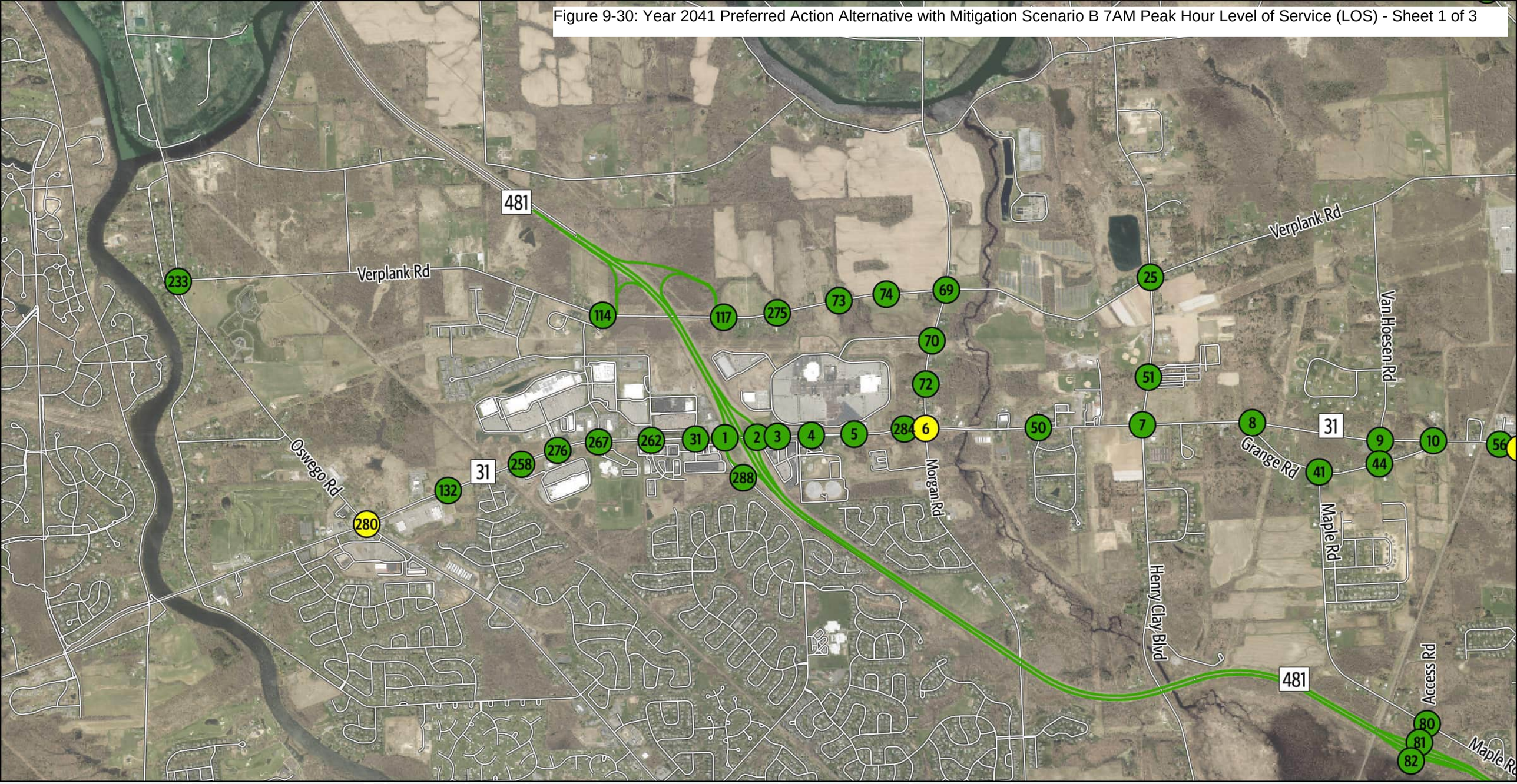
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 3 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-30: Year 2041 Preferred Action Alternative with Mitigation Scenario B 7AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

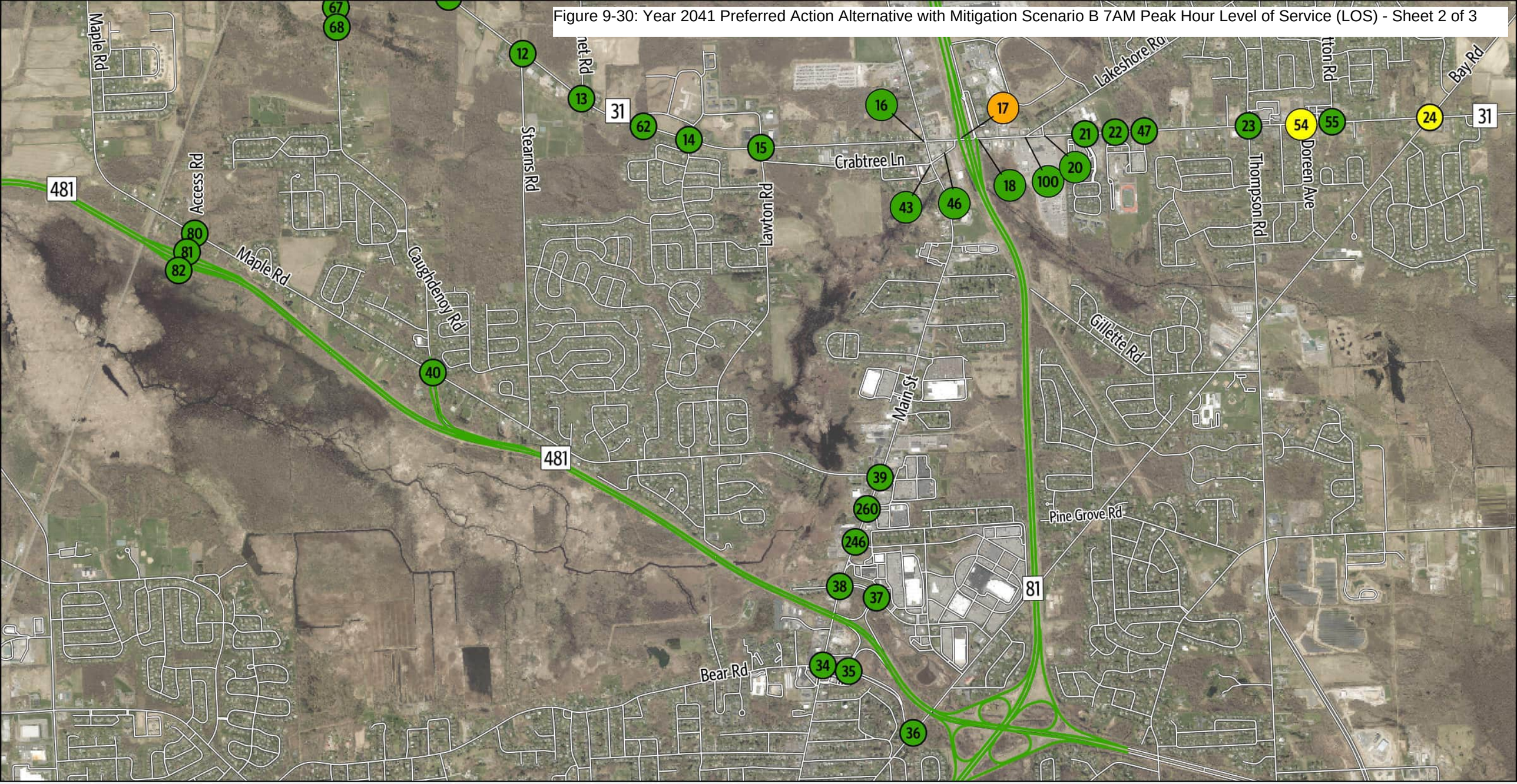
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 1 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-30: Year 2041 Preferred Action Alternative with Mitigation Scenario B 7AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

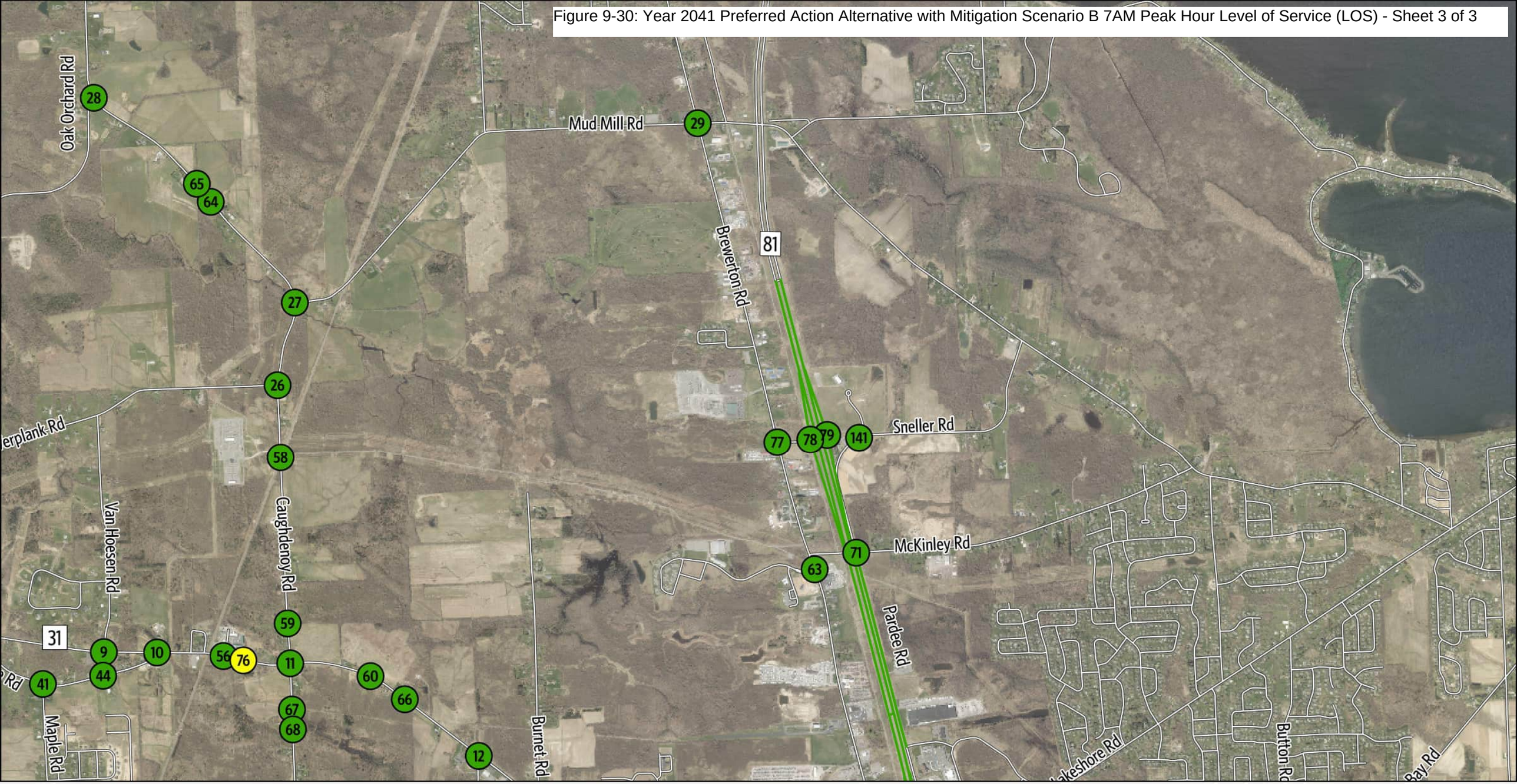
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 2 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-30: Year 2041 Preferred Action Alternative with Mitigation Scenario B 7AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D

Roadway Level Of Service

- A, B, C
- Streets

N

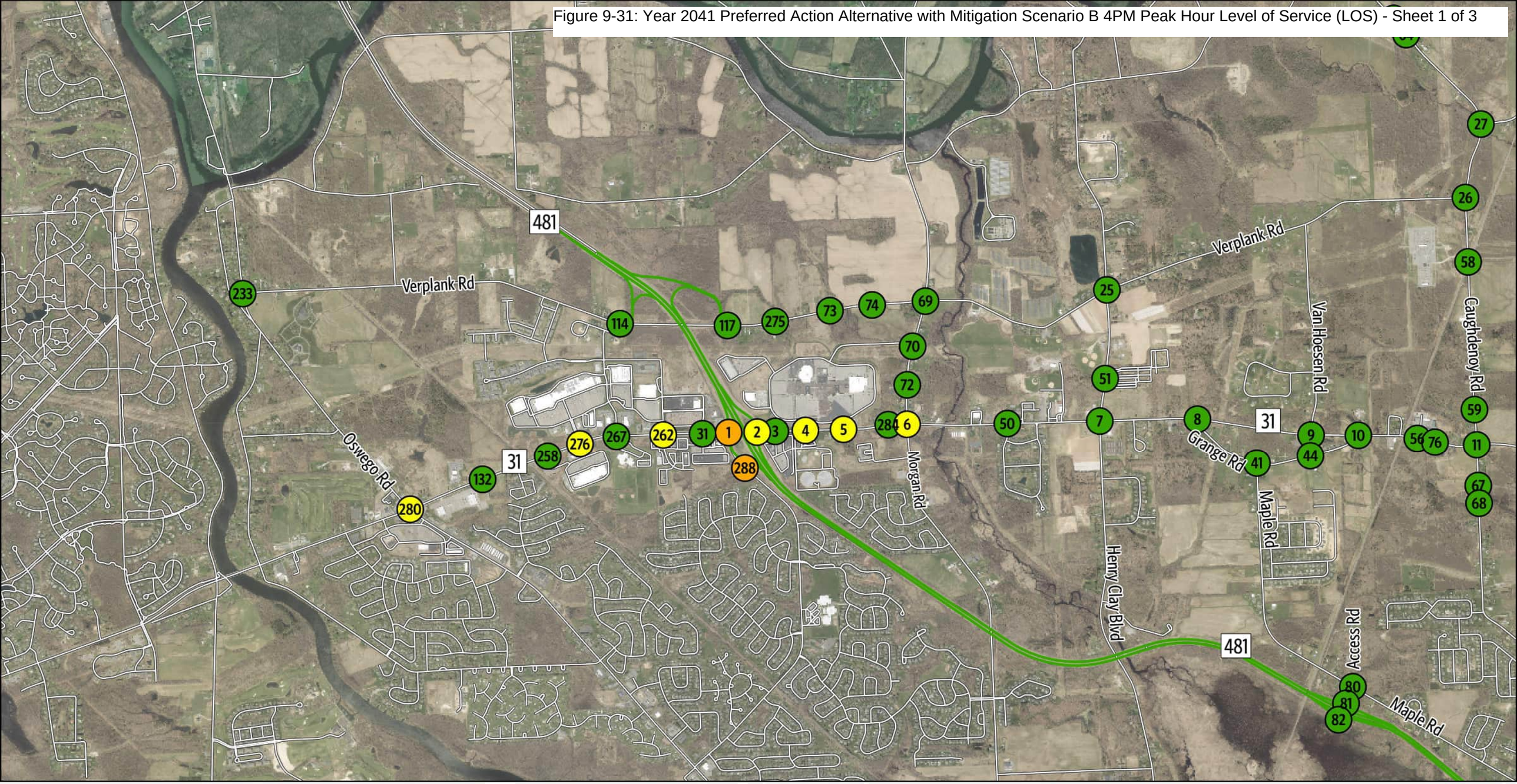
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 3 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-31: Year 2041 Preferred Action Alternative with Mitigation Scenario B 4PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

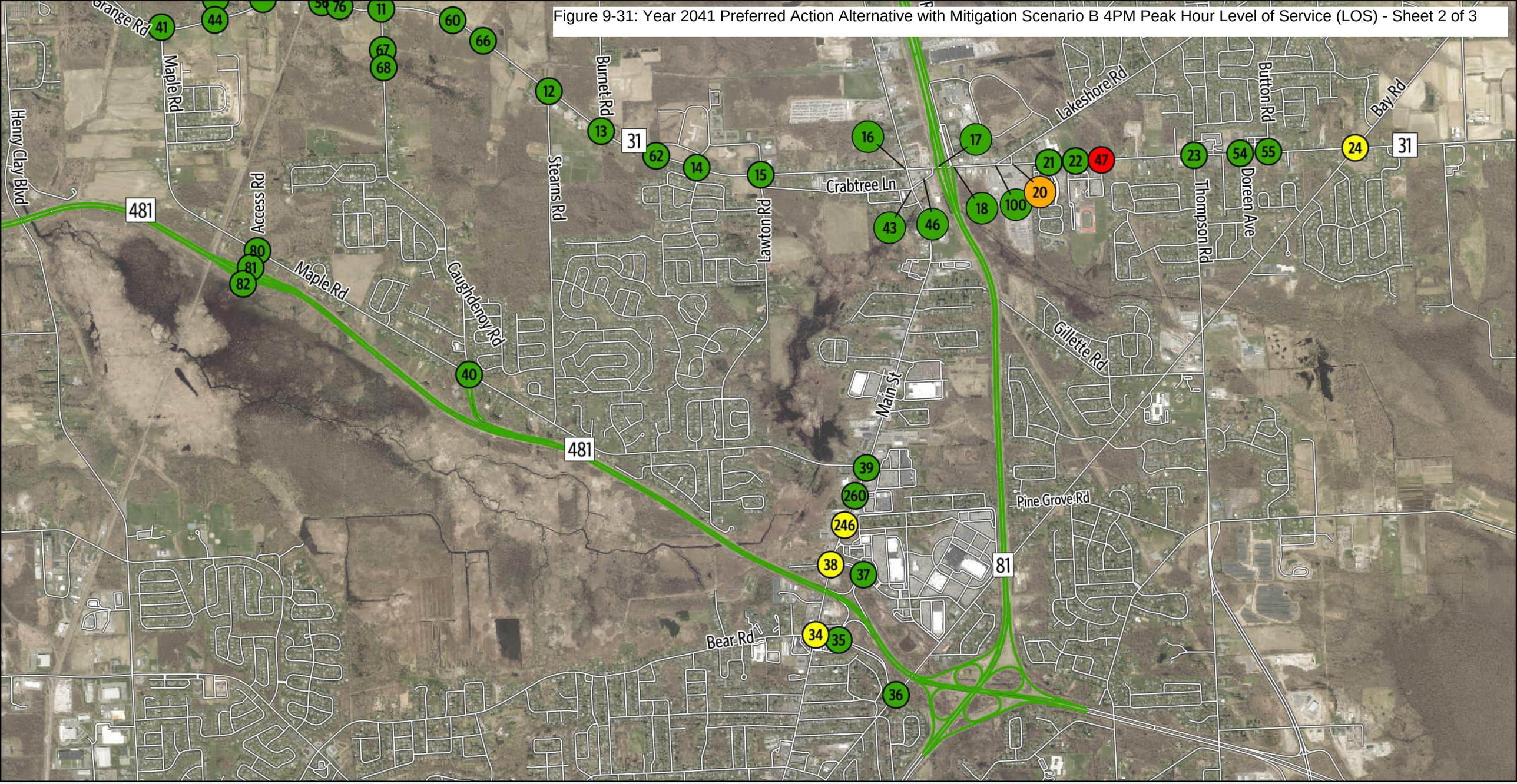
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 1 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-31: Year 2041 Preferred Action Alternative with Mitigation Scenario B 4PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

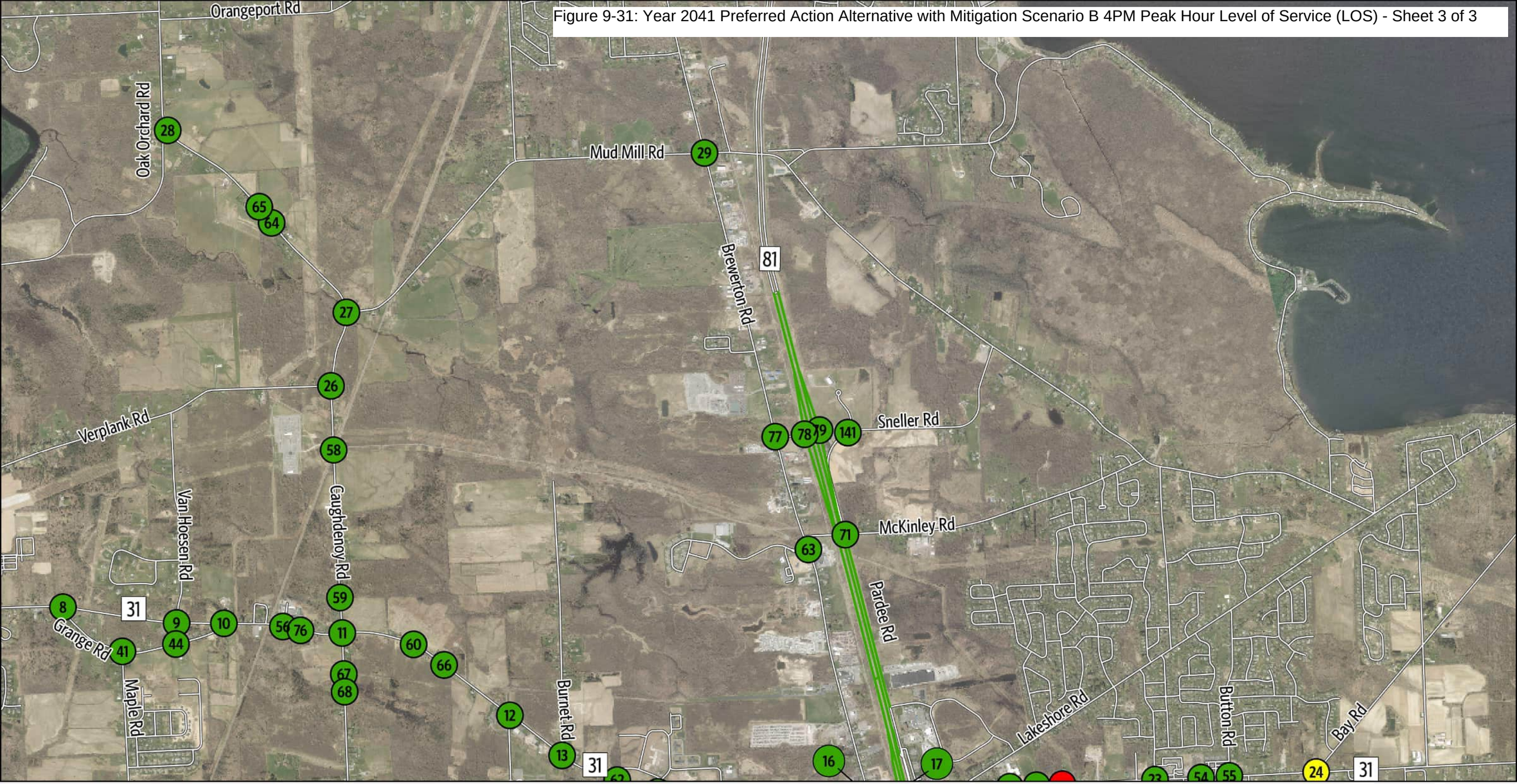
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 2 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-31: Year 2041 Preferred Action Alternative with Mitigation Scenario B 4PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

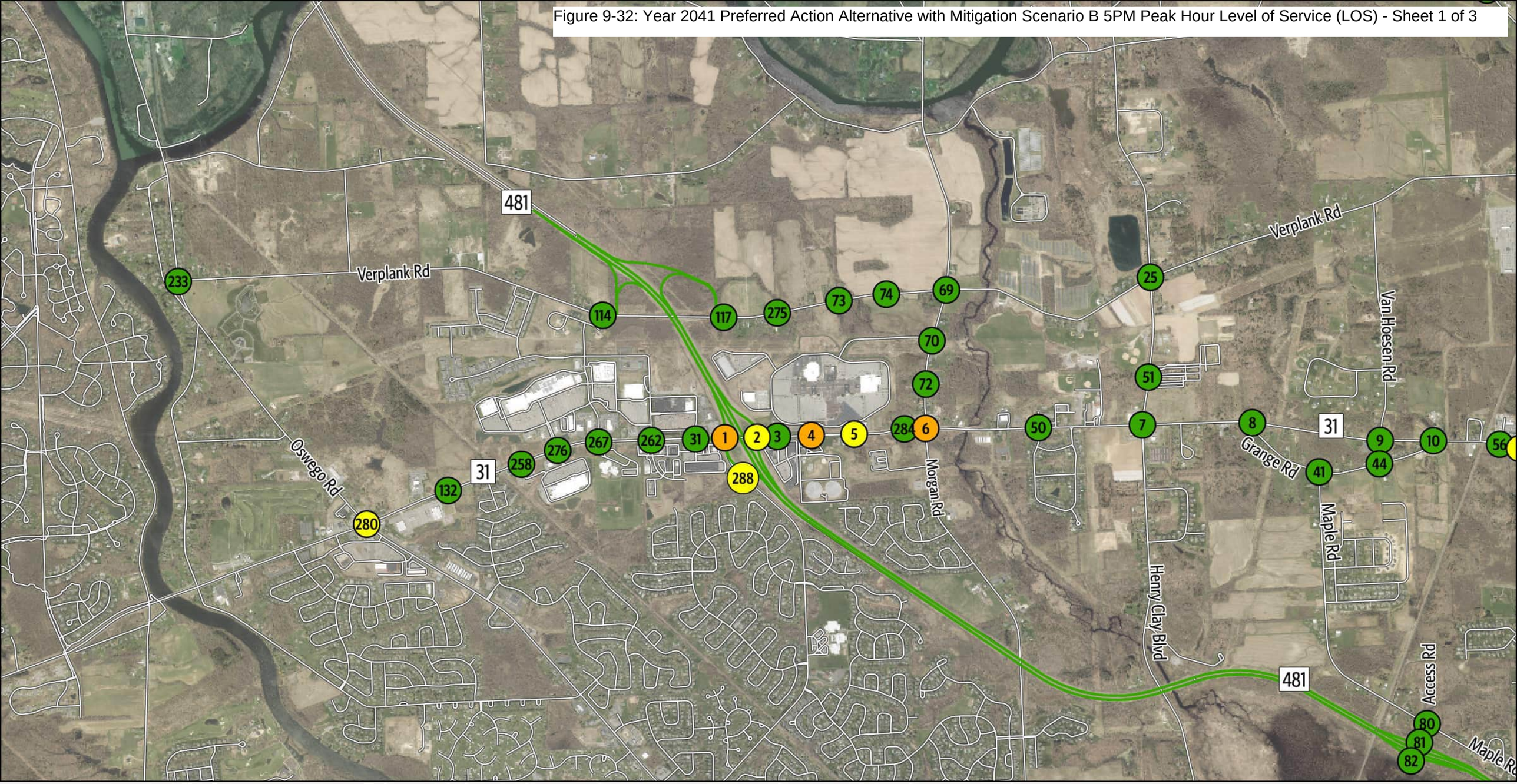
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 3 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-32: Year 2041 Preferred Action Alternative with Mitigation Scenario B 5PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

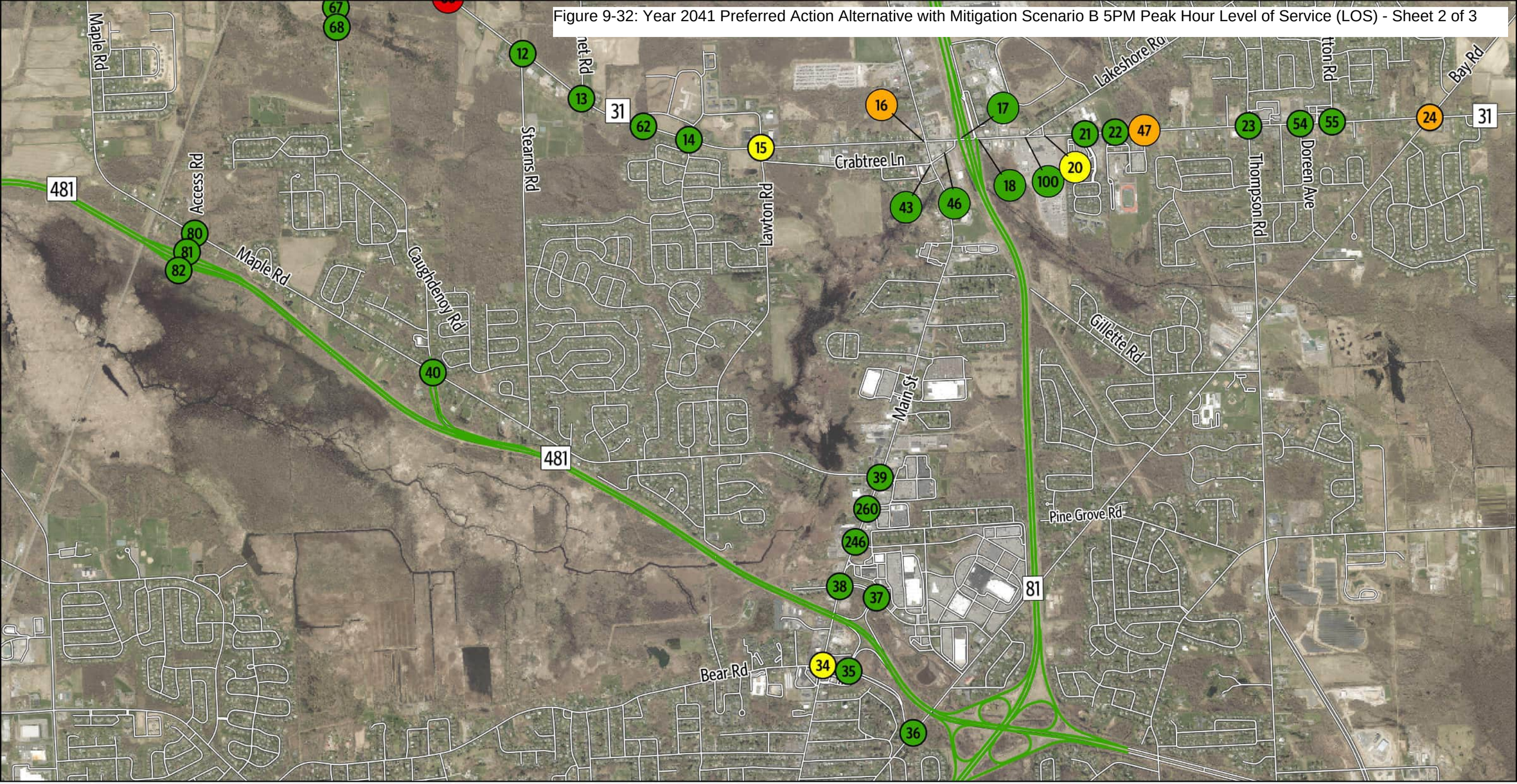
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 1 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-32: Year 2041 Preferred Action Alternative with Mitigation Scenario B 5PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

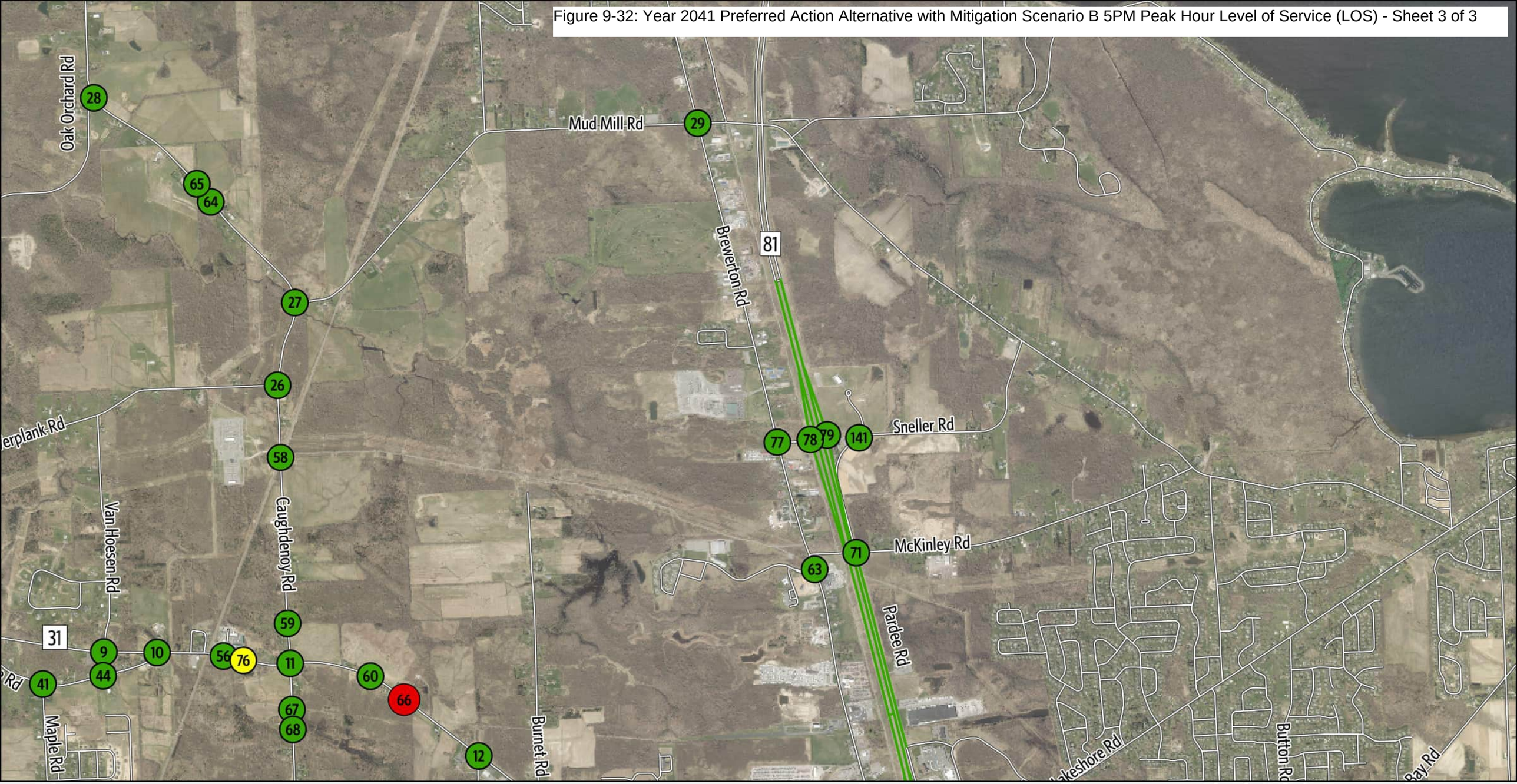
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 2 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-32: Year 2041 Preferred Action Alternative with Mitigation Scenario B 5PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E
- F

Roadway Level Of Service

- A, B, C
- Streets

N

0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario B

Sheet 3 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Table 9-10. Year 2041 Mitigation Scenario B AM and PM Peak-Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	7.1	A	0.64	12.3	B	0.78	72.4	E	1.16	79.5	E	1.18
2	NYS Route 31 and NYS Route 481 NB	Signalized	13.8	B	0.45	15.4	B	0.79	43.6	D	1.05	49.8	D	1.05
3	Marketfair Plaza and NYS Route 31	Signalized	3.7	A	0.33	2.2	A	0.61	5.6	A	0.72	5.7	A	0.78
4	NYS Route 31 and GNM West	Signalized	12.9	B	0.43	14.8	B	0.63	52.9	D	1.07	71.6	E	1.13
5	Parking Lot/GNM East and NYS Route 31	Signalized	16.9	B	0.37	21.6	C	0.62	35.5	D	0.94	35.7	D	1.00
6	Morgan Road and NYS Route 31	Signalized	24.4	C	0.50	37.7	D	1.00	49.9	D	0.92	68.9	E	0.96
8	Grange Road W and NYS Route 31	Signalized	1.5	A	0.19	3.5	A	0.65	7.6	A	0.55	9.3	A	0.76
9	Van Hoesen Road and NYS Route 31	Signalized	2.1	A	0.16	2.1	A	0.61	3.9	A	0.47	4.8	A	0.63
10	Grange Road E and NYS Route 31	Unsignalized	10.2	B	0.00	15.1	C	0.00	13.1	B	0.00	13.7	B	0.00
11	Caughdenoy Road and NYS Route 31	Signalized	5.7	A	0.21	18.1	B	0.92	46.3	D	0.82	40.7	D	0.98
12	Stearns Road and NYS Route 31	Signalized	5.5	A	0.24	9.2	A	0.56	10.4	B	0.56	9.0	A	0.65
13	NYS Route 31 and Micron Driveway 4	Signalized	2.3	A	0.22	7.9	A	0.63	2.0	A	0.47	13.7	B	0.86
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	10.2	B	0.00	33.6	D	0.00	12.7	B	0.00	11.6	B	0.00
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	8.9	A	0.29	16.7	B	0.88	18.3	B	0.79	47.1	D	1.01
16	U.S. Route 11 and NYS Route 31	Signalized	21.2	C	0.34	24.3	C	0.83	27.5	C	0.75	64.8	E	1.05
17	NYS Route 31 and I-81 SB Ramp	Signalized	15.1	B	0.50	73.7	E	1.14	25.1	C	0.78	18.8	B	0.95
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	13.9	B	0.52	21.2	C	0.83	24.8	C	0.86	22.0	C	0.93
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	19.8	B	0.47	24.5	C	0.76	58.4	E	1.02	52.7	D	1.00
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	8.0	A	0.42	10.7	B	0.71	18.2	B	0.75	16.3	B	0.67
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	9.3	A	0.41	11.4	B	0.56	29.8	C	1.05	20.9	C	0.91
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	5.6	A	0.00	9.8	A	0.00	19.7	B	0.00	14.6	B	0.00
24	South Bay Road and NYS Route 31	Signalized	26.9	C	0.62	44.3	D	0.91	44.7	D	0.88	58.0	E	1.00
25	Henry Clay Boulevard and Verplank Road	Signalized	7.1	A	0.34	7.0	A	0.39	7.6	A	0.45	7.6	A	0.44
26	Caughdenoy Road and Verplank Road	Signalized	5.1	A	0.18	8.3	A	0.49	7.4	A	0.41	7.9	A	0.47
27	Caughdenoy Road and Mud Mill Road	Signalized	7.2	A	0.34	23.9	C	0.45	10.0	B	0.56	12.6	B	0.61
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	9.4	A	0.00	11.4	B	0.00	14.3	B	0.00	16.5	C	0.00
29	U.S. Route 11 and Mud Mill Road	Signalized	7.1	A	0.21	8.8	A	0.50	11.4	B	0.63	12.6	B	0.66
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	15.3	B	0.51	10.2	B	0.77	29.5	C	0.98	24.6	C	0.94
32	Henry Clay Boulevard and Wetzel Road	Signalized	25.7	C	0.26	18.1	B	0.44	23.6	C	0.71	22.2	C	0.68
33	Allen Road and Bear Road	Signalized	6.5	A	0.35	9.3	A	0.60	18.5	B	0.82	14.9	B	0.77
34	U.S. Route 11 and Bear Road	Signalized	29.5	C	0.57	34.9	C	0.70	41.0	D	0.84	42.2	D	0.82
35	Bear Road and NYS Route 481 EB On/Off-Ramp	Signalized	12.7	B	0.32	11.9	B	0.51	12.2	B	0.38	12.8	B	0.36
36	South Bay Road and Bear Road	Signalized	9.6	A	0.25	8.8	A	0.45	15.7	B	0.74	15.1	B	0.70
37	NYS Route 481 WB On/Off-Ramp and Circle Drive E	Signalized	11.8	B	0.30	16.8	B	0.53	16.0	B	0.64	17.9	B	0.66
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	19.4	B	0.35	21.5	C	0.48	52.1	D	1.04	30.9	C	0.90

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	15.5	B	0.25	24.5	C	0.57	23.9	C	0.68	24.6	C	0.63
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Signalized	11.3	B	0.04	10.1	B	0.14	9.8	A	0.23	9.6	A	0.21
41	Maple Road and Grange Road W/Grange Road	Unsignalized	8.9	A	0.00	9.1	A	0.00	9.6	A	0.00	9.7	A	0.00
43	U.S. Route 11 and Crabtree Lane	Signalized	5.1	A	0.15	5.3	A	0.31	8.3	A	0.59	9.4	A	0.47
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	8.6	A	0.00	8.7	A	0.00	8.7	A	0.00	8.7	A	0.00
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	12.0	B	0.00	15.1	C	0.00	56.6	F	0.00	39.1	E	0.00
50	McNamara Drive/Driveway and NYS Route 31	Signalized	12.6	B	0.23	14.6	B	0.70	14.0	B	0.68	18.0	B	0.86
54	Doreen Avenue and NYS Route 31	Unsignalized	13.6	B	0.00	26.7	D	0.00	20.4	C	0.00	27.5	D	0.00
55	NYS Route 31 and Button Road	Signalized	5.8	A	0.29	7.6	A	0.52	7.8	A	0.63	14.1	B	0.76
56	NYS Route 31 and Weller Canning Road	Unsignalized	10.4	B	0.00	14.9	B	0.00	13.1	B	0.00	20.4	C	0.00
58	Caughdenoy Road and Micron Driveway 1	Signalized	3.1	A	0.08	2.7	A	0.37	2.7	A	0.24	1.9	A	0.35
59	Caughdenoy Road and Access Road/Micron Driveway 2	Signalized	11.3	B	0.12	16.2	B	0.77	16.4	B	0.43	34.3	C	0.73
60	NYS Route 31 and Micron Driveway 3	Signalized	3.1	A	0.17	15.4	B	0.72	3.7	A	0.39	18.9	B	0.94
62	NYS Route 31 and Micron Driveway 5	Signalized	1.5	A	0.22	23.5	C	0.88	4.2	A	0.49	21.4	C	0.86
63	U.S. Route 11 and Micron Driveway 6	Signalized	4.1	A	0.07	16.9	B	0.87	3.0	A	0.25	7.6	A	0.47
64	Caughdenoy Road and Healthcare Center Driveway	Unsignalized	8.7	A	0.00	9.4	A	0.00	9.6	A	0.00	11.1	B	0.00
65	Caughdenoy Road and Childcare Center Driveway	Unsignalized	8.7	A	0.00	10.3	B	0.00	9.6	A	0.00	11.3	B	0.00
66	White Pines South Driveway and NYS Route 31	Unsignalized	14.2	B	0.00	17.2	C	0.00	20.7	C	0.00	51.9	F	0.00
67	Caughdenoy Road and White Pines South Driveway 1	Unsignalized	8.8	A	0.00	9.7	A	0.00	10.8	B	0.00	11.2	B	0.00
68	Caughdenoy Road and White Pines South Driveway 2	Unsignalized	8.6	A	0.00	9.4	A	0.00	9.1	A	0.00	9.1	A	0.00
69	Morgan Road and Verplank Road	Signalized	8.5	A	0.42	11.7	B	0.67	20.6	C	0.76	18.2	B	0.73
70	Morgan Road and GNM Driveway 1	Signalized	4.5	A	0.34	5.9	A	0.52	13.8	B	0.69	13.7	B	0.58
71	Pardee Road and McKinley Road	Unsignalized	8.9	A	0.00	9.8	A	0.00	10.1	B	0.00	10.0	A	0.00
72	Morgan Road and GNM Driveway 2	Signalized	8.7	A	0.43	10.8	B	0.63	14.7	B	0.63	16.7	B	0.76
73	GNM Driveway 3 and Verplank Road	Unsignalized	9.3	A	0.00	9.9	A	0.00	10.9	B	0.00	10.5	B	0.00
74	GNM Driveway 4 and Verplank Road	Unsignalized	9.2	A	0.00	9.8	A	0.00	11.5	B	0.00	11.0	B	0.00
76	NYS Route 31 and Access Road	Signalized	9.4	A	0.21	43.9	D	0.97	20.9	C	0.58	41.4	D	0.98
77	Sneller Road and U.S. Route 11	Signalized	8.0	A	0.14	13.8	B	0.54	11.2	B	0.45	11.3	B	0.48
78	Carling Road South/Carling Road North and NYS Route 31	Signalized	14.5	B	0.25	12.8	B	0.43	13.1	B	0.31	13.2	B	0.29
79	I-81 NB Off-Ramp/I-81 NB On-Ramp and Sneller Road	Signalized	14.0	B	0.28	11.5	B	0.55	14.3	B	0.41	14.9	B	0.39
80	Access Road and Maple Road	Roundabout	4.2	A	0.00	23.2	C	0.00	4.2	A	0.00	14.4	B	0.00
81	NYS Route 481 Interchange/Access Road and NYS Route 481 NB On-Ramp/NYS Route 481 NB Off-Ramp	Signalized	4.3	A	0.20	19.8	B	0.81	7.4	A	0.24	11.6	B	0.68
82	NYS Route 481 SB Off-Ramp/NYS Route 481 SB On-Ramp and NYS Route 481 Interchange	Signalized	4.4	A	0.19	17.1	B	0.62	10.8	B	0.37	9.8	A	0.62
100	NYS Route 31 and Lakeshore Road	Signalized	8.5	A	0.34	5.9	A	0.57	3.2	A	0.50	6.4	A	0.54
101	Caughdenoy Road and Micron Driveway X	Unsignalized	8.9	A	0.00	10.7	B	0.00	10.5	B	0.00	13.1	B	0.00
113	Henry Clay Boulevard and NYS Route 31	Signalized	16.1	B	0.36	30.9	C	0.89	26.3	C	0.66	28.3	C	0.82

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
132	Davidson and NYS Route 31	Signalized	5.0	A	0.41	8.5	A	0.65	12.0	B	0.79	12.2	B	0.84
141	Sneller and Pardee Road	Signalized	28.5	C	0.17	20.1	C	0.32	25.9	C	0.34	25.8	C	0.32
233	Oswego and Verplank Road	Unsignalized	12.0	B	0.00	18.0	C	0.00	19.5	C	0.00	17.6	C	0.00
246	U.S. Route 11 and Hogan Drive	Signalized	3.5	A	0.21	4.8	A	0.46	48.7	D	1.83	23.5	C	0.90
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	13.1	B	0.44	14.7	B	0.69	20.6	C	0.80	25.0	C	0.86
260	U.S. Route 11 and Chick-fil-A	Signalized	6.5	A	0.29	9.6	A	0.54	28.5	C	1.01	15.7	B	0.89
262	NYS Route 31 and Carling Road	Signalized	14.0	B	0.64	24.3	C	0.96	41.7	D	1.07	28.9	C	1.02
267	NYS Route 31 and Dell Center Drive	Signalized	11.4	B	0.45	11.4	B	0.70	25.5	C	0.91	22.8	C	0.96
275	Verplank Road and Proposed Access #1	Unsignalized	9.5	A	0.00	10.2	B	0.00	10.4	B	0.00	10.2	B	0.00
276	Lowes/Home Depot and NYS Route 31	Signalized	9.5	A	0.47	11.0	B	0.73	39.8	D	0.99	32.0	C	1.00
280	NYS Route 31 and Oswego Road	Signalized	24.0	C	0.65	54.7	D	1.04	53.8	D	1.07	40.4	D	1.02
284	NYS Route 31 and Proposed Access	Unsignalized	9.4	A	0.00	8.8	A	0.00	10.9	B	0.00	10.8	B	0.00
287	Proposed Access #2 and Verplank Road	Unsignalized	9.2	A	0.00	9.9	A	0.00	10.6	B	0.00	10.2	B	0.00
288	Soule Road and Carling Road and NYS Route 481 SB Ramp	Roundabout	5.8	A	0.00	8.0	A	0.00	40.2	D	0.00	44.6	D	0.00

9.4.2.1 AM Peak Hour

All intersections are expected to operate at LOS C or better during the 6:00 a.m. hour. However, by the 7:00 a.m. hour, one signalized intersection falls to operating conditions at LOS E. This intersection, located at the NYS Route 31 and I-81 southbound ramp, performs poorly due to high-demand volumes on several approaches and insufficient green time within the signal cycle to adequately accommodate each approach.

9.4.2.2 PM Peak Hour

The evening peak period demand generally results in higher average delays and lower LOS at several intersections beginning in the 4:00 p.m. peak hour. There are three intersections that operate at LOS E or LOS F in the 4:00 p.m. peak hour and seven intersections that operate at LOS E or LOS F in the 5:00 p.m. peak hour. The intersections that operate at LOS E in the 4:00 p.m. peak period is different than the intersections operating at LOS E in the 5:00 p.m. peak period, apart from NYS Route 31 and NYS Route 481 Southbound. The following intersections operate at LOS E or LOS F in the 4:00 p.m. and 5:00 p.m. peak hours:

- #1: NYS Route and NYS Route 481 Southbound at LOS E
- #4: NYS Route 31 and GNM West at LOS E (5:00 p.m. only)
- #6: Morgan Road and NYS Route 31 at LOS E (5:00 p.m. only)
- #16: U.S. Route 11 and NYS Route 31 at LOS E (5:00 p.m. only)
- #20: Lakeshore Spur and NYS Route 31 at LOS E (4:00 p.m. only)
- #24: South Bay Road and NYS Route 31 at LOS E (5:00 p.m. only)
- #47: Cicero-North Syracuse High School East Driveway and NYS Route 31 at LOS F at 4:00 p.m. and LOS E at 5:00 p.m.
- #66: White Pines South Driveway and NYS Route 31 at LOS F (5:00 p.m. only)

9.4.3 Freeway Operations

Table 9-11 and 9-12 summarizes the freeway densities and corresponding LOS. Generally, the I-81 and the NYS Route 481 freeways operate in relatively uncongested conditions in both peak periods (LOS C or better). The demand generally increases in the second hour of each peak period; however, the corresponding increases in density do not cause a drop to unacceptable operating conditions. The new interchange along NYS Route 481 does increase density over Scenario A due to the addition of merge and diverge maneuvers, but the resultant LOS maintains acceptable operating conditions in the peak periods. Hence, the proposed intersection and interchange capacity improvements to be implemented can mitigate the effects of Proposed Project-generated trips and provide acceptable peak period operating conditions along the freeways.

Table 9-11. Year 2041 Mitigation Scenario B AM and PM Peak-Hour Freeway I-81 Operations – Delay and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 NB	I-81 NB Between E Taft Road and NYS Route 481	Basic	1,188	1,157	66	5.8	A	3,078	3,065	65	15.7	B	3,440	3,432	65	17.5	B	3,509	3,508	65	18.0	B
	I-81 NB Off-Ramp to NYS Route 481	Diverge	1,188	1,150	64	4.5	A	3,078	3,047	63	12.0	B	3,440	3,419	63	13.6	B	3,509	3,500	63	13.9	B
	I-81 NB Between Off/On-Ramps to/from I-481	Basic	1,021	989	66	5.0	A	2,886	2,865	65	14.7	B	3,217	3,206	65	16.5	B	3,301	3,308	65	17.1	B
	I-81 NB Between Off/On-Ramps to/from I-481	Weave	1,021	987	62	4.0	A	2,886	2,858	61	11.7	B	3,224	3,209	60	13.4	B	3,307	3,318	60	13.9	B
	I-81 NB after Off-Ramp to NYS Route 481	Basic	630	606	61	5.0	A	1,932	1,901	60	15.9	B	1,906	1,889	60	15.6	B	2,028	2,040	60	17.0	B
	I-81 NB On-Ramp from NYS Route 481	Merge	850	808	67	3.0	A	2,681	2,629	66	10.0	A	2,806	2,793	66	10.5	B	3,003	3,016	66	11.4	B
	I-81 NB Between NY481 and NYS Route 31	Basic	850	802	67	4.0	A	2,681	2,611	65	13.3	B	2,806	2,792	66	14.2	B	3,003	3,020	65	15.4	B
	I-81 NB Off-Ramp to NYS Route 31	Diverge	850	797	67	2.4	A	2,681	2,586	66	7.9	A	2,806	2,788	66	8.4	A	3,003	3,019	66	9.2	A
	I-81 NB Between Off/On-Ramps to/from NYS31	Basic	393	370	67	1.8	A	909	879	67	4.4	A	1,813	1,808	67	9.0	A	2,039	2,053	66	10.3	A
	I-81 NB On-Ramp from NYS Route 31	Merge	592	558	64	2.2	A	1,222	1,189	64	4.6	A	2,692	2,672	62	10.7	B	2,950	2,780	62	11.1	B
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	592	560	67	2.8	A	1,222	1,186	67	5.9	A	2,692	2,675	66	13.5	B	2,950	2,777	66	14.1	B
	I-81 NB Off-Ramp to Sneller Road	Diverge	592	548	67	2.0	A	1,222	1,157	66	4.4	A	2,692	2,644	65	10.1	B	2,950	2,754	65	10.6	B
	I-81 NB Between Off/On-Ramps to/from Sneller Road	Basic	448	419	67	2.1	A	1,037	993	67	4.9	A	2,358	2,329	66	11.7	B	2,599	2,458	66	12.4	B
	I-81 NB On-Ramp from Sneller Road	Merge	469	436	67	1.6	A	1,076	1,030	67	3.9	A	2,569	2,606	65	10.0	A	2,851	2,743	65	10.6	B
	I-81 NB Between Sneller Road and Bartell Road	Basic	469	433	67	2.1	A	1,076	1,023	67	5.1	A	2,569	2,599	66	13.1	B	2,851	2,753	66	14.0	B
	I-81 NB Off-Ramp to Bartell Road	Diverge	469	430	66	1.6	A	1,076	1,014	64	3.9	A	2,569	2,599	62	10.6	B	2,851	2,755	60	11.6	B
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	418	386	67	1.9	A	894	848	67	4.2	A	2,088	2,105	65	10.7	A	2,318	2,211	64	11.4	B
	I-81 On-Ramp from Bartell Road	Merge	461	424	65	1.6	A	987	935	65	3.6	A	2,235	2,244	65	8.6	A	2,492	2,382	65	9.2	A
	I-81 NB Between Bartell Road and East Avenue	Basic	461	423	67	2.1	A	987	938	67	4.7	A	2,235	2,251	66	11.3	B	2,492	2,389	66	12.0	B
I-81 SB	I-81 SB Between East Avenue and Bartell Road	Basic	1,387	1,282	67	6.3	A	2,615	2,610	66	13.1	B	1,191	1,193	68	5.9	A	1,306	1,302	68	6.4	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	1,387	1,271	66	4.8	A	2,615	2,586	65	10.0	B	1,191	1,185	65	4.5	A	1,306	1,291	65	4.9	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	1,313	1,207	67	6.0	A	2,463	2,449	66	12.4	B	1,026	1,028	68	5.1	A	1,132	1,125	68	5.5	A
	I-81 SB On-Ramp from Bartell Road	Merge	1,653	1,535	65	5.9	A	3,050	3,023	64	11.9	B	1,499	1,495	64	5.8	A	1,624	1,609	65	6.2	A
	I-81 SB Between Bartell Road and Sneller Road	Basic	1,653	1,528	67	7.6	A	3,050	3,015	65	15.5	B	1,499	1,499	67	7.4	A	1,624	1,612	67	8.0	A
	I-81 SB Off-Ramp to Sneller Road	Diverge	1,653	1,520	66	5.8	A	3,050	3,003	61	12.4	B	1,499	1,498	64	5.8	A	1,624	1,615	65	6.3	A
	I-81 SB Between Off-Ramp and On-Ramp to Sneller Road	Basic	1,626	1,497	67	7.5	A	2,949	2,892	65	14.9	B	1,427	1,428	67	7.1	A	1,548	1,541	67	7.7	A
	I-81 SB On-Ramp from Sneller Road	Merge	1,980	1,910	65	7.3	A	3,446	3,356	65	13.0	B	1,767	1,755	66	6.7	A	1,875	1,867	66	7.1	A
	I-81 SB Between Sneller Road and NYS Route 31	Basic	1,980	1,922	66	9.7	A	3,446	3,383	64	17.6	B	1,767	1,766	67	8.8	A	1,875	1,877	67	9.3	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	1,980	1,912	64	7.4	A	3,446	3,372	56	15.1	B	1,767	1,763	65	6.8	A	1,875	1,874	65	7.2	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	1,512	1,454	67	7.3	A	2,620	2,561	64	13.3	B	1,277	1,277	67	6.3	A	1,436	1,426	67	7.1	A
	I-81 SB On-Ramp from NYS Route 31	Merge	2,167	2,083	64	6.5	A	3,710	3,614	63	11.4	B	2,002	1,969	64	6.2	A	3,300	2,960	61	9.7	A
	I-81 SB Between NYS Route 31 and I-81	Basic	2,167	2,072	66	10.5	A	3,710	3,620	63	19.2	C	2,002	1,974	66	9.9	A	3,300	2,970	65	15.3	B
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	2,167	2,072	66	10.5	B	3,710	3,620	63	19.2	B	2,002	1,974	66	9.9	A	3,300	2,970	65	15.3	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	1,508	1,451	65	11.1	B	2,486	2,415	62	19.4	C	1,402	1,379	66	10.5	A	2,139	1,942	63	15.3	B
	I-81 SB Off-Ramp to I-81 WB	Diverge	1,508	1,445	64	7.5	A	2,486	2,414	63	12.8	B	1,402	1,378	65	7.0	A	2,139	1,940	65	10.0	B

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 SB (continued)	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	1,437	1,381	65	10.6	A	2,457	2,377	63	18.8	C	1,302	1,282	66	9.7	A	2,026	1,841	65	14.1	B
	I-81 SB On-Ramp from NYS Route 481 WB	Merge	1,609	1,541	65	7.8	A	2,689	2,613	64	13.5	B	1,470	1,449	66	7.3	A	2,194	2,011	66	10.2	B
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	2,779	2,610	63	10.4	B	4,183	4,080	62	16.5	B	2,814	2,715	63	10.8	B	3,819	3,556	63	14.2	B
	I-81 NB Btw I-481 and E Taft Rd	Basic	2,779	2,621	65	13.4	B	4,183	4,100	63	21.6	C	2,814	2,729	66	13.8	B	3,819	3,573	65	18.4	C

Table 9-12. Year 2041 Mitigation Scenario B AM and PM Peak-Hour Freeway NY-481 Operations – Delay and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 EB	NYS Route 481 EB Between Verplank Rd and NYS Route 31	Basic	1,054	966	63	7.6	A	1,853	1,849	62	15.0	B	1,304	1,265	62	10.2	A	1,228	1,227	62	9.9	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	1,054	965	52	6.2	A	1,853	1,847	48	12.9	B	1,304	1,266	47	9.1	A	1,228	1,227	47	8.8	A
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	594	555	67	4.2	A	1,117	1,108	65	8.5	A	650	633	67	4.8	A	628	621	67	4.6	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	1,830	1,756	58	7.6	A	2,920	2,893	57	12.8	B	2,279	2,136	57	9.4	A	2,048	1,966	58	8.5	A
	NYS Route 481 EB Between NYS Route 31 and New Access Road	Basic	1,830	1,744	65	13.4	B	2,920	2,895	63	23.1	C	2,279	2,152	64	16.7	B	2,048	1,977	65	15.3	B
	NYS Route 481 EB Off-Ramp to New Access Road	Diverge	1,830	1,717	65	8.9	A	2,920	2,880	57	17.4	B	2,279	2,151	64	11.2	B	2,048	1,987	64	10.3	B
	NYS Route 481 Between Off-Ramp and On-Ramp from New Access Road	Basic	1,686	1,623	65	12.5	B	2,368	2,354	63	18.6	C	2,066	1,964	64	15.3	B	1,840	1,800	64	14.0	B
	NYS Route 481 On-Ramp from New Access Rd	Merge	1,921	1,830	65	7.0	A	2,832	2,784	64	10.9	B	2,314	2,171	65	8.4	A	3,031	2,954	63	11.6	B
	NYS Route 481 EB Between New Access Rd and Caughdenoy Road	Basic	1,921	1,813	64	14.1	B	2,832	2,783	62	22.3	C	2,314	2,165	64	17.0	B	3,031	2,946	63	23.5	C
	NYS Route 481 Between Caughdenoy Rd and U.S. Route 11	Basic	1,921	1,794	64	14.1	B	2,832	2,773	62	22.5	C	2,314	2,168	63	17.3	B	3,031	2,938	62	23.8	C
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	1,921	1,765	57	10.3	B	2,832	2,749	54	16.8	B	2,314	2,146	51	14.1	B	3,031	2,906	50	19.5	B
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	1,700	1,607	62	12.9	B	2,595	2,539	60	21.0	C	1,769	1,671	63	13.2	B	2,421	2,348	63	18.7	C
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	2,391	2,239	61	12.3	B	3,603	3,533	58	20.3	C	2,489	2,376	59	13.5	B	3,098	3,019	58	17.3	B
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	1,221	1,133	66	5.7	A	2,109	2,036	64	10.6	B	1,144	1,095	67	5.5	A	1,474	1,451	66	7.3	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	1,221	1,132	66	8.5	A	2,109	2,036	65	15.8	B	1,137	1,090	67	8.2	A	1,468	1,448	66	11.0	A
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	1,388	1,289	65	6.6	A	2,301	2,225	63	11.8	B	1,360	1,312	65	6.7	A	1,676	1,658	64	8.6	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	2,047	1,889	67	7.1	A	3,525	3,406	65	13.2	B	1,960	1,906	67	7.1	A	2,837	2,660	66	10.0	B
	NYS Route 481 EB Between I-81 and Northern Blvd	Basic	2,047	1,885	67	9.4	A	3,525	3,400	65	17.5	B	1,960	1,904	67	9.5	A	2,837	2,658	66	13.4	B
NYS Route 481 WB	NYS Route 481 WB Between Northern Blvd and I-81	Basic	858	826	67	6.1	A	2,429	2,419	66	18.3	C	2,561	2,543	66	19.2	C	2,714	2,717	66	20.7	C
	NYS Route 481 WB Off-Ramp to I-81	Diverge	858	826	67	4.1	A	2,429	2,419	65	12.4	B	2,561	2,550	65	13.1	B	2,714	2,723	65	14.1	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	638	616	51	6.1	A	1,680	1,671	50	16.8	B	1,661	1,648	50	16.5	B	1,740	1,749	50	17.6	B
	NYS Route 481 WB Between On-Ramp and Off-Ramp to I-81	Weave	1,029	988	59	5.5	A	2,634	2,604	58	14.9	B	2,979	2,968	58	17.0	B	3,019	3,026	58	17.4	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	857	821	64	6.4	A	2,402	2,374	63	19.0	C	2,811	2,813	63	22.5	C	2,850	2,865	62	23.0	C

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 WB (continued)	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	928	879	65	4.5	A	2,430	2,403	64	12.5	B	2,911	2,908	64	15.1	B	2,963	2,962	64	15.4	B
	NYS Route 481 WB Off-Ramp and On-Ramp from Circle Drive	Basic	595	561	64	4.4	A	1,882	1,851	63	14.7	B	1,739	1,734	64	13.6	B	1,851	1,858	64	14.6	B
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	819	712	62	3.8	A	2,308	2,265	58	12.9	B	2,172	2,159	59	12.1	B	2,306	2,317	58	13.4	B
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	819	707	66	5.4	A	2,308	2,248	63	17.8	B	2,172	2,156	64	16.8	B	2,306	2,323	64	18.2	C
	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	819	689	63	3.6	A	2,308	2,194	60	12.2	B	2,172	2,117	60	11.7	B	2,306	2,286	59	12.8	B
	NYS Route 481 WB Between Caughdenoy Rd and New Access Road	Basic	766	651	66	4.9	A	2,135	2,065	63	16.5	B	1,984	1,963	64	15.3	B	2,087	2,108	64	16.5	B
	NYS Route 481 WB Off-Ramp to New Access Road	Diverge	766	647	66	2.4	A	2,135	2,046	66	7.8	A	1,984	1,963	65	7.6	A	2,087	2,108	65	8.1	A
	NYS Route 481 WB Off-Ramp and On-Ramp from New Access Road	Basic	738	626	66	4.7	A	1,081	1,077	65	8.2	A	1,833	1,816	64	14.1	B	1,899	1,922	64	15.0	B
	NYS Route 481 WB On-Ramp from New Access Road	Merge	948	759	66	3.8	A	1,332	1,305	65	6.7	A	2,176	2,070	64	10.8	B	2,601	2,618	62	14.0	B
	NYS Route 481 WB Between New Access Rd and NYS Route 31	Basic	948	749	66	5.7	A	1,332	1,300	65	10.0	A	2,176	2,072	64	16.3	B	2,601	2,613	63	20.7	C
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	948	732	65	2.8	A	1,332	1,279	64	5.0	A	2,176	2,054	62	8.3	A	2,601	2,588	62	10.5	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	326	274	67	2.0	A	520	504	66	3.8	A	628	615	67	4.6	A	915	911	67	6.8	A
	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	561	479	63	2.5	A	866	846	62	4.6	A	1,341	1,296	57	7.6	A	1,607	1,591	56	9.5	A
	NYS Route 481 WB Between NYS Route 31 and Verplank Road	Basic	561	478	64	3.7	A	866	844	63	6.7	A	1,341	1,292	62	10.5	A	1,607	1,591	61	13.0	B

9.5 Mitigation Scenario C

The following subsections present key MOEs and discuss the traffic operational analysis results for this Mitigation Scenario C of the highest-volume demand year 2041. Operations for the peak hour with the lowest LOS within the peak period of the freeway mainline segments, merge/diverge areas, weaving areas, ramp segments, ramp terminal intersections, and surface street intersections are expressed as LOS based on the color coding shown in Tables 2-3 and 2-4 in Section 2.4.2. Appendix D summarizes the model output that details the link and node results in the figures and tables.

9.5.1 Traffic Volumes

The volumes shown in Figures 9-33 through 9-36 generally are the same as in Scenario B, except for a traffic pattern shift in the southeastern portion of the Transportation Evaluation Area. The addition of the ramp from southbound Caughdenoy Road to southbound NYS Route 481 provides a more direct exit from the campus to the southeast. It attracts 177 vehicles in the 5:00 p.m. evening peak hour from Caughdenoy Road north of Maple Road, which then access I-81 through its system interchange with NYS Route 481. This pattern shift reduces the eastbound through movement volume through the U.S. Route 11 and NYS Route 31 intersection and the on-ramp volume to southbound I-81.

Figure 9-33 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Intersections - Sheet 1 of 5

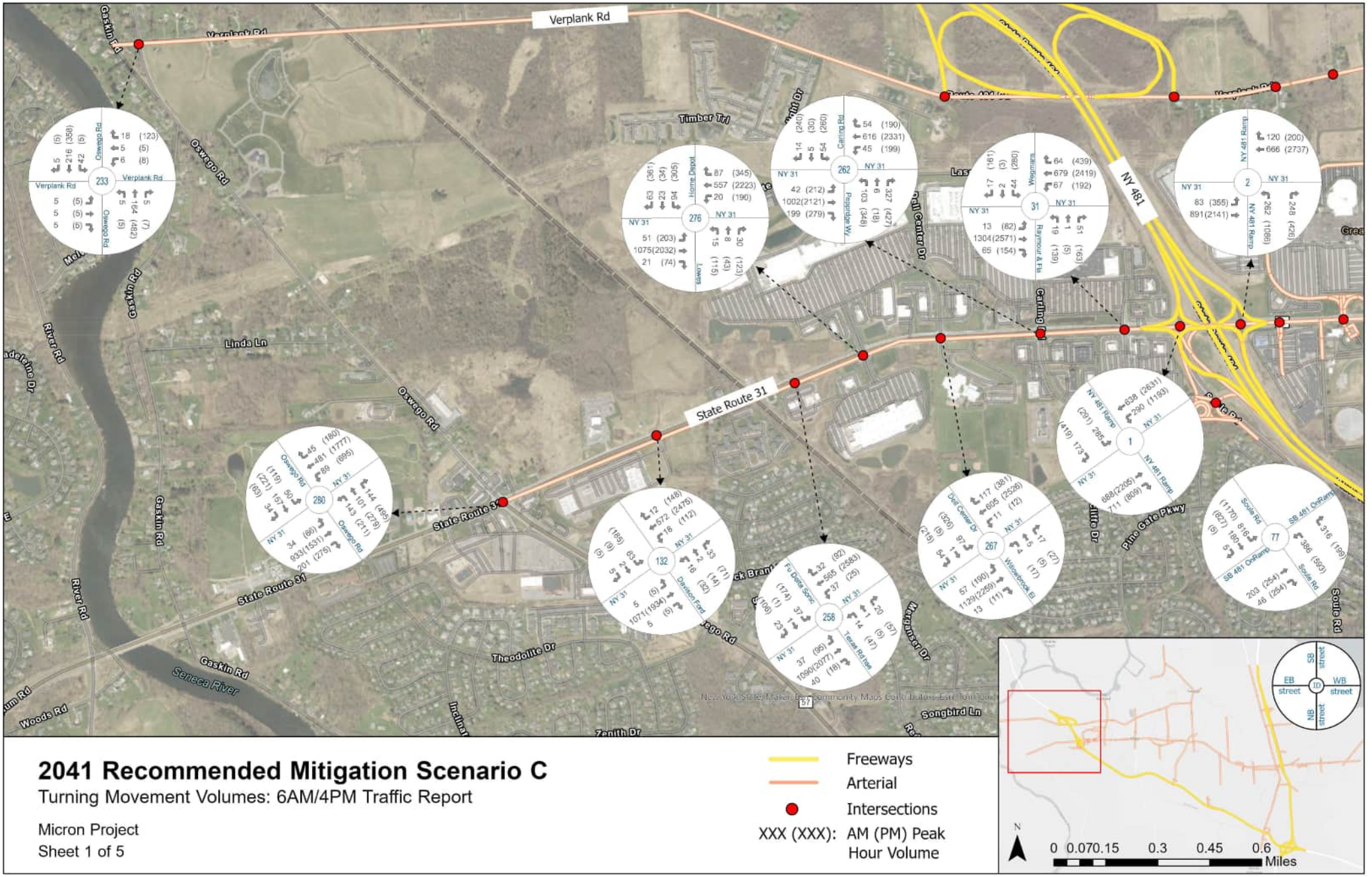


Figure 9-33 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Intersections - Sheet 2 of 5

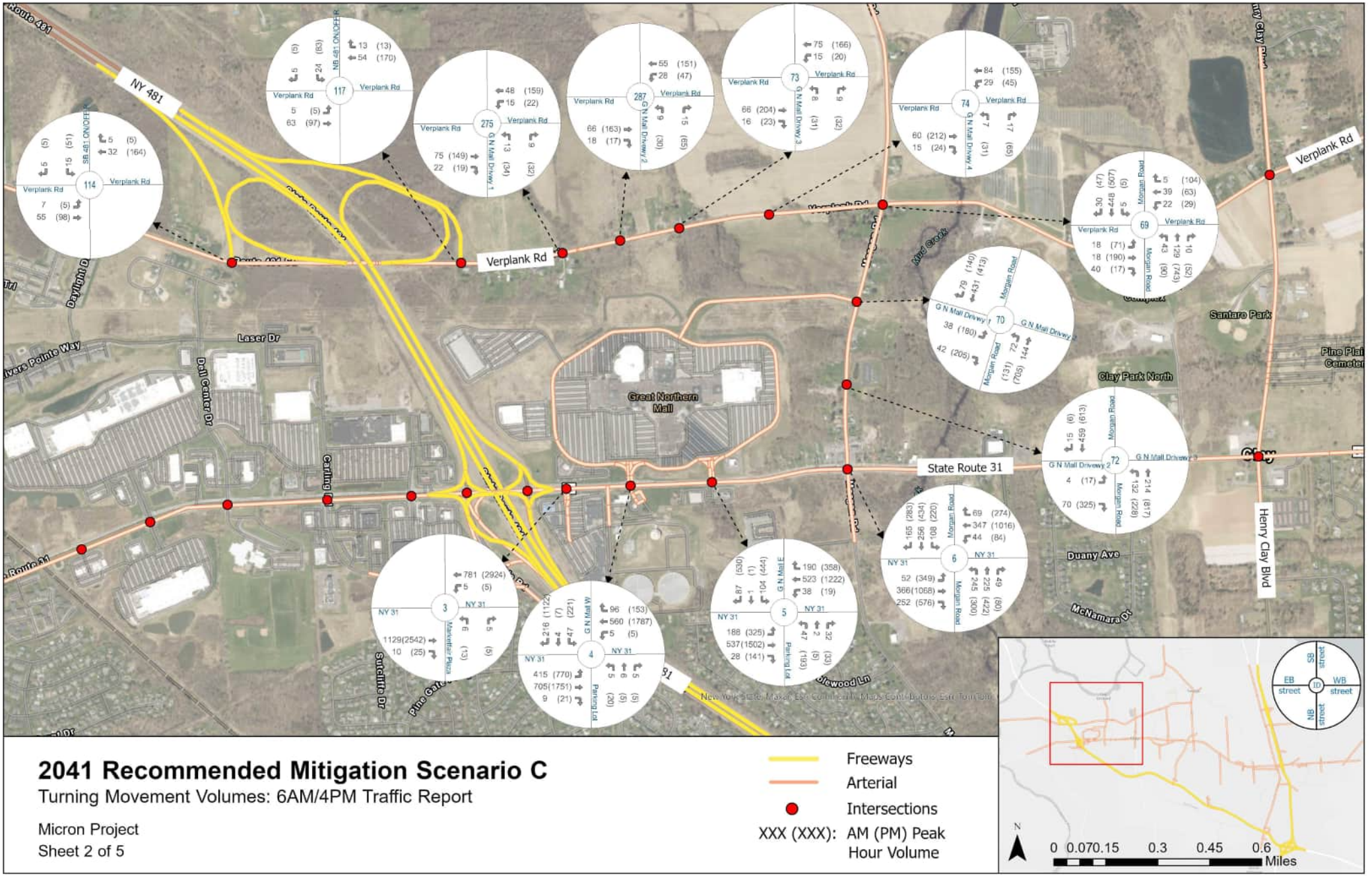


Figure 9-33 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Intersections - Sheet 3 of 5

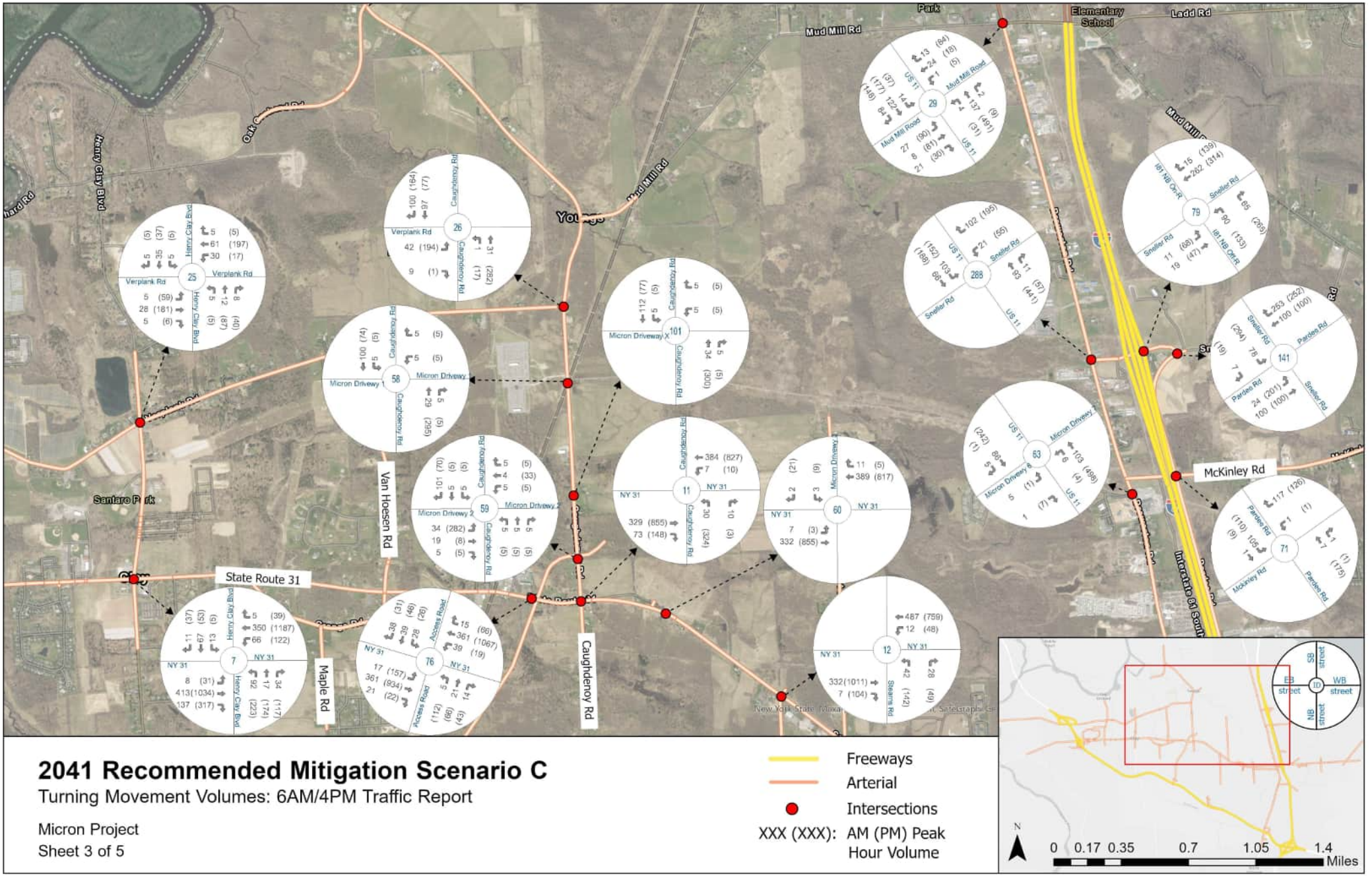


Figure 9-33 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Intersections - Sheet 4 of 5

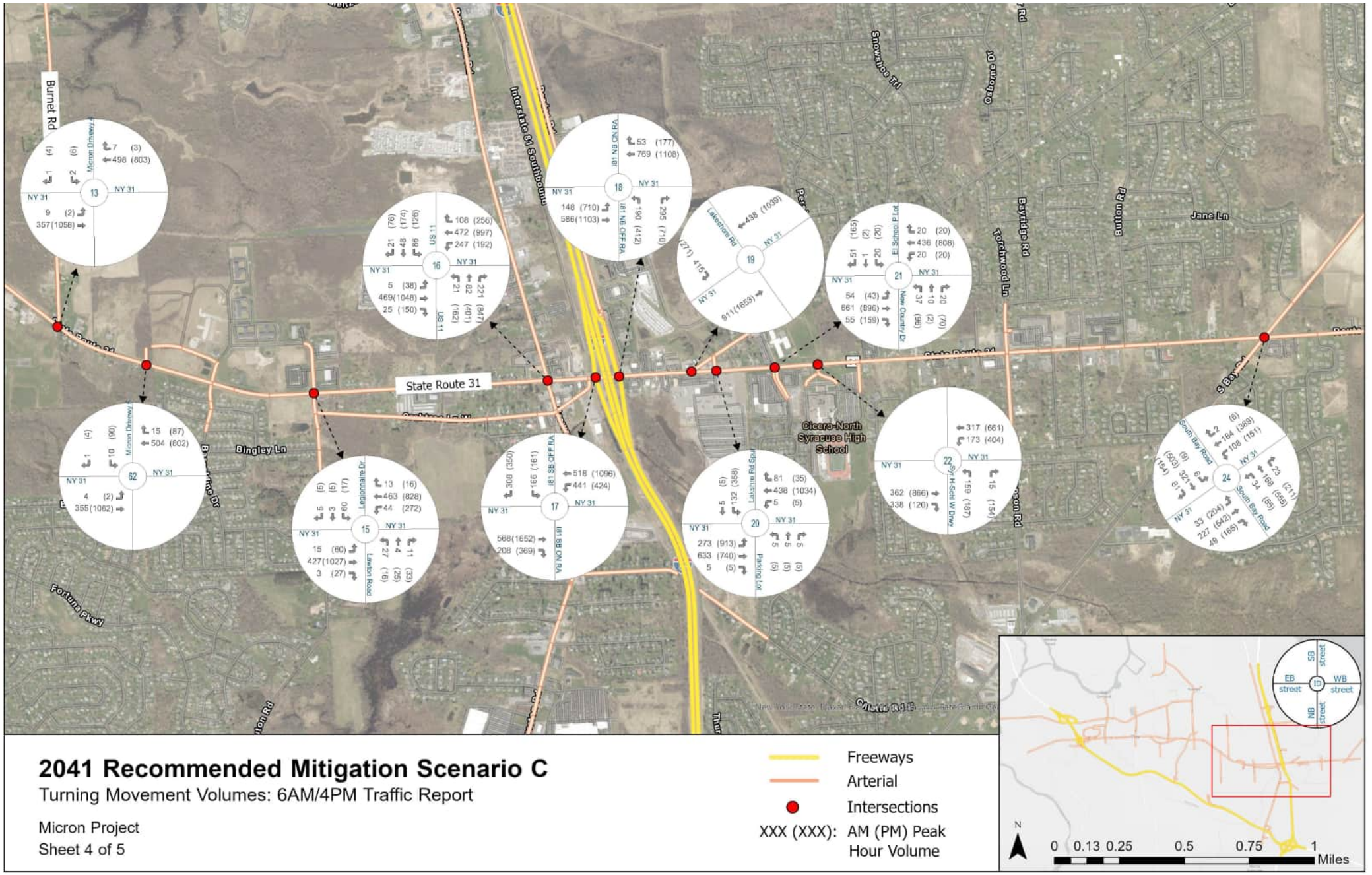


Figure 9-33 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Intersections - Sheet 5 of 5

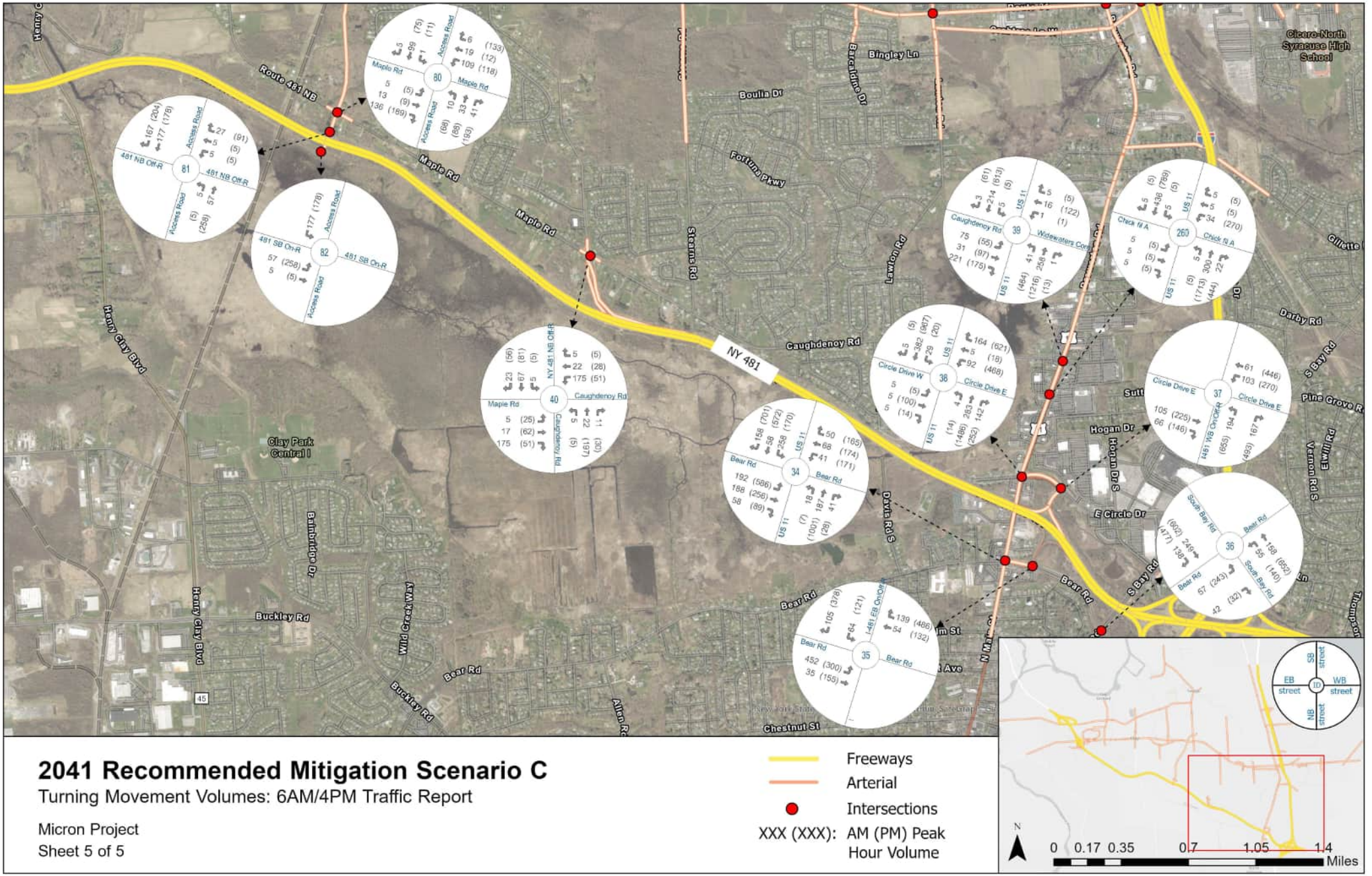
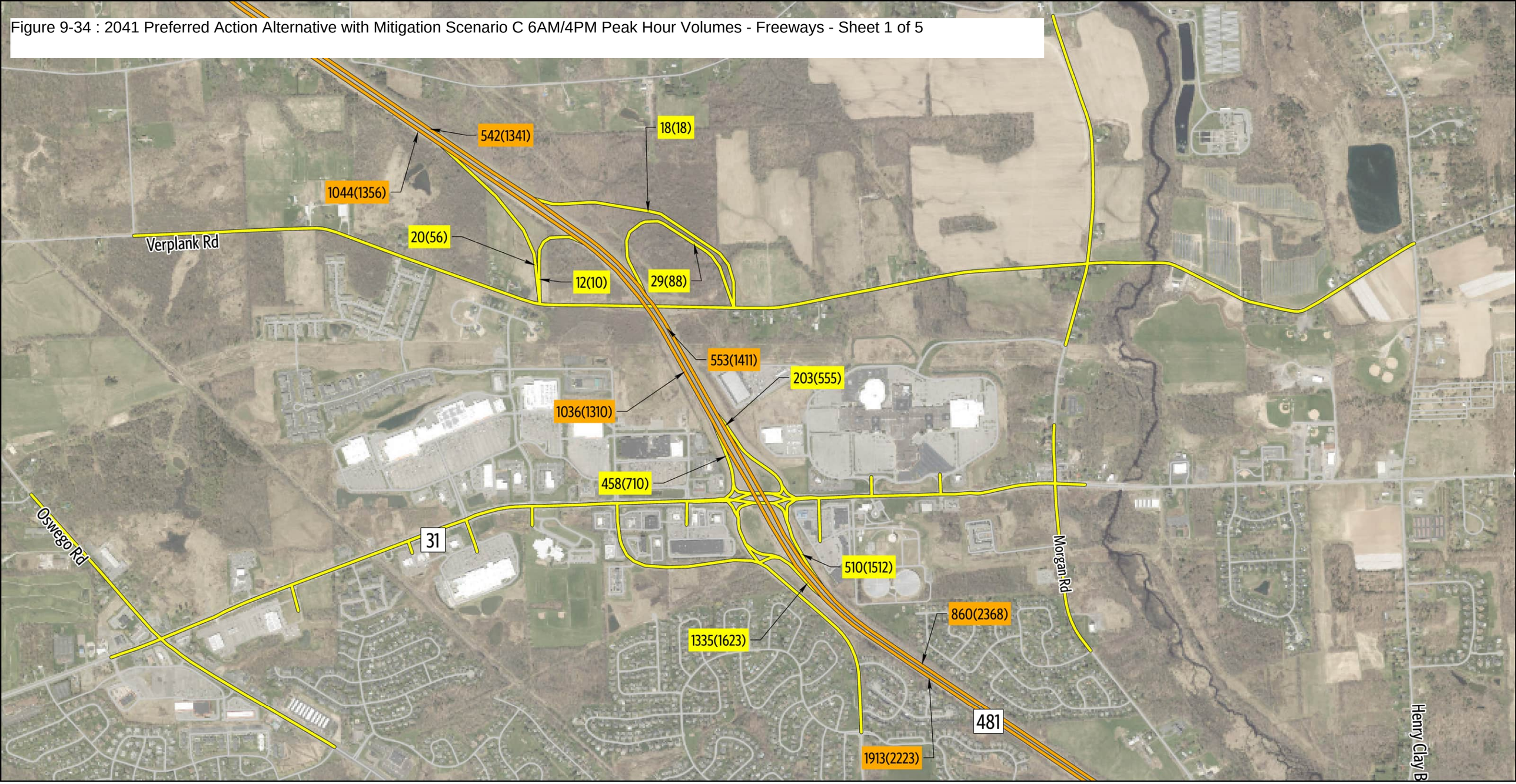


Figure 9-34 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Freeways - Sheet 1 of 5



Mainline Volumes **Ramp Volumes** XXX(XXX) - AM Volumes(PM Volumes)

Freeways Ramps

N

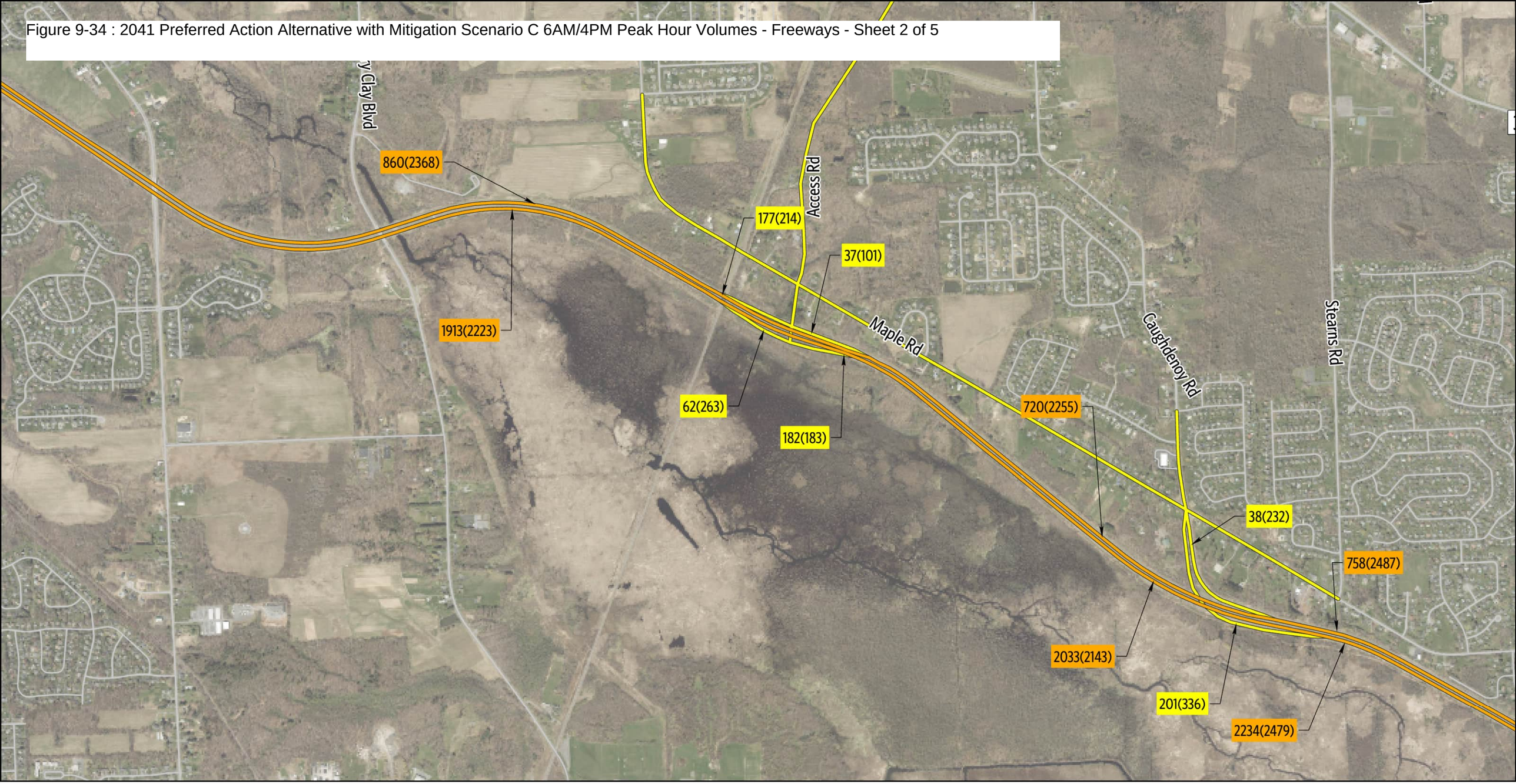
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 1 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-34 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Freeways - Sheet 2 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

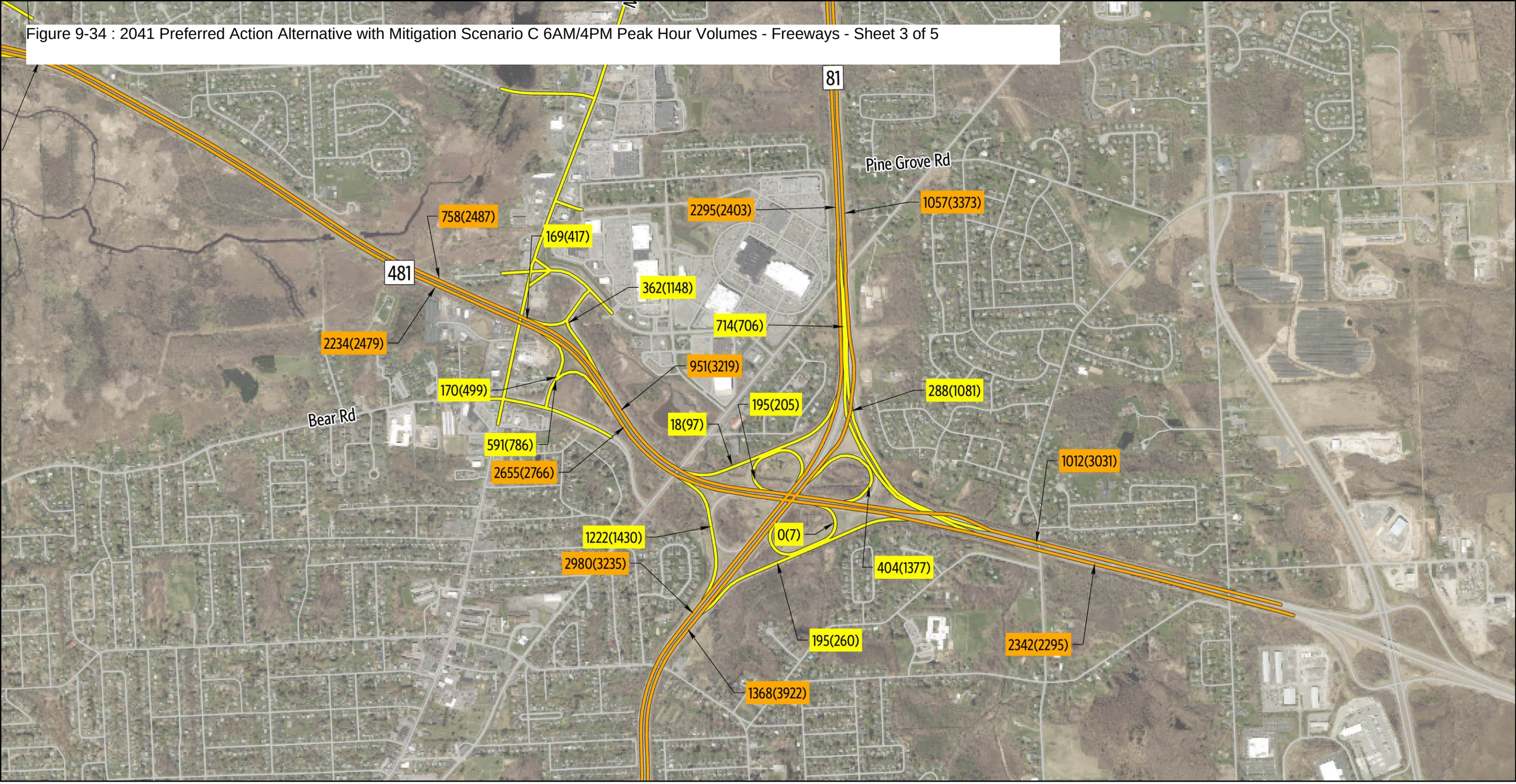
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 2 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-34 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Freeways - Sheet 3 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

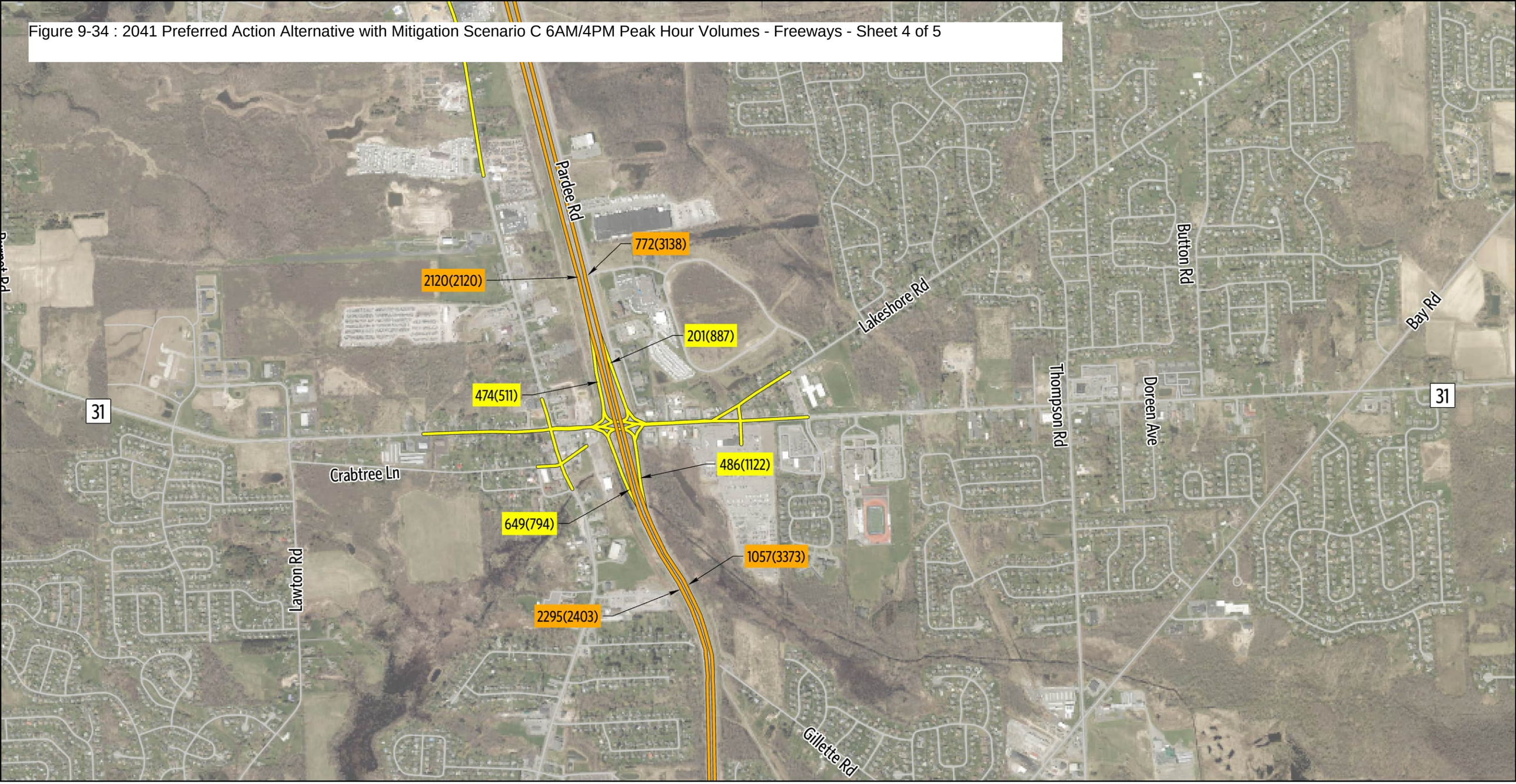
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 3 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-34 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Freeways - Sheet 4 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

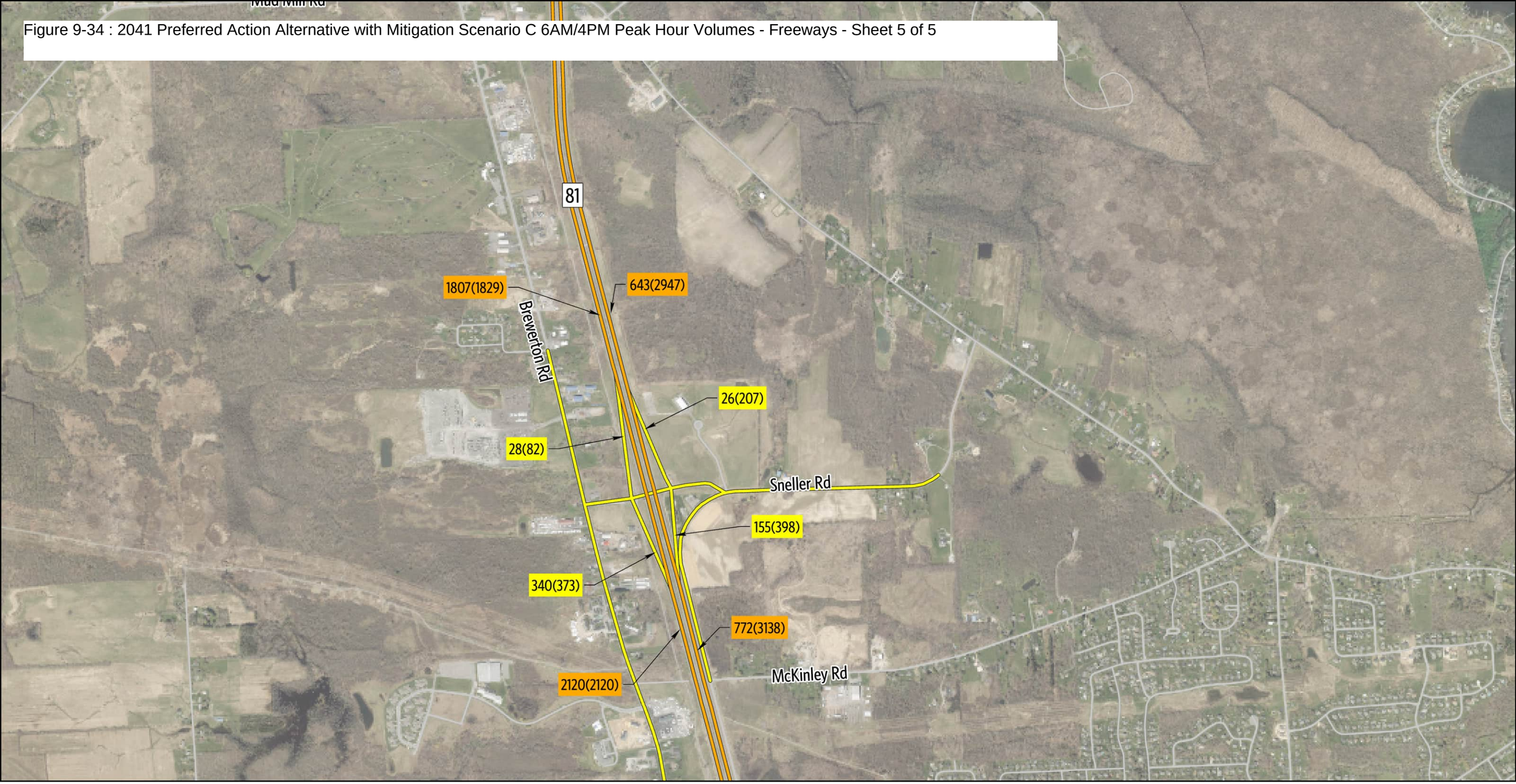
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 4 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-34 : 2041 Preferred Action Alternative with Mitigation Scenario C 6AM/4PM Peak Hour Volumes - Freeways - Sheet 5 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 5 of 5

6 AM & 4 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-35 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Intersections - Sheet 1 of 5

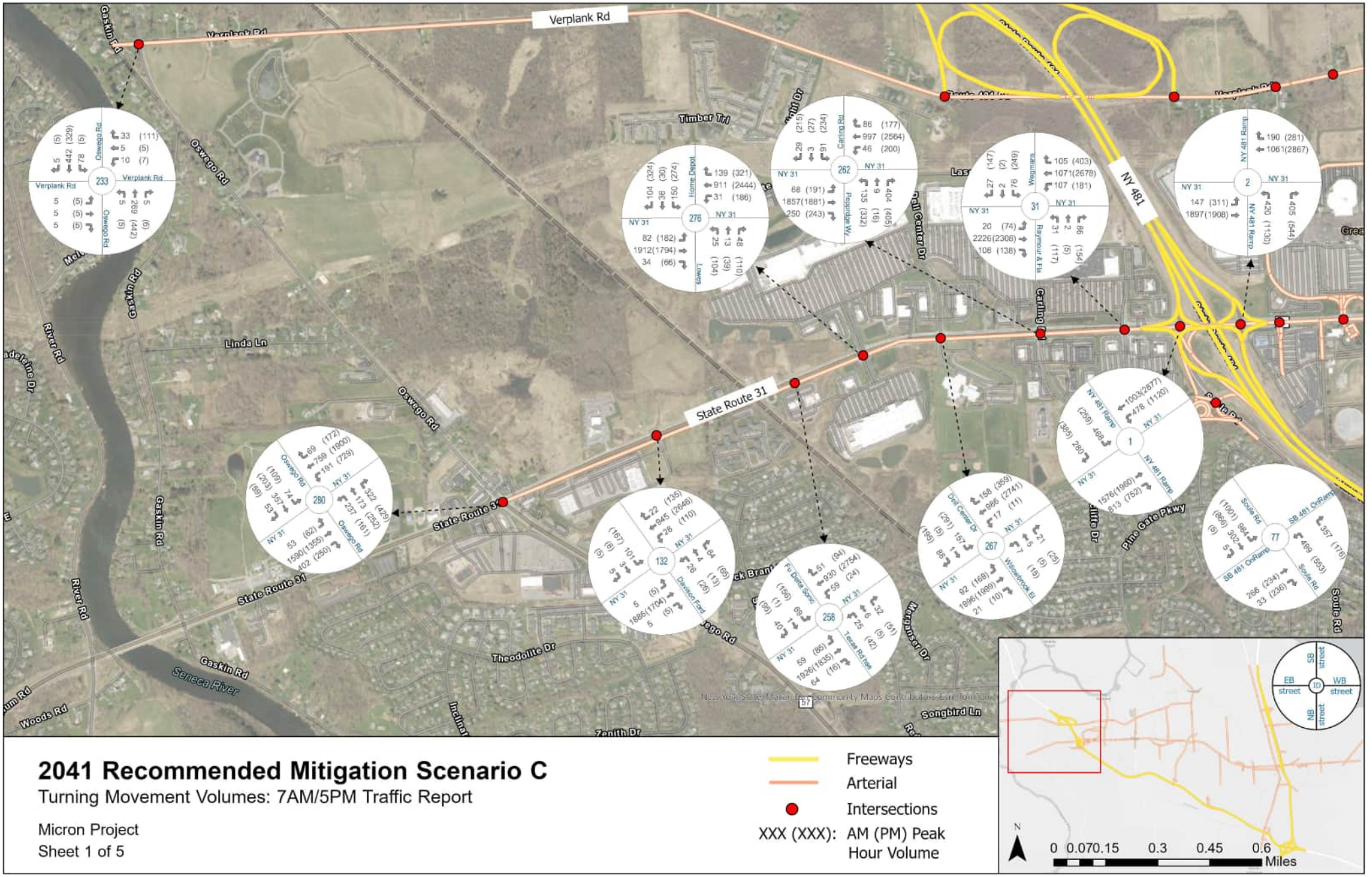


Figure 9-35 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Intersections - Sheet 2 of 5

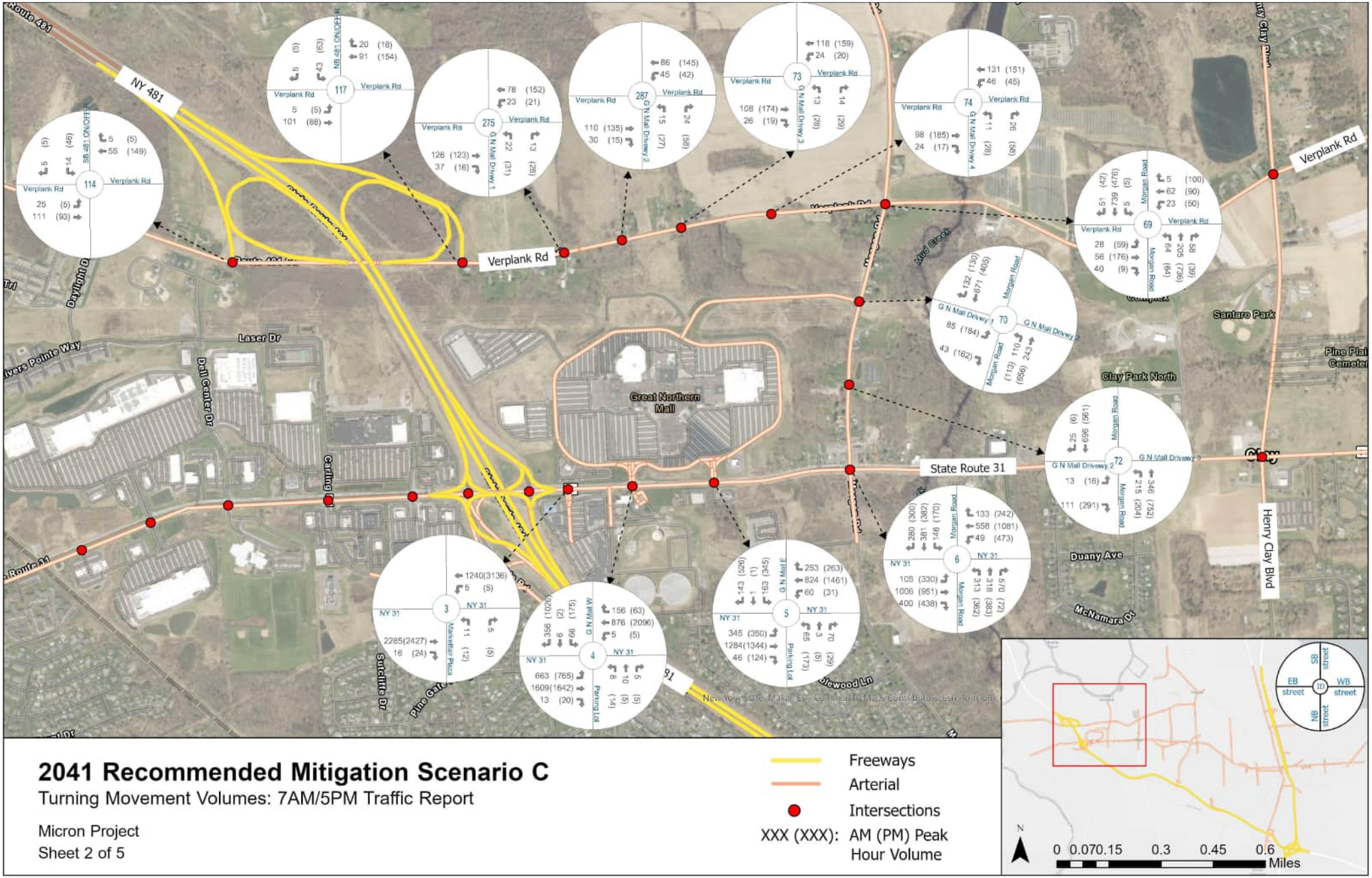


Figure 9-35 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Intersections - Sheet 3 of 5

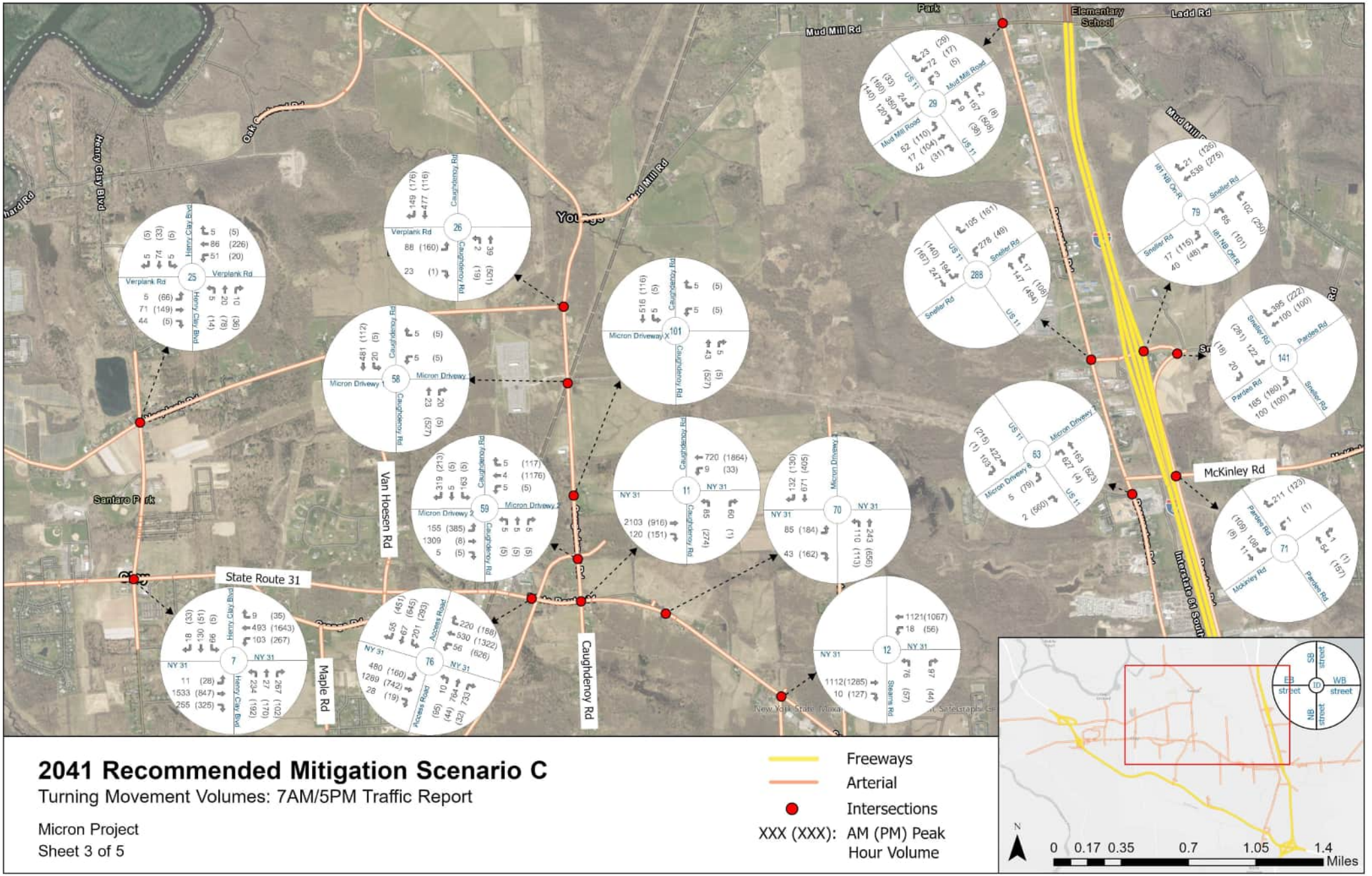


Figure 9-35 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Intersections - Sheet 4 of 5

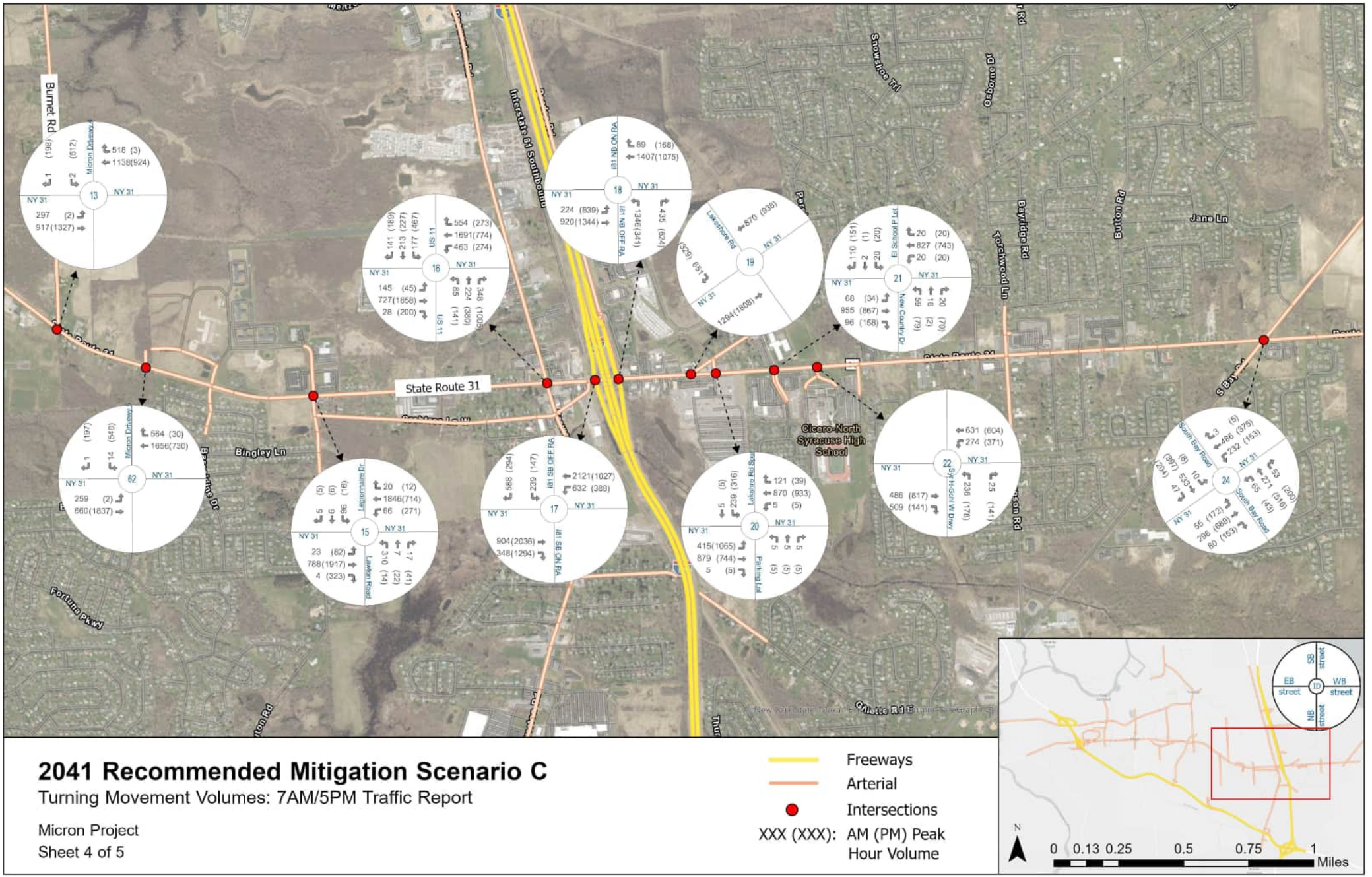


Figure 9-35 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Intersections - Sheet 5 of 5

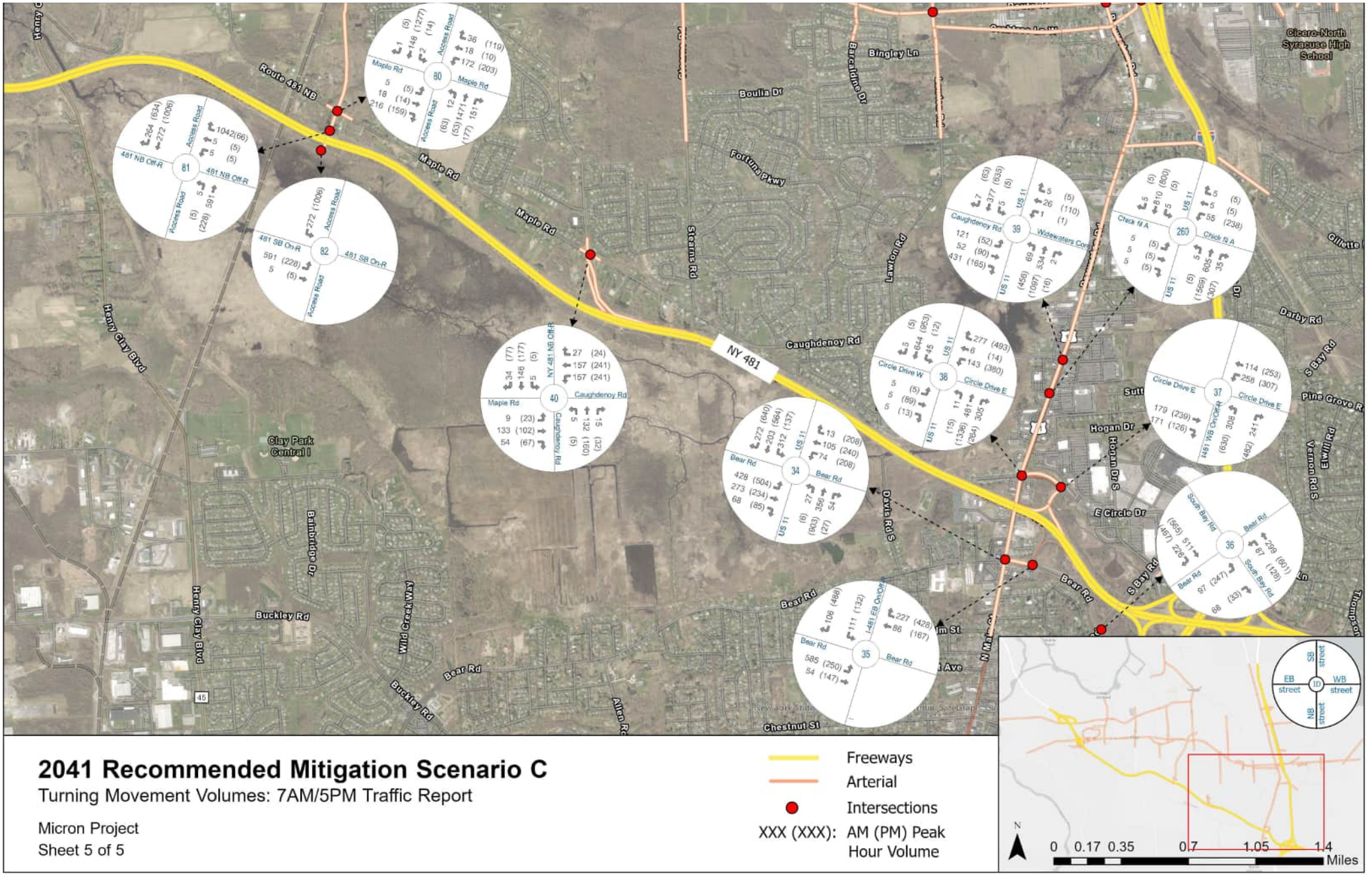
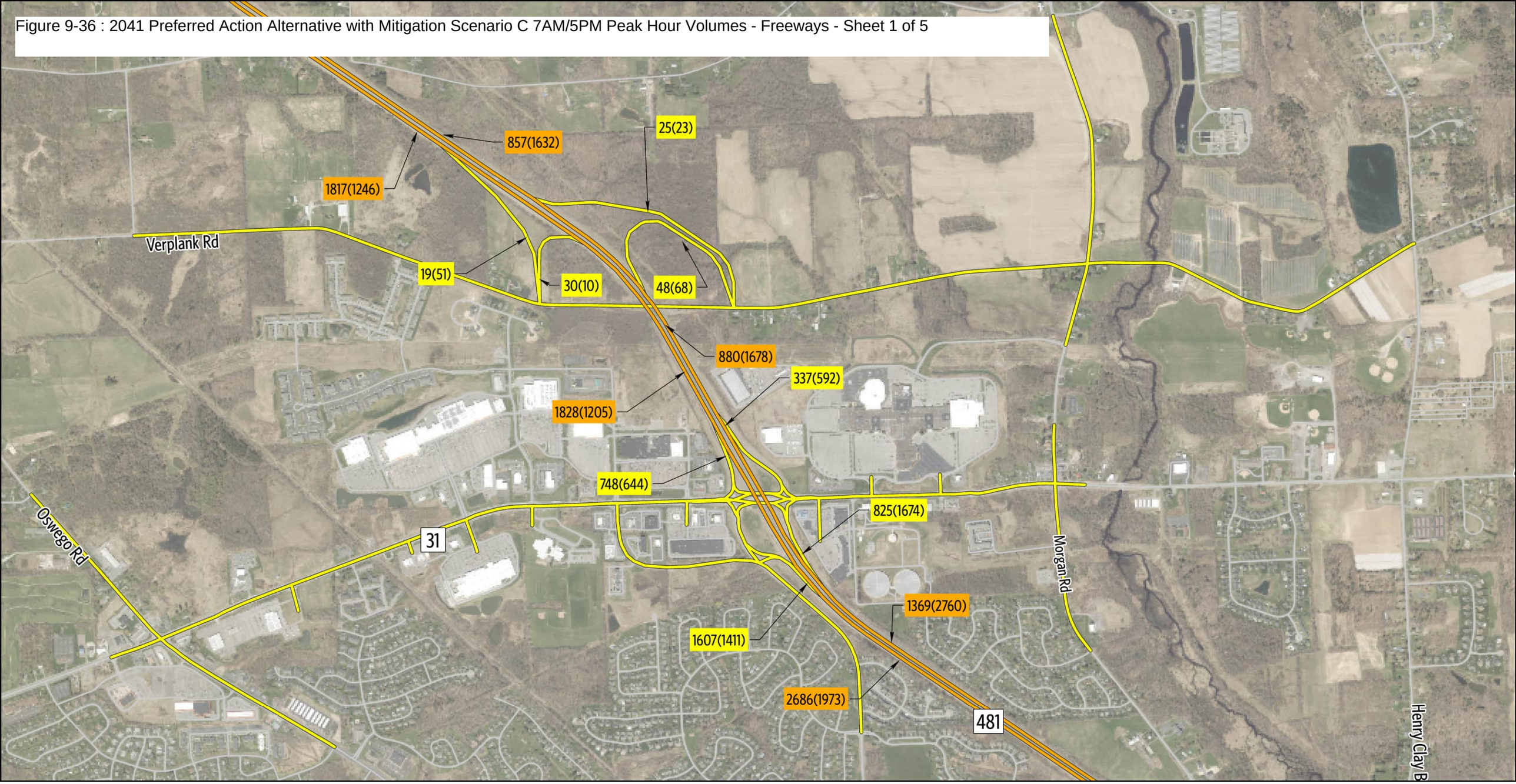


Figure 9-36 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Freeways - Sheet 1 of 5



Mainline Volumes

Freeways

Ramp Volumes

Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

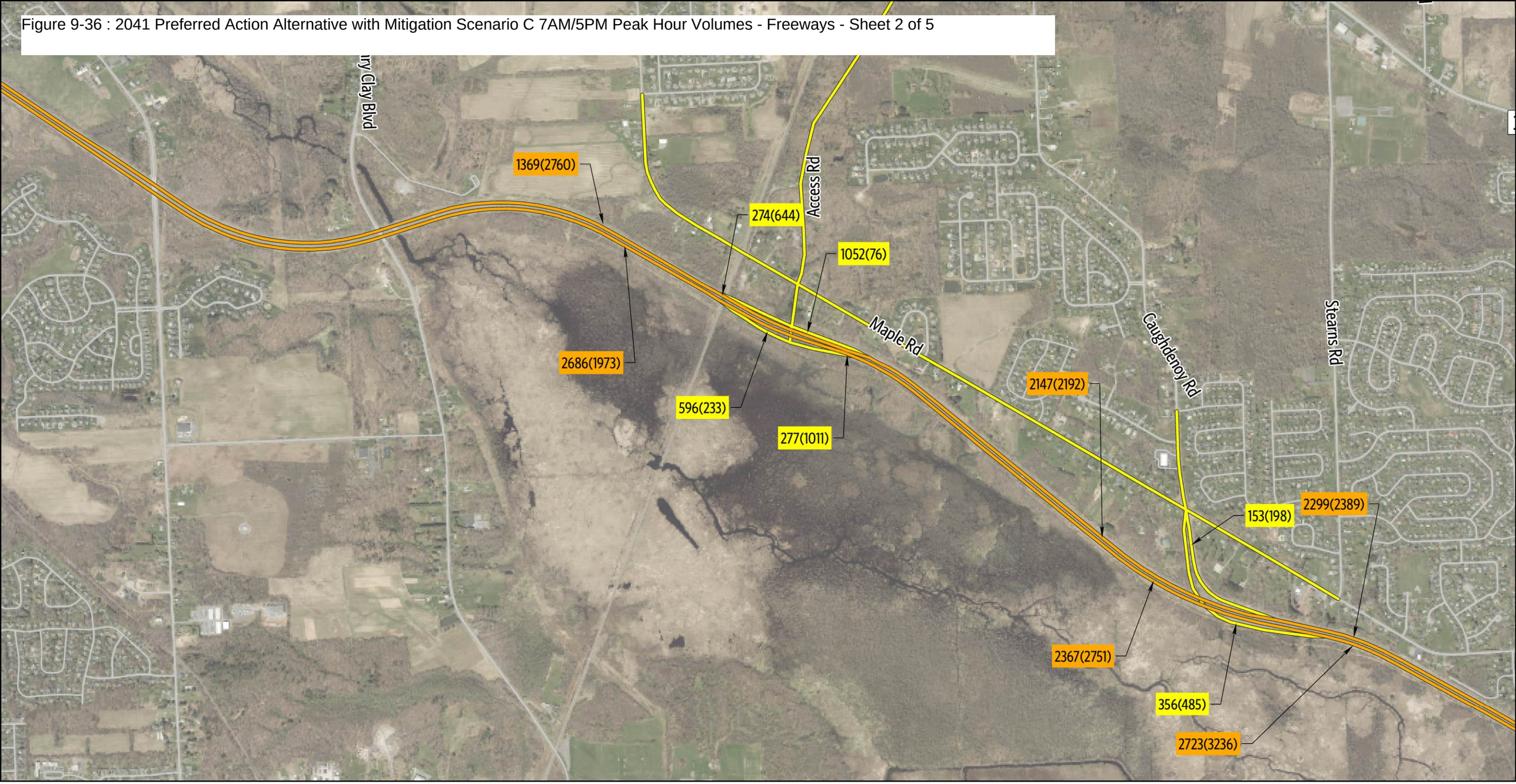
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 1 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-36 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Freeways - Sheet 2 of 5



Mainline Volumes — Freeways

Ramp Volumes — Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

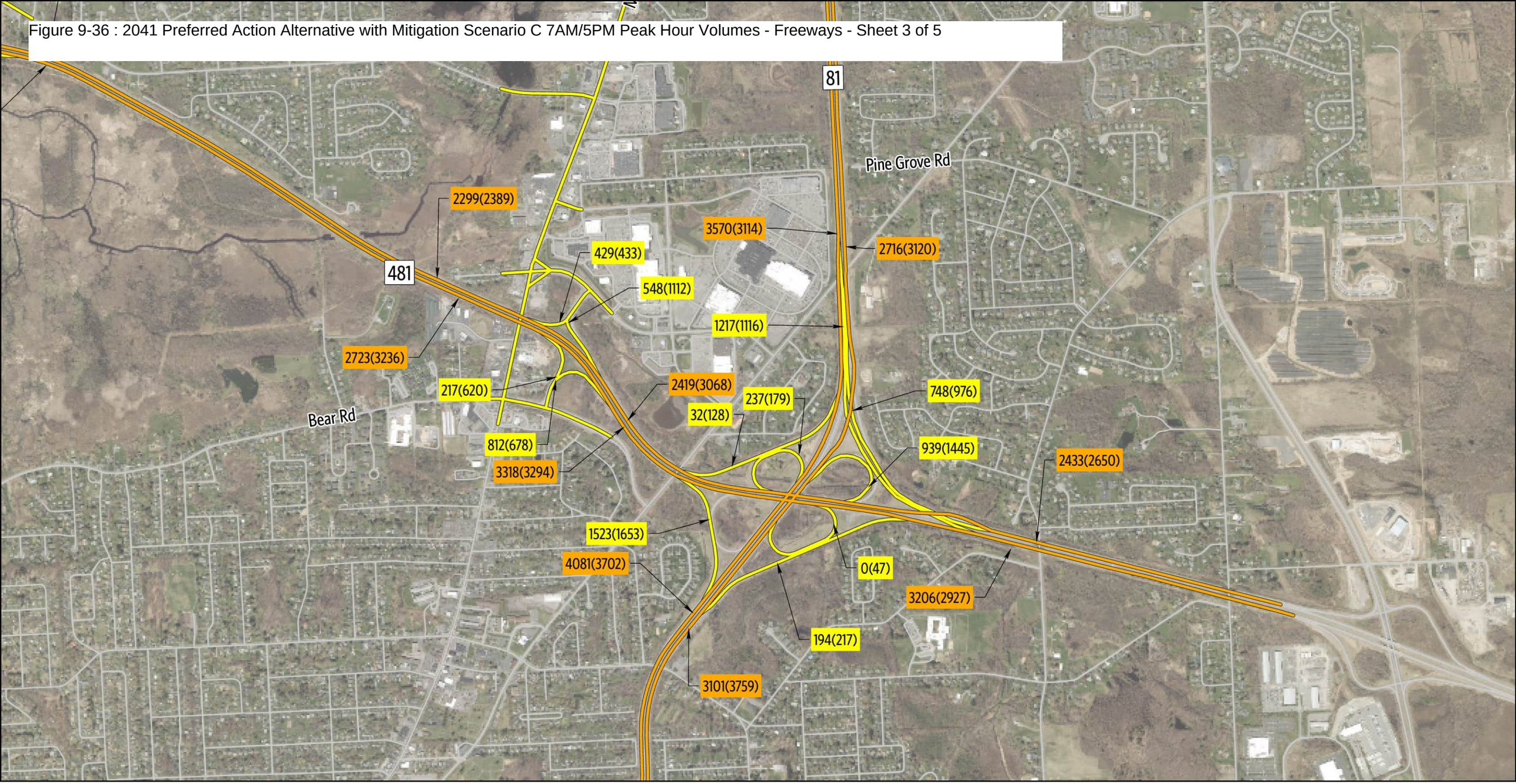
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 2 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-36 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Freeways - Sheet 3 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

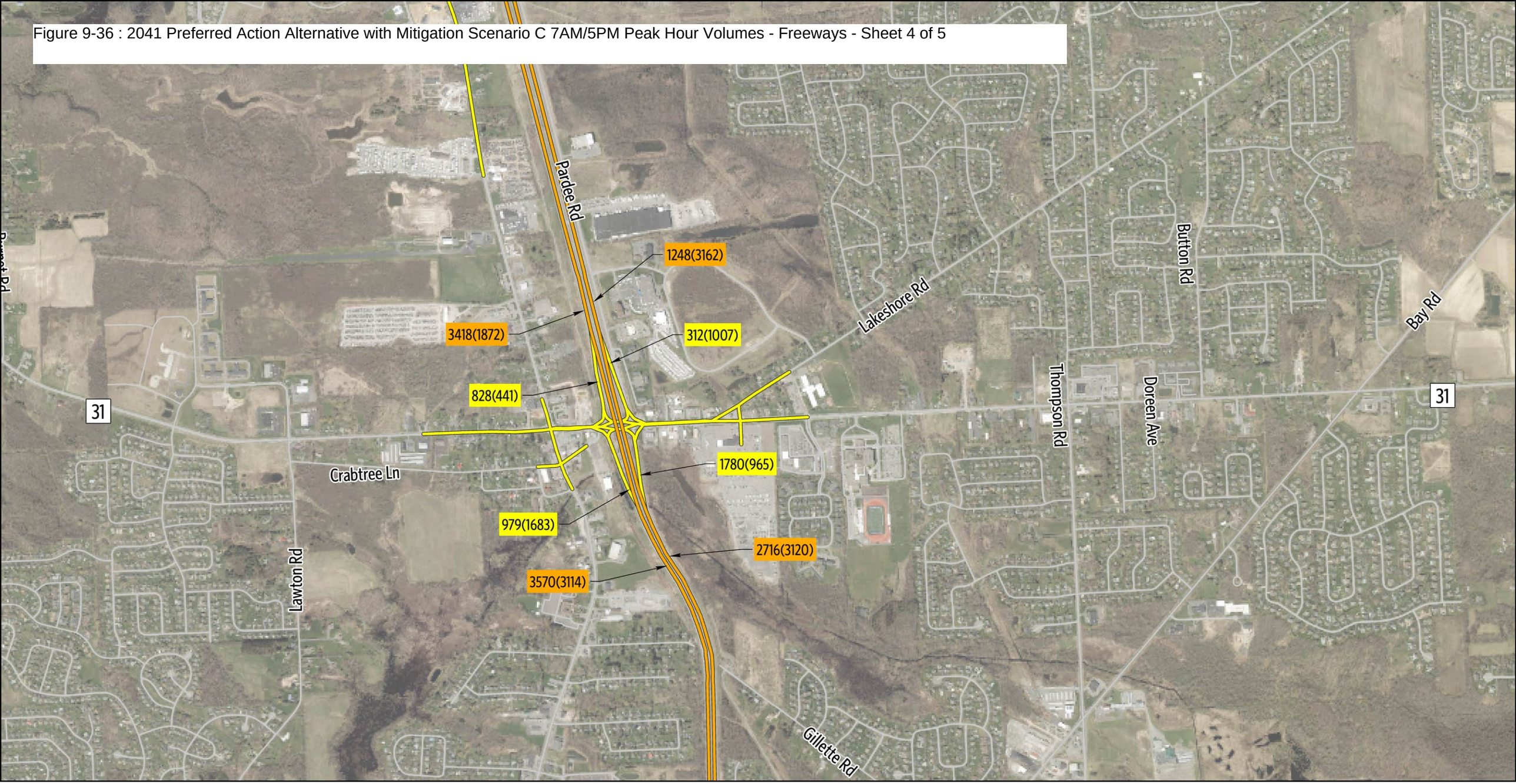
0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 3 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-36 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Freeways - Sheet 4 of 5



Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 4 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

Figure 9-36 : 2041 Preferred Action Alternative with Mitigation Scenario C 7AM/5PM Peak Hour Volumes - Freeways - Sheet 5 of 5

Mainline Volumes
Freeways

Ramp Volumes
Ramps

XXX(XXX) - AM Volumes(PM Volumes)

N

0 1,000 2,000 Feet

2041 Recommended Mitigation Scenario C

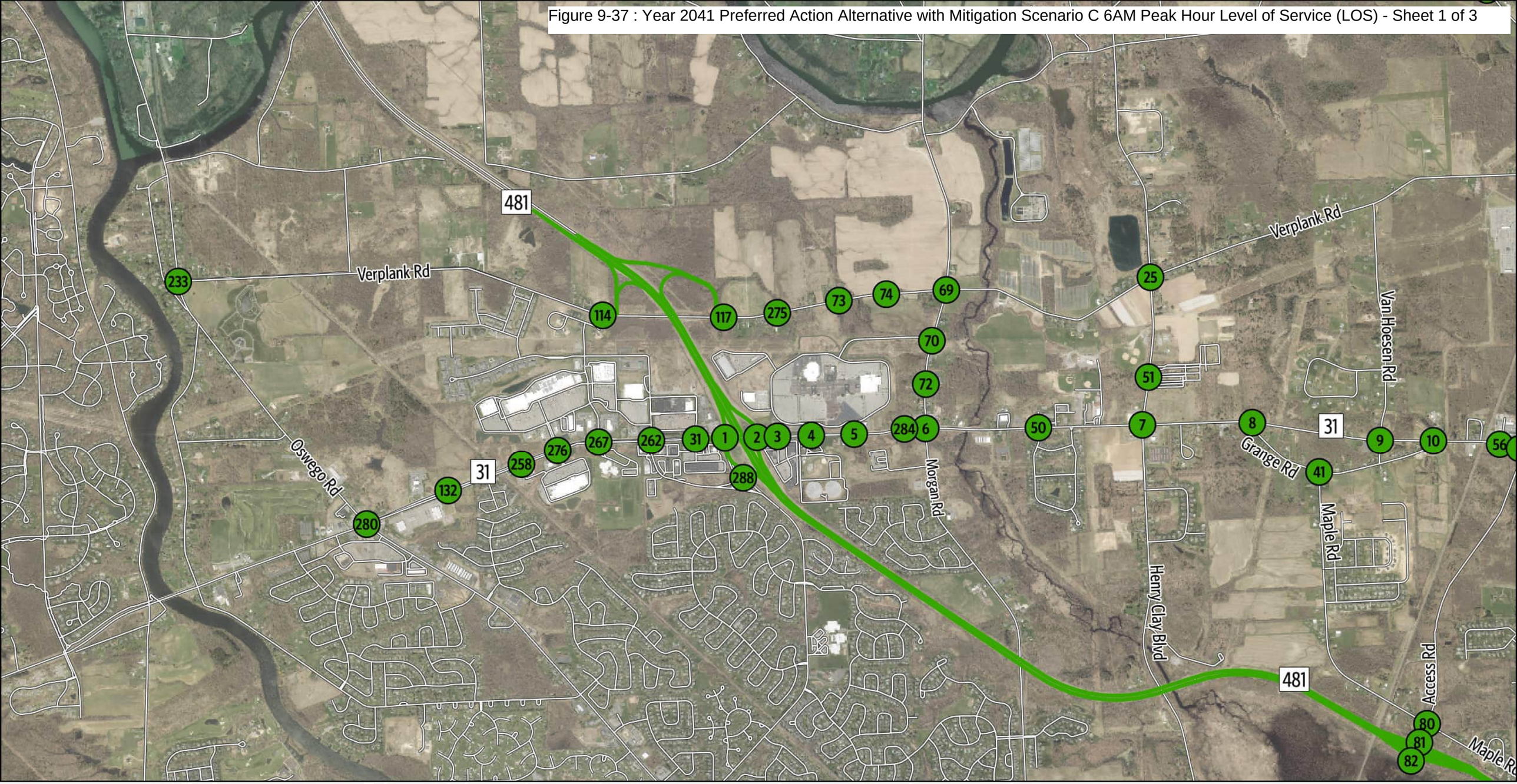
Sheet 5 of 5

7 AM & 5 PM Peak Hour - Freeway & Ramp Volumes
Micron Project

9.5.2 Intersection Operations

Table 9-13 summarizes the results for existing, planned, and proposed Transportation Evaluation Area intersections to include average delay values and LOS expressed as a letter designation and by the color coding shown in Table 2-3. The delay values reflect the overall intersection LOS for signalized intersections and roundabouts; refer to the model output in Appendix D for movement and approach LOS. For the unsignalized intersections, the table shows the average delay for the highest-delay movement. Figures 9-37 through 9-40 show the results of traffic operations.

Figure 9-37 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 6AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

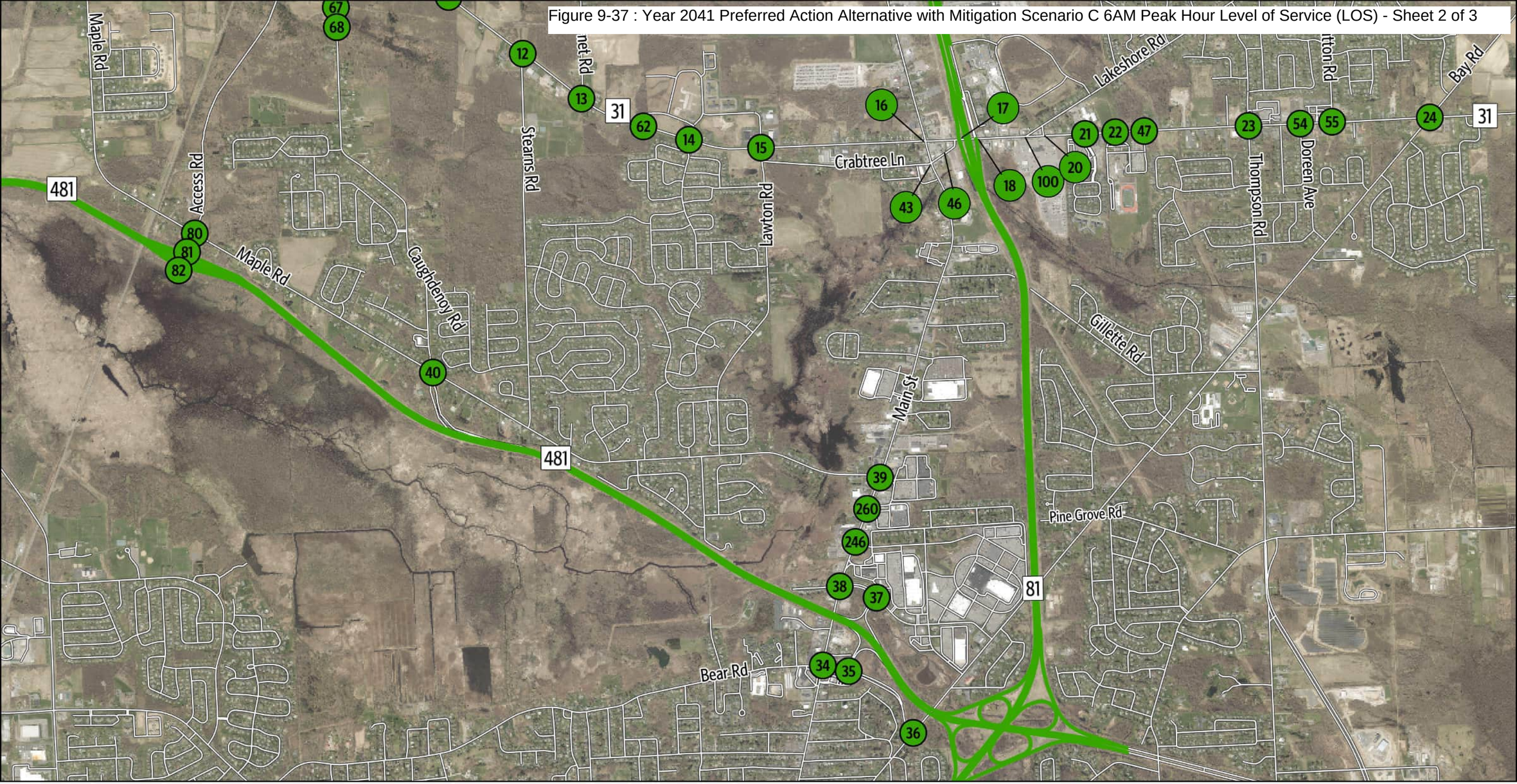
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 1 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-37 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 6AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

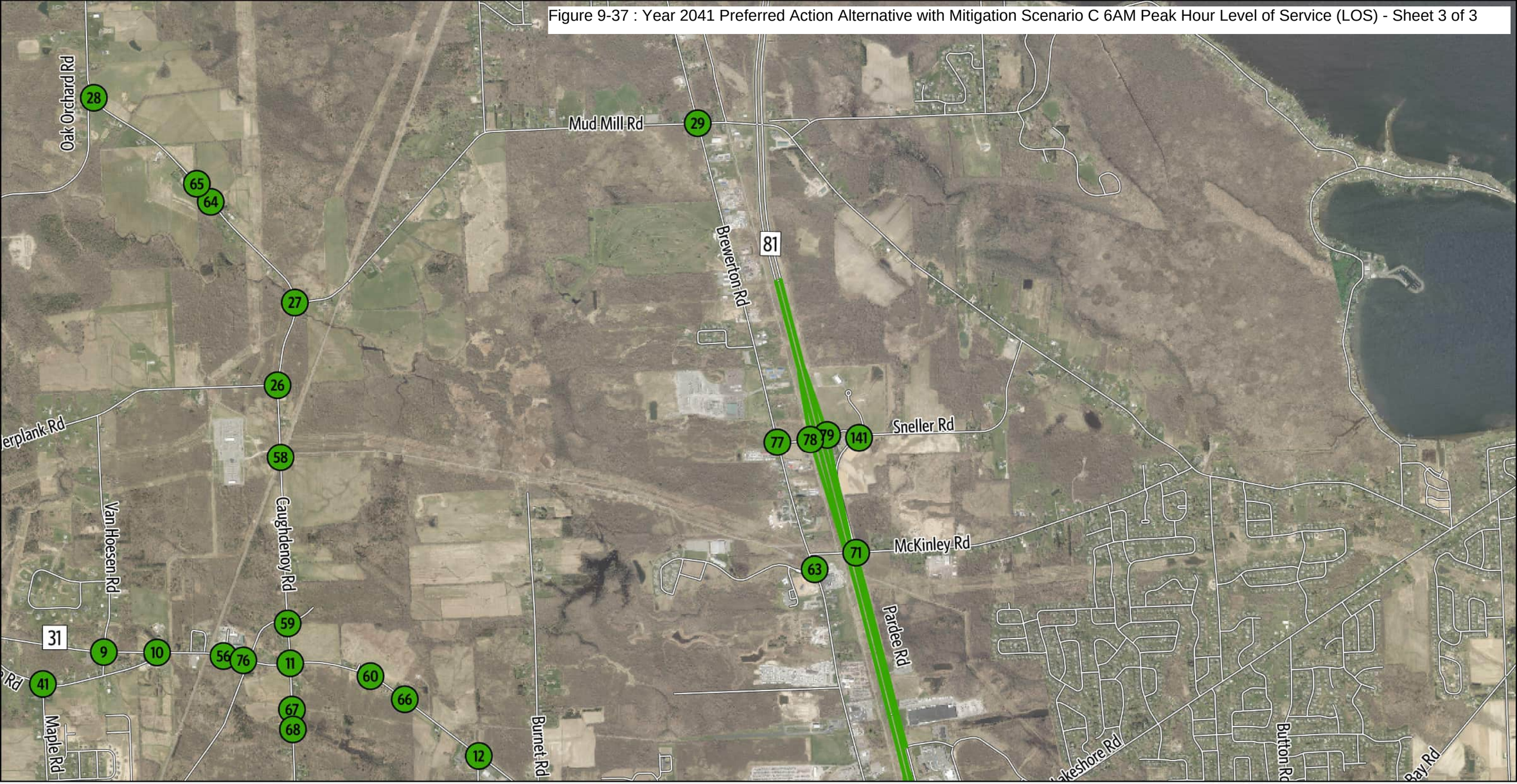
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 2 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-37 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 6AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C

Roadway Level Of Service

- A, B, C
- Streets

N

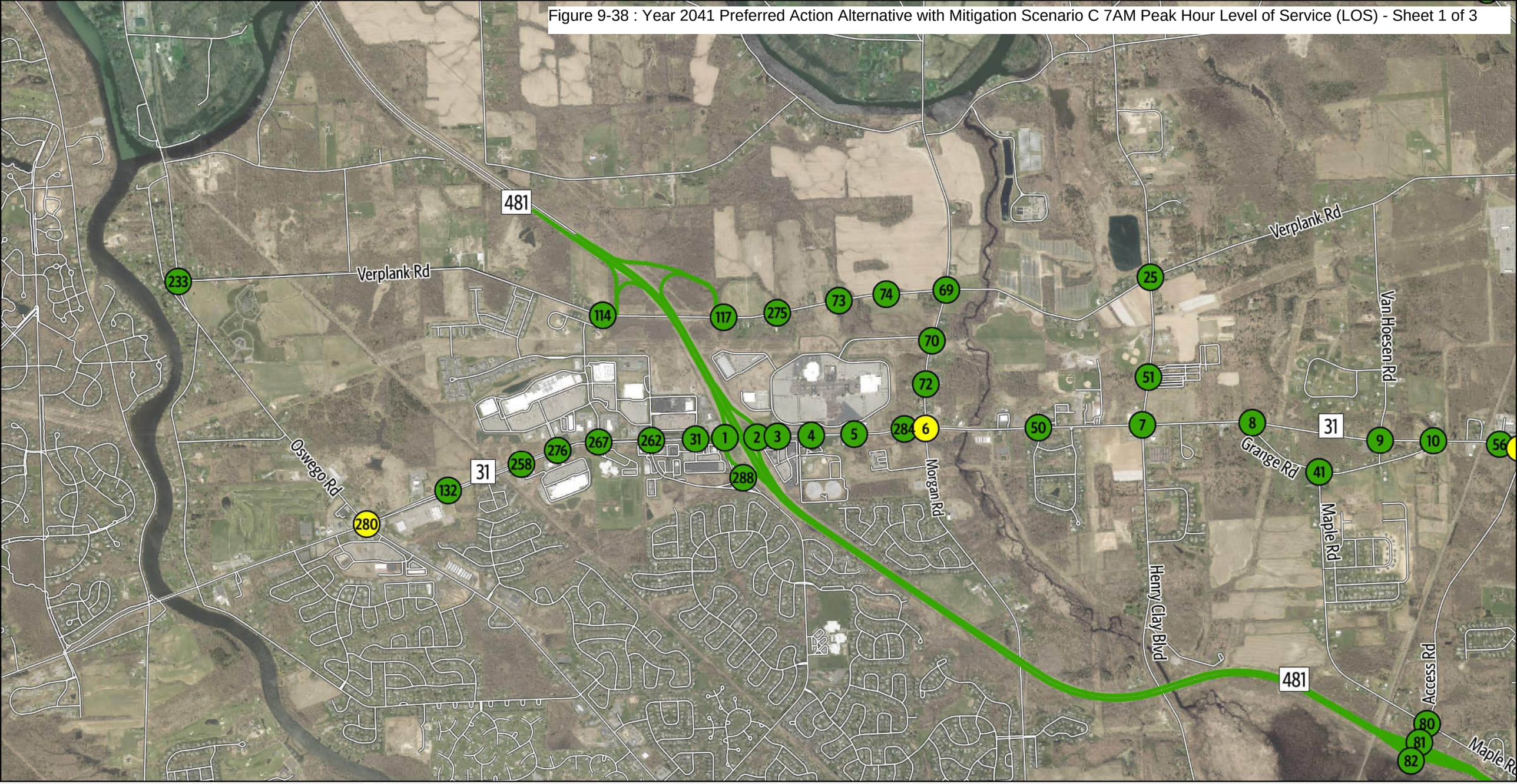
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 3 of 3

6 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-38 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 7AM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

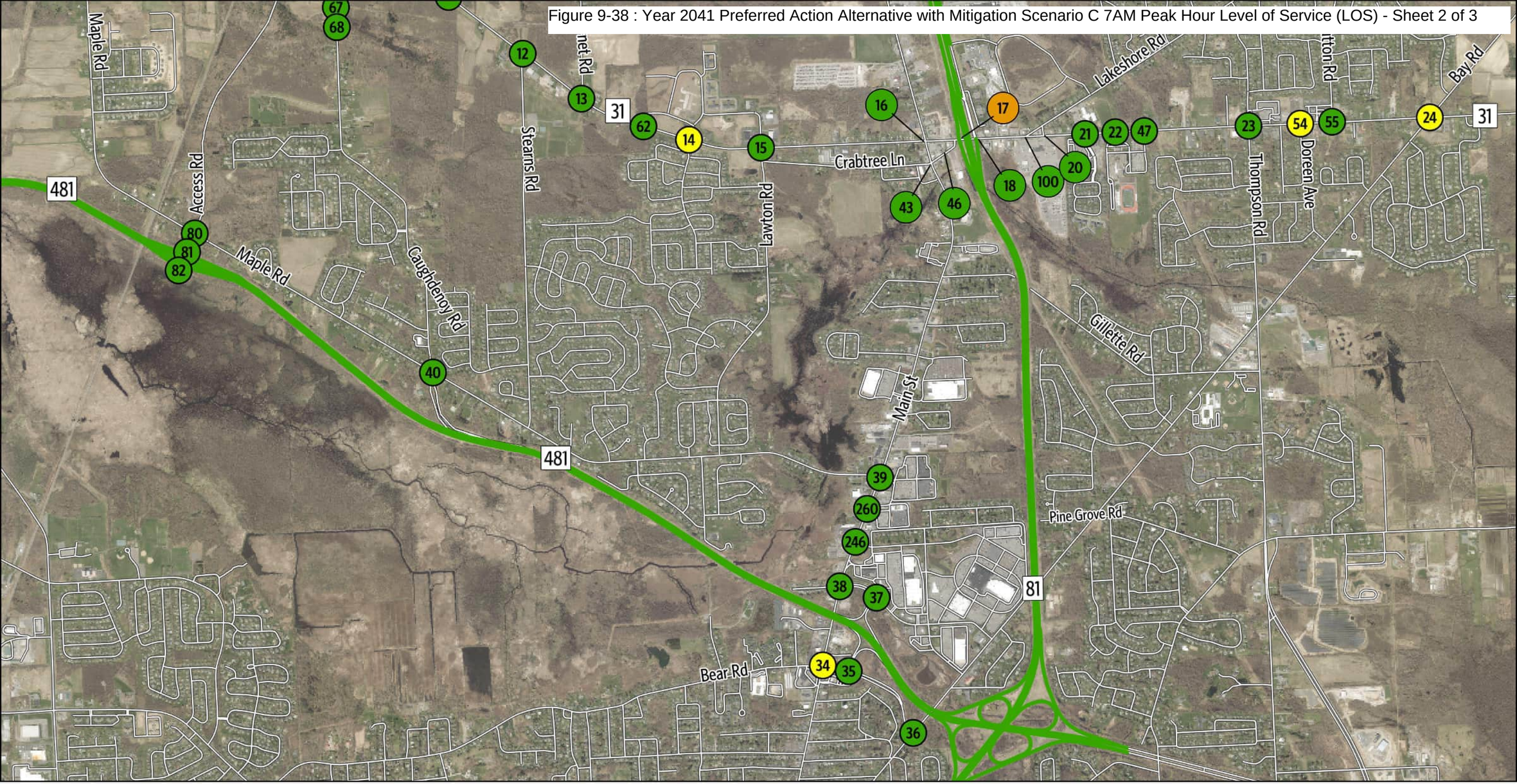
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 1 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-38 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 7AM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

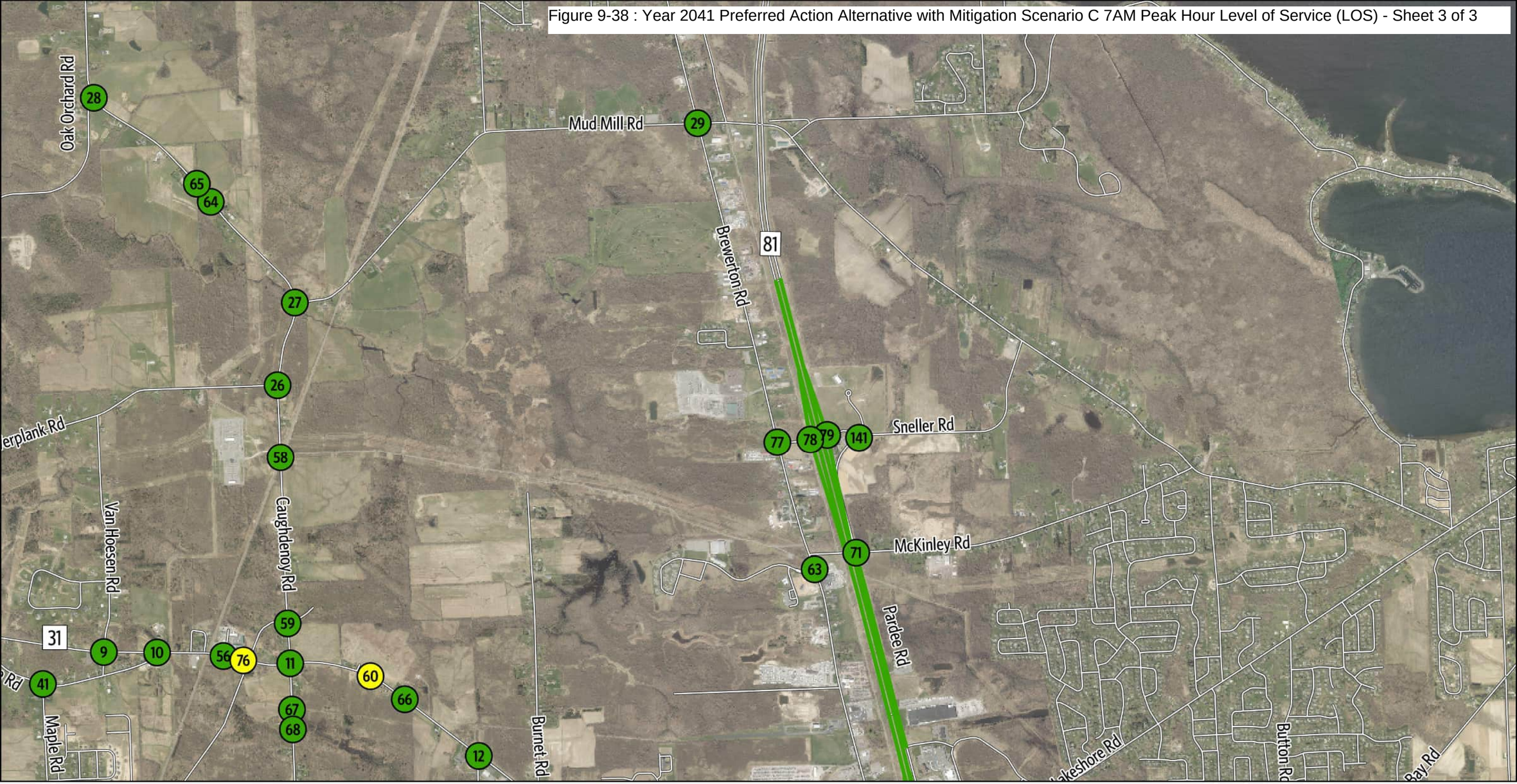
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 2 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-38 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 7AM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

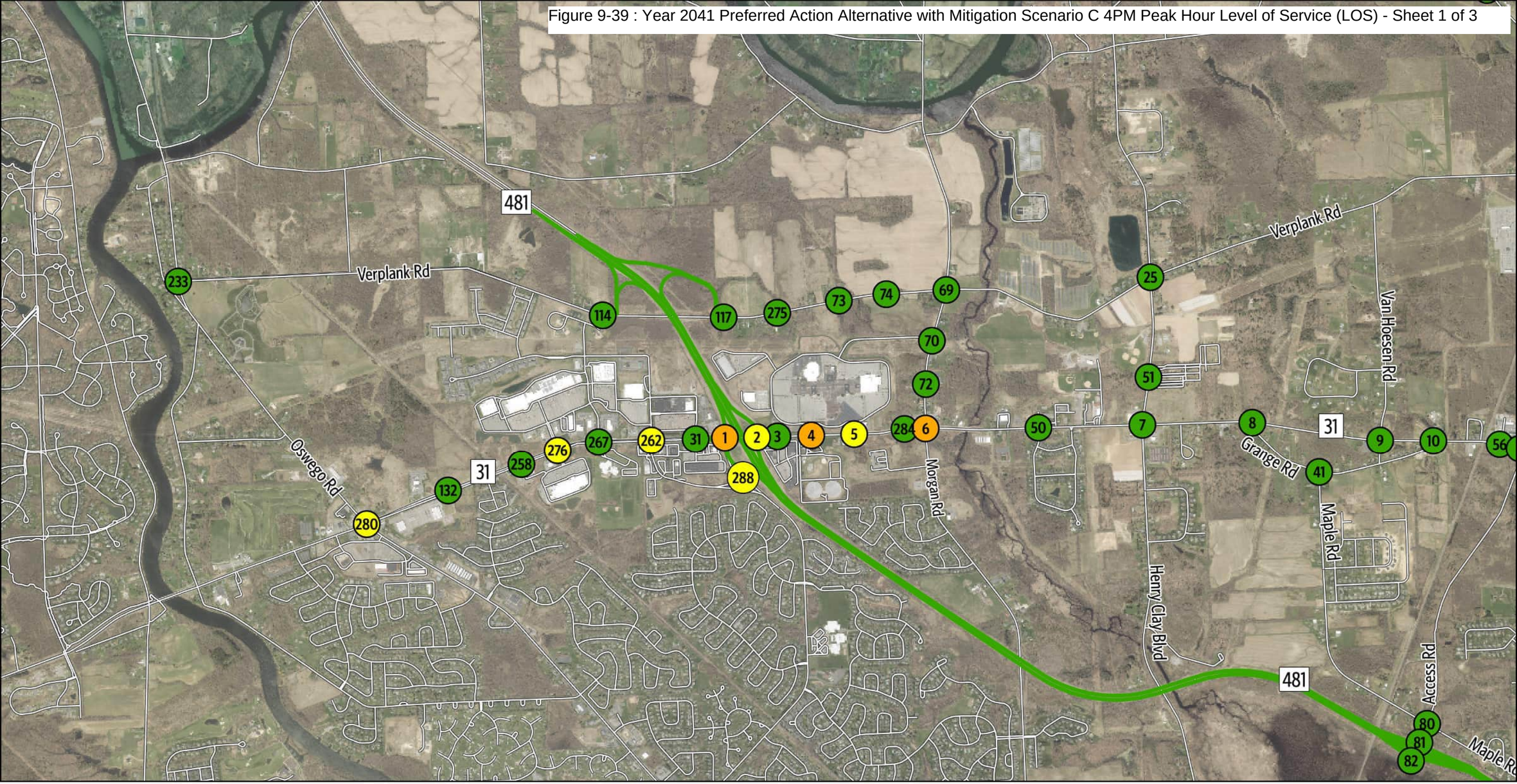
- A, B, C
- Streets

2041 Recommended Mitigation Scenario C

Sheet 3 of 3

7 AM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-39 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 4PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

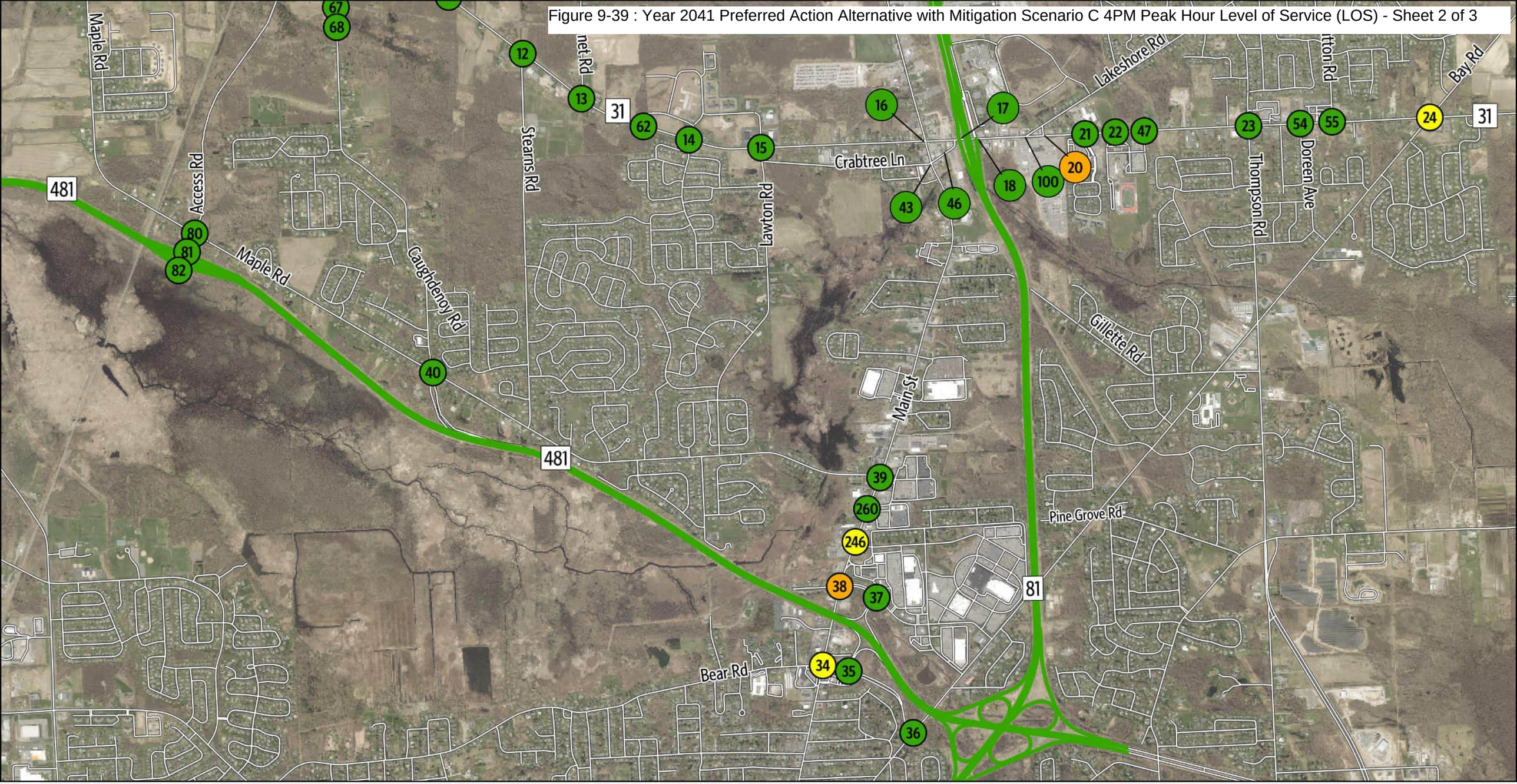
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 1 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-39 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 4PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

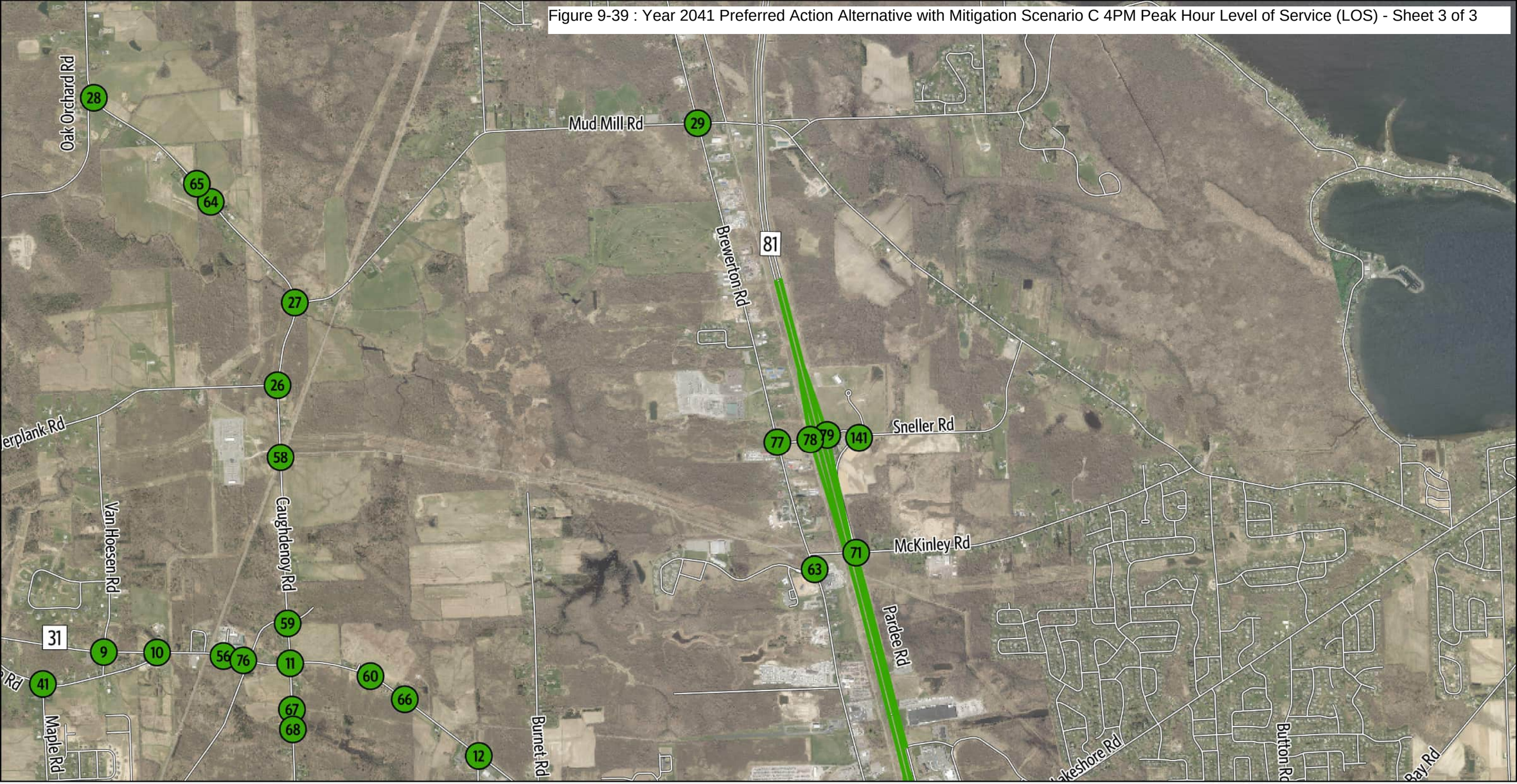
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 2 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-39 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 4PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

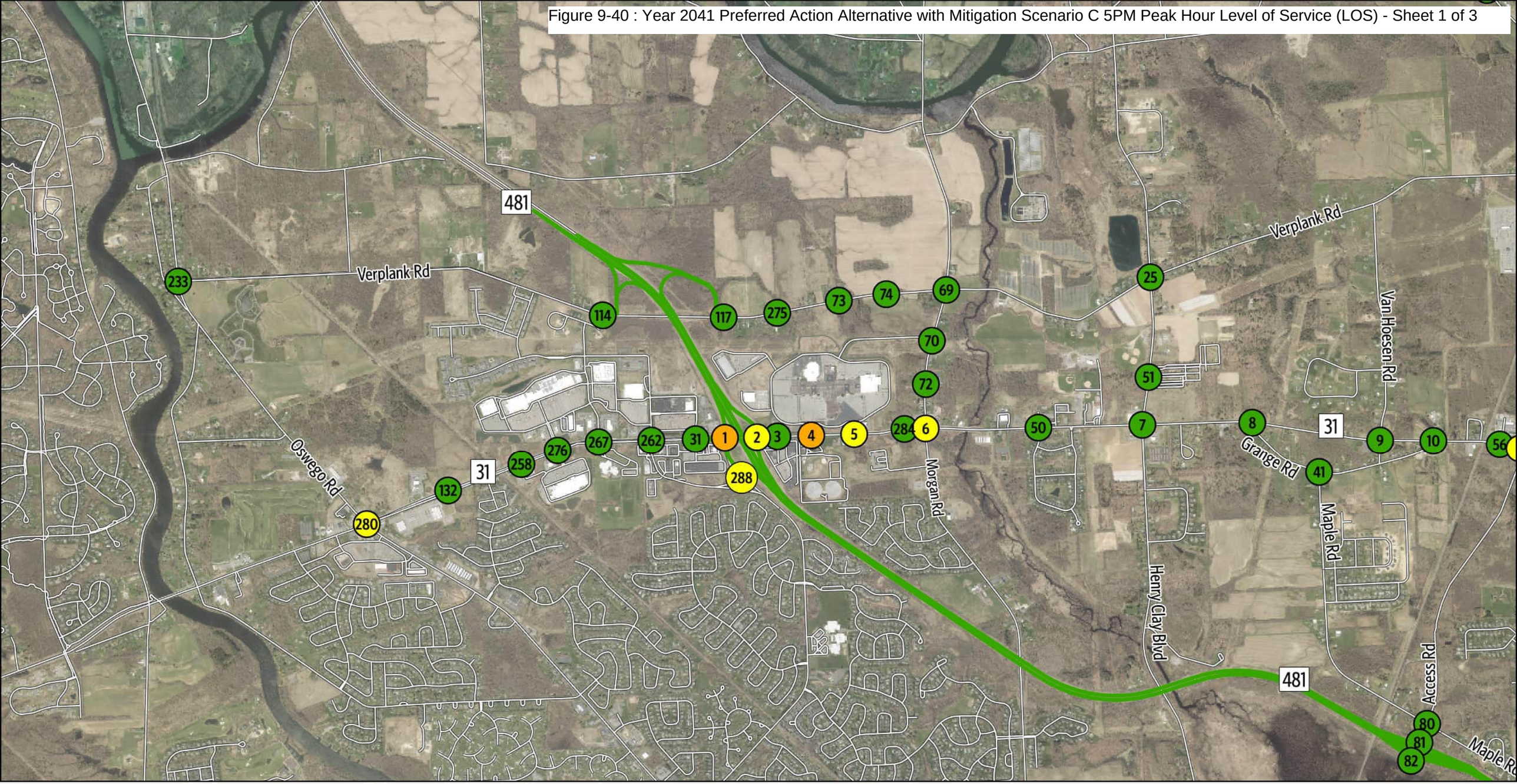
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 3 of 3

4 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-40 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 5PM Peak Hour Level of Service (LOS) - Sheet 1 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

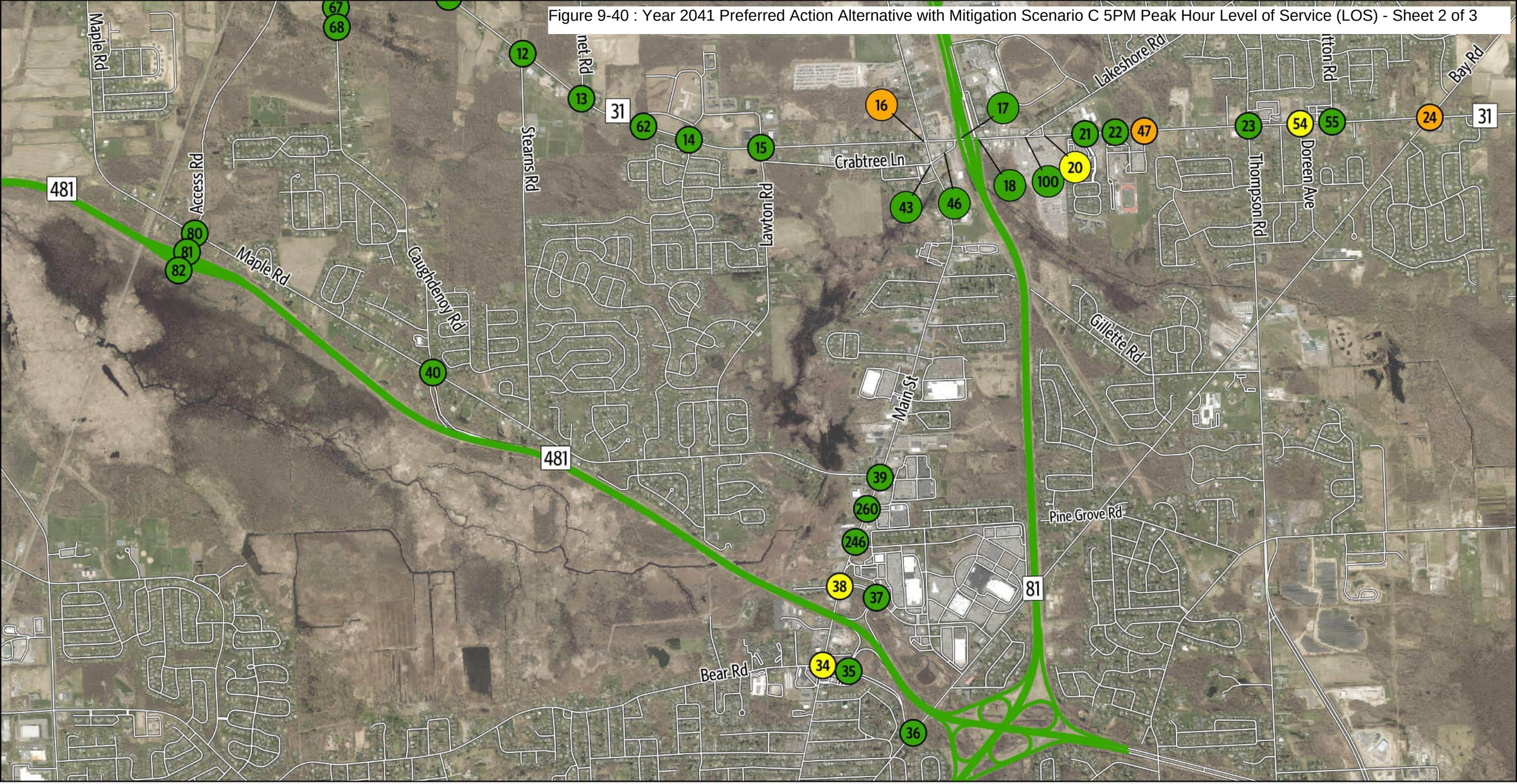
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 1 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-40 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 5PM Peak Hour Level of Service (LOS) - Sheet 2 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

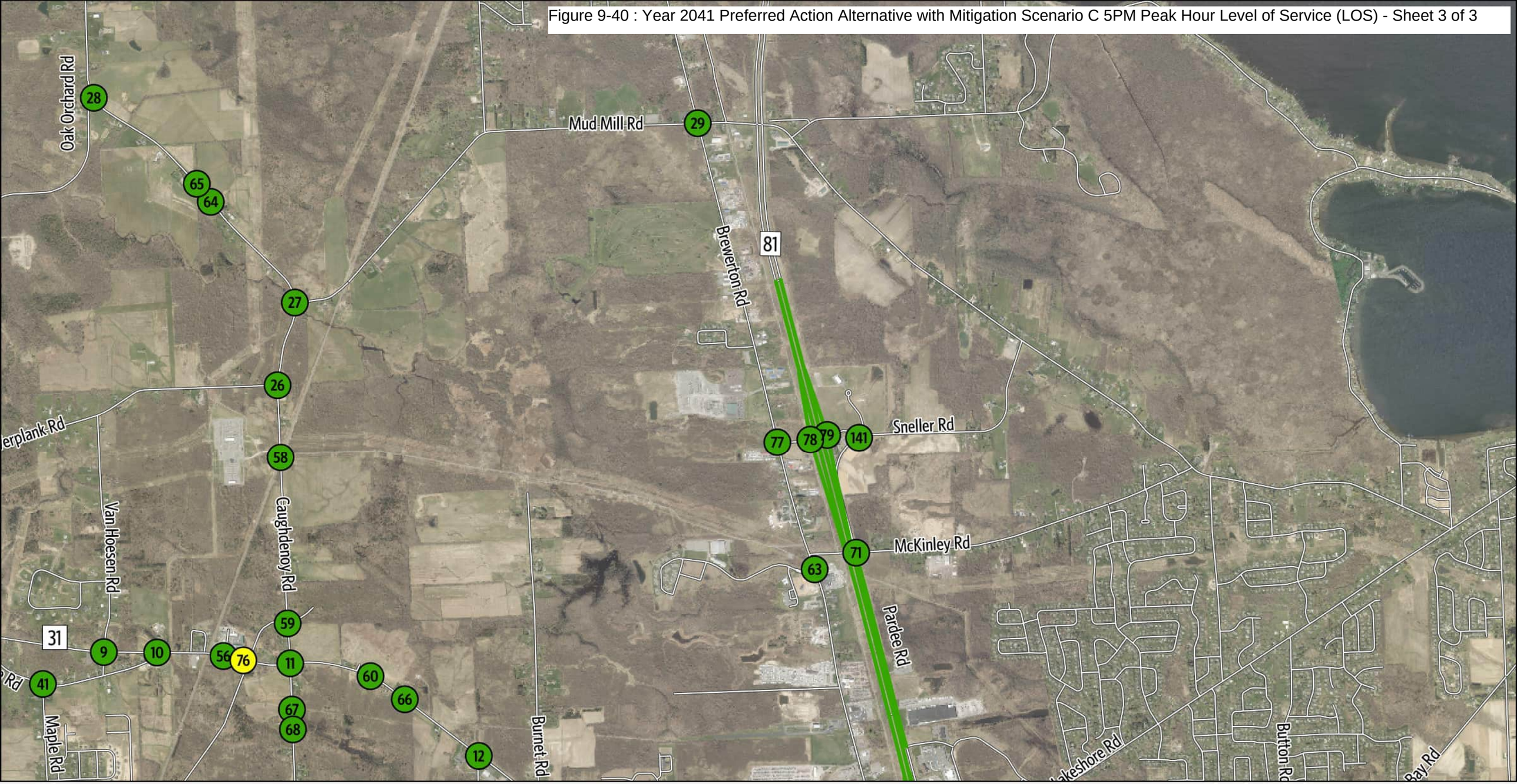
0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 2 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Figure 9-40 : Year 2041 Preferred Action Alternative with Mitigation Scenario C 5PM Peak Hour Level of Service (LOS) - Sheet 3 of 3



Intersection Level Of Service

- A, B, C
- D
- E

Roadway Level Of Service

- A, B, C
- Streets

N

0 2,000 4,000 Feet

2041 Recommended Mitigation Scenario C

Sheet 3 of 3

5 PM Peak Hour - Operational Analysis Results - LOS
Micron Project

Table 9-13. Year 2041 Mitigation Scenario C AM and PM Peak-Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	13.1	B	0.62	12.8	B	0.77	70.4	E	1.17	75.6	E	1.15
2	NYS Route 31 and NYS Route 481 NB	Signalized	11.2	B	0.52	14.8	B	0.79	45.0	D	1.06	42.4	D	1.02
3	Marketfair Plaza and NYS Route 31	Signalized	4.8	A	0.39	4.5	A	0.60	5.9	A	0.72	5.0	A	0.76
4	NYS Route 31 and GNM West	Signalized	16.8	B	0.38	17.8	B	0.62	56.0	E	1.08	55.8	E	1.07
5	Parking Lot/GNM East and NYS Route 31	Signalized	19.6	B	0.48	27.7	C	0.61	35.8	D	0.95	37.7	D	0.96
6	Morgan Road and NYS Route 31	Signalized	27.0	C	0.45	36.0	D	1.00	56.0	E	0.93	49.8	D	0.91
7	Henry Clay Boulevard and NYS Route 31	Signalized	16.0	B	0.33	32.9	C	0.86	29.6	C	0.66	27.5	C	0.83
8	Grange Road W and NYS Route 31	Unsignalized	2.4	A	0.22	6.0	A	0.73	5.5	A	0.55	10.1	B	0.76
9	Van Hoesen Road and NYS Route 31	Unsignalized	2.5	A	0.16	4.2	A	0.61	3.2	A	0.48	4.8	A	0.63
10	Grange Road E and NYS Route 31	Unsignalized	10.2	B	N/A	15.3	C	N/A	13.1	B	N/A	13.8	B	N/A
11	Caughdenoy Road and NYS Route 31	Signalized	2.9	A	0.19	11.9	B	0.85	32.2	C	0.75	17.8	B	0.87
12	Stearns Road and NYS Route 31	Unsignalized	6.2	A	0.23	14.1	B	0.64	9.8	A	0.65	10.1	B	0.67
13	NYS Route 31 and Micron Driveway 4	Unsignalized[a]	2.6	A	0.21	19.3	B	0.77	1.5	A	0.47	16.7	B	0.86
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	10.2	B	N/A	33.5	D	N/A	12.1	B	N/A	11.4	B	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	9.5	A	0.33	34.8	C	0.98	20.5	C	0.79	33.4	C	0.97
16	U.S. Route 11 and NYS Route 31	Signalized	19.2	B	0.33	27.4	C	0.80	31.1	C	0.76	77.7	E	1.13
17	NYS Route 31 and I-81 SB Ramp	Signalized	14.7	B	0.50	66.0	E	1.12	24.8	C	0.78	18.9	B	0.95
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	13.3	B	0.52	23.9	C	0.82	24.8	C	0.86	22.1	C	0.93
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	18.0	B	0.45	22.8	C	0.74	59.5	E	1.02	53.8	D	1.00
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	7.6	A	0.39	10.8	B	0.71	18.1	B	0.75	16.8	B	0.67
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	6.8	A	0.37	11.4	B	0.55	29.5	C	1.08	20.2	C	0.93
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	5.6	A	N/A	9.7	A	N/A	19.6	B	N/A	14.7	B	N/A
24	South Bay Road and NYS Route 31	Signalized	26.8	C	0.62	43.0	D	0.86	45.6	D	0.87	56.4	E	0.97
25	Henry Clay Boulevard and Verplank Road	Signalized	25.0	C	0.10	16.6	B	0.18	18.8	B	0.30	18.7	B	0.30
26	Caughdenoy Road and Verplank Road	Unsignalized	7.1	A	0.16	10.6	B	0.48	8.3	A	0.34	7.8	A	0.48
27	Caughdenoy Road and Mud Mill Road	Unsignalized	19.7	B	0.16	18.1	B	0.51	12.8	B	0.46	12.9	B	0.61
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	9.4	A	N/A	11.5	B	N/A	14.3	B	N/A	16.7	C	N/A
29	U.S. Route 11 and Mud Mill Road	Signalized	7.2	A	0.21	8.8	A	0.49	11.8	B	0.60	13.0	B	0.65
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	10.1	B	0.44	9.4	A	0.74	27.3	C	0.99	19.9	B	0.90
32	Henry Clay Boulevard and Wetzel Road	Signalized	15.4	B	0.24	18.0	B	0.45	26.0	C	0.71	21.7	C	0.67
33	Allen Road and Bear Road	Signalized	6.5	A	0.35	9.2	A	0.59	17.0	B	0.79	14.4	B	0.74
34	U.S. Route 11 and Bear Road	Signalized	27.1	C	0.46	36.3	D	0.60	40.3	D	0.83	42.1	D	0.81
35	Bear Road and NYS Route 481 EB On/Off-Ramp	Signalized	13.5	B	0.35	10.3	B	0.42	12.4	B	0.37	13.1	B	0.36
36	South Bay Road and Bear Road	Signalized	8.1	A	0.26	9.9	A	0.46	15.6	B	0.75	15.5	B	0.71
37	NYS Route 481 WB On/Off-Ramp and Circle Drive E	Signalized	12.5	B	0.30	16.5	B	0.51	15.4	B	0.62	16.0	B	0.65

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	30.9	C	0.26	26.5	C	0.36	62.5	E	1.09	37.8	D	0.91
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	17.6	B	0.22	17.8	B	0.56	23.9	C	0.68	24.6	C	0.63
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Unsignalized	4.4	A	N/A	6.5	A	N/A	3.7	A	N/A	3.9	A	N/A
41	Maple Road and Grange Road W/Grange Road	Unsignalized	8.9	A	N/A	9.1	A	N/A	9.6	A	N/A	9.7	A	N/A
43	U.S. Route 11 and Crabtree Lane	Unsignalized	4.7	A	0.18	5.9	A	0.35	8.4	A	0.59	34.8	C	0.87
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	8.6	A	N/A	8.7	A	N/A	8.7	A	N/A	8.7	A	N/A
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	11.9	B	N/A	14.9	B	N/A	2.7	C	N/A	39.9	E	N/A
50	McNamara Drive/Driveway and NYS Route 31	Unsignalized	9.9	A	0.23	13.7	B	0.70	11.6	B	0.68	18.1	B	0.86
54	Doreen Avenue and NYS Route 31	Unsignalized	13.6	B	N/A	26.2	D	N/A	21.7	C	N/A	28.4	D	N/A
55	NYS Route 31 and Button Road	Unsignalized	5.8	A	0.29	7.6	A	0.52	8.3	A	0.65	14.0	B	0.76
56	NYS Route 31 and Weller Canning Road	Unsignalized	10.3	B	N/A	15.1	C	N/A	13.1	B	N/A	20.7	C	N/A
58	Caughdenoy Road and Micron Driveway 1	Unsignalized	3.3	A	0.07	1.7	A	0.33	2.2	A	0.20	2.4	A	0.35
59	Caughdenoy Road and Access Road/Micron Driveway 2	Signalized	15.8	B	0.14	30.8	C	0.83	19.4	B	0.37	27.5	C	0.81
60	NYS Route 31 and Micron Driveway 3	Signalized	4.5	A	0.23	43.7	D	0.84	2.4	A	0.38	27.1	C	0.78
62	NYS Route 31 and Micron Driveway 5	Signalized	2.8	A	0.21	29.0	C	0.87	5.0	A	0.49	22.4	C	0.86
63	U.S. Route 11 and Micron Driveway 6	Signalized	4.4	A	0.07	14.5	B	0.84	1.6	A	0.21	21.9	C	0.34
64	Caughdenoy Road and Healthcare Center Driveway	Unsignalized	8.7	A	N/A	9.4	A	N/A	9.6	A	N/A	11.2	B	N/A
65	Caughdenoy Road and Childcare Center Driveway	Unsignalized	8.7	A	N/A	10.3	B	N/A	9.6	A	N/A	11.4	B	N/A
66	White Pines South Driveway and NYS Route 31	Unsignalized	14.2	B	N/A	17.1	C	N/A	20.5	C	N/A	12.6	B	N/A
67	Caughdenoy Road and White Pines South Driveway 1	Unsignalized	8.8	A	N/A	9.4	A	N/A	10.6	B	N/A	10.1	B	N/A
68	Caughdenoy Road and White Pines South Driveway 2	Unsignalized	8.5	A	N/A	9.2	A	N/A	9.4	A	N/A	10.4	B	N/A
69	Morgan Road and Verplank Road	Signalized	10.3	B	0.39	12.1	B	0.65	21.9	C	0.77	20.8	C	0.72
70	Morgan Road and GNM Driveway 1	Signalized	5.2	A	0.38	6.6	A	0.51	15.2	B	0.69	11.0	B	0.64
71	Pardee Road and McKinley Road	Unsignalized	8.9	A	N/A	9.8	A	N/A	10.1	B	N/A	10.0	A	N/A
72	Morgan Road and GNM Driveway 2	Unsignalized	8.5	A	0.37	14.2	B	0.60	15.1	B	0.62	14.9	B	0.70
73	GNM Driveway 3 and Verplank Road	Unsignalized	9.3	A	N/A	9.9	A	N/A	11.0	B	N/A	10.6	B	N/A
74	GNM Driveway 4 and Verplank Road	Unsignalized	9.2	A	N/A	9.9	A	N/A	11.5	B	N/A	11.0	B	N/A
76	NYS Route 31 and Access Road	Signalized	11.0	B	N/A	54.3	D	N/A	20.0	C	N/A	49.0	D	N/A
77	Sneller Road and U.S. Route 11	Signalized	12.4	B	N/A	13.6	B	N/A	10.5	B	N/A	16.2	B	N/A
78	Carling Road South/Carling Road North and NYS Route 31	Signalized	10.1	B	N/A	17.7	B	N/A	14.2	B	N/A	14.9	B	N/A
79	I-81 NB Off-Ramp/I-81 NB On-Ramp and Sneller Road	Signalized	9.4	A	N/A	16.1	B	N/A	14.4	B	N/A	14.7	B	N/A
80	Access Road and Maple Road	Roundabout	3.7	A	N/A	9.7	A	N/A	3.9	A	N/A	10.6	B	N/A
81	NYS Route 481 Interchange/Access Road and NYS Route 481 NB On-Ramp/NYS Route 481 NB Off-Ramp	Signalized	4.4	A	N/A	25.1	C	N/A	8.8	A	N/A	11.6	B	N/A
82	NYS Route 481 SB Off-Ramp/NYS Route 481 SB On-Ramp and NYS Route 481 Interchange	Signalized	5.9	A	N/A	23.1	C	N/A	8.7	A	N/A	11.1	B	N/A
100	NYS Route 31 and Lakeshore Road	Signalized	3.5	A	N/A	6.2	A	N/A	2.9	A	N/A	6.4	A	N/A
101	Caughdenoy Road and Micron Driveway X	Unsignalized	8.9	A	N/A	10.7	B	N/A	10.5	B	N/A	13.1	B	N/A

Intersection ID	Intersection Name	Intersection Control	6AM			7AM			4PM			5PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
132	Davidson and NYS Route 31	Signalized	12.6	B	0.35	29.9	C	0.62	22.3	C	0.79	25.1	C	0.80
141	Sneller and Pardee Road	Signalized	15.7	B	N/A	20.9	C	N/A	23.7	C	N/A	23.0	C	N/A
233	Oswego and Verplank Road	Unsignalized	12.0	B	N/A	18.2	C	N/A	19.6	C	N/A	17.7	C	N/A
246	U.S. Route 11 and Hogan Drive	Signalized	3.8	A	N/A	4.5	A	N/A	52.1	D	N/A	24.0	C	N/A
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	16.1	B	0.38	27.6	C	0.66	20.8	C	0.81	15.4	B	0.81
260	U.S. Route 11 and Chick-fil-A	Signalized	6.3	A	0.21	9.3	A	0.43	34.7	C	1.03	16.3	B	0.89
262	NYS Route 31 and Carling Road	Signalized	16.5	B	0.59	31.6	C	0.93	45.6	D	1.07	32.6	C	0.97
267	NYS Route 31 and Dell Center Drive	Signalized	13.4	B	0.56	18.3	B	0.67	24.2	C	0.90	23.0	C	0.91
275	Verplank Road and Proposed Access #1	Unsignalized	9.5	A	N/A	10.3	B	N/A	10.6	B	N/A	10.3	B	N/A
276	Lowes/Home Depot and NYS Route 31	Signalized	11.7	B	0.41	10.9	B	0.70	44.3	D	0.99	31.9	C	0.95
280	NYS Route 31 and Oswego Road	Signalized	24.6	C	0.55	40.8	D	0.97	52.6	D	1.07	41.8	D	0.97
284	NYS Route 31 and Proposed Access	Unsignalized	9.4	A	N/A	8.8	A	N/A	10.8	B	N/A	11.1	B	N/A
287	Proposed Access #2 and Verplank Road	Unsignalized	9.3	A	N/A	10.0	A	N/A	10.7	B	N/A	10.2	B	N/A
288	Soule Road and Carling Road and NYS Route 481 SB Ramp	Roundabout	5.8	A	N/A	8.0	A	N/A	40.3	D	N/A	44.6	D	N/A

[a] Signalized in Preferred Action Scenario

9.5.2.1 AM Peak Hour

All intersections operate with minimal delay and LOS C or higher operating conditions in the first hour of the morning peak period. The higher-volume demand in the 7:00 a.m. hour leads to higher average delays and corresponding deterioration in LOS at several intersections throughout the Transportation Evaluation Area; however, all intersections still provide acceptable operations at LOS D or better with the exception of the NYS Route 31 and I-81 southbound ramp operating at LOS E. This intersection would still meet the definition of a significant impact, but all other locations are fully mitigated. Further discussions regarding this significant impact being unmitigated can be found in subsequent sections of this section.

9.5.2.2 PM Peak Hour

With the proposed recommended mitigations, several of the unsignalized and signalized intersections highlighted in the 2041 No Action discussion (refer to Section 9.1.2) improve to acceptable operating conditions in the evening peak period. However, LOS E overall operating conditions for seven signalized intersections perpetuate even with the improvements analyzed in this scenario. The signalized intersections between U.S. Route 11 and Circle Drive operates at LOS E during the 4:00 p.m. peak hour (traffic transiting between NYS Route 481 and U.S. Route 11 travels through this intersection). During the 4:00 p.m. peak hour, the following intersections operate overall at LOS E:

- #1: NYS Route 31 and NYS Route 481 Southbound Ramps: This intersection also operates at LOS E overall in the 2041 No Action scenario. The westbound and eastbound through movements conflict for green time at the crossover intersections and are exacerbated, with additional Micron-generated trips traveling through this DDI.
- #4: NYS Route 31 and GNM West: This intersection also operates at LOS E overall in the 2041 No Action scenario. The green time for the high-demand left turns from the cross street is restricted to provide adequate green time and maintain progression for NYS Route 31 through movements.
- #6: NYS Route 31 and Morgan Road: This intersection also operates at LOS E overall in the 2041 No Action scenario. The conflict for adequate green time within the signal cycle between the westbound through movement and the eastbound left-turn movement perpetuates this scenario, which does not include capacity improvements at this intersection.
- #20: NYS Route 31 and Lakeshore Spur: The green time for the high-demand left turns from the cross street is restricted to provide adequate green time and maintain progression for NYS Route 31 through movements.
- #38: U.S. Route 11 and Circle Drive: This intersection operates LOS C overall in 2041 No Action scenario, the increase in rerouting traffic from NYS Route 481 down to Circle Drive causes the overall intersection LOS downgrade to LOS E.

Micron employees leaving the campus during the 5:00 p.m. hour increase demand compared to the 4:00 p.m. peak hour, resulting in higher average delay and corresponding deterioration of LOS. However, most intersections remain in acceptable operating conditions. Of the five signalized intersections noted in the 4:00 p.m. peak hour, only the NYS Route 481 southbound ramps and GNM Redevelopment West intersections with NYS Route 31 continue LOS E operations in the 5:00 p.m. peak hour. These other intersections operate at LOS E in the second half of the evening peak period:

- #16: NYS Route 31 and U.S. Route 11: The westbound through movement and the competing northbound off-ramp left-turn movement are both high-demand volumes, so adequate green time cannot be provided.

- #24: NYS Route 31 and South Bay Road: The side-street movements do not receive adequate green time to service the demand.
- #47: Cicero-North Syracuse High School East Driveway and NYS Route 31

The delay values for the LOS E intersections are in the lower end of the LOS E delay range shown in Table 2-3 (refer to Section 2.2.3), indicating operations are congesting but not at unacceptable or congested conditions. Some of these locations during the p.m. peak hours still meet the definition of significant impact. Further discussions regarding these significant impacts being unmitigated can be found in subsequent sections of this section.

9.5.3 Freeway Operations

Table 9-14 and 9-15 summarize the freeway densities and corresponding LOS. Generally, the I-81 and the NYS Route 481 freeways operate in relatively uncongested conditions in AM and PM peak periods (LOS C or better). The number of freeway segments operating at LOS E or worse reduces from 19 percent in the Preferred Action Alternative to zero in this scenario. The demand generally increases in the second hour of each peak period; however, the corresponding increases in density do not cause a deterioration to unacceptable operating conditions. Hence, the recommended intersection and interchange capacity improvements would mitigate the effects of Proposed Project-generated trips as well as other forecasted growth and provide acceptable peak period operating conditions.

Table 9-14. Year 2041 Mitigation Scenario C AM and PM Peak-Hour Freeway I-81 Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					6AM					7AM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 NB	I-81 NB Between E Taft Road and NYS Route 481	Basic	1,368	1,364	66	6.9	A	3,100	3,094	65	15.8	A	3,921	3,917	65	20.1	C	3,759	3,762	65	19.3	C
	I-81 NB Off-Ramp to I-481	Diverge	1,368	1,357	64	5.3	A	3,100	3,076	64	12.1	A	3,921	3,903	62	15.7	B	3,759	3,756	62	15.1	B
	I-81 NB Between Off/On-Ramps to/from I-481	Basic	1,173	1,164	66	5.9	A	2,907	2,891	65	14.9	A	3,660	3,656	64	19.0	C	3,542	3,553	64	18.5	C
	I-81 NB Between Off/On-Ramps to/from I-481	Weave	1,323	1,301	61	5.3	A	3,057	3,037	60	12.6	A	3,668	3,660	59	15.4	B	3,589	3,600	56	16.1	B
	I-81 NB after Off-Ramp to I-481	Basic	919	897	61	7.4	A	2,117	2,103	60	17.6	A	2,292	2,280	60	19.0	C	2,145	2,162	60	18.0	C
	I-81 NB On-Ramp from I-481	Merge	1,207	1,174	67	4.4	A	2,866	2,842	66	10.8	A	3,372	3,367	66	12.8	B	3,121	3,144	66	11.9	B
	I-81 NB Between I-481 and NYS Route 31	Basic	1,207	1,167	67	5.8	A	2,866	2,829	65	14.5	A	3,372	3,364	65	17.2	B	3,121	3,153	65	16.1	B
	I-81 NB Off-Ramp to NYS Route 31	Diverge	1,207	1,162	67	3.5	A	2,866	2,806	66	8.5	A	3,372	3,359	66	10.2	B	3,121	3,155	66	9.6	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 31	Basic	721	686	67	3.4	A	1,060	1,050	67	5.2	A	2,258	2,248	66	11.3	B	2,106	2,129	66	10.7	A
	I-81 NB On-Ramp from NYS Route 31	Merge	922	879	65	3.4	A	1,372	1,365	64	5.3	A	3,149	3,115	61	12.7	B	2,998	2,966	62	12.0	B
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	922	878	67	4.4	A	1,372	1,364	66	6.8	A	3,149	3,116	65	15.9	B	2,998	2,966	66	15.1	B
	I-81 NB Off-Ramp to Sneller Road	Diverge	922	860	67	3.2	A	1,372	1,333	66	5.0	A	3,149	3,080	64	12.0	B	2,998	2,949	64	11.5	B
	I-81 NB Between Off/On-Ramps to/from Sneller Road	Basic	767	718	67	3.6	A	1,186	1,172	67	5.9	A	2,765	2,721	66	13.8	B	2,648	2,635	66	13.4	B
	I-81 NB On-Ramp from Sneller Road	Merge	792	737	67	2.7	A	1,224	1,210	67	4.5	A	2,972	2,926	65	11.3	B	2,896	2,883	65	11.2	B
	I-81 NB Between Sneller Road and Bartell Road	Basic	792	731	67	3.6	A	1,224	1,206	67	6.0	A	2,972	2,924	65	14.9	B	2,896	2,889	65	14.7	B
	I-81 NB Off-Ramp to Bartell Road	Diverge	792	723	66	2.8	A	1,224	1,200	64	4.7	A	2,972	2,922	60	12.2	B	2,896	2,894	60	12.1	B
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	722	660	67	3.3	A	1,046	1,029	67	5.1	A	2,408	2,367	65	12.2	B	2,361	2,352	64	12.2	B
	I-81 On-Ramp from Bartell Road	Merge	771	703	66	2.7	A	1,136	1,114	65	4.3	A	2,569	2,521	65	9.7	A	2,571	2,556	64	9.9	A
	I-81 NB Between Bartell Rd and East Avenue	Basic	771	701	67	3.5	A	1,136	1,118	67	5.6	A	2,569	2,531	66	12.8	B	2,571	2,561	66	12.9	B
I-81 SB	I-81 SB Between East Ave and Bartell Road	Basic	1,502	1,499	67	7.4	A	2,618	2,614	66	13.1	A	1,464	1,463	68	7.2	A	1,303	1,302	68	6.4	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	1,502	1,486	66	5.6	A	2,618	2,591	64	10.1	A	1,464	1,451	65	5.6	A	1,303	1,295	65	5.0	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	1,425	1,420	67	7.1	A	2,438	2,430	66	12.3	A	1,283	1,286	67	6.4	A	1,130	1,125	68	5.6	A
	I-81 SB On-Ramp from Bartell Road	Merge	1,807	1,795	65	6.9	A	3,024	3,006	64	11.8	A	1,829	1,828	64	7.1	A	1,622	1,611	65	6.2	A
	I-81 SB Between Bartell Rd and Sneller Road	Basic	1,807	1,790	66	9.0	A	3,024	3,001	65	15.4	A	1,829	1,833	67	9.1	A	1,622	1,623	67	8.1	A
	I-81 SB Off-Ramp to Sneller Road	Diverge	1,807	1,781	66	6.8	A	3,024	2,991	60	12.5	A	1,829	1,834	64	7.2	A	1,622	1,628	64	6.3	A
	I-81 SB Between Off-Ramp and On-Ramp to Sneller Road	Basic	1,780	1,750	66	8.8	A	2,923	2,886	65	14.9	A	1,747	1,749	67	8.7	A	1,537	1,550	67	7.7	A
	I-81 SB On-Ramp from Sneller Road	Merge	2,120	2,056	66	7.8	A	3,424	3,360	65	13.0	A	2,120	2,104	66	8.0	A	1,879	1,886	66	7.2	A
	I-81 SB Between Sneller Road and NYS Route 31	Basic	2,120	2,069	66	10.4	A	3,424	3,388	64	17.6	A	2,120	2,117	66	10.6	A	1,879	1,901	67	9.5	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	2,120	2,058	64	8.1	A	3,424	3,380	54	15.5	A	2,120	2,112	64	8.2	A	1,879	1,902	65	7.3	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	1,646	1,595	66	8.0	A	2,619	2,580	64	13.4	A	1,602	1,600	67	8.0	A	1,504	1,515	67	7.5	A
	I-81 SB On-Ramp from NYS Route 31	Merge	2,299	2,214	64	6.9	A	3,603	3,553	63	11.2	A	2,396	2,359	64	7.4	A	3,428	3,213	60	10.7	B
	I-81 SB Between NYS Route 31 and I-81	Basic	2,299	2,200	66	11.2	B	3,603	3,561	63	18.8	B	2,396	2,366	66	12.0	B	3,428	3,228	64	16.9	B
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	2,299	2,200	66	11.2	B	3,603	3,561	63	18.8	B	2,396	2,366	66	12.0	B	3,428	3,228	64	16.9	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	1,585	1,513	65	11.6	B	2,387	2,357	62	18.9	B	1,690	1,665	65	12.8	B	2,312	2,192	62	17.6	B
	I-81 SB Off-Ramp to I-81 WB	Diverge	1,585	1,508	65	7.7	A	2,387	2,354	63	12.4	A	1,690	1,661	65	8.5	A	2,312	2,192	64	11.5	B

Segment Direction	Segment Description	Segment Type	6AM					7AM					6AM					7AM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
I-81 SB (continued)	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	1,567	1,488	65	11.4	B	2,355	2,319	64	18.2	B	1,594	1,564	66	11.9	B	2,183	2,077	65	16.1	B
	I-81 SB On-Ramp from NYS Route 481 WB	Merge	1,763	1,668	65	8.5	A	2,592	2,563	65	13.2	A	1,798	1,764	66	8.9	A	2,363	2,260	65	11.5	B
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	2,985	2,743	63	10.9	B	4,115	4,057	62	16.4	B	3,228	3,134	63	12.5	B	4,015	3,876	62	15.5	B
	I-81 NB Between NYS Route 481 and E Taft Road	Basic	2,985	2,752	65	14.1	B	4,115	4,080	63	21.5	B	3,228	3,152	65	16.1	B	4,015	3,897	64	20.2	C

Table 9-15. Year 2041 Mitigation Scenario C AM and PM Peak-Hour Freeway NYS Route 481 Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 EB	NYS Route 481 EB Between Verplank Road and NYS Route 31	Basic	1,207	1,187	63	9.4	A	2,013	2,004	62	16.2	A	1,371	1,365	61	11.2	B	1,256	1,252	62	10.1	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	1,207	1,186	53	7.4	A	2,013	2,003	49	13.6	A	1,371	1,365	44	11.8	B	1,256	1,254	45	9.3	A
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	793	780	66	5.9	A	1,307	1,298	65	10.0	A	705	709	66	5.3	A	624	621	67	4.7	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	1,920	1,834	59	7.8	A	3,079	3,027	57	13.2	A	2,350	2,272	57	10.0	B	2,045	1,998	57	8.8	A
	NYS Route 481 EB Between NYS Route 31 and New Access Road	Basic	1,920	1,829	64	9.5	A	3,079	3,020	61	16.4	A	2,350	2,273	64	11.9	B	2,045	2,001	65	10.3	A
	NYS Route 481 EB Off-Ramp to New Access Road	Diverge	1,920	1,799	64	9.4	A	3,079	3,015	54	20.1	A	2,350	2,282	62	12.2	B	2,045	2,027	63	10.7	B
	NYS Route 481 Between Off-Ramp and On-Ramp from New Access Road	Basic	1,862	1,736	64	13.6	B	2,462	2,436	62	19.6	B	2,093	2,045	64	16.1	B	1,767	1,764	64	13.7	B
	NYS Route 481 On-Ramp from New Access Road	Merge	2,039	1,904	65	7.3	A	2,734	2,699	64	10.5	A	2,266	2,217	65	8.6	A	2,504	2,487	64	9.7	A
	NYS Route 481 EB Between New Access Road and Caughdenoy Road	Basic	2,039	1,885	64	14.8	B	2,734	2,697	63	21.6	B	2,266	2,204	64	17.3	B	2,504	2,488	63	19.6	C
	NYS Route 481 On-Ramp from Caughdenoy Road	Merge	2,333	2,153	65	11.0	B	3,212	3,157	64	16.4	B	2,461	2,391	63	12.8	B	2,775	2,753	61	15.0	B
	NYS Route 481 Between Caughdenoy Road and U.S. Route 11	Basic	2,333	2,137	63	17.0	B	3,212	3,165	61	25.9	B	2,461	2,399	63	19.1	C	2,775	2,755	62	22.1	C
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	2,333	2,099	58	12.2	B	3,212	3,135	55	19.0	B	2,461	2,370	52	15.3	B	2,775	2,731	54	16.9	B
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	2,165	1,965	62	15.9	B	2,995	2,951	60	24.5	B	1,964	1,906	63	15.0	B	2,487	2,448	63	19.5	C
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	2,754	2,521	61	13.8	B	3,806	3,755	59	21.2	B	2,731	2,656	57	15.4	B	2,950	2,911	56	17.4	B
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	1,532	1,407	65	7.2	A	2,282	2,238	64	11.7	A	1,301	1,268	66	6.4	A	1,298	1,276	66	6.4	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	1,382	1,266	66	9.6	A	2,132	2,088	65	16.2	A	1,294	1,262	66	9.5	A	1,250	1,235	66	9.3	A
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	1,577	1,459	64	7.6	A	2,326	2,280	63	12.1	A	1,555	1,524	64	7.9	A	1,467	1,454	65	7.5	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	2,292	2,127	66	8.0	A	3,543	3,466	65	13.4	A	2,261	2,221	66	8.4	A	2,583	2,473	66	9.3	A
	NYS Route 481 EB Between I-81 and Northern Blvd	Basic	2,292	2,119	66	10.6	A	*3,543*	3,463	65	17.8	A	2,261	2,222	67	11.1	B	2,583	2,473	67	12.4	B

Segment Direction	Segment Description	Segment Type	6AM					7AM					4PM					5PM				
			Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS	Demand (vph)	Through put (vph)	Speed (mph)	Density (veh/mi/ln)	LOS
NYS Route 481 WB	NYS Route 481 WB Between Northern Blvd and I-81	Basic	1,011	1,005	67	7.5	A	2,432	2,424	66	18.4	A	3,031	3,023	65	23.1	C	2,650	2,643	66	20.1	C
	NYS Route 481 WB Off-Ramp to I-81	Diverge	1,011	1,004	67	5.0	A	2,432	2,426	65	12.5	A	3,031	3,031	64	15.8	B	2,650	2,650	65	13.6	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	724	717	51	7.1	A	1,684	1,668	50	16.8	A	1,950	1,944	49	19.6	C	1,673	1,677	50	16.8	B
	NY WB 481 Between On-Ramp and Off-Ramp to I-81	Weave	1,127	1,109	60	6.2	A	2,623	2,582	58	14.7	A	3,326	3,321	58	19.2	B	3,118	3,123	57	18.1	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	932	920	65	7.1	A	2,386	2,346	63	18.8	A	3,121	3,132	62	25.4	C	2,939	2,951	62	23.9	C
	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	949	932	65	4.8	A	2,418	2,374	64	12.4	A	3,218	3,228	64	16.8	B	3,067	3,065	64	16.0	B
	NYS Route 481 WB Off-Ramp and On-Ramp from Cir Drive	Basic	588	581	64	4.5	A	1,867	1,818	63	14.4	A	2,074	2,081	63	16.4	B	1,822	1,839	64	14.4	B
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	757	746	63	4.0	A	2,294	2,235	59	12.7	A	2,549	2,560	57	15.0	B	2,287	2,308	58	13.3	B
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	757	742	66	5.6	A	2,294	2,220	63	17.5	A	2,549	2,558	63	20.2	C	2,287	2,313	64	18.1	C
	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	757	723	64	3.8	A	2,294	2,168	59	12.2	A	2,549	2,516	58	14.4	B	2,287	2,280	59	13.0	B
	NYS Route 481 WB Between Caughdenoy Rd and New Access Road	Basic	706	681	66	5.1	A	2,118	2,033	63	16.0	A	2,260	2,272	64	17.8	B	2,022	2,049	64	16.0	B
	NYS Route 481 WB Off-Ramp to New Access Road	Diverge	706	677	66	2.6	A	2,118	2,018	64	7.8	A	2,260	2,267	64	8.9	A	2,022	2,054	64	8.0	A
	NYS Route 481 WB Off-Ramp and On-Ramp from New Access Road	Basic	679	648	66	4.9	A	1,080	1,063	65	8.2	A	2,171	2,178	64	17.1	B	1,962	1,995	64	15.6	B
	NYS Route 481 WB On-Ramp from New Access Road	Merge	840	801	66	4.1	A	1,346	1,325	65	6.8	A	2,374	2,374	63	12.5	B	2,535	2,554	63	13.6	B
	NYS Route 481 WB Btw New Access Road and NYS Route 31	Basic	840	790	66	6.0	A	1,346	1,323	65	10.2	A	2,374	2,374	63	18.8	C	2,535	2,560	63	20.3	C
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	840	770	65	3.0	A	1,346	1,306	64	5.1	A	2,374	2,360	60	9.8	A	2,535	2,542	60	10.6	B
	NYS Route 481 WB Btw Off-Ramp and On-Ramp from NYS Route 31	Basic	337	307	67	2.3	A	519	506	67	3.8	A	607	610	67	4.5	A	712	713	67	5.3	A
	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	539	506	63	2.7	A	855	832	62	4.5	A	1,462	1,428	57	8.4	A	1,486	1,464	57	8.5	A
	NYS Route 481 WB Btw NYS Route 31 and Verplank Road	Basic	539	505	64	3.9	A	855	831	63	6.5	A	1,462	1,424	62	11.6	B	1,486	1,464	62	11.8	B

9.6 Year 2041 Summary

The year 2041 represents the period with the highest projected trip volumes generated by the Proposed Project. The manufacturing employees and construction workers engaged in building the successive phases of the four fabs would be co-located through the full build-out of the Proposed Project by 2045. At full operational capacity in 2045, the workforce would total approximately 9,000 workers. The volume of onsite workers is expected to peak at 12,436 in 2041, resulting from the combination of construction and operational workforces. After 2041, as construction is completed, the onsite construction workforce is expected to dwindle to a lower level, with minimal presence required to maintain and upgrade the facilities, thereby reducing overall projected trip volumes. The Preferred Action Alternative incorporates projected trips generated by the Proposed Project's construction and operations employees to the background volume. It adds six driveways (seven driveways total), providing access to the Micron Campus.

By 2041, NYSDOT would have completed all planned improvements in Mitigation Scenario C plus the NYSDOT background improvements scheduled by 2027. Operationally, the network improvements would address all of the growth from the 2027 to 2041 analysis years. The additional trips generated by the Proposed Project result in higher traffic density, but acceptable operating conditions would be provided for all freeway segments within the Transportation Evaluation Area. Table 9-14 and Table 9-15 summarizes freeway segment performance based on Vissim results for I-81 (northbound and southbound) and NYS Route 481 (eastbound and westbound) during a.m. and p.m. peak periods.

In 2041, most intersections operate acceptably at a LOS D or better in both peak periods; however, several experience higher delays and operate at LOS E or LOS F, particularly during the PM peak period. Almost all intersections that had a lower LOS in the 2041 No Action scenario will experience the same or worse LOS because of the increased demand from projected trips. Increased traffic volume results in longer wait times at intersections for turning movements from side streets onto higher-volume primary roadways.

The 2041 Preferred Action Alternative analysis indicates that the long-term impact traffic volumes will be highest at that time from the overlap of construction workers and Micron's operational workers. While the roadway network remains the same as in the No Action Alternative, with no physical capacity improvements beyond what was completed by NYSDOT prior to 2041, to accommodate the additional trips generated by the Proposed Project, the signal timing at each signalized intersection was optimized to account for the increased traffic. Thus, there are proposals to enhance local infrastructure by extending sidewalks and shared-Use paths. The modeling indicated that the 2041 Preferred Action would result in 13 significant impacts to intersections during the a.m. peak hour and 28 significant impacts to intersections during the p.m. peak hour. Ten freeway segments during the a.m. peak hour would also be significantly impacted. Mitigations Scenarios A, B, and C were developed to evaluate progressively layering mitigations to mitigate the aforementioned significant adverse traffic impacts.

Mitigation Scenario C proposes the broadest array of traffic improvements to mitigate the impact of traffic operations within the Transportation Evaluation Area in 2041, as outlined in the Preferred Alternative. While it is recognized that overall traffic volume and densities will increase, with the recommended improvements in place, operations are expected to remain within the acceptable range. Scenario C would require structural roadway configuration changes, including interchanges, ramps, roadways lane configurations to achieve the proposed operational conditions. Under Scenario C, there are no unmitigated significant adverse impacts during the a.m. and p.m. peak hours regarding freeway operations in 2041. At intersection locations, the following five intersections would still experience significant impacts:

6. NYS Route 31 and I-81 SB Ramp
7. NYS Route 31 and NYS Route 481 SB

8. U.S. Route 11 and NYS Route 31
9. NYS Route 31 and Lakeshore Spur
10. South Bay Road and NYS Route 31

Upon reviewing potential additional mitigations, these five locations were maintained as unmitigable due to each intersection expected to operate at LOS E with Mitigation Scenario C and significant geometric constraints to implement any additional improvements. Specifically, at the NYS Route 31 intersections with the I-81 and NYS Route 481 southbound ramps, the current mitigation scenario already incorporates reconfiguring the interchanges to DDIs. Providing further mitigation would require additional widening along the ramps or NYS Route 31 which would have significant geometric impacts to implement. At the NYS Route 31 intersection with Lakeshore Spur, the mitigation scenario incorporates widening along NYS Route 31 to provide additional through lanes. Providing further mitigation would require additional widening along NYS Route 31 the provision of additional turn lanes at this intersection. At the NYS Route 31 intersection with South Bay Road, the intersection operates at LOS E with 56 seconds of delay per vehicle, which is only one second of delay from LOS D. Finally, at the intersection of U.S. Route 11 and NYS Route 31, the mitigation scenario incorporates widening along each roadway. Further mitigation would require additional widening along these roadways.

9.6.1 2041 No Action Alternative Versus 2041 Preferred Action Alternative Versus 2041 Preferred Action with Mitigation Scenario C

9.6.1.1 Intersection Operations

Table 9-16 and Table 9-17 show the summary of intersection operations for year 2041 all analysis scenarios during a.m. and p.m. peak hours, respectively. The recommended mitigation measures improve traffic operations with all intersections operating at LOS E or better. There are five intersections that would be expected to experience significant impacts with Mitigation Scenario C implemented but would be maintained as unmitigable due to each intersection expected to operate at LOS E and significant geometric constraints to implement any additional improvements. Table 9-18 shows only the intersections significantly impacted by the 2041 Preferred Action Alternative with the Mitigation Scenario C in place.

9.6.1.2 Freeway Operations

Table 9-19 and 9-20 show the summary of freeway operations for the year 2041 for all analysis scenarios during a.m. and p.m. peak hours, respectively. The Preferred Action Alternative with Mitigation Scenario C in place will address all failing LOS. The mitigation measures improve traffic operations, with all segments operating at LOS C or better. Table 9-21 shows the freeway operations, in terms of delay and LOS, that significantly impacted by the 2041 Preferred Action Alternative with the Mitigation Scenario C in place.

Table 9-16. Year 2041 No Action Vs. Preferred Action Alternative Vs. Preferred Action Alternative with Mitigation Scenario C AM Peak-Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/ Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			6 AM			6 AM			6 AM			7 AM			7 AM			7 AM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	8	A	0.64	11	B	0.51	13	B	0.62	8	A	0.71	13	B	0.87	13	B	0.77
2	NYS Route 31 and NYS Route 481 NB	Signalized	12	B	0.41	8	A	0.5	11	B	0.52	13	B	0.61	19	B	0.85	15	B	0.79
3	Marketfair Plaza and NYS Route 31	Signalized	4	A	0.32	4	A	0.3	5	A	0.39	1	A	0.49	3	A	0.68	5	A	0.6
4	NYS Route 31 and GNM West	Signalized	16	B	0.58	21	C	0.5	17	B	0.38	20	B	0.82	20	B	0.85	18	B	0.62
5	Parking Lot/GNM East and NYS Route 31	Signalized	14	B	0.57	23	C	0.55	20	B	0.48	25	C	0.85	30	C	0.84	28	C	0.61
6	Morgan Road and NYS Route 31	Signalized	25	C	0.66	33	C	0.54	27	C	0.45	34	C	0.88	50	D	1.1	36	D	1
7	Henry Clay Boulevard and NYS Route 31	Signalized	20	C	0.5	23	C	0.51	16	B	0.33	29	C	0.66	54	D	0.99	33	C	0.86
8	Grange Road W and NYS Route 31	Unsignalized	23	C	N/A	25	D	N/A	2	A	0.22	100	F	N/A	>300	F	N/A	6	A	0.73
9	Van Hoesen Road and NYS Route 31	Unsignalized	20	C	N/A	21	C	N/A	3	A	0.16	42	E	N/A	>300	F	N/A	4	A	0.61
10	Grange Road E and NYS Route 31	Unsignalized	12	B	N/A	13	B	N/A	10	B	N/A	16	C	N/A	>300	F	N/A	15	C	N/A
11	Caughdenoy Road and NYS Route 31	Signalized	6	A	0.24	11	B	0.33	3	A	0.19	8	A	0.44	47	D	0.96	12	B	0.85
12	Stearns Road and NYS Route 31	Unsignalized	18	C	N/A	21	C	N/A	6	A	0.23	66	F	N/A	>300	F	N/A	14	B	0.64
13	NYS Route 31 and Burnet Road	Unsignalized[a]	15	B	N/A	19	B	0.33	3	A	0.21	23	C	N/A	>300	F	6.59	19	B	0.77
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	12	B	N/A	11	B	N/A	10	B	N/A	18	C	N/A	236	F	N/A	34	D	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	8	A	0.49	8	A	0.51	10	A	0.33	13	B	0.75	246	F	1.59	35	C	0.98
16	U.S. Route 11 and NYS Route 31	Signalized	27	C	0.74	43	D	0.65	19	B	0.33	40	D	1.07	94	F	1.28	27	C	0.8
17	NYS Route 31 and I-81 SB Ramp	Signalized	18	B	0.79	20	C	0.77	15	B	0.5	51	D	1.15	114	F	1.33	66	E	1.12
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	24	C	0.6	27	C	0.66	13	B	0.52	40	D	0.92	>300	F	2.24	24	C	0.82
19	NYS Route 31 and Lakeshore Road	Signalized	15	B	0.38	30	C	0.38	4	A	N/A	8	A	0.61	11	B	0.79	6	A	N/A
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	5	A	0.48	10	A	0.57	18	B	0.45	8	A	0.66	17	B	0.89	23	C	0.74
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	7	A	0.33	8	A	0.32	8	A	0.39	8	A	0.47	10	B	0.61	11	B	0.71
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	10	A	0.39	13	B	0.36	7	A	0.37	15	B	0.57	16	B	0.57	11	B	0.55
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	6	A	N/A	7	A	N/A	6	A	N/A	11	B	N/A	14	B	N/A	10	A	N/A
24	South Bay Road and NYS Route 31	Signalized	13	B	0.6	14	B	0.6	27	C	0.62	21	C	0.82	25	C	0.85	43	D	0.86
25	Henry Clay Boulevard and Verplank Road	Signalized	12	B	0.15	13	B	0.15	25	C	0.1	10	A	0.31	8	A	0.42	17	B	0.18
26	Caughdenoy Road and Verplank Road	Unsignalized	10	A	N/A	10	A	N/A	7	A	0.16	11	B	N/A	41	E	N/A	11	B	0.48
27	Caughdenoy Road and Mud Mill Road	Unsignalized	10	A	N/A	10	A	N/A	20	B	0.16	12	B	N/A	26	D	N/A	18	B	0.51
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	10	B	N/A	13	B	N/A	12	B	N/A
29	U.S. Route 11 and Mud Mill Road	Signalized	11	B	0.08	10	B	0.08	7	A	0.21	9	A	0.15	9	A	0.23	9	A	0.49
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	16	B	0.55	10	A	0.46	10	B	0.44	14	B	0.68	12	B	0.78	9	A	0.74
32	Henry Clay Boulevard and Wetzel Road	Signalized	18	B	0.28	18	B	0.28	15	B	0.24	19	B	0.45	20	B	0.5	18	B	0.45
33	Allen Road and Bear Road	Signalized	9	A	0.25	7	A	0.31	7	A	0.35	9	A	0.51	10	A	0.56	9	A	0.59

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/ Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			6 AM			6 AM			6 AM			7 AM			7 AM			7 AM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
34	U.S. Route 11 and Bear Road	Signalized	30	C	0.56	34	C	0.52	27	C	0.46	37	D	0.8	45	D	0.78	36	D	0.6
35	Bear Road and I-481 EB On/Off-Ramp	Signalized	16	B	0.33	12	B	0.39	14	B	0.35	14	B	0.44	15	B	0.49	10	B	0.42
36	South Bay Road and Bear Road	Signalized	9	A	0.25	9	A	0.26	8	A	0.26	9	A	0.42	10	A	0.44	10	A	0.46
37	I-481 WB On/Off-Ramp and Circle Drive E	Signalized	19	B	0.19	13	B	0.25	13	B	0.3	12	B	0.47	22	C	0.43	17	B	0.51
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	7	A	0.39	12	B	0.41	31	C	0.26	9	A	0.61	14	B	0.61	27	C	0.36
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	22	C	0.36	20	B	0.35	18	B	0.22	24	C	0.77	24	C	0.58	18	B	0.56
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Unsignalized	10	A	N/A	10	B	N/A	4	A	N/A	11	B	N/A	>300	F	N/A	7	A	N/A
41	Maple Road and Grange Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	10	A	N/A	9	A	N/A	9	A	N/A
43	U.S. Route 11 and Crabtree Lane	Unsignalized	18	C	N/A	18	C	N/A	5	A	0.18	20	C	N/A	30	D	N/A	6	A	0.35
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	9	A	N/A	9	A	N/A	9	A	N/A
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	11	B	N/A	11	B	N/A	12	B	N/A	14	B	N/A	14	B	N/A	15	B	N/A
50	McNamara Drive/Driveway and NYS Route 31	Unsignalized	26	D	N/A	28	D	N/A	10	A	0.23	>300	F	N/A	>300	F	N/A	14	B	0.7
54	Doreen Avenue and NYS Route 31	Unsignalized	13	B	N/A	13	B	N/A	14	B	N/A	17	C	N/A	20	C	N/A	26	D	N/A
55	NYS Route 31 and Button Road	Unsignalized	10	B	N/A	11	B	N/A	6	A	0.29	12	B	N/A	15	C	N/A	8	A	0.52
56	NYS Route 31 and Weller Canning Road	Unsignalized	15	C	N/A	16	C	N/A	10	B	N/A	29	D	N/A	>300	F	N/A	15	C	N/A
58	Caughdenoy Road and Micron Driveway 1	Unsignalized				9	A	N/A	3	A	0.07				13	B	N/A	2	A	0.33
59	Caughdenoy Road and Access Road/Micron Driveway 2	Signalized				9	A	0.07	16	B	0.14				>300	F	2.84	31	C	0.83
60	NYS Route 31 and Micron Driveway 3	Signalized				13	B	0.31	5	A	0.23				>300	F	8.89	44	D	0.84
62	NYS Route 31 and Micron Driveway 5	Signalized				20	B	0.35	3	A	0.21				>300	F	4.73	29	C	0.87
63	U.S. Route 11 and Micron Driveway 6	Signalized				9	A	0.11	4	A	0.07				>300	F	1.45	15	B	0.84
64	Caughdenoy Road and Healthcare Center Driveway	Unsignalized				9	A	N/A	9	A	N/A				9	A	N/A	9	A	N/A
65	Caughdenoy Road and Childcare Center Driveway	Unsignalized				9	A	N/A	9	A	N/A				10	B	N/A	10	B	N/A
66	White Pines South Driveway and NYS Route 31	Unsignalized				18	C	N/A	14	B	N/A				>300	F	N/A	17	C	N/A
67	Caughdenoy Road and White Pines South Driveway 1	Unsignalized				9	A	N/A	9	A	N/A				16	C	N/A	9	A	N/A
68	Caughdenoy Road and White Pines South Driveway 2	Unsignalized				9	A	N/A	9	A	N/A				15	C	N/A	9	A	N/A
69	Morgan Road and Verplank Road	Signalized	7	A	0.46	7	A	0.47	10	B	0.39	11	B	0.63	15	B	0.77	12	B	0.65
70	Morgan Road and GNM Driveway 1	Signalized	10	B	0.42	14	B	0.39	5	A	0.38	15	B	0.61	16	B	0.64	7	A	0.51
71	Pardee Road and McKinley Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	10	A	N/A	10	A	N/A	10	A	N/A
72	Morgan Road and GNM Driveway 2	Unsignalized	12	B	N/A	12	B	N/A	9	A	0.37	17	C	N/A	20	C	N/A	14	B	0.6
73	GNM Driveway 3 and Verplank Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	10	A	N/A	11	B	N/A	10	A	N/A
74	GNM Driveway 4 and Verplank Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	10	A	N/A	11	B	N/A	10	A	N/A
76	NYS Route 31 and Access Road	Signalized							11	B	N/A							54	D	N/A
77	Sneller Road and U.S. Route 11	Signalized							12	B	N/A							14	B	N/A
78	Carling Rd South/Carling Rd North and NYS Route 31	Signalized							10	B	N/A							18	B	N/A

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/ Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			6 AM			6 AM			6 AM			7 AM			7 AM			7 AM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
79	I-81 NB Off-Ramp/I-81 NB On-Ramp and Sneller Road	Signalized							9	A	N/A							16	B	N/A
80	Access Road and Maple Road	Roundabout							4	A	N/A							10	A	N/A
81	481 Interchange/Access Road and 481 NB On-Ramp/481 NB Off-Ramp	Signalized							4	A	N/A							25	C	N/A
82	481 SB Off-Ramp/481 SB On-Ramp and 481 Interchange	Signalized							6	A	N/A							23	C	N/A
101	Caughdenoy Road and Micron Driveway X	Unsignalized				9	A	N/A	9	A	N/A				12	B	N/A	11	B	N/A
132	Davidson and NYS Route 31	Signalized	11	B	0.58	16	B	0.54	13	B	0.35	16	B	0.7	31	C	0.91	30	C	0.62
141	Sneller and Pardee Road	Signalized							16	B	N/A							21	C	N/A
233	Oswego and Verplank Road	Unsignalized	12	B	N/A	12	B	N/A	12	B	N/A	17	C	N/A	18	C	N/A	18	C	N/A
246	U.S. Route 11 and Hogan Drive	Signalized	9	A	0.31	10	B	0.33	4	A	N/A	26	C	0.53	11	B	0.45	5	A	N/A
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	20	C	0.64	16	B	0.57	16	B	0.38	13	B	0.7	36	D	0.97	28	C	0.66
260	U.S. Route 11 and Chick-fil-A	Signalized	6	A	0.32	7	A	0.31	6	A	0.21	7	A	0.52	8	A	0.52	9	A	0.43
262	NYS Route 31 and Carling Road	Signalized	17	B	0.67	16	B	0.58	17	B	0.59	17	B	0.83	37	D	0.99	32	C	0.93
267	NYS Route 31 and Dell Center Drive	Signalized	22	C	0.47	22	C	0.41	13	B	0.56	12	B	0.57	15	B	0.71	18	B	0.67
275	Verplank Road and Proposed Access #1	Unsignalized	10	A	N/A	10	A	N/A	10	A	N/A	10	B	N/A	11	B	N/A	10	B	N/A
276	Lowes/Home Depot and NYS Route 31	Signalized	10	A	0.45	9	A	0.4	12	B	0.41	15	B	0.55	12	B	0.69	11	B	0.7
280	NYS Route 31 and Oswego Road	Signalized	25	C	0.7	27	C	0.66	25	C	0.55	43	D	0.92	89	F	1.18	41	D	0.97
284	NYS Route 31 and Proposed Access	Unsignalized	10	A	N/A	10	B	N/A	9	A	N/A	11	B	N/A	11	B	N/A	9	A	N/A
287	Proposed Access #2 and Verplank Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	10	A	N/A	11	B	N/A	10	A	N/A
288	Soule Rd and Carling Road and I-481 SB Ramp	Roundabout	8	A	N/A	8	A	N/A	6	A	N/A	8	A	N/A	11	B	N/A	8	A	N/A

[a] Signalized in Preferred Action Scenario

Table 9-17. Year 2041 No Action Alternative Vs. Preferred Action Alternative Vs. Preferred Action Alternative with Mitigation Scenario C PM Peak-Hour Intersection Operations – Delay and LOS

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/ Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			4 PM			4 PM			4 PM			5 PM			5 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
1	NYS Route 31 and NYS Route 481 SB	Signalized	68	E	1.15	70	E	1.14	70	E	1.17	42	D	1.03	64	E	1.13	76	E	1.15
2	NYS Route 31 and NYS Route 481 NB	Signalized	51	D	1.08	54	D	1.08	45	D	1.06	27	C	0.98	57	E	1.07	42	D	1.02
3	Marketfair Plaza and NYS Route 31	Signalized	7	A	0.75	4	A	0.79	6	A	0.72	6	A	0.83	4	A	0.88	5	A	0.76
4	NYS Route 31 and GNM West	Signalized	142	F	1.4	147	F	1.46	56	E	1.08	83	F	1.2	165	F	1.52	56	E	1.07
5	Parking Lot/GNM East and NYS Route 31	Signalized	51	D	1.04	83	F	1.25	36	D	0.95	30	C	1.01	109	F	1.35	38	D	0.96
6	Morgan Road and NYS Route 31	Signalized	71	E	1.09	82	F	1.16	56	E	0.93	59	E	1.01	153	F	1.56	50	D	0.91
7	Henry Clay Boulevard and NYS Route 31	Signalized	27	C	0.85	64	E	1	30	C	0.66	27	C	0.86	122	F	1.09	28	C	0.83
8	Grange Road W and NYS Route 31	Unsignalized	>300	F	N/A	>300	F	N/A	6	A	0.55	>300	F	N/A	>300	F	N/A	10	B	0.76
9	Van Hoesen Road and NYS Route 31	Unsignalized	108	F	N/A	127	F	N/A	3	A	0.48	83	F	N/A	>300	F	N/A	5	A	0.63
10	Grange Road E and NYS Route 31	Unsignalized	61	F	N/A	71	F	N/A	13	B	N/A	30	D	N/A	41	E	N/A	14	B	N/A
11	Caughdenoy Road and NYS Route 31	Signalized	22	C	0.9	28	C	0.94	32	C	0.75	12	B	0.69	177	F	1.17	18	B	0.87
12	Stearns Road and NYS Route 31	Unsignalized	63	F	N/A	116	F	N/A	10	A	0.65	70	F	N/A	>300	F	N/A	10	B	0.67
13	NYS Route 31 and Burnet Road	Unsignalized[a]	39	E	N/A	145	F	0.75	2	A	0.47	29	D	N/A	291	F	1.61	17	B	0.86
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	16	C	N/A	20	C	N/A	12	B	N/A	15	B	N/A	>300	F	N/A	11	B	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	34	C	0.86	46	D	1.01	21	C	0.79	28	C	1.01	227	F	1.61	33	C	0.97
16	U.S. Route 11 and NYS Route 31	Signalized	90	F	1.2	155	F	1.32	31	C	0.76	60	E	1.09	>300	F	2.01	78	E	1.13
17	NYS Route 31 and I-81 SB Ramp	Signalized	37	D	0.98	71	E	1.15	25	C	0.78	24	C	0.91	166	F	1.71	19	B	0.95
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	101	F	1.67	118	F	1.75	25	C	0.86	89	F	1.62	82	F	1.56	22	C	0.93
19	NYS Route 31 and Lakeshore Road	Signalized	17	B	0.69	22	C	0.74	3	A	N/A	9	A	0.63	9	A	0.66	6	A	N/A
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	48	D	1.18	64	E	1.28	60	E	1.02	32	C	1.07	93	F	1.49	54	D	1
21	New Country Drive/Cicero Elementary School Parking Lot and NYS Route 31	Signalized	9	A	0.71	11	B	0.61	18	B	0.75	9	A	0.55	10	B	0.55	17	B	0.67
22	Cicero-North Syracuse High School West Driveway and NYS Route 31	Signalized	72	E	1.63	35	C	1.13	30	C	1.08	20	B	0.9	22	C	0.96	20	C	0.93
23	Thompson Road/Torchwood Lane and NYS Route 31	Roundabout	67	E	N/A	72	E	N/A	20	B	N/A	36	D	N/A	43	D	N/A	15	B	N/A
24	South Bay Road and NYS Route 31	Signalized	32	C	0.93	38	D	1.05	46	D	0.87	24	C	0.84	61	E	1.35	56	E	0.97
25	Henry Clay Boulevard and Verplank Road	Signalized	12	B	0.52	12	B	0.53	19	B	0.3	12	B	0.45	13	B	0.67	19	B	0.3
26	Caughdenoy Road and Verplank Road	Unsignalized	17	C	N/A	19	C	N/A	8	A	0.34	14	B	N/A	213	F	N/A	8	A	0.48
27	Caughdenoy Road and Mud Mill Road	Unsignalized	13	B	N/A	14	B	N/A	13	B	0.46	12	B	N/A	25	C	N/A	13	B	0.61
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	14	B	N/A	15	C	N/A	14	B	N/A	13	B	N/A	36	E	N/A	17	C	N/A
29	U.S. Route 11 and Mud Mill Road	Signalized	8	A	0.25	8	A	0.27	12	B	0.6	7	A	0.21	7	A	0.29	13	B	0.65
31	Raymour and Flanigan/Wegmans East and NYS Route 31	Signalized	29	C	0.94	28	C	0.93	27	C	0.99	26	C	0.84	25	C	0.97	20	B	0.9
32	Henry Clay Boulevard and Wetzel Road	Signalized	26	C	0.74	27	C	0.74	26	C	0.71	24	C	0.66	25	C	0.73	22	C	0.67
33	Allen Road and Bear Road	Signalized	15	B	0.57	13	B	0.66	17	B	0.79	12	B	0.6	12	B	0.64	14	B	0.74
34	U.S. Route 11 and Bear Road	Signalized	50	D	0.94	49	D	0.98	40	D	0.83	46	D	0.96	62	E	1.08	42	D	0.81

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/ Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			4 PM			4 PM			4 PM			5 PM			5 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
35	Bear Road and I-481 EB On/Off-Ramp	Signalized	11	B	0.38	19	B	0.4	12	B	0.37	14	B	0.35	17	B	0.55	13	B	0.36
36	South Bay Road and Bear Road	Signalized	15	B	0.75	20	B	0.64	16	B	0.75	15	B	0.75	17	B	0.74	16	B	0.71
37	I-481 WB On/Off-Ramp and Circle Drive E	Signalized	17	B	0.66	25	C	0.59	15	B	0.62	28	C	0.52	18	B	0.78	16	B	0.65
38	U.S. Route 11 and Circle Drive W/Circle Drive E	Signalized	31	C	0.91	25	C	0.87	63	E	1.09	21	C	0.82	26	C	0.9	38	D	0.91
39	U.S. Route 11 and Caughdenoy Road/Widewaters Commons	Signalized	27	C	0.66	26	C	0.71	24	C	0.68	24	C	0.65	28	C	0.71	25	C	0.63
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Unsignalized	11	B	N/A	11	B	N/A	4	A	N/A	10	B	N/A	16	C	N/A	4	A	N/A
41	Maple Road and Grange Road W/Grange Road	Unsignalized	11	B	N/A	11	B	N/A	10	A	N/A	11	B	N/A	11	B	N/A	10	A	N/A
43	U.S. Route 11 and Crabtree Lane	Unsignalized	>300	F	N/A	>300	F	N/A	8	A	0.59	>300	F	N/A	>300	F	N/A	35	C	0.87
44	Grange Road/Grange Road E and Van Hoesen Road	Unsignalized	9	A	N/A	9	A	N/A	9	A	N/A	9	A	N/A	9	A	N/A	9	A	N/A
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	138	F	N/A	78	F	N/A	3	C	N/A	35	E	N/A	42	E	N/A	40	E	N/A
50	McNamara Drive/Driveway and NYS Route 31	Unsignalized	>300	F	N/A	>300	F	N/A	12	B	0.68	>300	F	N/A	>300	F	N/A	18	B	0.86
54	Doreen Avenue and NYS Route 31	Unsignalized	48	E	N/A	51	F	N/A	22	C	N/A	53	F	N/A	57	F	N/A	28	D	N/A
55	NYS Route 31 and Button Road	Unsignalized	51	F	N/A	85	F	N/A	8	A	0.65	29	D	N/A	>300	F	N/A	14	B	0.76
56	NYS Route 31 and Weller Canning Road	Unsignalized	229	F	N/A	>300	F	N/A	13	B	N/A	130	F	N/A	>300	F	N/A	21	C	N/A
58	Caughdenoy Road and Micron Driveway 1	Unsignalized				10	B	N/A	2	A	0.2				18	C	N/A	2	A	0.35
59	Caughdenoy Road and Access Road/Micron Driveway 2	Signalized				4	A	0.18	19	B	0.37				274	F	1.29	28	C	0.81
60	NYS Route 31 and Micron Driveway 3	Signalized				100	F	0.67	2	A	0.38				>300	F	1.79	27	C	0.78
62	NYS Route 31 and Micron Driveway 5	Signalized				174	F	0.79	5	A	0.49				>300	F	1.57	22	C	0.86
63	U.S. Route 11 and Micron Driveway 6	Signalized				15	B	0.36	2	A	0.21				15	B	0.65	22	C	0.34
64	Caughdenoy Road and Healthcare Center Driveway	Unsignalized				9	A	N/A	10	A	N/A				12	B	N/A	11	B	N/A
65	Caughdenoy Road and Childcare Center Driveway	Unsignalized				9	A	N/A	10	A	N/A				12	B	N/A	11	B	N/A
66	White Pines South Driveway and NYS Route 31	Unsignalized				64	F	N/A	21	C	N/A				>300	F	N/A	13	B	N/A
67	Caughdenoy Road and White Pines South Driveway 1	Unsignalized				12	B	N/A	11	B	N/A				11	B	N/A	10	B	N/A
68	Caughdenoy Road and White Pines South Driveway 2	Unsignalized				11	B	N/A	9	A	N/A				16	C	N/A	10	B	N/A
69	Morgan Road and Verplank Road	Signalized	24	C	0.84	26	C	0.86	22	C	0.77	19	B	0.82	57	E	1.01	21	C	0.72
70	Morgan Road and GNM Driveway 1	Signalized	19	B	0.76	21	C	0.65	15	B	0.69	16	B	0.69	21	C	0.63	11	B	0.64
71	Pardee Road and McKinley Road	Unsignalized	10	A	N/A	10	A	N/A	10	B	N/A	10	A	N/A	10	A	N/A	10	A	N/A
72	Morgan Road and GNM Driveway 2	Unsignalized	33	D	N/A	34	D	N/A	15	B	0.62	23	C	N/A	36	E	N/A	15	B	0.7
73	GNM Driveway 3 and Verplank Road	Unsignalized	11	B	N/A	11	B	N/A	11	B	N/A	11	B	N/A	11	B	N/A	11	B	N/A
74	GNM Driveway 4 and Verplank Road	Unsignalized	12	B	N/A	12	B	N/A	12	B	N/A	11	B	N/A	12	B	N/A	11	B	N/A
76	NYS Route 31 and Access Road	Signalized							20	C	N/A							49	D	N/A
77	Sneller Road and U.S. Route 11	Signalized							11	B	N/A							16	B	N/A
78	Carling Rd South/Carling Rd North and NYS Route 31	Signalized							14	B	N/A							15	B	N/A
79	I-81 NB Off-Ramp/I-81 NB On-Ramp and Sneller Road	Signalized							14	B	N/A							15	B	N/A

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/ Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			4 PM			4 PM			4 PM			5 PM			5 PM			5 PM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
80	Access Road and Maple Road	Roundabout							4	A	N/A							11	B	N/A
81	481 Interchange/Access Road and 481 NB On-Ramp/481 NB Off-Ramp	Signalized							9	A	N/A							12	B	N/A
82	481 SB Off-Ramp/481 SB On-Ramp and 481 Interchange	Signalized							9	A	N/A							11	B	N/A
101	Caughdenoy Road and Micron Driveway X	Unsignalized				10	A	N/A	11	B	N/A				17	C	N/A	13	B	N/A
132	Davidson and NYS Route 31	Signalized	41	D	1.07	46	D	1.08	22	C	0.79	32	C	0.96	31	C	1.07	25	C	0.8
141	Sneller and Pardee Road	Signalized							24	C	N/A							23	C	N/A
233	Oswego and Verplank Road	Unsignalized	19	C	N/A	20	C	N/A	20	C	N/A	17	C	N/A	18	C	N/A	18	C	N/A
246	U.S. Route 11 and Hogan Drive	Signalized	44	D	0.96	30	C	1.02	52	D	N/A	20	B	0.89	35	C	1.29	24	C	N/A
258	Texas Roadhouse/Delta Sonic and NYS Route 31	Signalized	14	B	0.93	15	B	0.94	21	C	0.81	13	B	0.83	22	C	0.89	15	B	0.81
260	U.S. Route 11 and Chick-fil-A	Signalized	54	D	1.11	72	E	1.17	35	C	1.03	9	A	0.8	18	B	0.83	16	B	0.89
262	NYS Route 31 and Carling Road	Signalized	58	E	1.08	83	F	1.12	46	D	1.07	52	D	1.03	82	F	1.11	33	C	0.97
267	NYS Route 31 and Dell Center Drive	Signalized	35	D	0.93	23	C	0.92	24	C	0.9	28	C	0.82	19	B	0.92	23	C	0.91
275	Verplank Road and Proposed Access #1	Unsignalized	9	A	N/A	9	A	N/A	11	B	N/A	8	A	N/A	9	A	N/A	10	B	N/A
276	Lowes/Home Depot and NYS Route 31	Signalized	30	C	0.88	28	C	0.86	44	D	0.99	24	C	0.8	27	C	0.87	32	C	0.95
280	NYS Route 31 and Oswego Road	Signalized	101	F	1.18	70	E	1.01	53	D	1.07	69	E	1.01	58	E	1	42	D	0.97
284	NYS Route 31 and Proposed Access	Unsignalized	11	B	N/A	13	B	N/A	11	B	N/A	11	B	N/A	15	B	N/A	11	B	N/A
287	Proposed Access #2 and Verplank Road	Unsignalized	9	A	N/A	9	A	N/A	11	B	N/A	9	A	N/A	9	A	N/A	10	B	N/A
288	Soule Rd and Carling Road and I-481 SB Ramp	Roundabout	21	C	N/A	23	C	N/A	40	D	N/A	17	B	N/A	24	C	N/A	45	D	N/A

[a] Signalized in Preferred Action Scenario

Table 9-18. Year 2041 No Action Vs. Preferred Action Alternative Vs. Preferred Action Alternative with Mitigation Scenario C AM and PM Peak-Hour Intersection Operations – Significantly Impacted Intersections Only

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			6 AM			6 AM			6 AM			7 AM			7 AM			7 AM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
8	Grange Road W and NYS Route 31	Unsignalized	23	C	N/A	25	D	N/A	2	A	0.22	100	F	N/A	>300	F	N/A	6	A	0.73
9	Van Hoesen Road and NYS Route 31	Unsignalized	20	C	N/A	21	C	N/A	3	A	0.16	42	E	N/A	>300	F	N/A	4	A	0.61
10	Grange Road E and NYS Route 31	Unsignalized	12	B	N/A	13	B	N/A	10	B	N/A	16	C	N/A	>300	F	N/A	15	C	N/A
12	Stearns Road and NYS Route 31	Unsignalized	18	C	N/A	21	C	N/A	6	A	0.23	66	F	N/A	>300	F	N/A	14	B	0.64
13	NYS Route 31 and Burnet Road	Unsignalized[a]	15	B	N/A	19	B	0.33	3	A	0.21	23	C	N/A	>300	F	6.59	19	B	0.77
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	12	B	N/A	11	B	N/A	10	B	N/A	18	C	N/A	236	F	N/A	34	D	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	8	A	0.49	8	A	0.51	10	A	0.33	13	B	0.75	246	F	1.59	35	C	0.98
16	U.S. Route 11 and NYS Route 31	Signalized	27	C	0.74	43	D	0.65	19	B	0.33	40	D	1.07	94	F	1.28	27	C	0.8

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			6 AM			6 AM			6 AM			7 AM			7 AM			7 AM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
17	NYS Route 31 and I-81 SB Ramp	Signalized	18	B	0.79	20	C	0.77	15	B	0.5	51	D	1.15	114	F	1.33	66	E	1.12
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	24	C	0.6	27	C	0.66	13	B	0.52	40	D	0.92	>300	F	2.24	24	C	0.82
26	Caughdenoy Road and Verplank Road	Unsignalized	10	A	N/A	10	A	N/A	7	A	0.16	11	B	N/A	41	E	N/A	11	B	0.48
40	NYS Route 481 NB Off-Ramp and Maple Road and Caughdenoy Road	Unsignalized	10	A	N/A	10	B	N/A	4	A	N/A	11	B	N/A	>300	F	N/A	7	A	N/A
56	NYS Route 31 and Weller Canning Road	Unsignalized	15	C	N/A	16	C	N/A	10	B	N/A	29	D	N/A	>300	F	N/A	15	C	N/A
			4 PM			4 PM			4 PM			5 PM			5 PM			5 PM		
1	NYS Route 31 and NYS Route 481 SB	Signalized	68	E	1.15	70	E	1.14	70	E	1.17	42	D	1.03	64	E	1.13	76	E	1.15
2	NYS Route 31 and NYS Route 481 NB	Signalized	51	D	1.08	54	D	1.08	45	D	1.06	27	C	0.98	57	E	1.07	42	D	1.02
4	NYS Route 31 and GNM West	Signalized	142	F	1.4	147	F	1.46	56	E	1.08	83	F	1.2	165	F	1.52	56	E	1.07
5	Parking Lot/GNM East and NYS Route 31	Signalized	51	D	1.04	83	F	1.25	36	D	0.95	30	C	1.01	109	F	1.35	38	D	0.96
6	Morgan Road and NYS Route 31	Signalized	71	E	1.09	82	F	1.16	56	E	0.93	59	E	1.01	153	F	1.56	50	D	0.91
7	Henry Clay Boulevard and NYS Route 31	Signalized	27	C	0.85	64	E	1.00	30	C	0.66	27	C	0.86	122	F	1.09	28	C	0.83
9	Van Hoesen Road and NYS Route 31	Unsignalized	108	F	N/A	127	F	N/A	3	A	0.48	83	F	N/A	>300	F	N/A	5	A	0.63
10	Grange Road E and NYS Route 31	Unsignalized	61	F	N/A	71	F	N/A	13	B	N/A	30	D	N/A	41	E	N/A	14	B	N/A
11	Caughdenoy Road and NYS Route 31	Signalized	22	C	0.9	28	C	0.94	32	C	0.75	12	B	0.69	177	F	1.17	18	B	0.87
12	Stearns Road and NYS Route 31	Unsignalized	63	F	N/A	116	F	N/A	10	A	0.65	70	F	N/A	>300	F	N/A	10	B	0.67
13	NYS Route 31 and Burnet Road	Unsignalized[a]	39	E	N/A	145	F	0.75	2	A	0.47	29	D	N/A	291	F	1.61	17	B	0.86
14	Barcaldine Drive/Legionnaire Drive and NYS Route 31	Unsignalized	16	C	N/A	20	C	N/A	12	B	N/A	15	B	N/A	>300	F	N/A	11	B	N/A
15	Lawton Road/Legionnaire Drive and NYS Route 31	Signalized	34	C	0.86	46	D	1.01	21	C	0.79	28	C	1.01	227	F	1.61	33	C	0.97
16	U.S. Route 11 and NYS Route 31	Signalized	90	F	1.2	155	F	1.32	31	C	0.76	60	E	1.09	>300	F	2.01	78	E	1.13
17	NYS Route 31 and I-81 SB Ramp	Signalized	37	D	0.98	71	E	1.15	25	C	0.78	24	C	0.91	166	F	1.71	19	B	0.95
18	NYS Route 31 and Pardee Road/I-81 NB Ramp	Signalized	101	F	1.67	118	F	1.75	25	C	0.86	89	F	1.62	82	F	1.56	22	C	0.93
20	Parking Lot/Lakeshore Spur and NYS Route 31	Signalized	48	D	1.18	64	E	1.28	60	E	1.02	32	C	1.07	93	F	1.49	54	D	1
24	South Bay Road and NYS Route 31	Signalized	32	C	0.93	38	D	1.05	46	D	0.87	24	C	0.84	61	E	1.35	56	E	0.97
26	Caughdenoy Road and Verplank Road	Unsignalized	17	C	N/A	19	C	N/A	8	A	0.34	14	B	N/A	213	F	N/A	8	A	0.48
28	Caughdenoy Road and Oak Orchard Road	Unsignalized	14	B	N/A	15	C	N/A	14	B	N/A	13	B	N/A	36	E	N/A	17	C	N/A
34	U.S. Route 11 and Bear Road	Signalized	50	D	0.94	49	D	0.98	40	D	0.83	46	D	0.96	62	E	1.08	42	D	0.81
47	Cicero-North Syracuse High School East Driveway and NYS Route 31	Unsignalized	138	F	N/A	78	F	N/A	3	C	N/A	35	E	N/A	42	E	N/A	40	E	N/A
55	NYS Route 31 and Button Road	Unsignalized	51	F	N/A	85	F	N/A	8	A	0.65	29	D	N/A	>300	F	N/A	14	B	0.76
56	NYS Route 31 and Weller Canning Road	Unsignalized	229	F	N/A	>300	F	N/A	13	B	N/A	130	F	N/A	>300	F	N/A	21	C	N/A
69	Morgan Road and Verplank Road	Signalized	24	C	0.84	26	C	0.86	22	C	0.77	19	B	0.82	57	E	1.01	21	C	0.72
72	Morgan Road and GNM Driveway 2	Unsignalized	33	D	N/A	34	D	N/A	15	B	0.62	23	C	N/A	36	E	N/A	15	B	0.7

Intersection ID	Intersection Name	Intersection Control	2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action w/Mitigation			2041 No Action Alternative			2041 Preferred Action Alternative			2041 Preferred Action Alternative with Mitigation Scenario C		
			6 AM			6 AM			6 AM			7 AM			7 AM			7 AM		
			Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c
260	U.S. Route 11 and Chick-fil-A	Signalized	54	D	1.11	72	E	1.17	35	C	1.03	9	A	0.8	18	B	0.83	16	B	0.89
262	NYS Route 31 and Carling Road	Signalized	58	E	1.08	83	F	1.12	46	D	1.07	52	D	1.03	82	F	1.11	33	C	0.97

[a] Signalized in Preferred Action Scenario

Table 9-19. Year 2041 No Action Alternative Vs. Preferred Action Alternative Vs. Preferred Action Alternative with Mitigation Scenario C AM Peak-Hour Freeway Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			6 AM		7 AM		6 AM		7 AM		6 AM		7 AM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
I-81 NB	I-81 NB Between E Taft Road and NYS Route 481	Basic	6.2	A	9.9	A	6.1	A	32.4	D	6.9	A	15.8	A
	I-81 NB Off-Ramp to NYS Route 481	Diverge	4.8	A	7.6	A	4.7	A	36.0	E	5.3	A	12.1	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Basic	5.2	A	8.8	A	5.2	A	56.3	F	5.9	A	14.9	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Weave	4.2	A	7.1	A	4.6	A	57.4	F	5.3	A	12.6	A
	I-81 NB after Off-Ramp to NYS Route 481	Basic	5.1	A	8.7	A	4.7	A	106.7	F	7.4	A	17.6	A
	I-81 NB On-Ramp from NYS Route 481	Merge	3.2	A	5.5	A	2.9	A	118.2	F	4.4	A	10.8	A
	I-81 NB Between NYS Route 481 and NYS Route 31	Basic	4.3	A	7.3	A	3.9	A	152.7	F	5.8	A	14.5	A
	I-81 NB Off-Ramp to NYS Route 31	Diverge	3.4	A	6.1	A	3.2	A	164.1	F	3.5	A	8.5	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 31	Basic	2.4	A	4.2	A	1.9	A	1.2	A	3.4	A	5.2	A
	I-81 NB On-Ramp from NYS Route 31	Merge	2.4	A	4.0	A	2.6	A	1.7	A	3.4	A	5.3	A
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	3.1	A	5.1	A	3.2	A	2.0	A	4.4	A	6.8	A
	I-81 NB Off-Ramp to Sneller Road	Diverge									3.2	A	5.0	A
	I-81 NB Between Off/On-Ramps to/from Sneller Road	Basic									3.6	A	5.9	A
	I-81 NB On-Ramp from Sneller Road	Merge									2.7	A	4.5	A
	I-81 NB Between Sneller Road and Bartell Road	Basic	3.0	A	5.1	A	3.1	A	2.1	A	3.6	A	6.0	A
	I-81 NB Off-Ramp to Bartell Road	Diverge	2.3	A	4.0	A	2.4	A	1.7	A	2.8	A	4.7	A
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	2.4	A	4.1	A	2.5	A	1.8	A	3.3	A	5.1	A
	I-81 On-Ramp from Bartell Road	Merge	2.1	A	3.5	A	2.4	A	1.8	A	2.7	A	4.3	A
	I-81 NB Between Bartell Road and East Avenue	Basic	2.7	A	4.6	A	3.1	A	2.3	A	3.5	A	5.6	A
I-81 SB	I-81 SB Between East Avenue and Bartell Road	Basic	7.1	A	11.6	B	6.5	A	13.0	B	7.4	A	13.1	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	5.4	A	8.9	A	4.9	A	10.1	B	5.6	A	10.1	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	6.7	A	11.1	B	5.9	A	11.8	B	7.1	A	12.3	A
	I-81 SB On-Ramp from Bartell Road	Merge	6.7	A	11.2	B	5.8	A	11.8	B	6.9	A	11.8	A
	I-81 SB Between Bartell Road and Sneller Road	Basic	8.7	A	14.6	B	7.6	A	15.4	B	9.0	A	15.4	A
	I-81 SB Off-Ramp to Sneller Road	Diverge									6.8	A	12.5	A

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			6 AM		7 AM		6 AM		7 AM		6 AM		7 AM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
I-81 SB (continued)	I-81 SB Between Off-Ramp and On-Ramp to Sneller Road	Basic									8.8	A	14.9	A
	I-81 SB On-Ramp from Sneller Road	Merge									7.8	A	13.0	A
	I-81 SB Between Sneller Road and NYS Route 31	Basic	8.6	A	14.6	B	7.5	A	16.8	B	10.4	A	17.6	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	6.5	A	11.6	B	5.7	A	46.7	F	8.1	A	15.5	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	6.9	A	11.7	B	6.1	A	12.1	B	8.0	A	13.4	A
	I-81 SB On-Ramp from NYS Route 31	Merge	8.7	A	13.1	B	8.0	A	13.2	B	6.9	A	11.2	A
	I-81 SB Between NYS Route 31 and I-81	Basic	10.9	A	16.8	B	9.9	A	16.8	B	11.2	B	18.8	B
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	10.9	B	16.8	B	9.9	A	16.8	B	11.2	B	18.8	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	10.9	A	16.3	B	10.2	A	16.5	B	11.6	B	18.9	B
	I-81 SB Off-Ramp to I-81 WB	Diverge	7.3	A	10.7	B	6.9	A	10.9	B	7.7	A	12.4	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	10.6	A	15.9	B	9.2	A	15.6	B	11.4	B	18.2	B
	I-81 SB On-Ramp from NYS Route 481 WB	Merge	8.0	A	11.8	B	7.0	A	11.5	B	8.5	A	13.2	A
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	12.2	B	19.3	B	13.4	B	19.5	B	10.9	B	16.4	B
	I-81 NB Between NYS Route 481 and E Taft Road	Basic	15.9	B	26.8	D	17.9	B	27.4	D	14.1	B	21.5	B
NYS Route 481 EB	NYS Route 481 EB Between Verplank Road and NYS Route 31	Basic	8.3	A	13.2	B	9.2	A	21.5	C	9.4	A	16.2	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	6.7	A	11.2	B	8.0	A	29.8	D	7.4	A	13.6	A
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	4.9	A	7.4	A	4.6	A	7.7	A	5.9	A	10.0	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	15.5	B	24.0	C	19.3	B	25.1	C	7.8	A	13.2	A
	NYS Route 481 EB Between NYS Route 31 and New Access Road	Basic	25.7	C	42.0	E	32.0	D	44.1	E	9.5	A	16.4	A
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	14.9	B	27.9	C	19.1	B	28.9	D				
	NYS Route 481 EB Off-Ramp to New Access Road	Diverge									9.4	A	20.1	A
	NYS Route 481 Between Off-Ramp and On-Ramp from New Access Road	Basic									13.6	B	19.6	B
	NYS Route 481 On-Ramp from New Access Road	Merge									7.3	A	10.5	A
	NYS Route 481 EB Between New Access Road and Caughdenoy Road	Basic									14.8	B	21.6	B
	NYS Route 481 On-Ramp from Caughdenoy Road	Merge									11.0	B	16.4	B
	NYS Route 481 Between Caughdenoy Road and U.S. Route 11	Basic									17.0	B	25.9	B
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge									12.2	B	19.0	B
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	21.2	C	41.4	E	26.7	D	42.2	E	15.9	B	24.5	B
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	19.9	B	36.9	E	23.7	C	38.1	E	13.8	B	21.2	B
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	9.1	A	18.2	B	9.1	A	18.0	B	7.2	A	11.7	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	13.6	B	27.5	D	13.1	B	26.8	D	9.6	A	16.2	A
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	10.4	B	20.6	C	9.8	A	20.1	C	7.6	A	12.1	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	9.9	A	18.0	B	9.1	A	17.4	B	8.0	A	13.4	A
	NYS Route 481 EB Between I-81 and Northern Boulevard	Basic	12.8	B	23.8	C	11.7	B	23.1	C	10.6	A	17.8	A

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			6 AM		7 AM		6 AM		7 AM		6 AM		7 AM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
NYS Route 481 WB	NYS Route 481 WB Between Northern Boulevard and I-81	Basic	6.9	A	11.7	B	6.4	A	17.4	B	7.5	A	18.4	A
	NYS Route 481 WB Off-Ramp to I-81	Diverge	4.6	A	7.9	A	4.3	A	11.8	B	5.0	A	12.5	A
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	6.8	A	11.4	B	6.4	A	12.6	B	7.1	A	16.8	A
	NYS Route 481 WB Between On-Ramp and Off-Ramp to I-81	Weave	6.0	A	10.3	B	6.6	A	11.6	B	6.2	A	14.7	A
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	7.0	A	12.5	B	7.8	A	14.3	B	7.1	A	18.8	A
	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	4.8	A	8.3	A	5.8	A	9.8	A	4.8	A	12.4	A
	NYS Route 481 WB Off-Ramp and On-Ramp from Circle Drive	Basic	4.5	A	7.6	A	5.8	A	10.1	A	4.5	A	14.4	A
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	4.0	A	6.9	A	5.3	A	9.3	A	4.0	A	12.7	A
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	5.6	A	9.7	A	7.4	A	16.9	B	5.6	A	17.5	A
	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	3.8	A	6.8	A	5.1	A	49.9		3.8	A	12.2	A
	NYS Route 481 WB Between Caughdenoy Road and New Access Road	Basic									5.1	A	16.0	A
	NYS Route 481 WB Off-Ramp to New Access Road	Diverge									2.6	A	7.8	A
	NYS Route 481 WB Off-Ramp and On-Ramp from New Access Road	Basic									4.9	A	8.2	A
	NYS Route 481 WB On-Ramp from New Access Road	Merge									4.1	A	6.8	A
	NYS Route 481 WB Between New Access Road and NYS Route 31	Basic	5.0	A	8.5	A	6.5	A	8.8	A	6.0	A	10.2	A
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	2.5	A	4.2	A	3.2	A	43.9	E	3.0	A	5.1	A
	NYS Route 481 WB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	2.1	A	3.5	A	2.3	A	3.3	A	2.3	A	3.8	A
	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	2.6	A	4.5	A	3.9	A	4.6	A	2.7	A	4.5	A
	NYS Route 481 WB Between NYS Route 31 and Verplank Road	Basic	3.8	A	6.5	A	5.5	A	6.6	A	3.9	A	6.5	A

Table 9-20. Year 2041 No Action Alternative Vs. Preferred Action Alternative Vs. Preferred Action Alternative with Mitigation Scenario C PM Peak-Hour Freeway Operations – Density and LOS

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			4 PM		5 PM		4 PM		5 PM		4 PM		5 PM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
I-81 NB	I-81 NB Between E Taft Road and NYS Route 481	Basic	19.6	C	18.4	C	20.2	C	18.2	C	20.1	C	19.3	C
	I-81 NB Off-Ramp to NYS Route 481	Diverge	15.3	B	15.1	B	15.7	B	14.1	B	15.7	B	15.1	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Basic	18.5	C	21.5	C	19.0	C	17.3	B	19.0	C	18.5	C
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Weave	15.4	B	22.7	C	16.3	B	15.3	B	15.4	B	16.1	B
	I-81 NB after Off-Ramp to NYS Route 481	Basic	19.4	C	43.4	E	21.7	C	31.1	D	19.0	C	18.0	C
	I-81 NB On-Ramp from NYS Route 481	Merge	17.6	B	69.6	F	14.1	B	44.8	E	12.8	B	11.9	B
	I-81 NB Between NYS Route 481 and NYS Route 31	Basic	44.6	E	131.6		35.3	E	112.0		17.2	B	16.1	B
	I-81 NB Off-Ramp to NYS Route 31	Diverge	110.5		147.6		102.0		140.5		10.2	B	9.6	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 31	Basic	10.2	A	11.0	A	11.4	B	11.7	B	11.3	B	10.7	A

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			4 PM		5 PM		4 PM		5 PM		4 PM		5 PM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
I-81 NB (continued)	I-81 NB On-Ramp from NYS Route 31	Merge	10.9	B	11.3	B	11.4	B	10.9	B	12.7	B	12.0	B
	I-81 NB Between NYS Route 31 and Sneller Road	Basic	14.9	B	15.2	B	15.5	B	14.8	B	15.9	B	15.1	B
	I-81 NB Off-Ramp to Sneller Road	Diverge									12.0	B	11.5	B
	I-81 NB Between Off/On-Ramps to/from Sneller Road	Basic									13.8	B	13.4	B
	I-81 NB On-Ramp from Sneller Road	Merge									11.3	B	11.2	B
	I-81 NB Between Sneller Road and Bartell Road	Basic	15.6	B	15.4	B	16.1	B	15.1	B	14.9	B	14.7	B
	I-81 NB Off-Ramp to Bartell Road	Diverge	12.6	B	13.3	B	13.1	B	12.7	B	12.2	B	12.1	B
	I-81 NB Off/On-Ramps to/from Bartell Road	Basic	12.0	B	12.0	B	12.2	B	11.5	B	12.2	B	12.2	B
	I-81 On-Ramp from Bartell Road	Merge	9.9	A	9.7	A	10.2	B	9.8	A	9.7	A	9.9	A
	I-81 NB Between Bartell Road and East Avenue	Basic	13.0	B	12.6	B	13.4	B	12.6	B	12.8	B	12.9	B
I-81 SB	I-81 SB Between East Avenue and Bartell Road	Basic	6.8	A	6.4	A	7.1	A	6.4	A	7.2	A	6.4	A
	I-81 SB Off-Ramp to Bartell Road	Diverge	5.3	A	4.9	A	5.5	A	4.9	A	5.6	A	5.0	A
	I-81 SB Between Off-Ramp and On-Ramp to Bartell Road	Basic	5.8	A	5.5	A	6.1	A	5.4	A	6.4	A	5.6	A
	I-81 SB On-Ramp from Bartell Road	Merge	6.5	A	6.2	A	6.9	A	6.2	A	7.1	A	6.2	A
	I-81 SB Between Bartell Road and Sneller Road	Basic	8.3	A	8.0	A	8.8	A	8.0	A	9.1	A	8.1	A
	I-81 SB Off-Ramp to Sneller Road	Diverge									7.2	A	6.3	A
	I-81 SB Between Off-Ramp and On-Ramp to Sneller Road	Basic									8.7	A	7.7	A
	I-81 SB On-Ramp from Sneller Road	Merge									8.0	A	7.2	A
	I-81 SB Between Sneller Road and NYS Route 31	Basic	8.4	A	8.0	A	8.9	A	8.1	A	10.6	A	9.5	A
	I-81 SB Off-Ramp to NYS Route 31	Diverge	6.6	A	7.7	A	8.1	A	6.7	A	8.2	A	7.3	A
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	6.4	A	6.1	A	6.9	A	6.3	A	8.0	A	7.5	A
	I-81 SB On-Ramp from NYS Route 31	Merge	7.9	A	8.0	A	10.5	B	10.5	B	7.4	A	10.7	B
	I-81 SB Between NYS Route 31 and I-81	Basic	10.2	A	10.1	A	13.2	B	13.2	B	12.0	B	16.9	B
	I-81 SB Off-Ramp to NYS Route 481 EB	Diverge	10.2	B	10.1	B	13.2	B	13.2	B	12.0	B	16.9	B
	I-81 SB Off-Ramp to I-81 EB and WB	Basic	11.0	A	10.8	A	13.6	B	13.7	B	12.8	B	17.6	B
	I-81 SB Off-Ramp to I-81 WB	Diverge	7.4	A	7.3	A	9.1	A	9.2	A	8.5	A	11.5	B
	I-81 SB Between Off-Ramp and On-Ramp from NYS Route 481	Basic	10.2	A	10.1	A	12.2	B	12.6	B	11.9	B	16.1	B
	I-81 SB On-Ramp from NYS Route 481 WB	Merge	7.8	A	7.6	A	9.1	A	9.2	A	8.9	A	11.5	B
	I-81 SB On-Ramp from NYS Route 481 EB	Merge	14.8	B	14.5	B	15.9	B	15.9	B	12.5	B	15.5	B
	I-81 NB Between NYS Route 481 and E Taft Road	Basic	19.9	C	19.4	C	21.5	C	21.6	C	16.1	B	20.2	C
NYS Route 481 EB	NYS Route 481 EB Between Verplank Road and NYS Route 31	Basic	8.3	A	13.2	B	10.9	A	9.7	A	11.2	B	10.1	A
	NYS Route 481 EB Off-Ramp to NYS Route 31	Diverge	6.7	A	11.2	B	9.6	A	8.6	A	11.8	B	9.3	A
	NYS Route 481 Between Off-Ramp and On-Ramp from NYS Route 31	Basic	4.9	A	7.4	A	5.2	A	4.6	A	5.3	A	4.7	A
	NYS Route 481 EB On-Ramp from NYS Route 31	Merge	15.5	B	24.0	C	20.1	C	18.9	B	10.0	B	8.8	A

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			4 PM		5 PM		4 PM		5 PM		4 PM		5 PM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
NYS Route 481 EB (continued)	NYS Route 481 EB Between NYS Route 31 and New Access Road	Basic	25.7	C	42.0	E	32.4	D	30.4	D	11.9	B	10.3	A
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge	14.9	B	27.9	C	23.0	C	22.1	C				
	NYS Route 481 EB Off-Ramp to New Access Road	Diverge									12.2	B	10.7	B
	NYS Route 481 Between Off-Ramp and On-Ramp from New Access Road	Basic									16.1	B	13.7	B
	NYS Route 481 On-Ramp from New Access Road	Merge									8.6	A	9.7	A
	NYS Route 481 EB Between New Access Road and Caughdenoy Road	Basic									17.3	B	19.6	C
	NYS Route 481 On-Ramp from Caughdenoy Road	Merge									12.8	B	15.0	B
	NYS Route 481 Between Caughdenoy Road and U.S. Route 11	Basic									19.1	C	22.1	C
	NYS Route 481 EB Off-Ramp to Bear Road	Diverge									15.3	B	16.9	B
	NYS Route 481 EB Between Off-Ramp and On-Ramp from Bear Road	Basic	21.2	C	41.4	E	25.5	C	25.2	C	15.0	B	19.5	C
	NYS Route 481 Between U.S. Route 11 and I-81	Weave	19.9	B	36.9	E	25.7	C	26.1	C	15.4	B	17.4	B
	NYS Route 481 EB Off-Ramp to I-81 NB	Diverge	9.1	A	18.2	B	9.5	A	9.5	A	6.4	A	6.4	A
	NYS Route 481 EB Between Off-Ramp and On-Ramp from I-81	Basic	13.6	B	27.5	D	12.4	B	12.2	B	9.5	A	9.3	A
	NYS Route 481 EB On-Ramp from I-81 NB	Merge	10.4	B	20.6	C	10.1	B	9.6	A	7.9	A	7.5	A
	NYS Route 481 EB On-Ramp from I-81 SB	Merge	9.9	A	18.0	B	10.2	B	9.8	A	8.4	A	9.3	A
	NYS Route 481 EB Between I-81 and Northern Boulevard	Basic	12.8	B	23.8	C	13.2	B	12.7	B	11.1	B	12.4	B
NYS Route 481 EB	NYS Route 481 WB Between Northern Boulevard and I-81	Basic	6.9	A	11.7	B	22.8	C	20.5	C	23.1	C	20.1	C
	NYS Route 481 WB Off-Ramp to I-81	Diverge	4.6	A	7.9	A	15.5	B	13.9	B	15.8	B	13.6	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 NB	Basic	6.8	A	11.4	B	19.5	C	17.5	B	19.6	C	16.8	B
	NYS Route 481 WB Between On-Ramp and Off-Ramp to I-81	Weave	6.0	A	10.3	B	19.2	B	17.6	B	19.2	B	18.1	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from I-81 SB	Basic	7.0	A	12.5	B	25.5	C	23.5	C	25.4	C	23.9	C
	NYS Route 481 WB Between I-81 and U.S. Route 11	Weave	4.8	A	8.3	A	17.2	B	15.8	B	16.8	B	16.0	B
	NYS Route 481 WB Off-Ramp and On-Ramp from Circle Drive	Basic	4.5	A	7.6	A	17.5	B	15.5	B	16.4	B	14.4	B
	NYS Route 481 WB On-Ramp from Circle Drive	Merge	4.0	A	6.9	A	16.6	B	15.1	B	15.0	B	13.3	B
	NYS Route 481 WB Between U.S. Route 11 and Caughdenoy Road	Basic	5.6	A	9.7	A	21.7	C	19.9	C	20.2	C	18.1	C
	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	3.8	A	6.8	A	16.2	B	14.6	B	14.4	B	13.0	B
	NYS Route 481 WB Between Caughdenoy Road and New Access Road	Basic									17.8	B	16.0	B
	NYS Route 481 WB Off-Ramp to New Access Road	Diverge									8.9	A	8.0	A
	NYS Route 481 WB Off-Ramp and On-Ramp from New Access Road	Basic									17.1	B	15.6	B
	NYS Route 481 WB On-Ramp from New Access Road	Merge									12.5	B	13.6	B
	NYS Route 481 WB Between New Access Road and NYS Route 31	Basic	5.0	A	8.5	A	17.9	B	17.1	B	18.8	C	20.3	C
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	2.5	A	4.2	A	9.3	A	9.3	A	9.8	A	10.6	B
	NYS Route 481 WB Between Off-Ramp and On-Ramp from NYS Route 31	Basic	2.1	A	3.5	A	4.4	A	4.1	A	4.5	A	5.3	A

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			4 PM		5 PM		4 PM		5 PM		4 PM		5 PM	
			Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS	Density (veh/mi/ln)	LOS
NYS Route 481 EB (continued)	NYS Route 481 WB On-Ramp from NYS Route 31	Merge	2.6	A	4.5	A	7.5	A	7.0	A	8.4	A	8.5	A
	NYS Route 481 WB Between NYS Route 31 and Verplank Road	Basic	3.8	A	6.5	A	10.4	A	9.8	A	11.6	B	11.8	B

Table 9-19. Year 2041 No Action Vs. Preferred Action Alternative Vs. Preferred Action Alternative with Mitigation Scenario C AM and PM Peak Hour Freeway Operations – Significantly Impacted Segments Only

Segment Direction	Segment Description	Segment Type	2041 No Action Alternative				2041 Preferred Action Alternative				2041 Preferred Action Alternative with Mitigation Scenario C			
			Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS
			6AM		7AM		6AM		7AM		6AM		7AM	
I-81 NB	I-81 NB Off-Ramp to I-481	Diverge	4.8	A	7.6	A	4.7	A	36.0	E	5.3	A	12.1	B
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Basic	5.2	A	8.8	A	5.2	A	56.3	F	5.9	A	14.9	A
	I-81 NB Between Off/On-Ramps to/from NYS Route 481	Weave	4.2	A	7.1	A	4.6	A	57.4	F	5.3	A	12.6	A
	I-81 NB after Off-Ramp to NYS Route 481	Basic	5.1	A	8.7	A	4.7	A	106.7	F	7.4	A	17.6	A
	I-81 NB On-Ramp from NYS Route 481	Merge	3.2	A	5.5	A	2.9	A	118.2	F	4.4	A	10.8	A
	I-81 NB Between NYS Route 481 and NYS Route 31	Basic	4.3	A	7.3	A	3.9	A	152.7	F	5.8	A	14.5	A
	I-81 NB Off-Ramp to NYS Route 31	Diverge	3.4	A	6.1	A	3.2	A	164.1	F	3.5	A	8.5	A
I-81 SB	I-81 SB Off-Ramp to NYS Route 31	Diverge	6.5	A	11.6	B	5.7	A	46.7	F	8.1	A	15.5	A
NYS Route 481 WB	NYS Route 481 WB Off-Ramp to Caughdenoy Road	Diverge	3.8	A	6.8	A	5.1	A	49.9	F	3.8	A	12.2	A
	NYS Route 481 WB Off-Ramp to NYS Route 31	Diverge	2.5	A	4.2	A	3.2	A	43.9	E	3.0	A	5.1	A

10. Summary and Recommendations

10.1 Summary of Analysis Scenarios

The analysis included three scenarios: No Action, Preferred Action, and Preferred Action with Mitigations. To provide a comprehensive assessment of the transportation impacts of the Proposed Project, three future years were evaluated: 2027, 2031, and 2041. The year 2027 represents the ramp-up of construction activity at the Micron Campus, where the construction worker head count peaks prior to 2031. The year 2031 represents the peak activity associated with constructing and operating two fabrication plants. Year 2041 represents the peak activity associated with the construction and operation of the full buildout of four fabrication plants.

10.2 No Action Alternatives

With the No Action Alternative, the Proposed Project would not be built. Foreseeable future land use and transportation network changes are assumed to be in place at defined target completion dates. Comparing the No Action Alternative results for 2027, 2031, and 2041, the intersections and freeways progressively worsen in future years due to increased travel demand. The No Action Alternative's intersection performance declined from eight percent operating at LOS E or worse in 2027 to about 30 percent operating at LOS E or worse in 2041.

10.2.1 2027 No Action Alternative

In this scenario, all freeway segments and intersections operate at LOS D or better during the a.m. peak hours. During the afternoon peak period, about two percent of the freeway segments operate at LOS E, while 98 percent remain at LOS A, B, or C. For intersections, about eight percent perform at LOS E or F at 4:00 p.m. peak hour, and four percent perform at LOS F at 5:00 p.m. peak hour.

10.2.2 2031 No Action Alternative

In this scenario, all freeway segments operate at LOS C or better in the morning peak period. In the afternoon peak period, about three percent of the freeway segments operate at LOS F in both peak hours. About one percent of intersections operate at LOS E at the 6:00 a.m. peak hour and five percent at LOS E or worse at the 7:00 a.m. peak hour. For intersections, about 40 percent operate at LOS E or worse at the 4:00 p.m. peak hour, while 24 percent operate at LOS E or worse at the 5:00 p.m. peak hour.

10.2.3 2041 No Action Alternative

In this scenario, all freeway segments operate at LOS C or better during the 6:00 a.m. peak hour, and about 96 percent of freeway segments operate at LOS D or better during the 7:00 a.m. peak hour. During the 4:00 p.m. peak hour, 98 percent of freeway segments operate at LOS C or better, with only one percent operating at LOS E and one percent operating at LOS F. During the 5:00 p.m. peak hour, 90 percent of freeway segments operate at LOS D or better.

All intersections during morning peak hours operate at LOS D or better during the 6:00 a.m. peak hour, while 94 percent operate at LOS D or better during the 7:00 a.m. peak hour. For intersections during the evening hours, about 70 percent operate at LOS D or better during the 4:00 p.m. peak hour, and 79 percent operate at LOS D or better during the 5:00 p.m. peak hour.

10.2.4 No Action Alternative Comparison

Comparing the three No Action Alternatives for 2027, 2031, and 2041, the intersections and freeways are expected to worsen due to progressively increasing traffic demand. The intersections are significantly impacted as time passes, with only eight percent operating at LOS E or worse in 2027 and approximately 30 percent operating at LOS E or worse in 2041.

10.3 Preferred Action Alternatives

The Preferred Action includes the construction of the Proposed Project and connected actions as described. The Preferred Action Alternative includes construction of the Proposed Project and Connected Actions. The Micron Campus will have access driveways off Caughdenoy Road, NYS Route 31, and U.S. Route 11 at full buildout. Recommended mitigations were developed to identify approaches to minimize forecasted 2041 traffic impacts from the Proposed Project under the Preferred Action Alternative.

10.3.1 2027 Preferred Action Alternative

In this scenario, all freeway segments operate at LOS B or better in the 6:00 a.m. peak hour. About two percent of the freeway segments operate at LOS E or worse in the 7:00 a.m. peak hour. In the afternoon peak period, all freeway segments operate at LOS D or better in the 4:00 pm peak hour, while about two percent of the segments operate at LOS E or worse in the 5:00 p.m. peak hour.

For intersections, about one percent of the intersections operate at LOS E or worse in the 6:00 a.m. peak hour, and about six percent operate at LOS E or worse in the 7:00 a.m. peak hour. For intersections, about 16 percent will operate at LOS E or worse in the 4:00 p.m. peak hour, while about 12 percent will operate at LOS E or worse in the 5:00 p.m. peak hour.

Compared to the 2027 No Action scenario, the Preferred Action Alternative will have one freeway segment and 14 intersections with significant impacts.

10.3.2 2031 Preferred Action Alternative

In this scenario, all freeway segments operate at LOS B or better during the 6:00 a.m. peak hour, and approximately 97 percent of them operate at LOS C or better during the 7:00 a.m. peak hour. In the afternoon peak period, 97 percent of freeway segments will operate at LOS C or better in the 4:00 p.m. peak hour, with the remaining three percent operating at LOS E. During the 5:00 p.m. peak hour, 93 percent of freeways operate at LOS C or better with four percent operating at LOS E and three percent operating at LOS F.

For intersections, 99 percent operate at LOS D or better during the 6:00 a.m. peak hour. During the 7:00 a.m. peak hour, 79 percent of intersections operate at LOS D or better, with five percent operating at LOS E and 16 percent operating at LOS F. For the evening peak period, 70 percent of the operations will be at LOS D or better during the 4:00 p.m. peak hour, and 65 percent will be at LOS D or better during the 5:00 p.m. peak hour. Compared to the 2031 No Action Alternative, 13 intersections in the morning and 21 in the evening peak, as well as three freeway segments, are significantly impacted.

10.3.3 2041 Preferred Action Alternative

In this scenario, all freeway segments will operate at LOS D or better during the 6:00 a.m. peak hour, and 81 percent will operate at LOS D or better in the 7:00 a.m. peak hour. In the afternoon peak period,

97 percent of the freeway segments will operate at LOS D or better during the 4:00 p.m. peak hour, and 89 percent operate at LOS D or better during the 5:00 p.m. peak hour.

For intersections, all operate at LOS D or better during the 6:00 a.m. peak hour, and 76 percent will operate at LOS D or better during the 7:00 a.m. peak hour. For the evening peak period, 64 percent will operate a LOS D or better during the 4:00 p.m. peak hour, and 51 percent will operate at LOS D or better at the 5:00 p.m. peak. Compared to the 2041 No Action Alternative, 13 intersections in the morning peak and 28 in the evening peak, as well as 10 freeway segments, are significantly impacted.

The impacts of the 2041 Preferred Action Alternative are significant compared to the 2041 No Action scenario.

10.4 Preferred Action Alternative with Mitigation Scenarios

The Proposed Project will alter the transportation network operations in the transportation evaluation area. The analysis years of 2027, 2031, and 2041 provide insight into the incremental changes that will occur as the Proposed Project is developed. As previously noted, this predictive modeling and analysis also account for unrelated roadway capital improvements and projects occurring in the transportation evaluation area and integrate larger regional-scale projects that have ripple effects within the evaluation area into the background model.

Mitigation scenarios were not analyzed for 2027 as the short horizon year would not allow for the scale of improvements to be designed and constructed prior to that year. The application of mitigations within the model was first completed for the 2031 Preferred Action Alternative as an interim year to understand how to mitigate to maintain operational standards throughout the transportation network. Mitigation strategies were identified and modeled to minimize the Proposed Project's impact on the transportation evaluation area in 2031.

As summarized, the impacts of the 2041 Preferred Action Alternative are significant compared to those of the 2041 No Action Alternative. Given the complexity of the transportation network and the traffic generated by the Proposed Project, identifying and modeling the required mitigations necessitated a progressive approach. Scenarios A, B, and C were developed for 2041.

Based on the base model for the 2041 Preferred Action Alternative, three conceptual traffic mitigation scenarios were developed to identify strategies for alleviating and minimizing forecasted significant adverse traffic impacts related to the construction and operation of the Proposed Project. Each scenario builds upon and expands the previous one, incorporating individual roadway improvements to address identified congestion issues and enhance access to the Proposed Project, ultimately leading to improved traffic conditions in the transportation evaluation area.

10.4.1 2031 Preferred Action Alternative with Mitigation

In this scenario, all freeway segments would operate at LOS C or better in the morning and afternoon peak periods. The recommended mitigations would improve traffic operations at all impacted segments, which are forecasted to operate at LOS B or better.

All intersections would operate at LOS D or better during peak morning hours. About 94 percent of the intersections operate at LOS D or better during the 4:00 p.m. peak hour, and 100 percent operate at LOS D or better during the 5:00 p.m. peak hour. The recommended mitigations would improve traffic operations

with all intersections forecasted to operate at LOS D or better, except at the following locations, which will operate at LOS E:

- NYS Route 31 with NYS Route 481 ramp
- NYS Route 31 with Morgan Road
- NYS Route 31 with Carling Road

Although these intersections operate at LOS E, they do not meet the significantly impacted criteria, as the overall delay at these intersections would increase by less than five seconds compared to the No Action Alternative. In the 2031 Preferred Action Alternative with Mitigation, the recommended mitigation measures improve traffic operations compared to the 2031 Preferred Action Alternative.

10.4.2 2041 Preferred Action Alternative with Mitigation Scenario A

Mitigation Scenario A incorporated mitigations to address freeway and intersection operational deficiencies. The mitigation measures implemented in Scenario A are listed in 10.4 and shown in Figure 10-1. The freeway segments experiencing LOS F under the 2041 Mitigation Scenario A are reduced, and operations are significantly improved compared to the 2041 Action and 2041 No Action Alternatives, with only two of the 10 segments indicating LOS F. However, it is worth noting that the delay was reduced by 30 seconds in one segment and increased by 30 seconds in the opposite movement. The appearance of LOS F still requires further mitigation. Of the 15 study intersections that experience LOS F during the 2041 Preferred Action Alternative, 13 are operationally better with the recommended improvements in Scenario B during the a.m. peak period. Fifteen intersections were identified to be significantly impacted during the 2041 Preferred Action Alternative during the 4:00 p.m. peak hour. However, all these intersections perform at LOS E or better under Mitigation Scenario A. A total of 28 intersections were identified to be significantly impacted during the 2041 Preferred Action Alternative during the 5:00 p.m. peak hour. Six intersections continue to perform at LOS F with equal or longer delays.

10.4.3 2041 Preferred Action Alternative with Mitigation Scenario B

Mitigation Scenario B incorporates additional roadway mitigation measures, building on the mitigations in Mitigation Scenario A to reduce peak-hour demand on area roadways. Mitigation measures (New Access Road and New Access Road/NYS Route 481 Interchange) established in Scenario B are listed in Section 10.4 and shown in Figure 10-1. LOS F operations were eliminated on all freeway segments, an improvement from the 2041 Action Alternative. The 15 study intersections that experienced LOS F during the 2041 Preferred Action Alternative operate at LOS E or better with the mitigations in place during the a.m. peak period. For the 5:00 p.m. peak hour, 28 intersections were identified to be significantly impacted during the 2041 Preferred Action Alternative, and only one continues to perform at LOS F under Mitigation Scenario B.

10.4.4 2041 Preferred Action Alternative with Mitigation Scenario C

Mitigation Scenario C is developed based on Scenario B and further mitigated with the Caughdenoy Road/ NYS Route 481 Ramp, as listed in Section 10.4 and shown in Figure 10-1. Scenario C encompasses the broadest array of traffic improvements to mitigate the severity of the traffic impacts experienced in 2041. Mitigation Scenario C would require roadway configuration changes, including the potential acquisition of land for interchanges, modifications to existing ramps, and roadway lane configurations to achieve the proposed operational conditions.

All freeway segments would operate at LOS C or better in the morning and afternoon peak periods. Additionally, all intersections would operate at LOS D or better during the 6:00 a.m. peak hour, and

approximately 98 percent would operate at LOS D or better during the 7:00 a.m. peak hour. The recommended mitigations would improve traffic operations at all impacted freeway segments, which are forecasted to operate at LOS C or better. About 93 percent of the intersections operate at LOS D or better in the 4:00 p.m. peak hour, and 92 percent would operate at LOS D or better during the 5:00 p.m. peak hour. The recommended mitigations would improve traffic operations with intersections forecasted to operate at LOS D or better, except at the following location, which will operate at LOS E.

The recommended mitigations would enhance traffic operations, mitigating the majority of significant impacts. The following five intersections meet the criteria for significant impacts:

1. NYS Route 31 and I-81 Southbound Ramp
2. NYS Route 31 and NYS Route 481 Southbound
3. U.S. Route 11 and NYS Route 31
4. NYS Route 31 and Lakeshore Spur
5. NYS Route 31 and South Bay Road

These five locations are expected to operate at LOS E even with the Recommended Mitigation Scenario C. Further mitigation measures, however, are not recommended due to significant geometric constraints that would be encountered when implementing any additional traffic improvements. Specifically, at the NYS Route 31 intersections with the I-81 and NYS Route 481 southbound ramps, the recommended mitigation scenario incorporates reconfiguring the interchanges to DDIs. Providing further recommended mitigation would require additional widening along the ramps or NYS Route 31, which would have significant geometric constraints. At the NYS Route 31 intersection with Lakeshore Spur, the recommended mitigation scenario incorporates widening along NYS Route 31 to provide additional through lanes. Providing further mitigation would require additional widening along NYS Route 31, either by creating additional through lanes or providing additional turn lanes at this intersection. At the NYS Route 31 intersection with South Bay Road, the intersection operates at LOS E with 56 seconds of delay per vehicle, which is only one second of delay from LOS D. Finally, at the intersection of U.S. Route 11 and NYS Route 31, the mitigation scenario incorporates widening along each roadway. Further mitigation would require additional widening along these roadways. Accordingly, the potential impacts from the Preferred Action Alternative at these five intersections are partially unmitigated under the recommended mitigation scenarios.

Improved traffic operations are revealed compared to the 2041 Preferred Action scenario. No freeway segments are operating at LOS E or worse, a 19 percent reduction. The number of intersections that are LOS E or worse reduces from 49 to 8 percent. Approximately 2 percent of the intersections operate at LOS E or worse during the 7:00 a.m. peak hour, and approximately 8 percent operate at LOS E or worse during the 4:00 p.m. peak hour. Under Mitigation Scenario C, it can be concluded that no intersections are operating at LOS F.

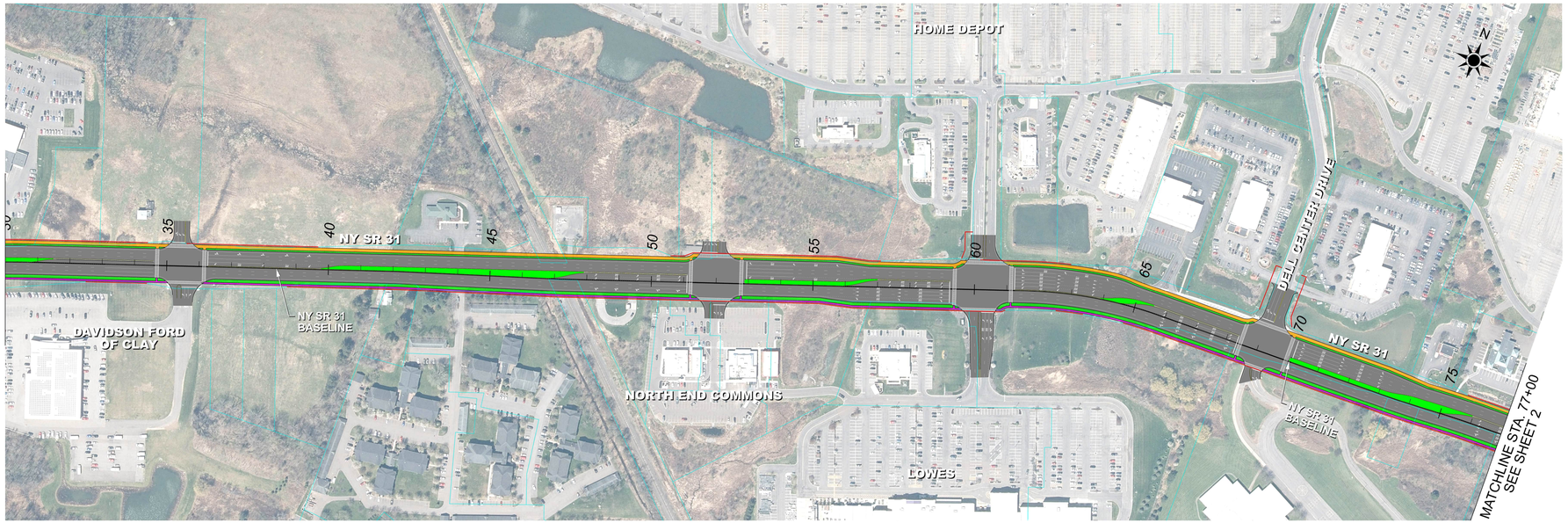
10.5 Recommended Mitigation Measures

The year 2041 is expected to generate the most trips and thus have the most significant impact on the transportation system due to the combined demand from construction trips generated by the construction of the fourth fab and operational trips from the three existing in-service fabs. Recommended mitigations were developed to identify approaches to minimize forecasted operational traffic impacts and are cumulatively analyzed in the Year 2041 Preferred Action Alternative with Mitigation Scenario C.

The recommended mitigations outlined below fall within the jurisdiction of federal, state, and local transportation agencies. They would be subject to environmental review by these agencies and require several years to design and construct. Accordingly, they are assumed to be in place no earlier than 2031;

therefore, they are not analyzed under 2027. The mitigation measures defined for Scenario A are adopted in Scenario B and are subsequently applied in Scenario C. The mitigation measures are shown in Figure 10-1 – Concept Schematic Plan and are as follows:

- **Scenario A Mitigations:**
  - NYS Route 31 – Widening from one lane to two lanes in each direction between U.S. Route 11 and Morgan Road.
  - NYS Route 31/I-81 Interchange – Reconfiguring the existing interchange to a DDI with three lanes in each direction on NYS Route 31.
  - Sneller Road/I-81 Interchange – Constructing a new interchange connecting I-81 with Sneller Road and U.S. Route 11.
  - U.S. Route 11– Widening from one lane to two lanes in each direction between NYS Route 31 and Sneller Road.
- **Scenario B Mitigations:**
  - New Access Road – Constructing a new four-lane access road (New Access Road) between NYS Route 481 and Caughdenoy Road, north of NYS Route 31, paralleling the CSX railroad.
  - New Access Road/NYS Route 481 Interchange – Constructing a new interchange between the New Access Road and NYS Route 481, located just east of the CSX railroad mainline, with a new roundabout at the New Access Road and Maple Road intersection.
- **Scenario C Mitigations:**
  - Caughdenoy Road/NYS Route 481 Ramp – Constructing a new access ramp providing additional southbound to westbound movement from Caughdenoy Road to NYS Route 481, with a new roundabout at the intersection of Caughdenoy Road and Maple Road.



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Micron Semiconductor Fab Project

Clay, New York

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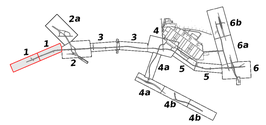

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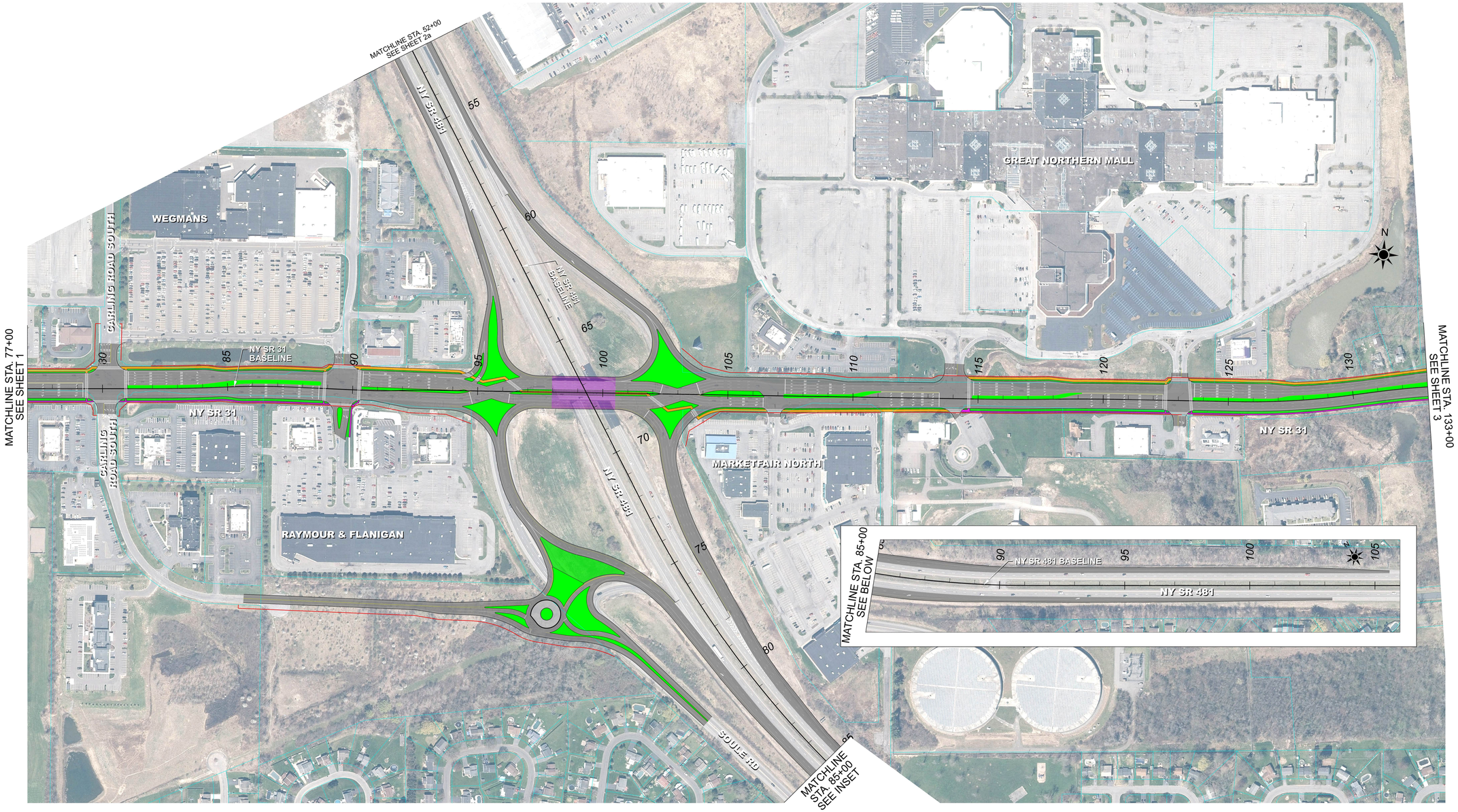

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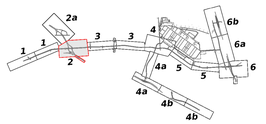

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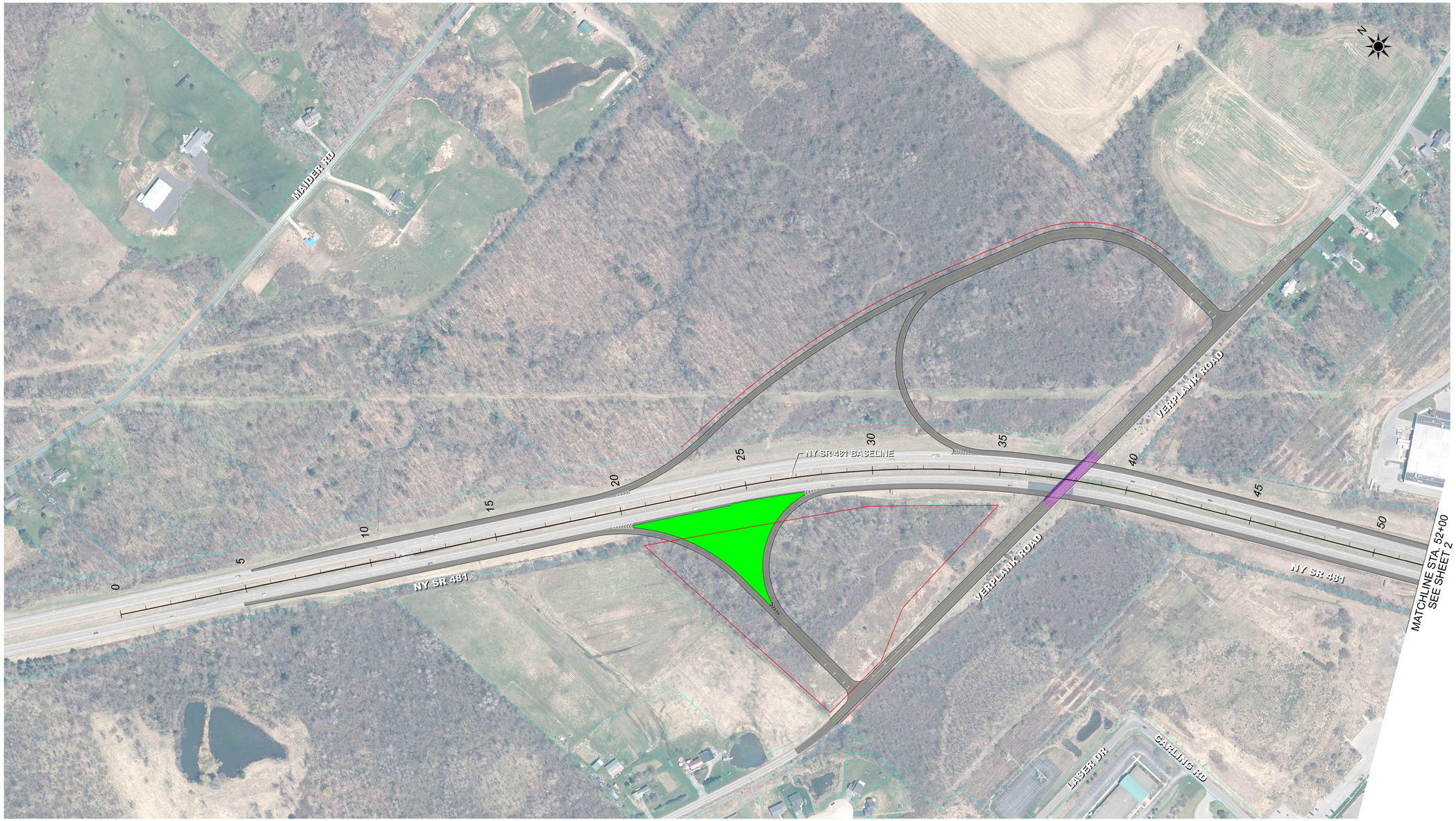

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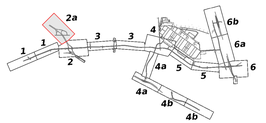

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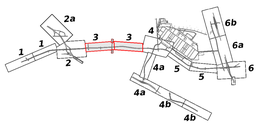

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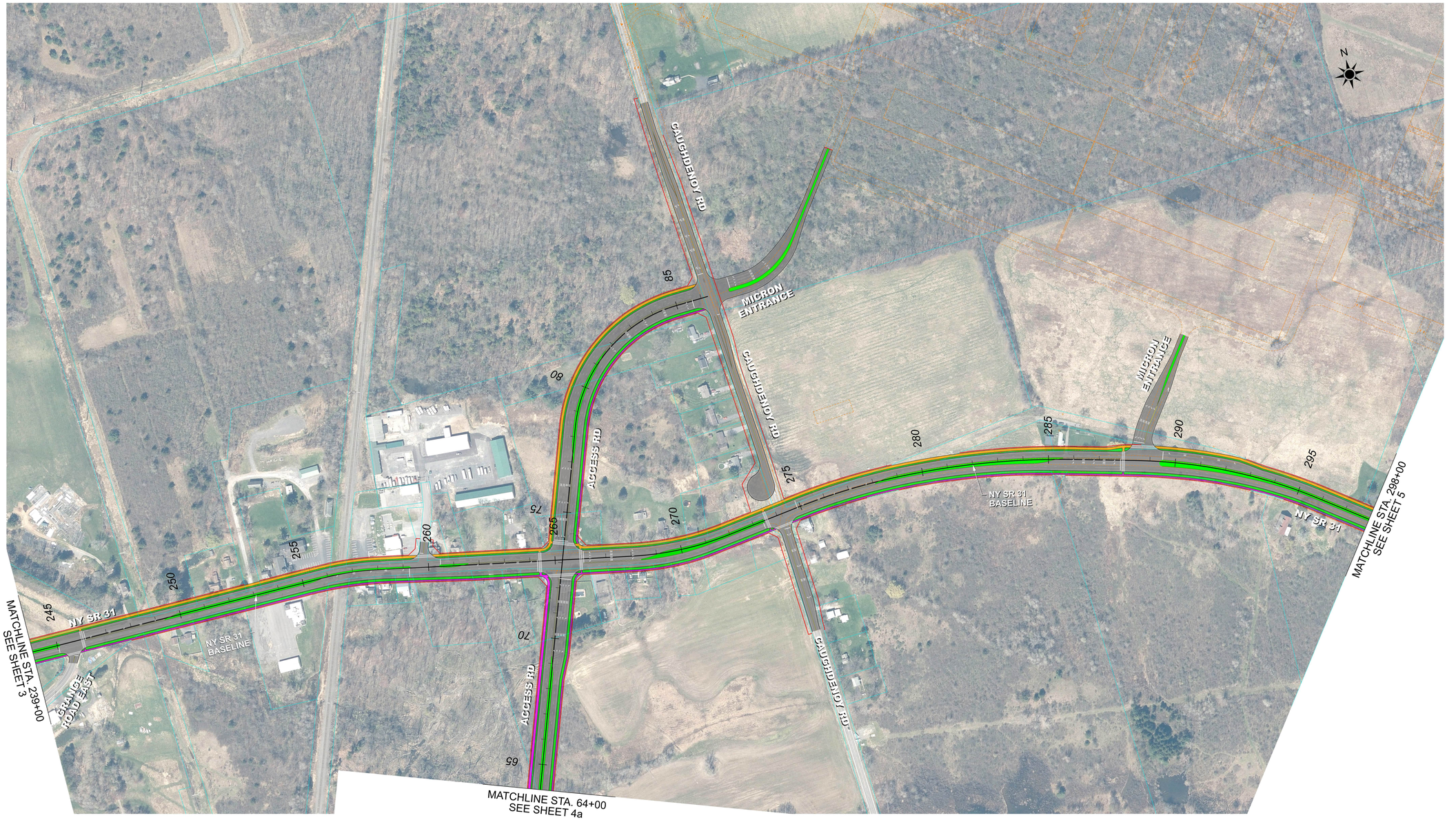

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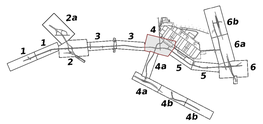

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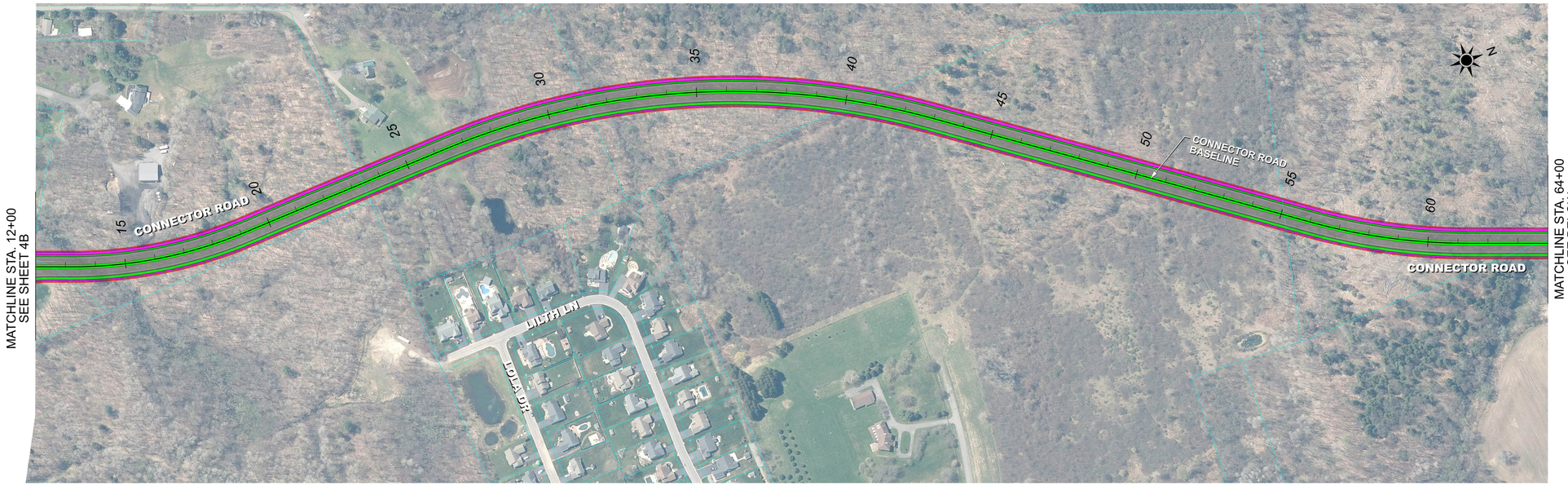

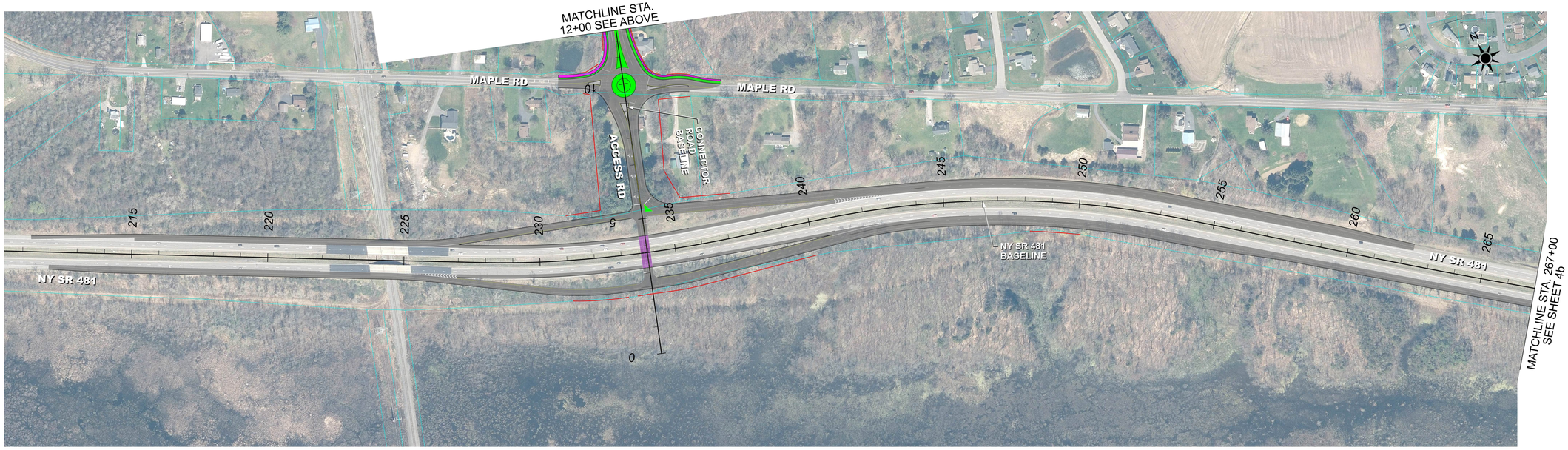

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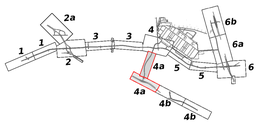

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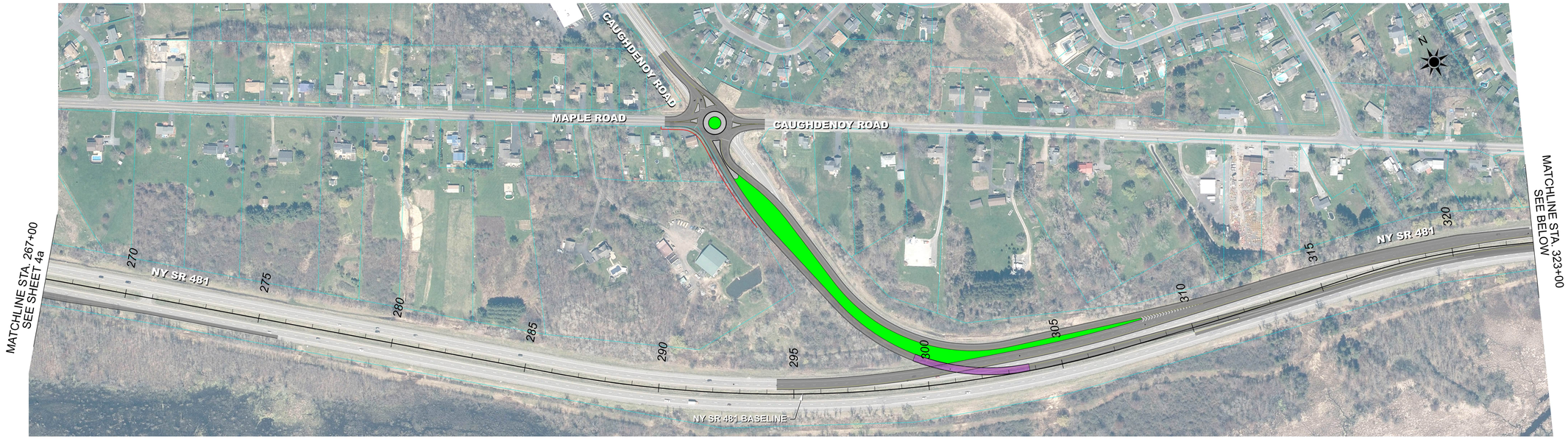

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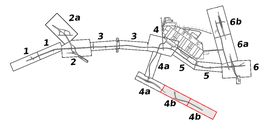

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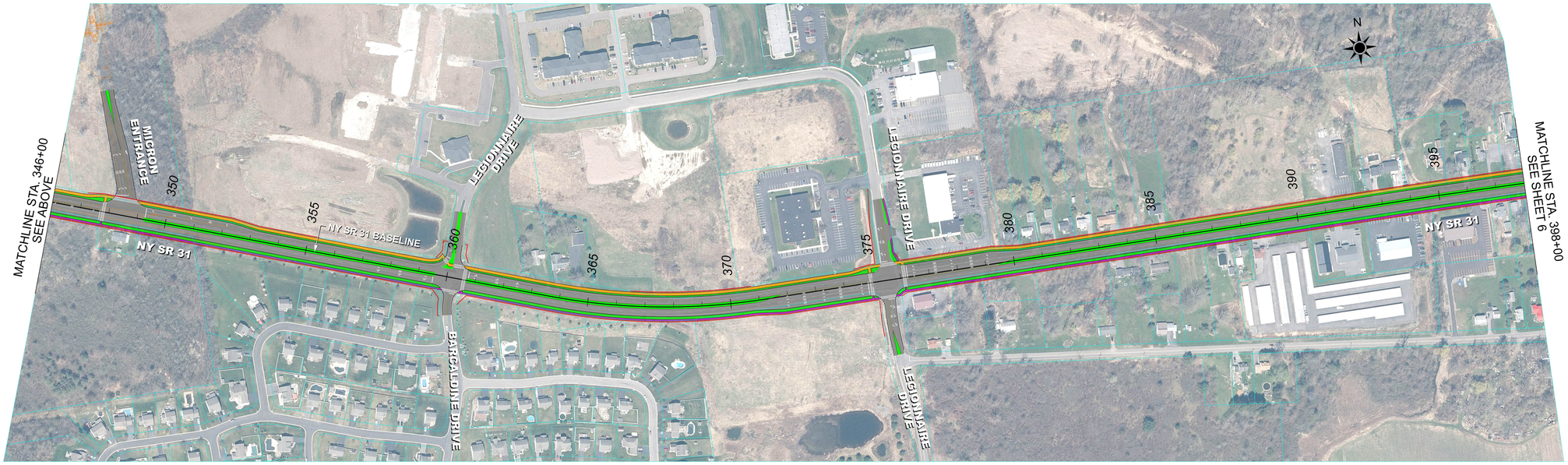

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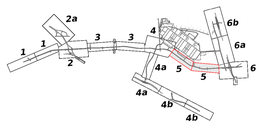

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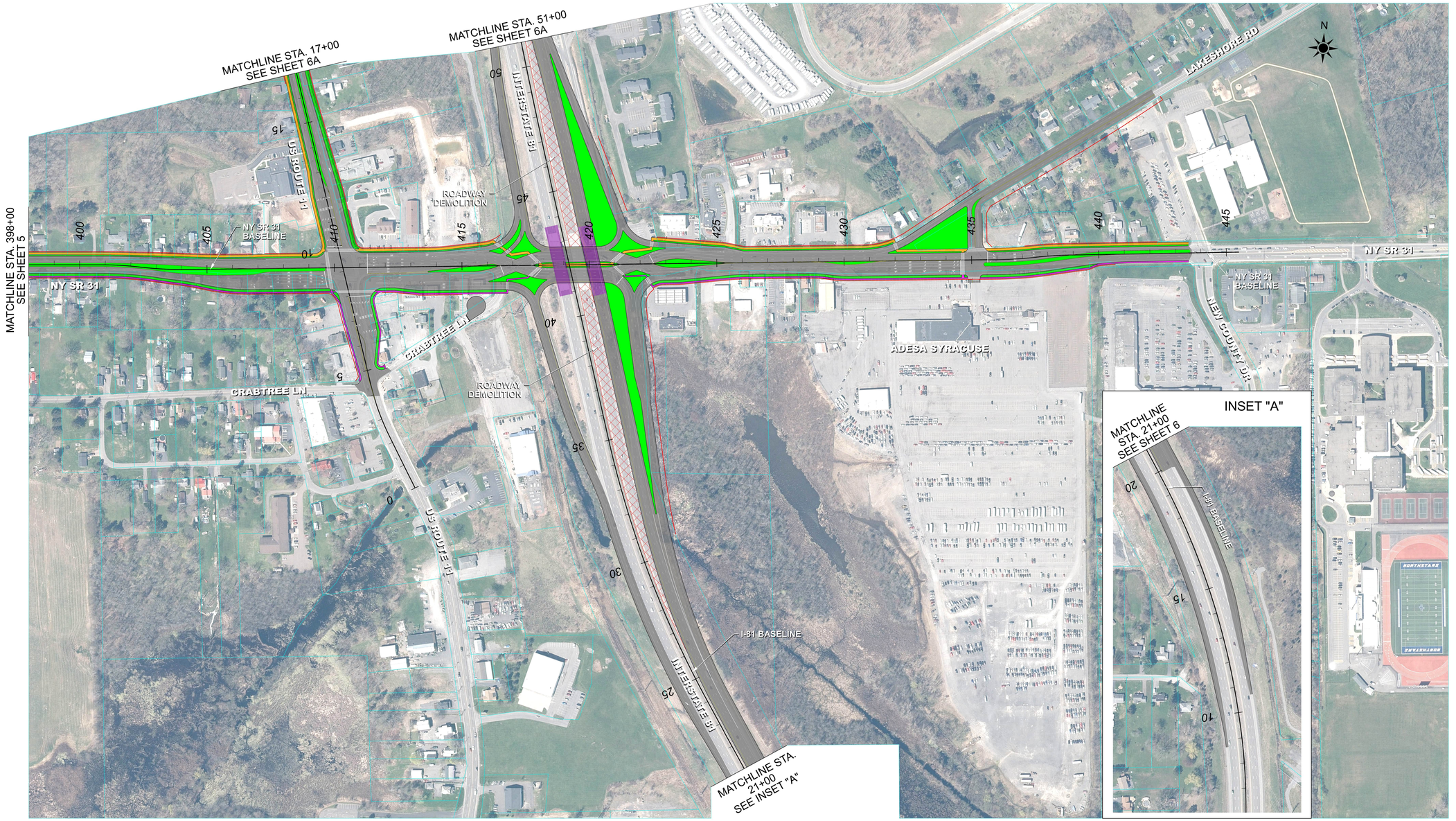

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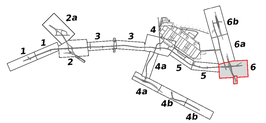

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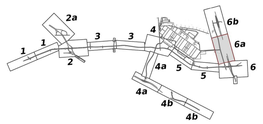

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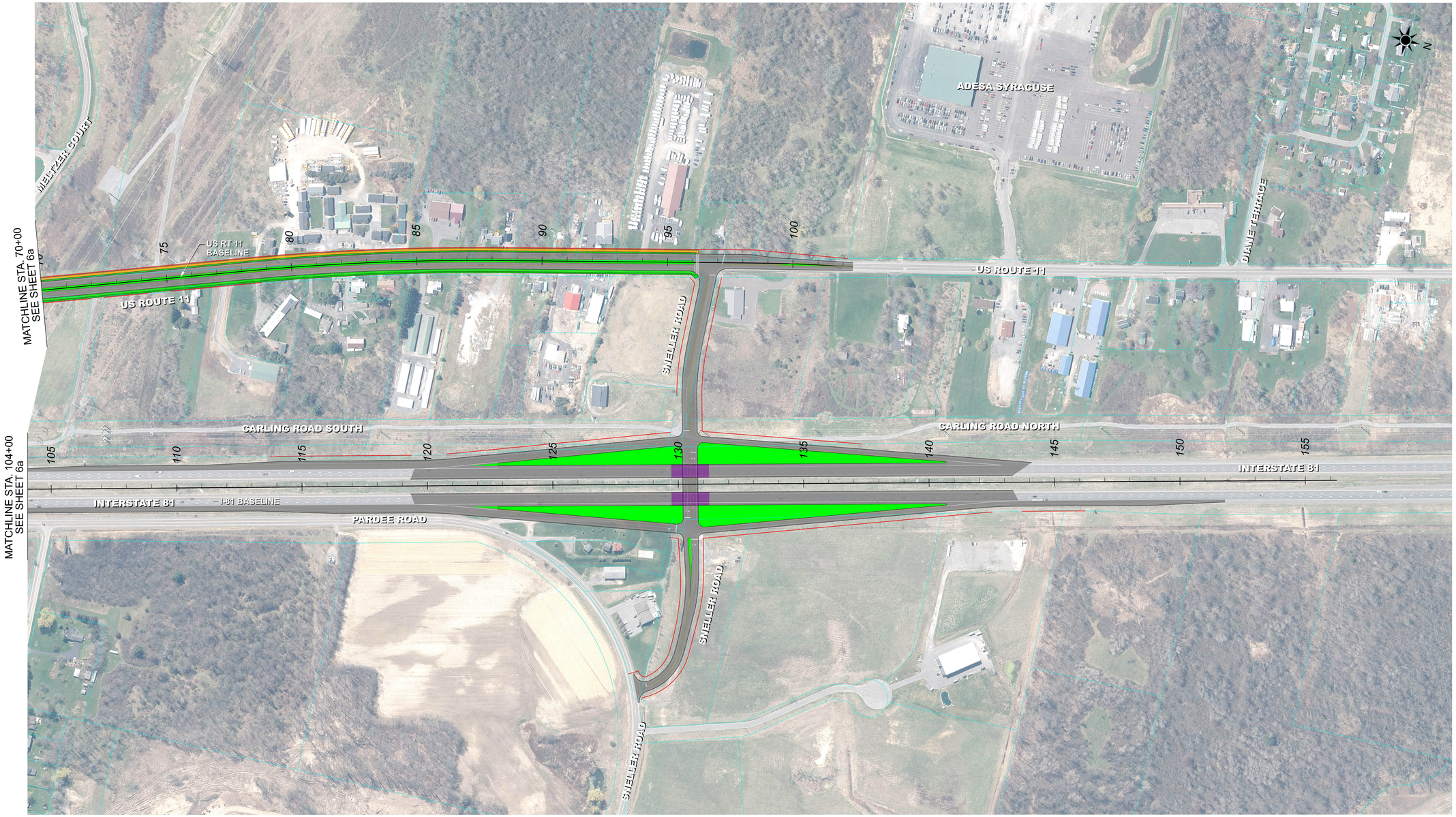

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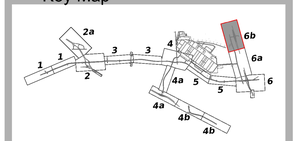

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10.6 Multimodal Summary

The transportation evaluation area focused on evaluating multimodal facilities for bicycles and pedestrians, public transit, rail, and air travel. A slight increase in bicycle and pedestrian trips is expected. There is anticipated to be a growing demand for bus services to the Micron Campus. During the construction of the Proposed Project, interim shuttle services will be available for construction workers. Additionally, the Rail Spur Site will improve rail activity and freight operations. Finally, airport passenger activity is projected to rise due to regional demand and the Proposed Project.

10.6.1 Bicycle and Pedestrian Facilities

The No Action Alternative does not include the addition of new bicycle and pedestrian facilities in the transportation evaluation area. Due to the limited bicycle and pedestrian facilities currently available, it is anticipated that bicycle and pedestrian trips will remain minimal and will not change significantly in the transportation evaluation area.

The Preferred Action Alternative is anticipated to generate less than one percent of additional bicycle and pedestrian trips, particularly on NYS Route 31 and U.S. Route 11. However, the lack of dedicated bicycle and pedestrian facilities will likely limit this form of travel within the Proposed Project.

The recommended mitigations include dedicated and continuous shared-use paths and sidewalks within the transportation evaluation area along NYS Route 31 and U.S. Route 11, as well as connecting the paths and sidewalks with existing corridors. They also include adequate crosswalks at signalized intersections to improve connectivity and accessibility to residential neighborhoods located along these corridors. Pedestrian and bicyclist safety would be enhanced at intersections and interchanges through the use of refuge islands, dedicated signals, signage, striping, and lighting.

10.6.2 Public Transit

The No Action Alternative would not introduce new public transit options in the transportation evaluation area. Centro would continue to operate regional bus services through the area, as determined by the demand for these services.

The Preferred Action Alternative is anticipated to generate additional demand for bus services. The total number of transit trips to Micron Campus is anticipated to be less than one percent (approximately 80 trips per day). Once the fabs on the Micron Campus are operational, Centro plans to provide additional transit services from downtown Syracuse to the Micron Campus, including an express bus route connecting Centro's Transit Hub to the Micron Campus and extending an existing bus route to the Micron Campus along U.S. Route 11. These additional transit services are included in the recommended mitigations.

The Preferred Action Alternative also includes shuttle services for construction workers while the Proposed Project is being built. Current plans provide approximately 30 shuttle trips to shuttle construction workers to and from the Micron Campus during peak hours. The construction worker shuttle would be independent of the public transit system and operate on a fixed schedule to and from the Micron Campus from designated offsite parking lots during peak hours.

10.6.3 Rail System

The No Action Alternative would not result in the establishment of new rail system facilities or operations within the transportation evaluation area. The CSX freight rail line in the evaluation area would continue to operate with minimal changes.

The Preferred Action Alternative includes construction of a siding track at the Rail Spur Site east of and parallel to the CSX Railway mainline with a 70-rail car storage capacity and two railyards (A and B) with a total storage capacity of 165 additional railcars. An offloading track/facility would also be constructed to store 15 additional railcars. A 250-railcar storage capacity is required for the entire Rail Spur Site to facilitate the required daily material unloading rate. Two rail unloaders would be running in series, capable of unloading 60 railcars in a 16-hour period. The Rail Spur Site would provide adequate storage capacity to ensure offloading trains do not block the NYS Route 31 roadway. With this configuration, it is anticipated that each train would take between 5 and 10 minutes to cross NYS Route 31.

The Rail Spur Site would have a conveyance system expected to transport up to 1,500 short tons per hour of aggregate materials from the Rail Spur Site over NYS Route 31 to the Micron Campus. Operations of the Rail Spur Site are expected to coincide with phased construction demand at the Micron Campus. During periods when maximum aggregate is needed for construction, 60 rail cars would be offloaded at the Rail Spur Site each day, and a second set of 60 rail cars arriving from the aggregate supply sources to the Rail Spur Site would result in two trips at the NYS Route 31 crossing per day.

As part of the Preferred Action Alternative and the Preferred Action Alternative with Mitigation, there would be an anticipated increase of two train crossings at the NYS Route 31 crossing and the Caughdenoy Road crossing. These crossings would require up to 10 minutes to complete, which would stop vehicular traffic along NYS Route 31 and Caughdenoy Road. To mitigate these impacts, rail transport and receiving at the Rail Spur Site would be limited to off-peak hours, ensuring that the train crossing does not impact traffic on NYS Route 31 or Caughdenoy Road. This activity would occur until the aggregate is no longer required for a particular construction phase.

10.6.4 Airport

The No Action Alternative will retain the current growth forecasts for SYR. The airport is expected to serve approximately 2 million passenger enplanements in 2040. The Preferred Action Alternative and the Mitigation Alternatives will increase passenger activity at the airport. SYR is in the process of updating its current Master Plan to accommodate this expected growth. Passenger activity is expected to increase by approximately 20 percent, reaching 2.4 million passenger enplanements by 2040. The airport is implementing a 5-year improvement plan to address its near-term needs.

10.7 Recommendations

The recommended mitigations are needed to address the significant adverse impacts of the Proposed Project, to the extent feasible. The recommended mitigations in Scenario C would achieve the best overall transportation network operational performance among all mitigation scenarios. The recommended mitigations are outlined below and presented visually in Figure 10-2, Recommendations.

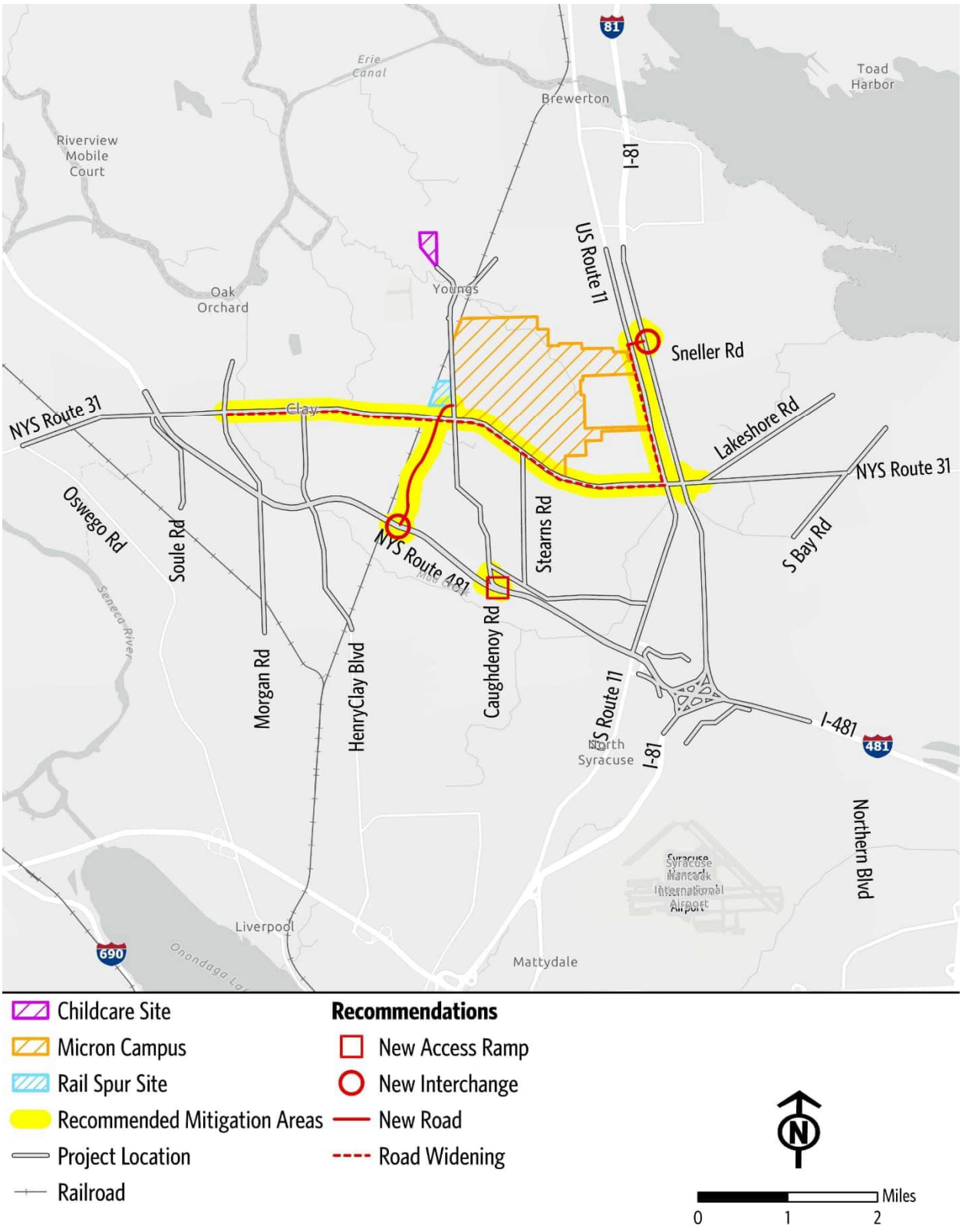
Recommendations:

- NYS Route 31—Widening from one lane to two lanes in each direction between U.S. Route 11 and Morgan Road.
- NYS Route 31/I-81 Interchange—Reconfiguring the existing interchange to a DDI with three lanes in each direction on NYS Route 31.
- Sneller Road/I-81 Interchange—Constructing a new interchange connecting I-81 with Sneller Road and U.S. Route 11.
- U.S. Route 11—Widening from one lane to two lanes in each direction between NYS Route 31 and Sneller Road.
- New Access Road—Constructing a new four-lane access road (New Access Road) between NYS Route 481 and Caughdenoy Road, north of NYS Route 31, paralleling the CSX Railway line.
- New Access Road/NYS Route 481 Interchange—Constructing a new interchange between the New Access Road and NYS Route 481, located just east of the CSX Railway mainline, with a new roundabout at the New Access Road and Maple Road intersection.
- Caughdenoy Road/NYS Route 481 Ramp—Constructing a new access ramp providing additional southbound to westbound movement from Caughdenoy Road to NYS Route 481, with a new roundabout at the intersection of Caughdenoy Road and Maple Road.

The recommended mitigations would require changes to roadway configuration, potential land acquisition for interchanges, ramps, roadways, and intersection signal timing upgrades to achieve the proposed operational conditions. They would also improve the transportation network's operational performance by mitigating the significant operational and localized impacts of the Proposed Project at intersections.

With the implementation of the recommended transportation mitigations, potential significant adverse transportation effects posed by the Preferred Action Alternative will be mitigated and/or avoided to the maximum extent feasible. The detailed design and implementation of the recommended mitigations are subject to the agencies' discretion, with jurisdiction over federal and state, as well as additional study and analysis. They would thus be subject to further environmental review and approval by NYSDOT, FHWA, and other relevant jurisdictional agencies. Specifically, NYSDOT and FHWA will undertake a separate National Environmental Policy Act (NEPA)/State Environmental Quality Review Act (SEQRA) environmental review of the recommended mitigations and implement these or other mitigations to ensure the best overall operational performance of the transportation network with the Proposed Project.

Figure 10-2. Recommendations



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