

Maintenance Rating Program Monroe Expressway

Quarter 4 MRP Assessment



February 2024

CONSULTANT CERTIFICATION OF COMPLETION

January 24, 2024

Alan Shapiro, P.E.
Director of Highway Operations, NCTA
1 South Wilmington Street
Raleigh, NC 27601

NCTA Monroe By-Pass Roadway Maintenance Performance Rating Program; Q4, FY 2023 Rating

This is to certify that I, Ken M. McEntire, PE am an authorized official representative of the company Mott MacDonald I&E, LLC, a subconsultant to HNTB North Carolina, P.C. Collaboratively; we are working as the NCTA Roadway and Facility Maintenance Performance Rating Program Consultants.

I know of my own personal knowledge, and do hereby certify, that the work of the contract described above has been independently performed in accordance with, and in conformity to, the *NCTA Roadway and Facility Maintenance Performance Standards v.7*.

Sincerely,

Mott MacDonald I&E, LLC

A handwritten signature in blue ink that reads "Ken M. McEntire". The signature is written in a cursive style with a large initial "K" and "M".

Ken M. McEntire, PE
Principal Project Manager – Operations and Maintenance

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1.0 Executive Summary

The North Carolina Turnpike Authority (NCTA) Maintenance Rating Program (MRP) is a maintenance evaluation program for all roadway features and toll facilities on the Monroe Expressway. This report presents results from the 2023 Fourth Quarter Assessment of the Monroe Expressway.

The overall 2023 fourth quarter rating of the Monroe Expressway was 96.2. This score is above the target rating score of 90 for the overall system. As shown in **Table 1**, all five elements assessed achieved a rating greater than the target rating of 85.

Table 1: MRP Element Results for the 2023 Fourth Quarter Assessment

Element	MRP Rating	Target Rating
Road Surface	95.7	85.0
Unpaved Shoulders and Ditches	97.0	85.0
Drainage	96.1	85.0
Roadside	96.5	85.0
Traffic Control Devices	96.0	85.0
Overall MRP Performance Rating	96.2	90.0

This report also provides a rolling rating of the latest four quarterly inspections of the Monroe Expressway. As presented in **Table 2**, the rolling maintenance rating of the Monroe Expressway was 97.1.

Table 2: MRP Rolling Element Results

Element	Q1 2023 Rating	Q2 2023 Rating	Q3 2023 Rating	Q4 2023 Rating	Rolling Rating
Road Surface	100.0	95.7	97.9	95.7	97.1
Unpaved Shoulders and Ditches	95.4	98.7	100.0	97.0	97.9
Drainage	97.4	96.5	97.1	96.1	96.8
Roadside	92.3	95.3	94.5	96.5	94.7
Traffic Control Devices	99.4	96.7	100.0	96.0	98.1
Overall MRP Performance Rating	97.5	96.4	98.1	96.2	97.1

All the element ratings were above the desired rating of 85. It is important to note that these results are only representative of the first quarter sample, one of four quarterly surveys annually that provide an intermediate snapshot of seasonal conditions. Therefore, these results are not yet a statistically valid representation of the assets; only the total of all four quarterly inspections reported as a rolling rating, provides a 95% confidence level in statistical sampling.

2.0 Introduction

The North Carolina Turnpike Authority (NCTA) Maintenance Rating Program (MRP) is a maintenance evaluation program for roadway features and toll facilities on the NCTA system. It is a comprehensive planning, measuring, and managing process that provides a means for communicating to managers, stakeholders, and key customers the impacts of policy and budget decisions on program service delivery.

Using outcome-based performance measures and the service level scale (0 through 100), the survey results are rated against established threshold criteria. The program analysis is accomplished by implementing sampling procedures that capture the level of service being provided for individual asset features. Over time, these ratings will be charted to identify work needs and subsequent necessary actions. The evaluations are based on the establishment of "threshold" conditions that quantify the maximum defect allowed to exist for a characteristic before it is considered unacceptable.

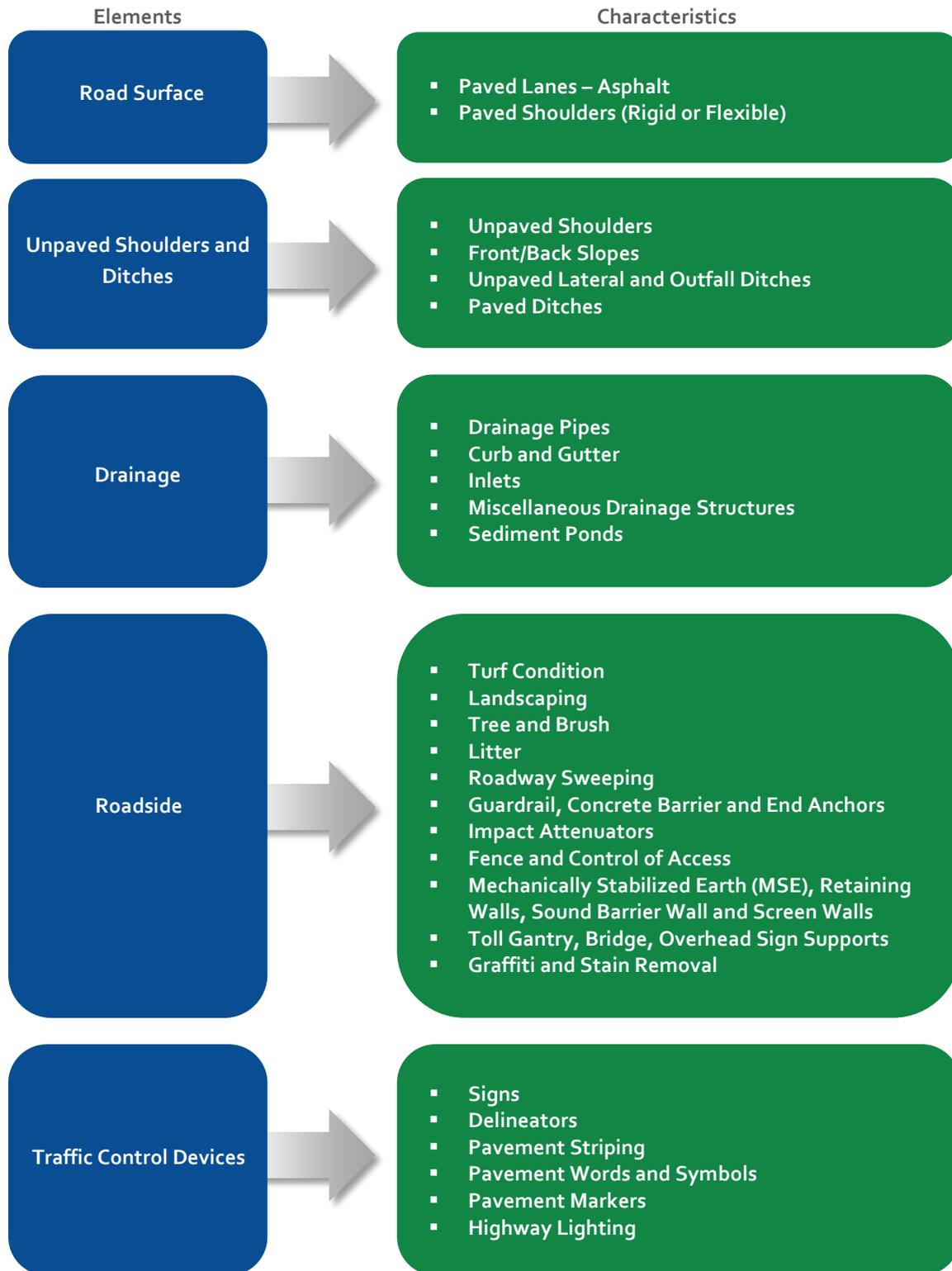
The NCTA performance standards, threshold criteria, and maintenance rating program were developed through a collaborative effort by NCTA managers, NCDOT maintenance staff, and consultants.

Using this field survey information, a maintenance matrix can be developed to show ties between maintenance activities and the characteristics of various roadway features. The purpose of this evaluation is to provide information that will be used to schedule and prioritize routine maintenance activities and provide uniform maintenance conditions that meet established objectives.

3.0 MRP Survey Procedure

Per the NCTA Roadway and Facility Maintenance Performance Standards, roadway assets on NCTA facilities have been grouped into characteristics which are categorized into 5 elements. These elements and their characteristics can be seen in *Figure 1* below:

Figure 1: Maintenance Elements and Characteristics



Because some roadway characteristics are of greater importance than others, a weighting system is applied to enable rational calculation of an overall level of service rating. Although one set of weighting factors for all characteristics could serve this purpose, a more useful system consists of two sets of weighting factors: one set that accounts for the importance of individual characteristics within a given maintenance element (1-9), and another set that accounts for the importance of the maintenance elements to the total rating (by % of score). This two-set system reveals deficiencies among characteristics and shows which maintenance elements are deficient.

The program analysis is accomplished using statistically valid, random sampling procedures that capture the level of service for individual assets with a 95% confidence level in sampling. Inspections are performed during the months of February, May, August, and November to account for dynamic changes in assets during the various seasons, such as vegetation growth. Each maintenance characteristic is evaluated and recorded according to the criteria developed by the NCTA performance standards. This inventory was completed with electronic data collection tablets and programs for accurate GPS coordinates of each transportation asset.

The evaluations are based on established "threshold" conditions that quantify the maximum defect allowed to exist for a characteristic before it is considered unacceptable. The ratings are done by comparing existing field conditions to the "threshold" value. If the characteristic meets or exceeds the "threshold," it is coded as YES to meeting the criteria. If it does not meet the criteria, it is coded as a NO. When the survey is complete, the number of YES's and NO's are totaled, and a composite number (using from 1 to 100 scale) is produced, which represents the level of maintenance currently being provided.

For any given asset, the number assigned as the target level of service represents the percentage of random samples in which the maintenance condition standard corresponding to the activity is to be met or exceeded. For instance, an activity with a level of service rating of 83 means that 83 percent of the sites met the condition standards.

The NCTA's overall target rating score is 90, with each element level scoring at or above 85 and every characteristic at or above 80.

4.0 Monroe Expressway Description

The Monroe Expressway extends for approximately 18.5 miles between the U.S. 74 interchange to the west and U.S. 74 near Marshville to the east. The Monroe Expressway consists of eight interchanges and seven all-electronic toll collection zones. A map of the Monroe Expressway can be seen in **Figure 2** below:

Figure 2: Monroe Expressway Map



5.0 Survey Results

The overall Q4 2023 MRP rating for the Monroe Expressway is 96.2. This score is above the target rating score of 90 for the overall system. All the element ratings were above the desired rating of 85, and one characteristic scored below the minimum 80 rating. Individual characteristic ratings will be discussed in detail in the analysis section of this report.

Appendix A shows each of the individual assets that failed the MRP criteria. **Appendix B** includes maps of each of the individual asset locations that failed to meet the criteria displayed in the tables below. The MRP rating value designated to each element and feature refers to the percentage of elements or features that pass the asset’s particular threshold criteria. After developing an inventory by recording the total number of instances of a particular feature, each feature is analyzed based on threshold criteria and a pass/fail result is designated and recorded for each to determine the percentage of the sample passed. The passing samples and sample totals are then multiplied by their weighted value, which are designated to each element based on importance to determine the actual and available rating points. Lastly, an MRP Performance Rating is calculated for each asset and element group based on the ratio of the actual points over the available points.

The overall MRP Performance rating results of the survey are presented in **Tables 3 and 4**.

Table 3: Element Results for Q4 2023

Element	MRP Rating
Road Surface	95.7
Unpaved Shoulders	97.0
Drainage	96.1
Roadside	96.5
Traffic Control Devices	96.0
Overall MRP Performance Rating	96.2

The overall score is determined by summing the elements multiplied by weighted factors as follows: Road Surface (25%), Unpaved Shoulders (13%), Drainage (15%), Roadside (17%), and Traffic Control Devices (30%).

Table 4: Characteristic Results for Q4 2023

Road Surface	Sample Passed	Sample Total	Weighted Values	Actual PTS	Available PTS	Quarter Rating
Paved Lanes Asphalt	28	30	9	252	270	93
Paved Shoulder	30	30	5	150	150	100
Element Total				402	420	95.7
Unpaved Shoulders & Ditches	Sample Passed	Sample Total	Weighted Values	Actual PTS	Available PTS	Quarter Rating
Unpaved Shoulder	29	30	9	261	270	97
Front/Back Slopes	29	30	6	174	180	97
Lateral and Outfall Ditches, Unpaved	30	30	6	180	180	100
Ditches, Paved	7	8	5	35	40	88
Element Total				650	670	97.0
Drainage	Sample Passed	Sample Total	Weighted Values	Actual PTS	Available PTS	Quarter Rating
Drainage Pipes	25	26	7	175	182	96
Curb and Gutter	23	24	6	138	144	96
Inlets	29	30	7	203	210	97
Misc. Drainage Structure	17	18	4	68	72	94
Sediment Pond	1	1	7	7	7	100
Element Total				591	615	96.1
Roadside	Sample Passed	Sample Total	Weighted Values	Actual PTS	Available PTS	Quarter Rating
Turf Condition	28	30	7	196	210	93
Landscaping	13	14	4	52	56	93
Trees and Brush	15	15	4	60	60	100
Litter	29	30	4	116	120	97
Roadway Sweeping	30	30	5	150	150	100

Maintenance Rating Program for the Monroe Expressway
2023 Fourth Quarter (October - December)

Guardrail, Concrete Barrier and End Anchors	31	31	9	279	279	100
Impact Attenuators	7	7	9	63	63	100
Fence, Control Access	22	25	7	154	175	88
Retaining Walls and Sound Barrier Walls	14	14	5	70	70	100
Toll Gantry Supports	16	17	5	80	85	94
Graffiti and Stain Removal	30	30	4	120	120	100
Element Total				1340	1388	96.5
Traffic Control Devices	Sample Passed	Sample Total	Weighted Values	Actual PTS	Available PTS	Quarter Rating
Signs	28	32	7	196	224	88
Object Markers and Delineators	30	30	3	90	90	100
Pavement Striping/Marking	30	30	8	240	240	100
Words and Symbols	29	31	7	203	217	94
Pavement Markers	30	30	9	270	270	100
Highway Lighting	3	3	6	18	18	100
Element Total				1017	1059	96.0

6.0 Analysis & Recommendations

MRP Elements

During the fourth quarter, all elements exceeded NCTA's quarter score threshold criteria of 85. All elements received a quarter score above 90.

MRP Characteristics

All characteristics exceeded the NCTA minimum threshold criteria of 80.

7.0 Current Rolling MRP Rating

The rolling maintenance rating of the Monroe Expressway was 97.1, exceeding NCTA’s overall target rating of 90. All elements exceeded NCTA’s rolling rating threshold criteria of 85. All characteristic rolling ratings met or exceeded the target rating of 80.

The 2022/2023 results are presented in *Exhibit 1* and *Table 5*. These results are a collection of the latest four quarterly inspections.

Exhibit 1: MRP Element Results for 2023

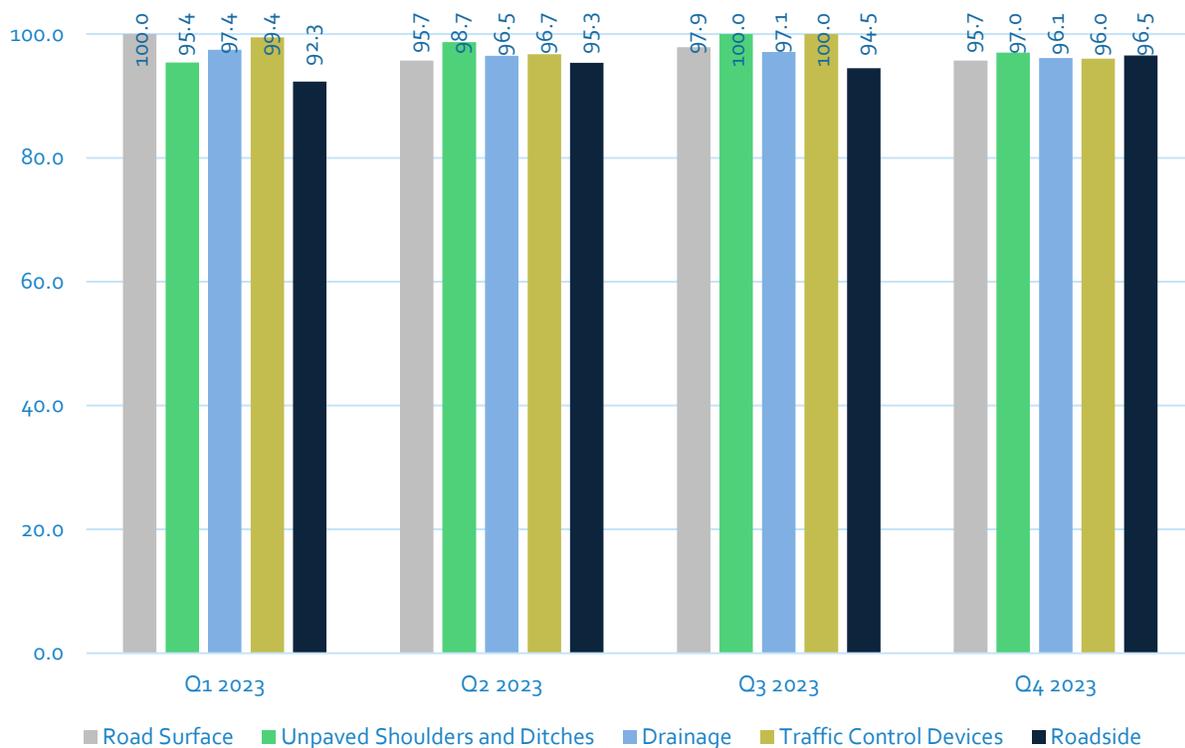


Table 5: MRP Rolling Element Results

Road Surface	Q1 2023 Rating	Q2 2023 Rating	Q3 2023 Rating	Q4 2023 Rating	Rolling Rating
Paved Lanes Asphalt	100	93	97	93	95.5
Paved Shoulder	100	100	100	100	100
Element Total					97.1
Unpaved Shoulders and Ditches	Q1 2023 Rating	Q2 2023 Rating	Q3 2023 Rating	Q4 2023 Rating	Rolling Rating
Unpaved Shoulder	90	97	100	97	96.4
Front/Back Slopes	100	100	100	97	99.1
Lateral and Outfall Ditches, Unpaved	100	100	100	100	100
Ditches, Paved	92	100	100	88	94.9
Element Total					97.9
Drainage	Q1 2023 Rating	Q2 2023 Rating	Q3 2023 Rating	Q4 2023 Rating	Rolling Rating
Drainage Pipes	100	100	100	96	99.2
Curb and Gutter	95	100	100	96	98.1
Inlets	97	91	97	97	95.2
Sediment Basins	100	100	100	100	100
Misc. Drainage Structure	95	94	88	94	92.0
Element Total					96.8
Roadside	Q1 2023 Rating	Q2 2023 Rating	Q3 2023 Rating	Q4 2023 Rating	Rolling Rating
Turf Condition	80	98	81	93	88.6
Landscaping	93	100	93	93	94.8
Trees and Brush	100	100	100	100	100
Litter	100	100	100	97	99.1
Roadway Sweeping	100	100	100	100	100
Guardrail, Concrete Barrier, and End Anchors	94	100	100	100	98.4
Impact Attenuators	100	100	100	100	100
Fence, Control Access	91	83	93	88	88.8
Retaining Walls and Sound Barrier Walls	100	71	100	100	92.7
Decorative Supports	100	75	57	94	85.7
Graffiti and Stain Removal	100	100	100	100	100
Element Total					94.7
Traffic Control Devices	Q1 2023 Rating	Q2 2023 Rating	Q3 2023 Rating	Q4 2023 Rating	Rolling Rating
Signs	100	91	100	88	95.8
Delineators	100	100	100	100	100.0
Pavement Striping/Marking	100	100	100	100	100.0
Words and Symbols	98	94	100	94	96.5
Pavement Markers	100	100	100	100	100
Highway Lighting	100	100	100	100	100
Element Total					98.1

8.0 Conclusion

This report presents the 2023 fourth quarter assessment of the Monroe Expressway. The NCTA's target ratings are 90 for the rolling rating, 90 for the overall quarter rating, 85 for elements, and 80 for characteristics. The fourth quarter rating was 96.2 and the rolling rating was 97.1, both ratings met the target rating of 90.

All element ratings were above the target ratings for the quarter. During the fourth quarter assessment, all characteristics met or exceeded the target rating of 80.

The maintenance provider is encouraged to continue using asset management principles and a performance management approach to work planning.

Appendix A

Monroe Expressway 2023 Fourth Quarter Table Results of Assets Failing MRP

Appendix A: Monroe Expressway 2023 Fourth Quarter Table Results of Assets Failing MRP

Provided below are a series of tables outlining the existing failures that occurred throughout the facility. Assets are defined by an Inventory ID, which is a unique identifier given to each individual asset. The components of the Inventory ID are an asset specific prefix along with a number, such as LS_1. The Inventory ID and GIS Reference Page number correspond to the provided map packets and allow for quick location of particular asset failures. Photos of failures were provided when applicable.

All assets and their respective prefixes are listed below:

Guardrail, Concrete Barrier and End Anchors (BR).....	2
Curb and Gutter (CG).....	3
Toll Gantry Supports (GN).....	4
Drainage Pipes (DP).....	5
Misc. Drainage Structure (MDD).....	6
Fence and Control of Access (FN)	7
Graffiti (GR).....	8
Highway Lighting (HL)	9
Impact Attenuators (IA).....	10
Inlets (IN).....	11
Landscaping (PB).....	12
Paved Lanes – Asphalt (LS)	13
Paved Shoulders (LS)	14
Unpaved Shoulders (LS).....	15
Front/Back Slopes (LS)	16
Unpaved Lateral and Outfall Ditches (LS)	17
Litter (LS).....	18
Roadway Sweeping (LS).....	19
Pavement Striping (LS)	20
Pavement Markers (LS).....	21
Delineators (LS).....	22
Paved Ditches (PD).....	23
Pavement Words and Symbols (PS)	24
Signs (SN)	25
Tree and Brush (TB).....	26
Turf Condition (TF)	27
MSE/Retaining Walls, Sound Barrier Walls and Screen Walls (WL)	28
Sediment Basins(SB).....	30

Guardrail, Concrete Barrier and End Anchors (BR)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Curb and Gutter (CG)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Concrete	CG_167	Structural Damage		B7

Toll Gantry Supports (GN)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Concrete	GN_17	Scaling		B8

Drainage Pipes (DP)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Concrete	DP_511	Obstruction		B3

Misc. Drainage Structure (MDD)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Concrete	MDD_136	End Damage	No Photo Provided	B24

Fence and Control of Access (FN)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Woven	FN_30	Hole		B15
2	Woven	FN_218	Hole		B1 & B2
3	Woven	FN_283	Hole		B5

Graffiti (GR)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Highway Lighting (HL)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Impact Attenuators (IA)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Inlets (IN)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Concrete	IN_46	Erosion		B26

Landscaping (PB)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Plant Bed	PB_45	Undesirable Vegetation		B1

Paved Lanes – Asphalt (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Asphalt	LS_262	Cracking		B8
2	Asphalt	LS_311	Cracking/Rutting		B9

Paved Shoulders (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Unpaved Shoulders (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Asphalt	LS_115	Dropoff		B3

Front/Back Slopes (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Asphalt	LS_65	Erosion		B1

Unpaved Lateral and Outfall Ditches (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Litter (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Roadway Sweeping (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Pavement Striping (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Pavement Markers (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Delineators (LS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Paved Ditches (PD)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Concrete	PD_17	Undermining/Cracking		B14

Pavement Words and Symbols (PS)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Asphalt	PS_301	Nighttime Reflectivity	No Photo Provided	B17

Signs (SN)

#	Sign Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Wrong Way	SN_234	Height		B4
2	Speed Limit Ahead	SN_791	Height		B23
3	Speed Limit	SN_1156	Leaning		B1 & B2

Tree and Brush (TB)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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This asset did not produce any failures.

Turf Condition (TF)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
1	Turf	TF_164	Bare Ground		B2
2	Turf	TF_501	Bare Ground		B7

MSE/Retaining Walls, Sound Barrier Walls and Screen Walls (WL)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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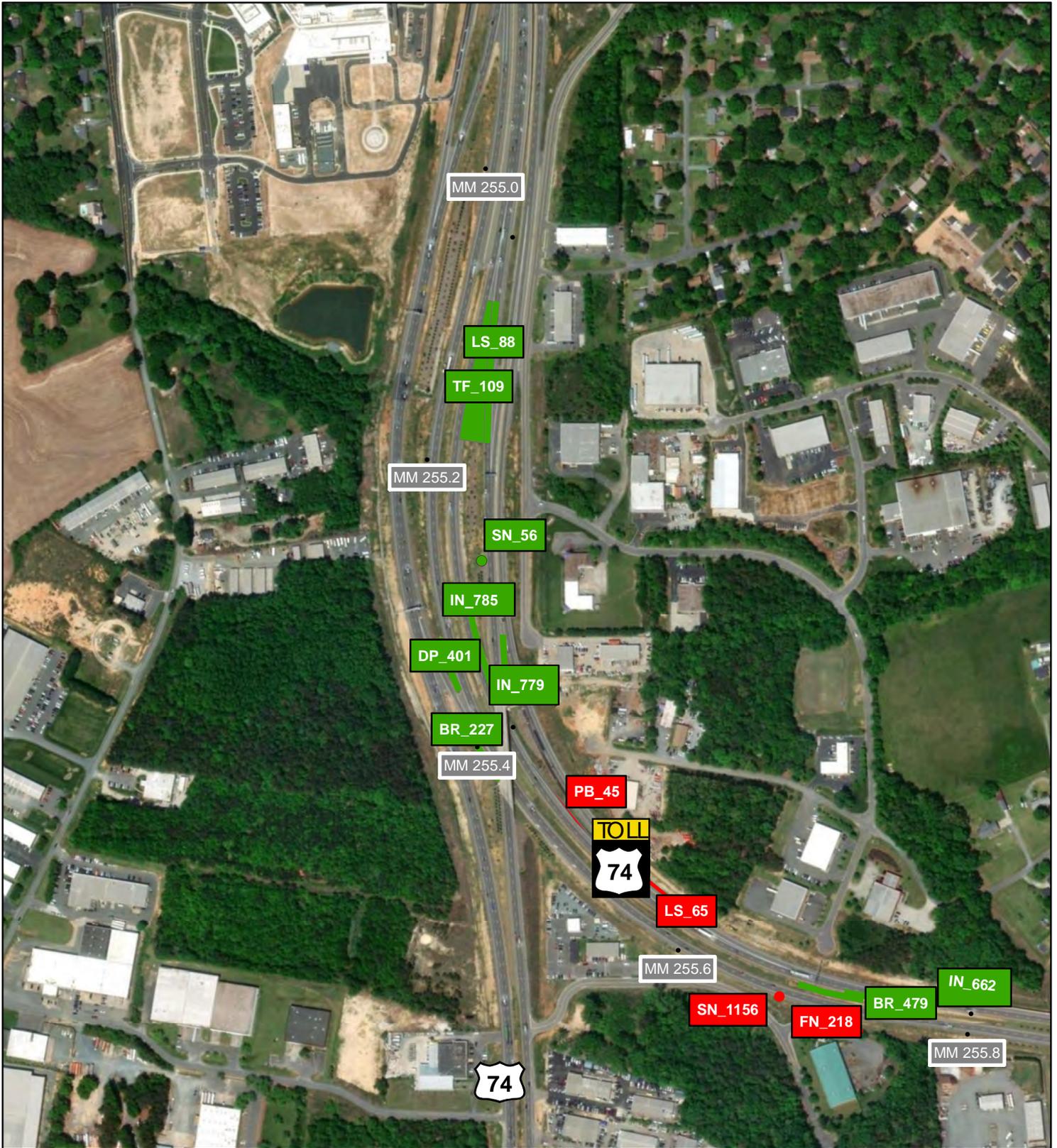
This asset did not produce any failures.

Sediment Basins(SB)

#	Material Type	Object ID	Failure Type	Photo	GIS Reference Page
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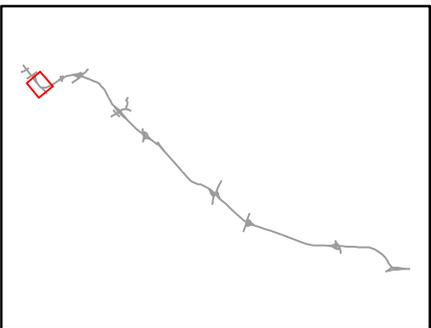
This asset did not produce any failures.

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

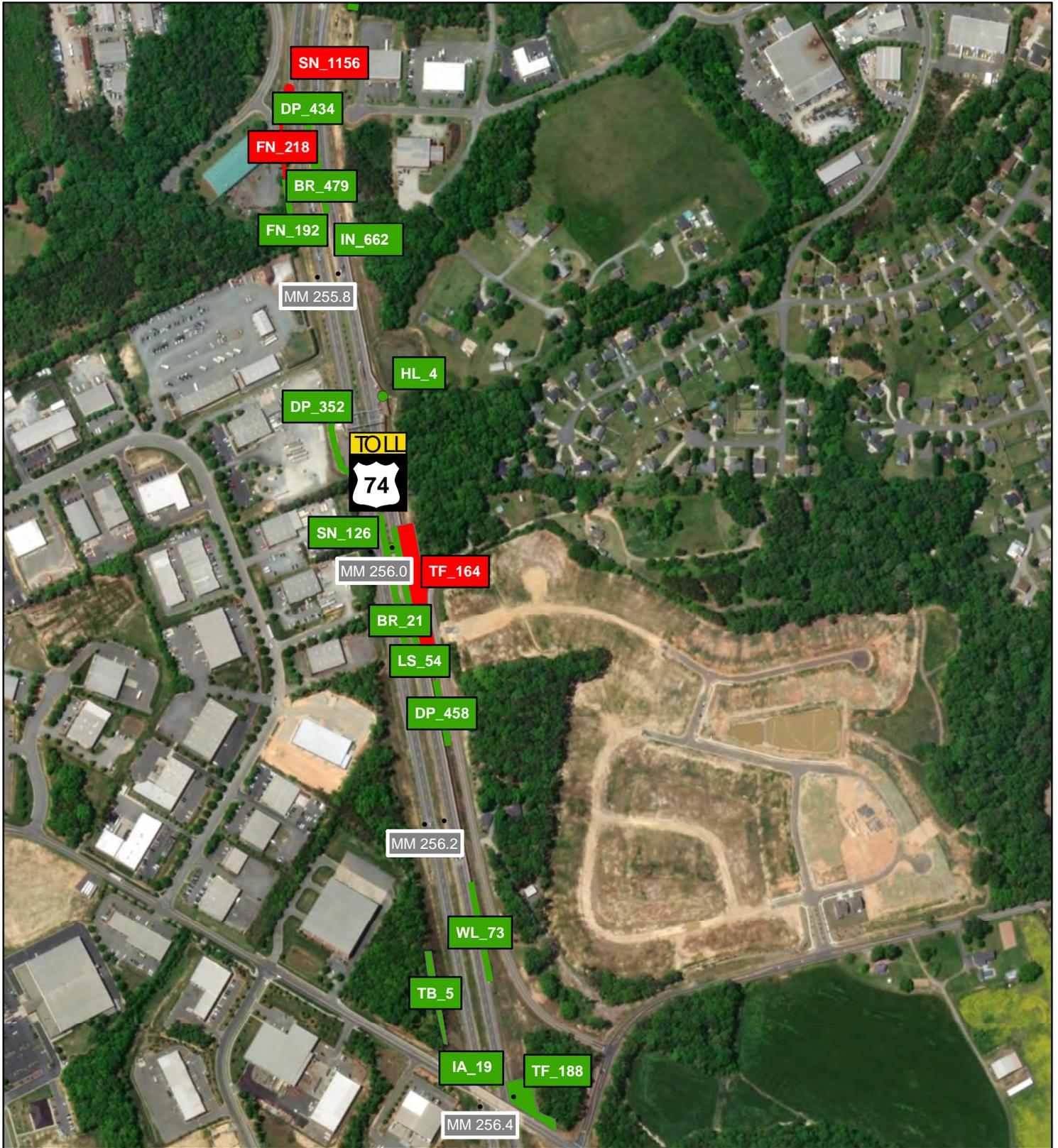
- Failing Asset
- Passing Asset



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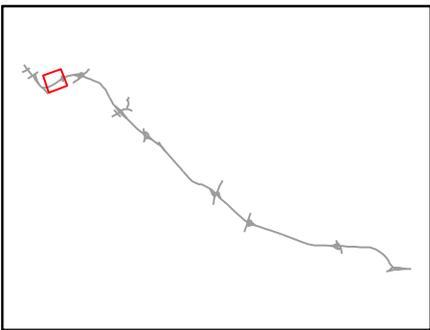
B1

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

- Failing Asset
- Passing Asset





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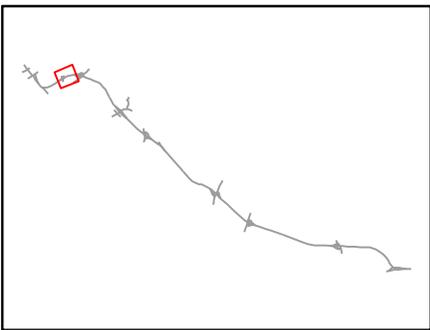
B2

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

- Failing Asset
- Passing Asset

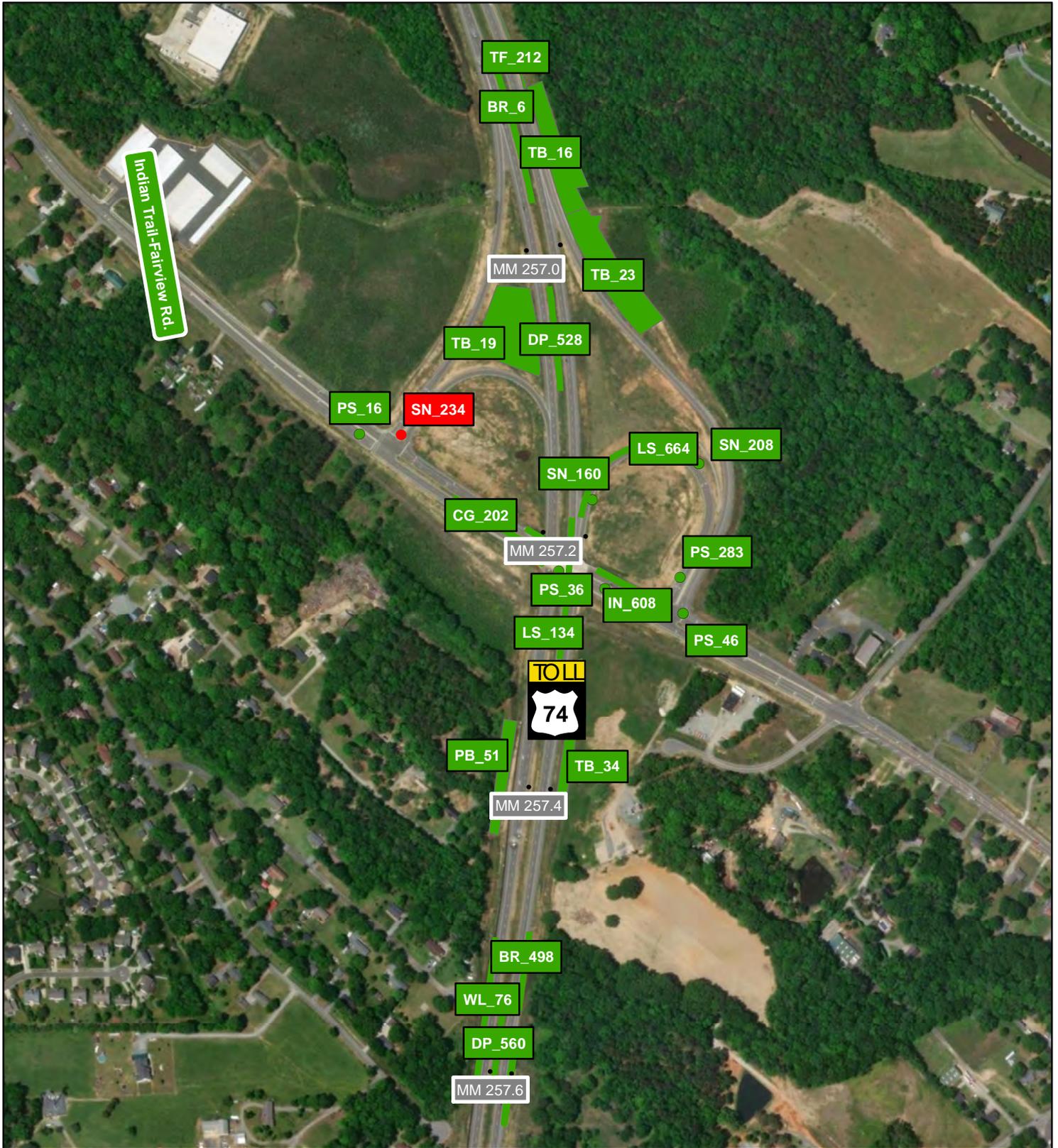




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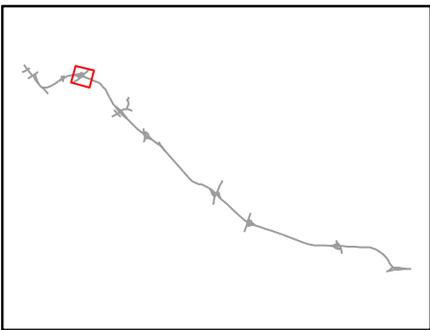
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Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

- Failing Asset
- Passing Asset

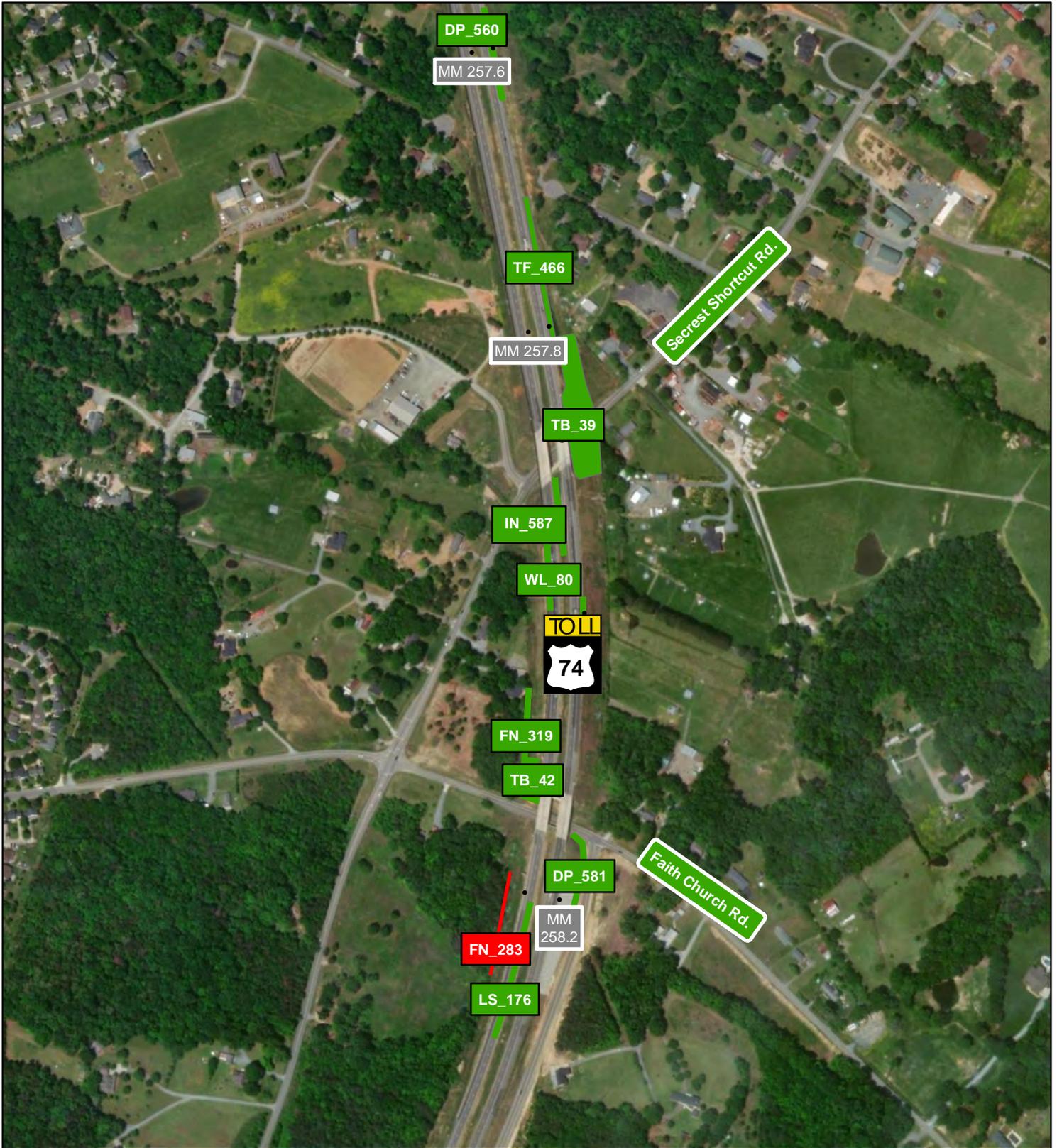




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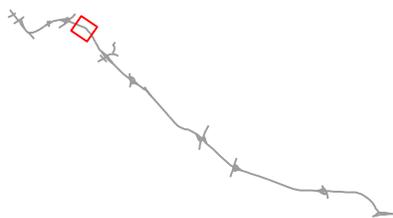
B4

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

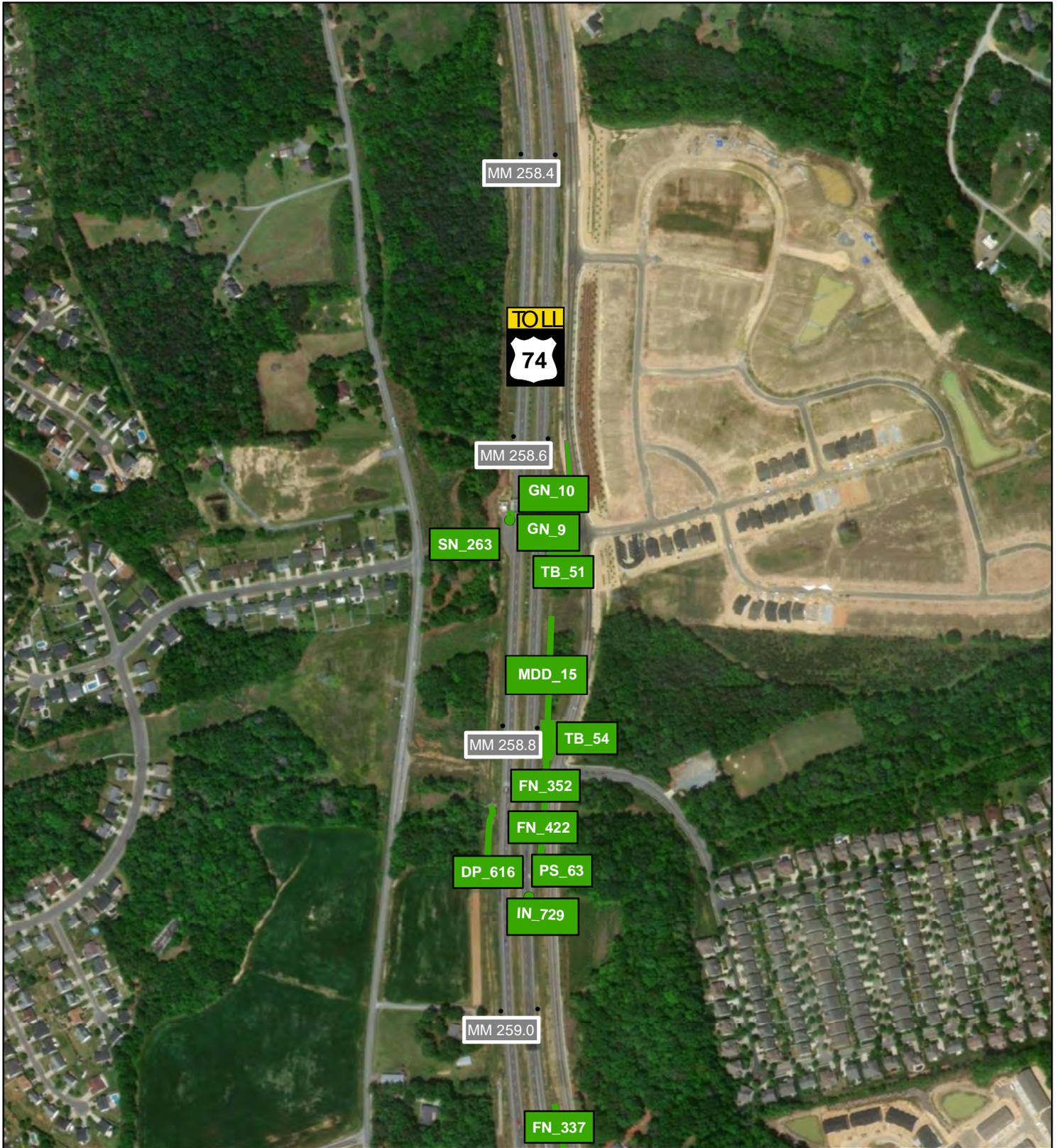


Legend

-  Failing Asset
-  Passing Asset

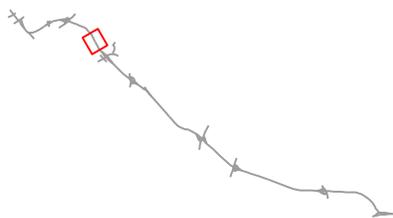


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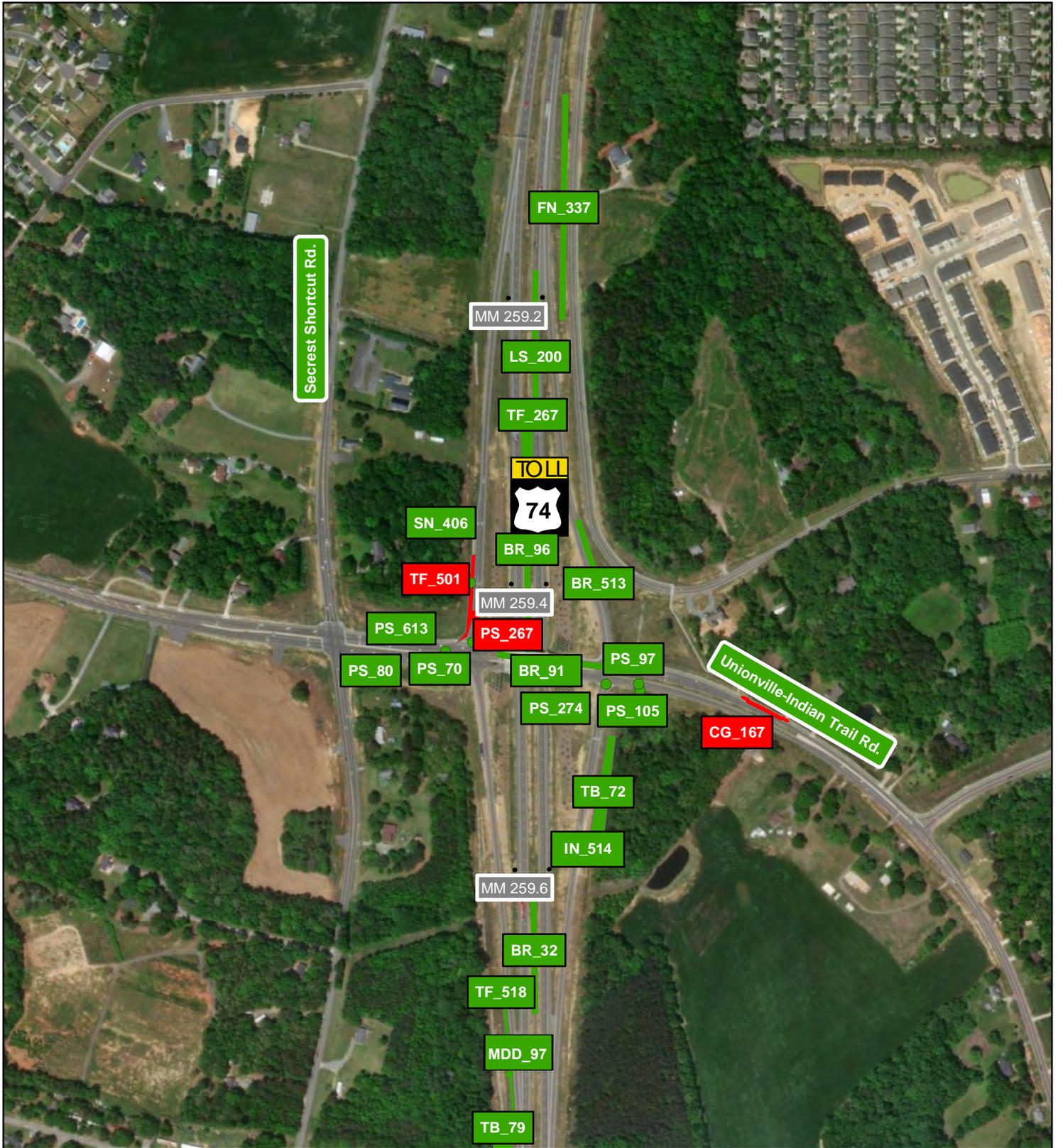


Legend

-  Failing Asset
-  Passing Asset

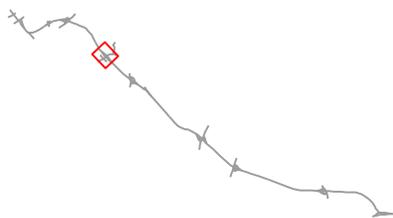


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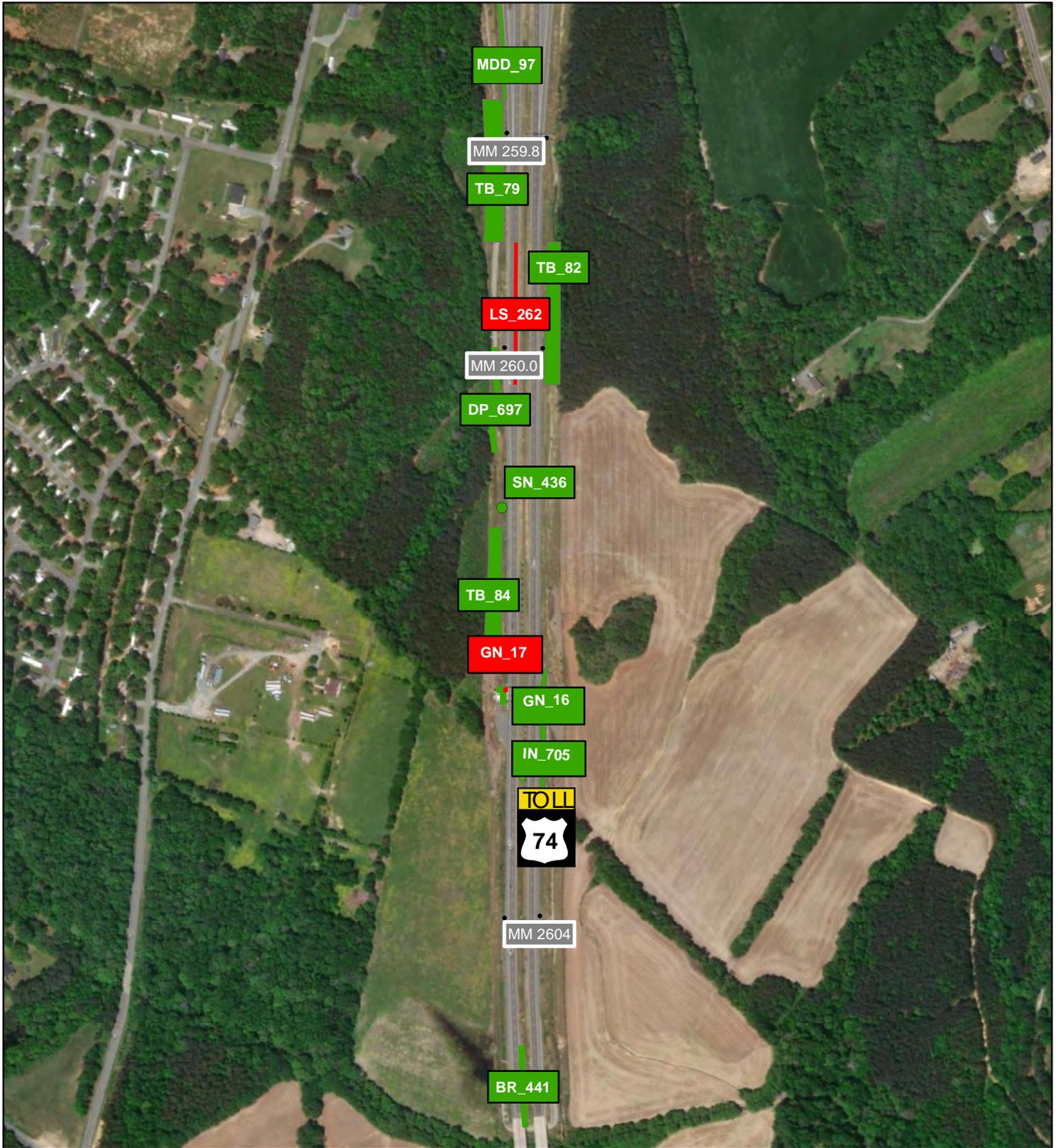


Legend

- Failing Asset
- Passing Asset

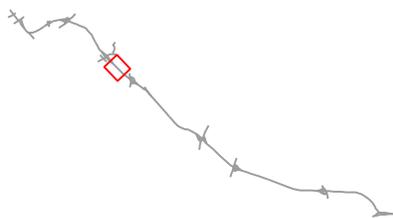


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

-  Failing Asset
-  Passing Asset

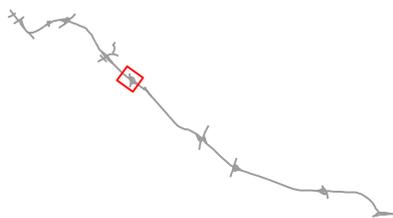


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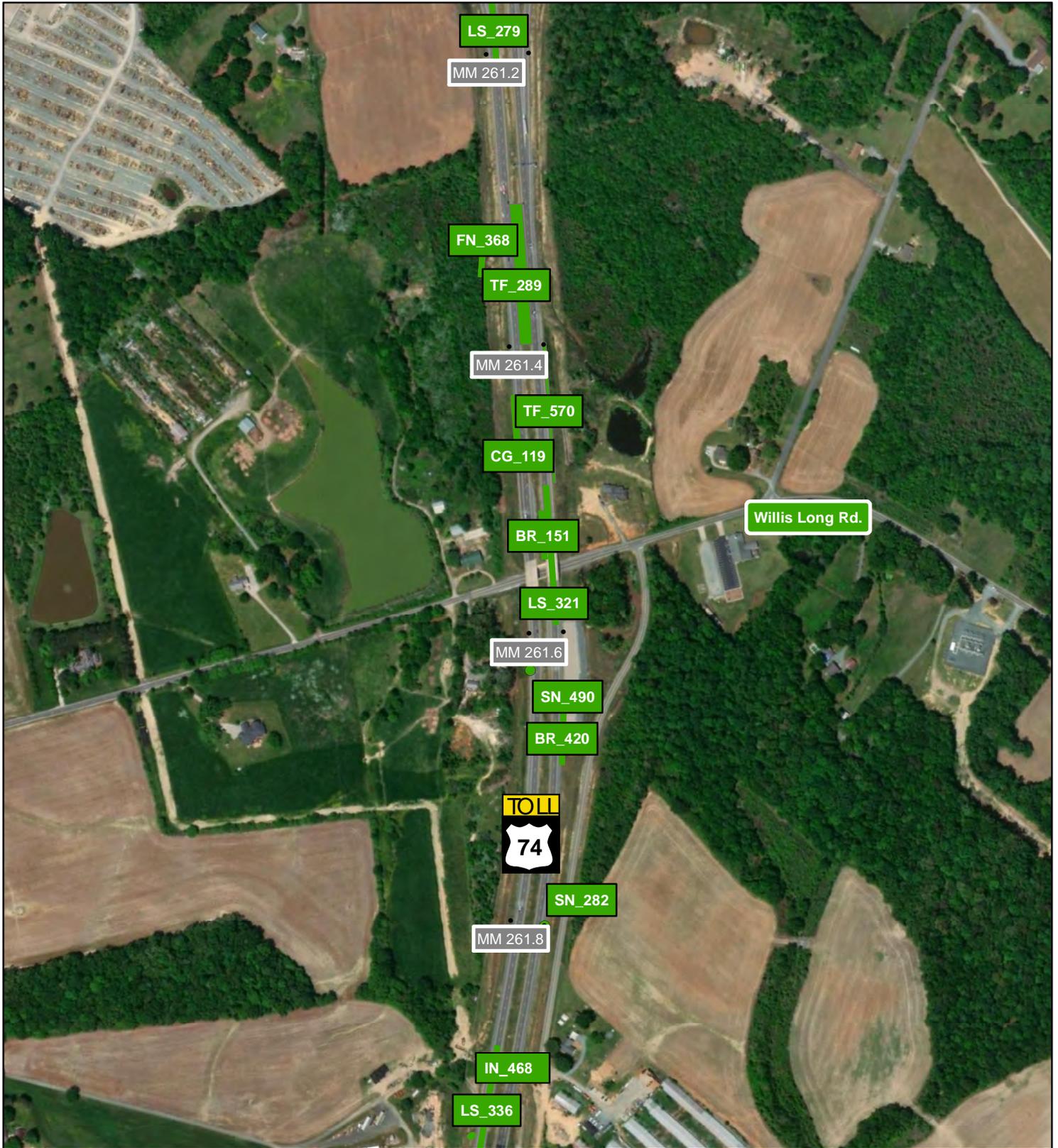


Legend

- Failing Asset
- Passing Asset

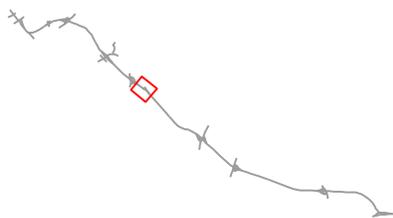


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

-  Failing Asset
-  Passing Asset

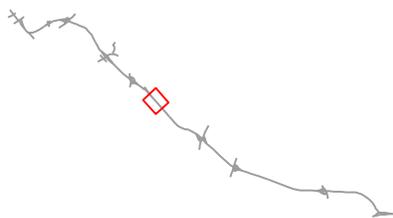


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

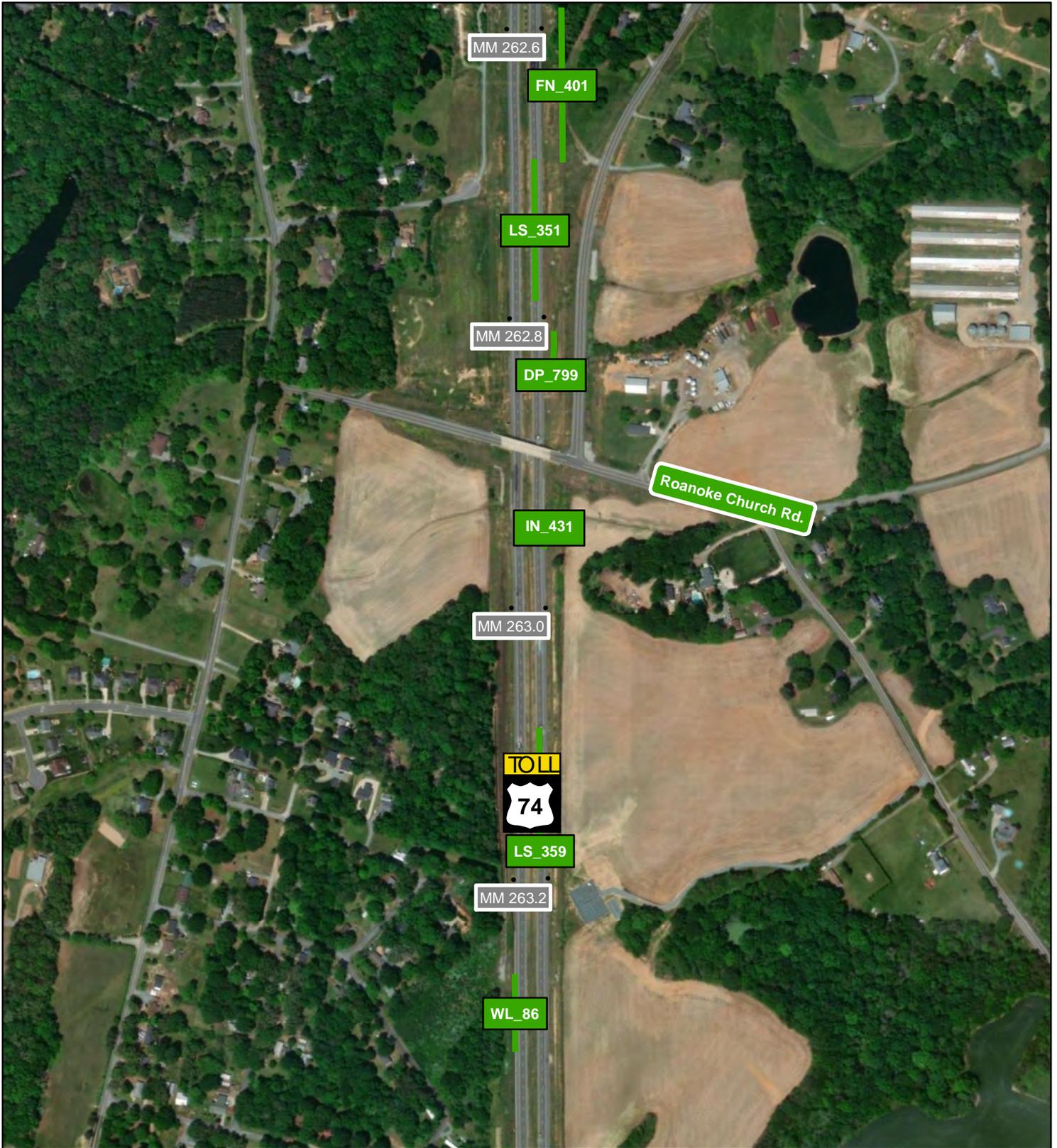


Legend

-  Failing Asset
-  Passing Asset

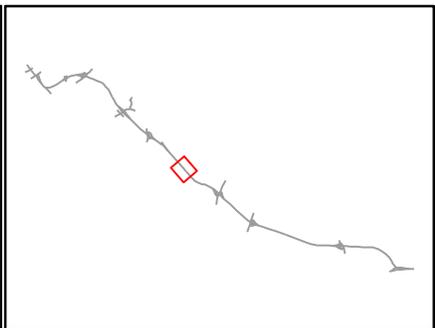


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

-  Failing Asset
-  Passing Asset



NORTH CAROLINA
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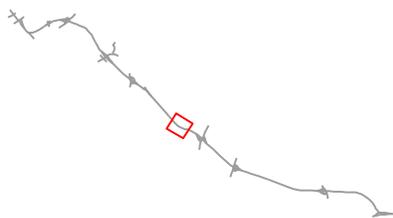
B12

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

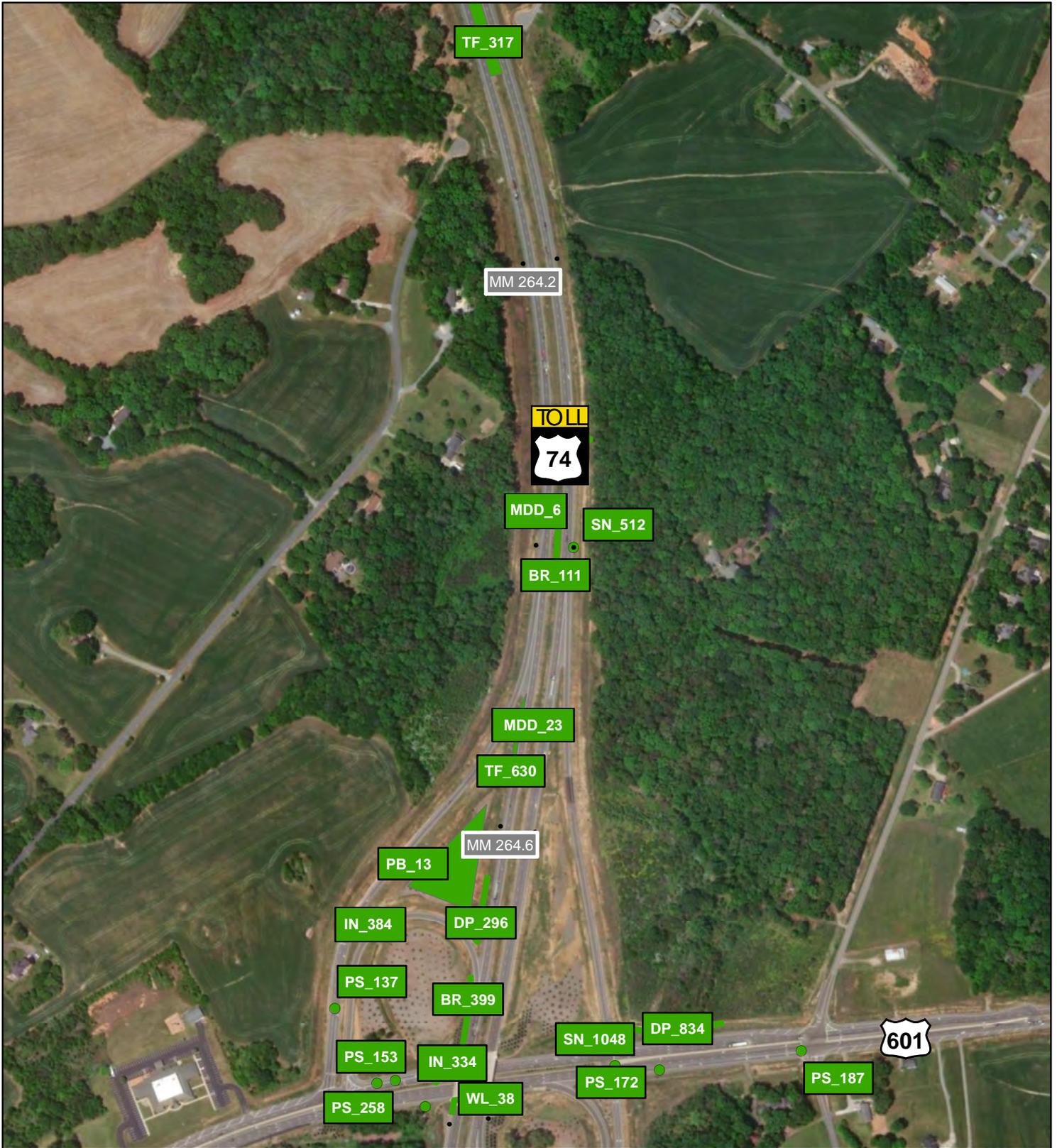


Legend

- Failing Asset
- Passing Asset

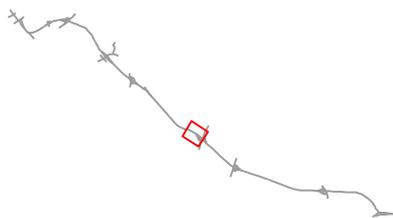


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

-  Failing Asset
-  Passing Asset

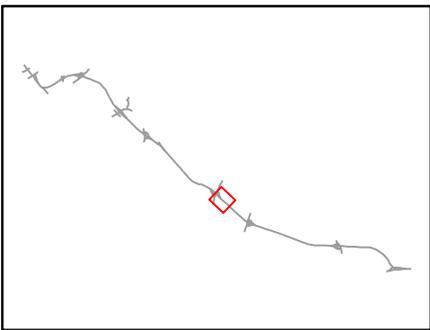


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

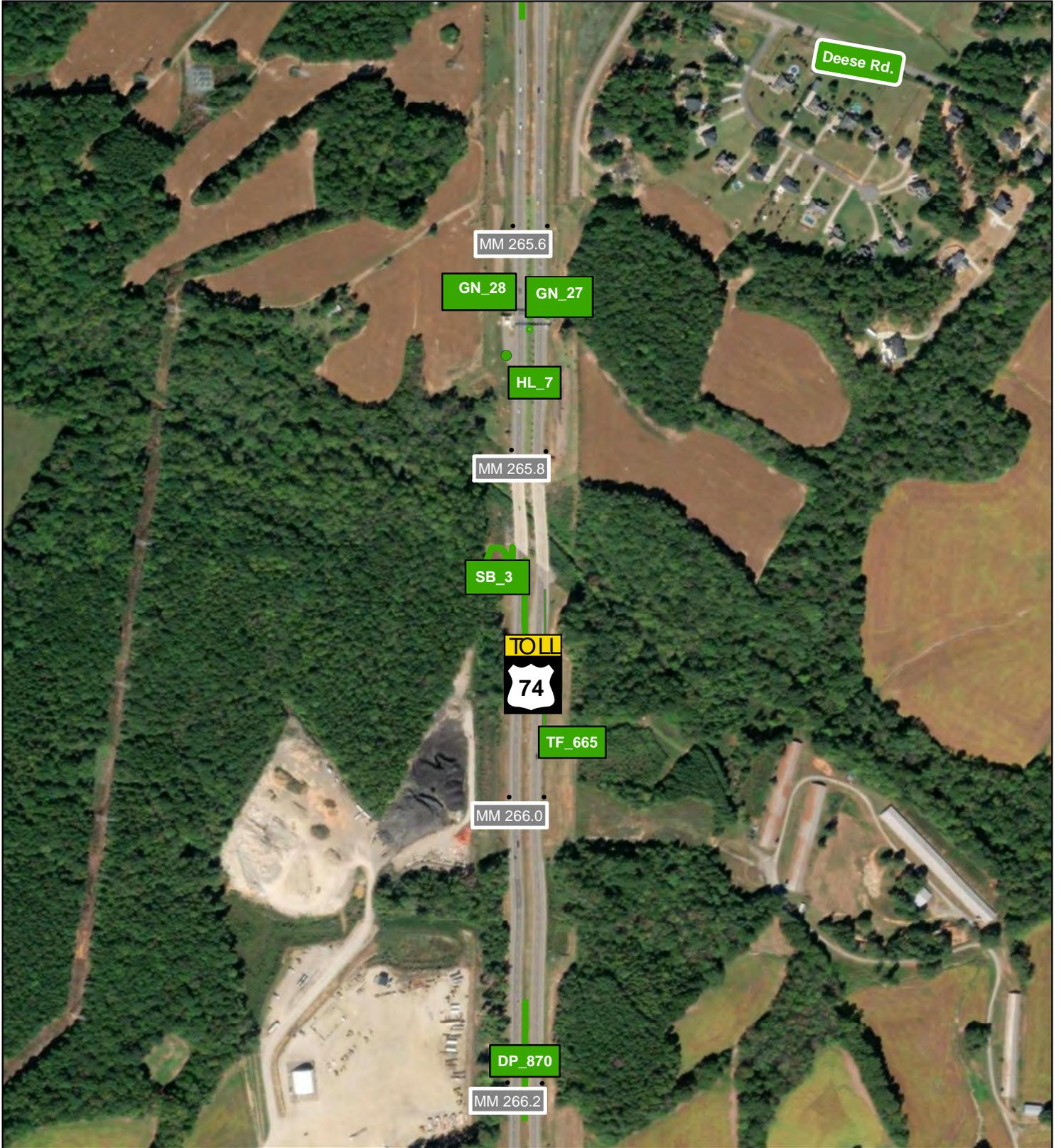
- Failing Asset
- Passing Asset



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Turnpike Authority

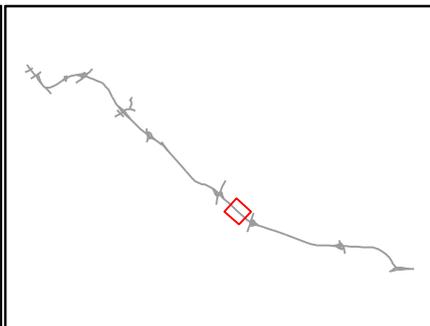
B15

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

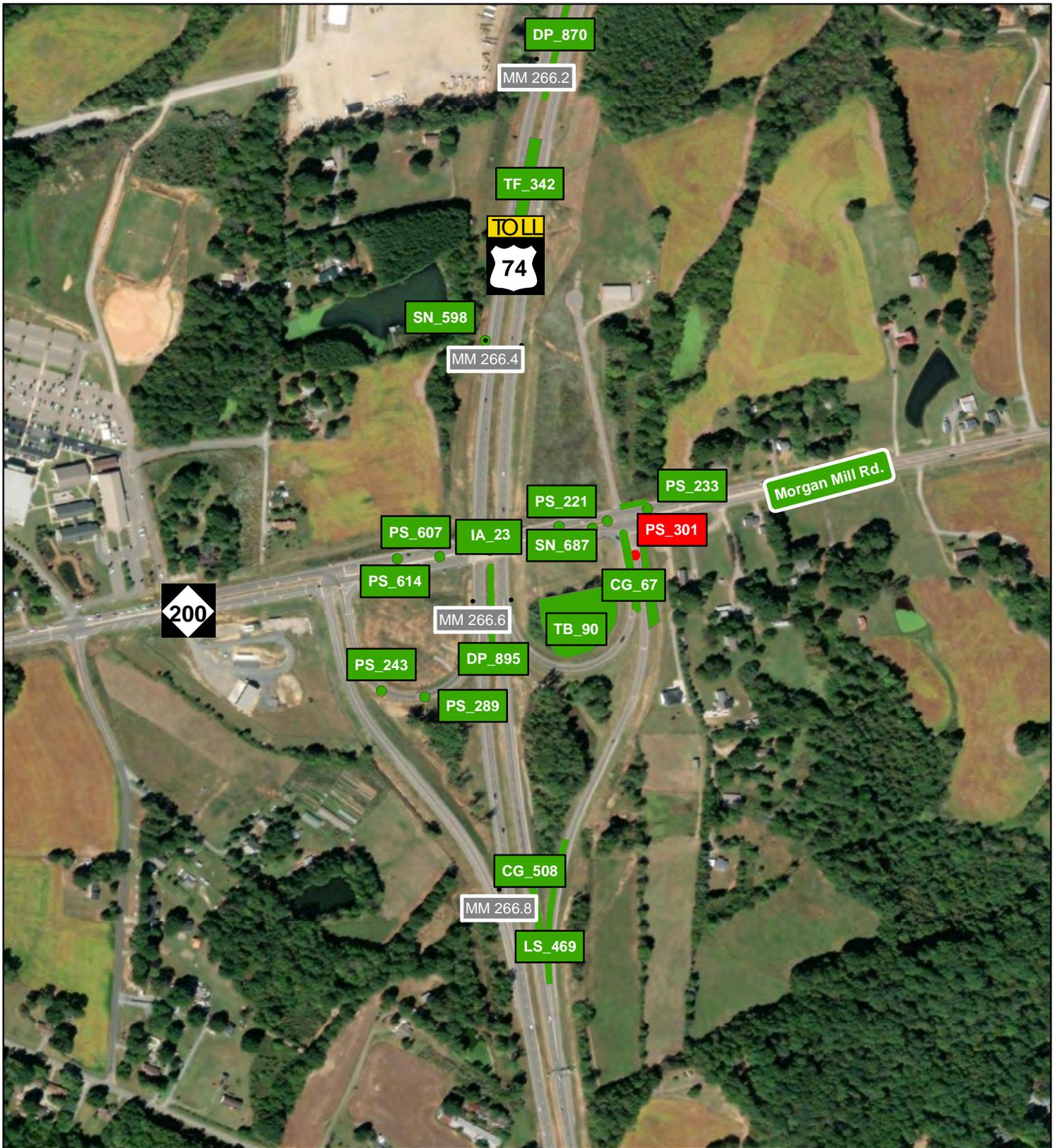
-  Failing Asset
-  Passing Asset



NORTH CAROLINA
Turnpike Authority

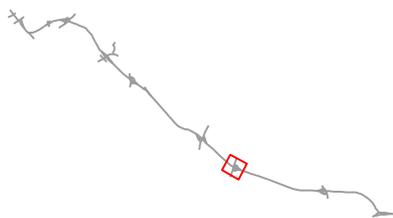
B16

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

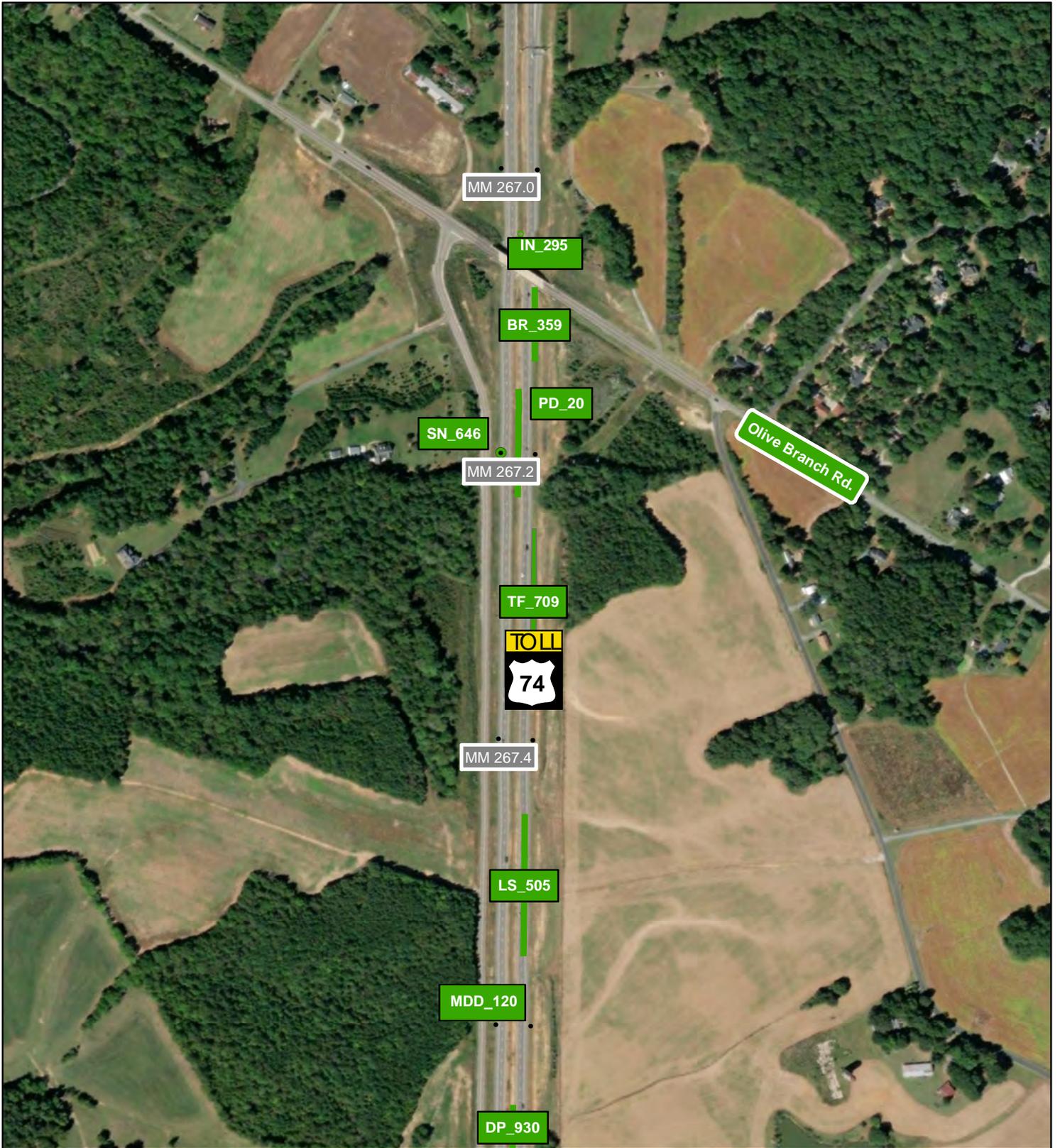


Legend

- Failing Asset
- Passing Asset

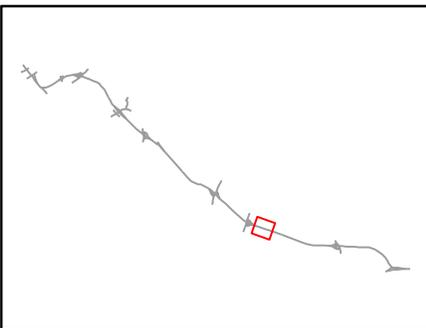


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

-  Failing Asset
-  Passing Asset



NORTH CAROLINA
Turnpike Authority

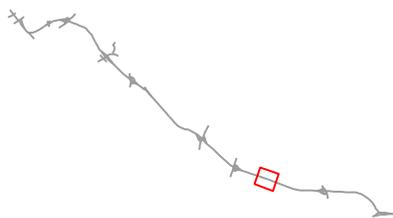
B18

Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

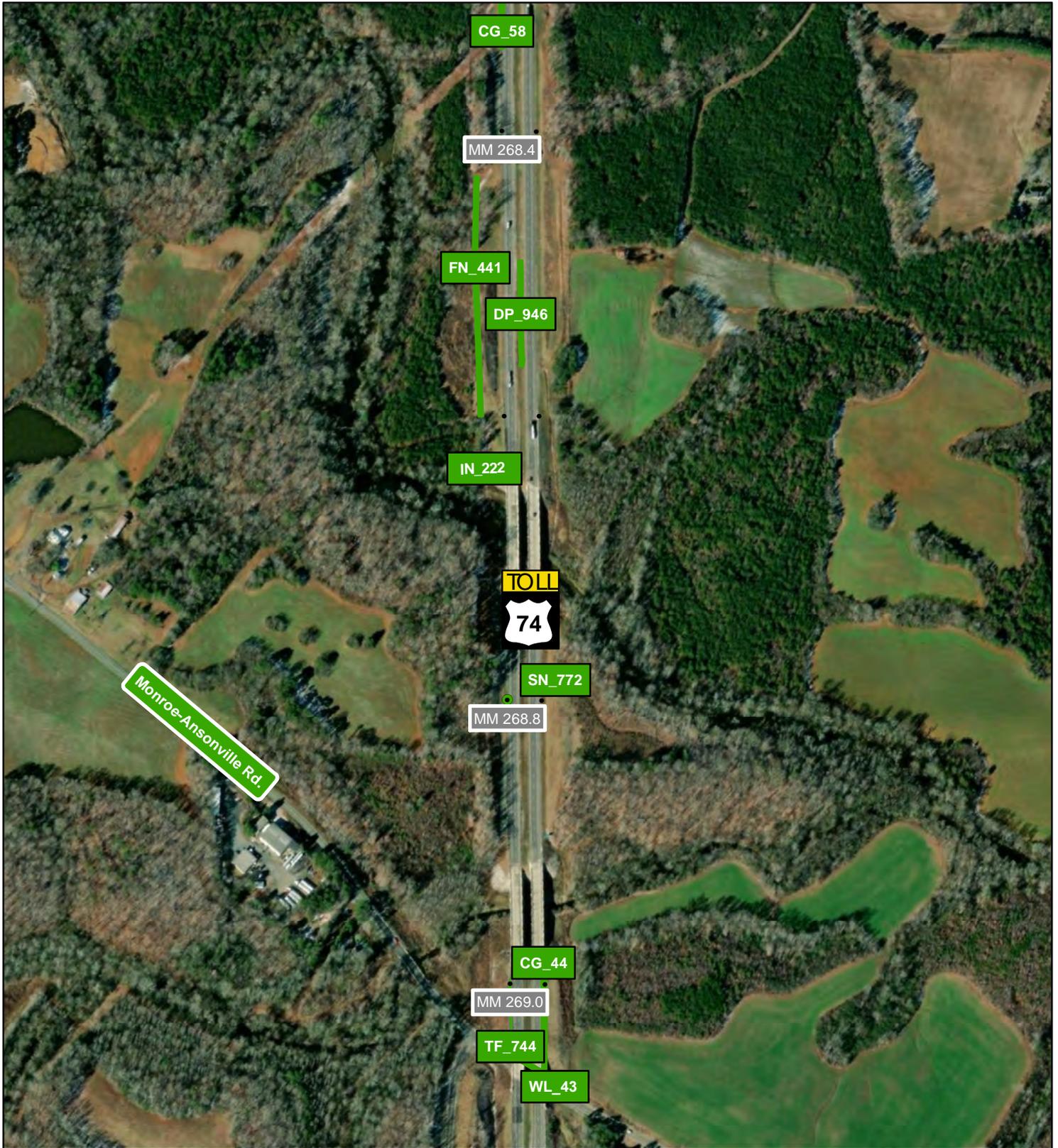


Legend

-  Failing Asset
-  Passing Asset

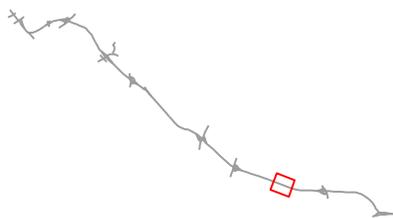


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

-  Failing Asset
-  Passing Asset

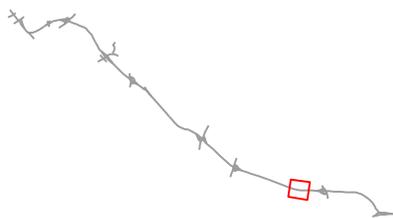


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

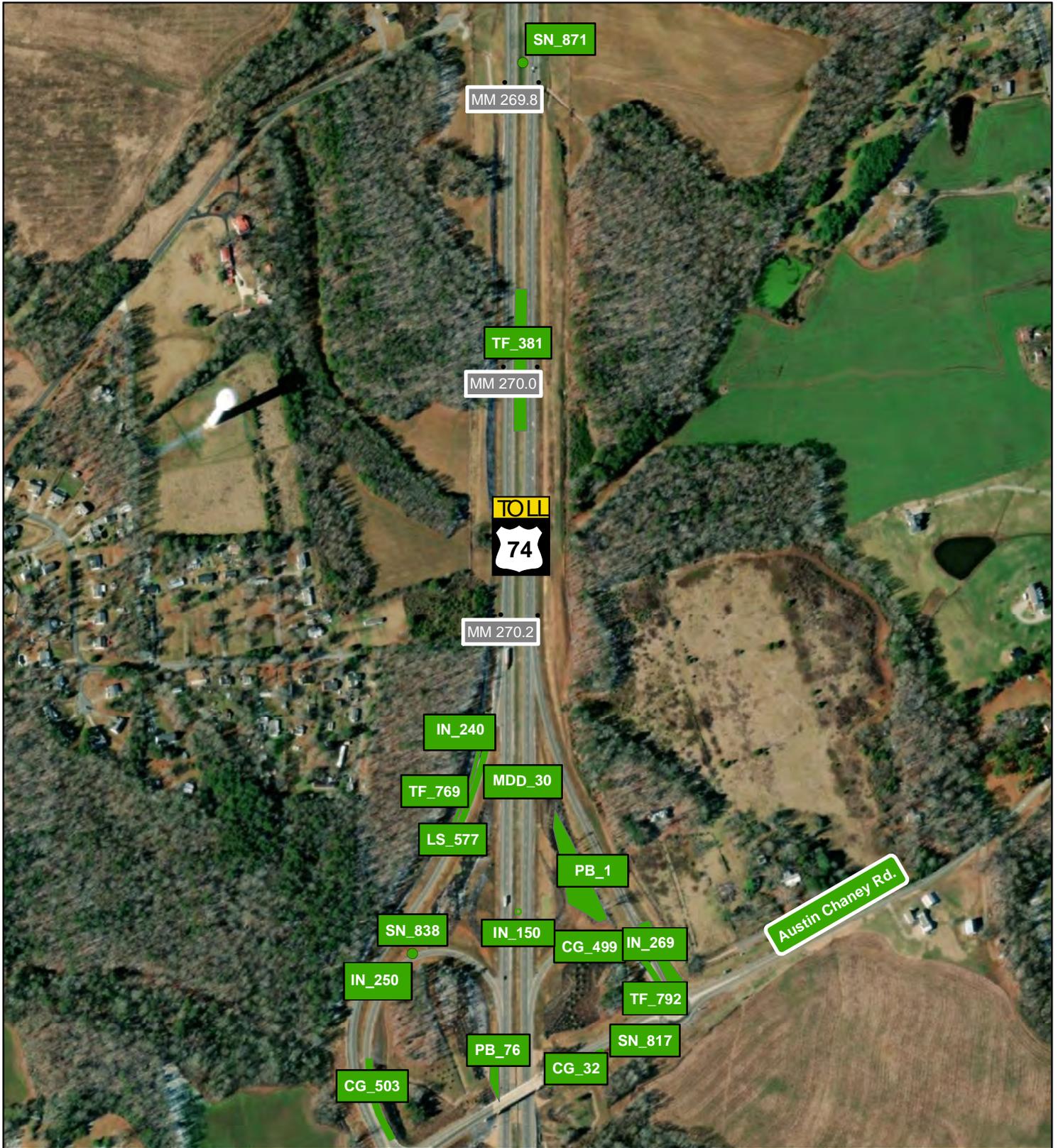


Legend

-  Failing Asset
-  Passing Asset

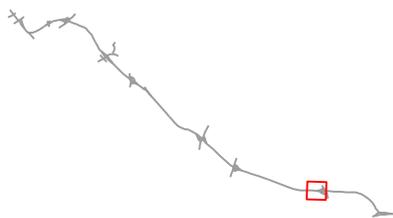


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

- Failing Asset
- Passing Asset

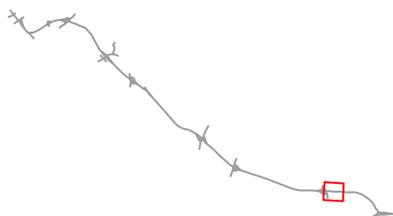


Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

- Failing Asset
- Passing Asset



Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

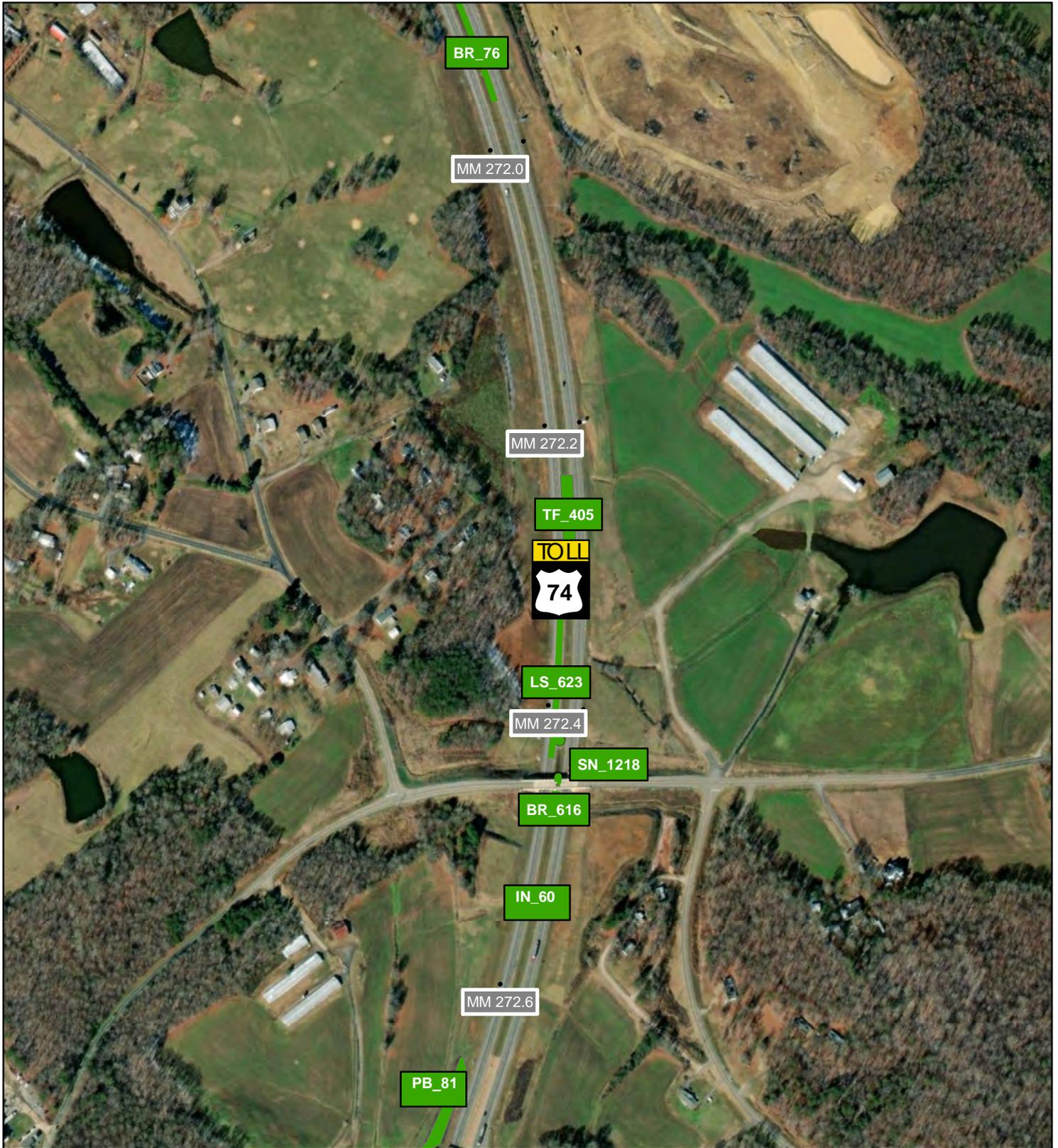


Legend

-  Failing Asset
-  Passing Asset



Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations

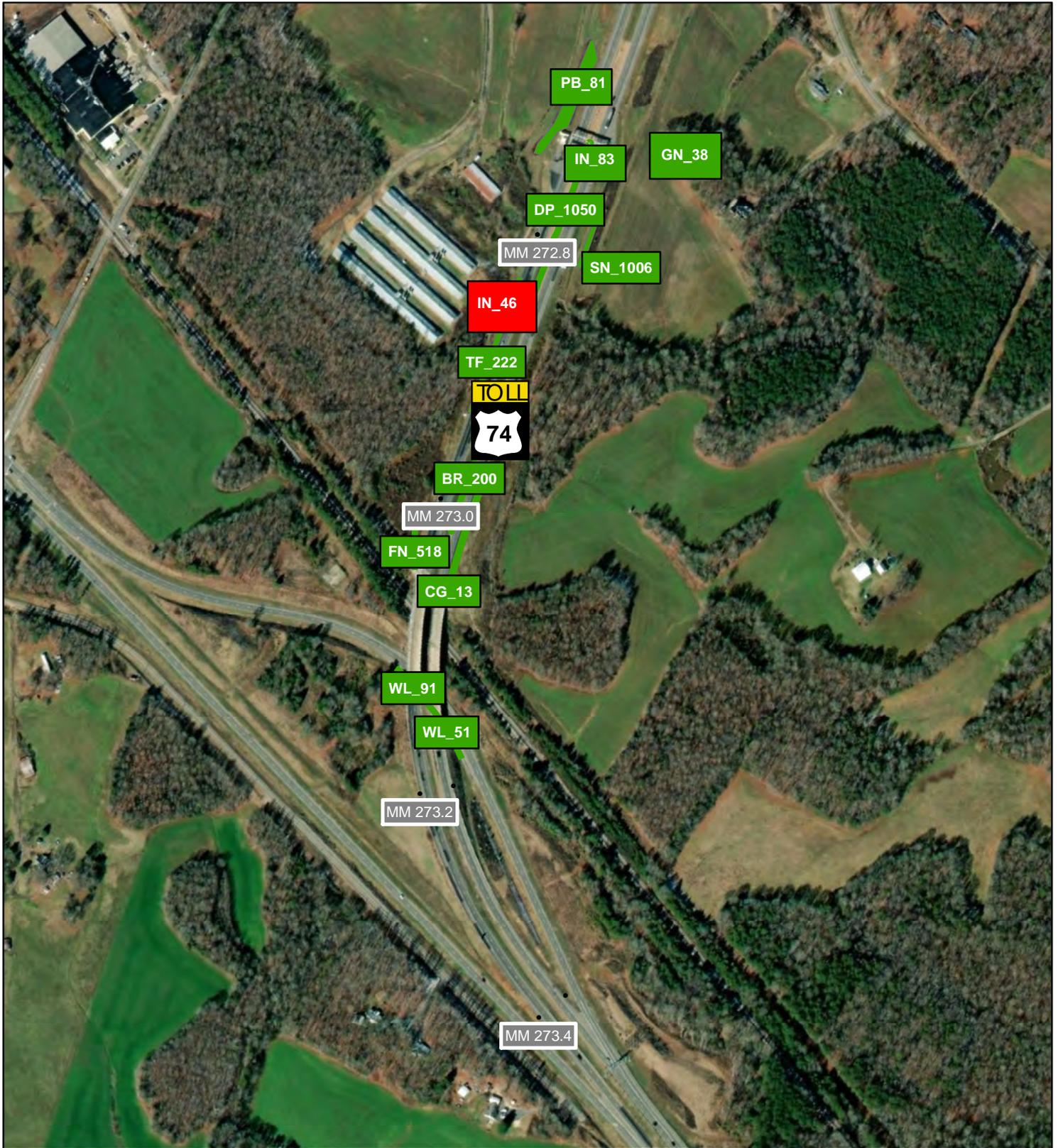


Legend

- Failing Asset
- Passing Asset



Appendix B: Monroe Expressway MRP Q4 2023 Assessment Locations



Legend

- Failing Asset
- Passing Asset

