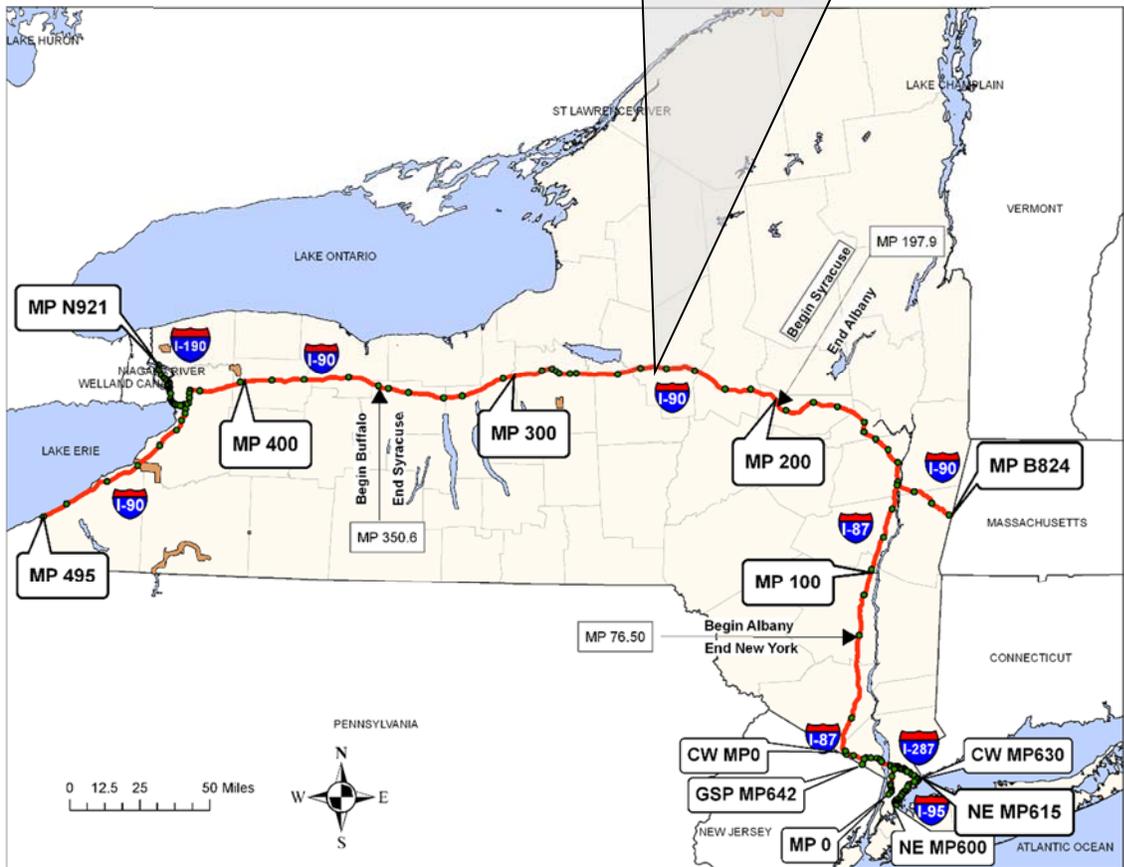


TRANSPORTATION

FINAL DESIGN REPORT

July 2017

Bridge Project
PIN S52886 B499.1
I-90 over Oriskany Boulevard, SR 69
MP 238.22, BIN: 5009929
Village of Whitesboro
Oneida County



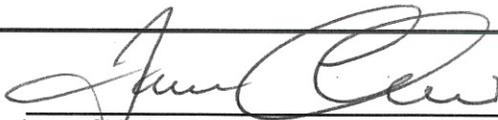
PROJECT REPORT

PROJECT APPROVAL SHEET

(Pursuant to SAFETEA-LU Matrix)

A. Capital Plan Project Proposal Approved

The project is ready to be added to the NYSTA Capital Program


James Chicoine, Director of Program Capital Management

7/12/17
Date

B. Scope Approval

The project cost, schedule, and scope of work are consistent with the NYSTA Capital Program

Scoping Concurrent w/ Design (Approved by):


Thomas A. Mahar, P.E., Director of Engineering Support Services

7/12/17
Date

C. Public Hearing Certification (23 USC 128):

A public hearing was not required.


David T. Vosburgh, P.E., Preliminary Design Project Manager

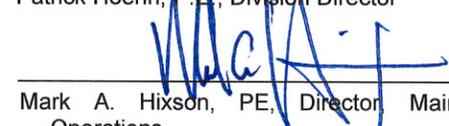
7/12/17
Date

D. Recommendation for Design Approval

This Project Design Report has been reviewed and meets my approval. The report documents the project needs and has evaluated appropriate alternatives.


Patrick Hoehn, P.E., Division Director

7/21/17
Date


Mark A. Hixson, PE, Director, Maintenance and Operations

7/24/17
Date


Timothy R. Conway, P.E., Director, Office of Design

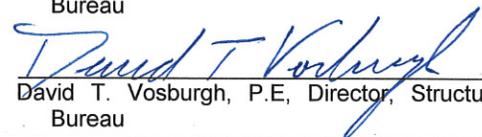
7/24/2017
Date

E. Recommendation for Design and Nonstandard Feature Approval

All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise noted and explained.


Albert S. Mastroianni, P.E, Director, Highway Design Bureau

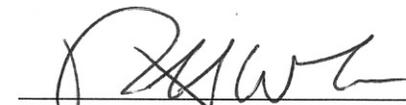
7/12/17
Date


David T. Vosburgh, P.E, Director, Structures Design Bureau

7/12/17
Date

D. Nonstandard Feature Approval

No nonstandard features have been created or will be retained.


Richard W. Lee, P.E., Chief Engineer

8/9/17
Date

E. Design Approval

The project cost, schedule, and scope of work are consistent with the NYSTA Capital Program. The required environmental determinations have been made and the preferred alternative for this project is ready for final design.


Richard W. Lee, P.E., Chief Engineer

8/9/17
Date

LIST OF PREPARERS

This report was prepared by the following Consultant staff:

Emily Smith, P.E., Project Manager, Fisher Associates P.E., L.S., L.A., D.P.C.



Description of Work Performed:

Prepared all report chapters and appendices for the Design Approval Document in accordance with established standards, policies, regulations and procedures, except as otherwise explained in this document.

Note: *It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.*

TABLE OF CONTENTS

COVER (Bridge Project MP 238.22 BIN: 5009929)

METRIC TO U.S. CUSTOMARY UNIT CONVERSION TABLE (on back of cover)

PROJECT APPROVAL SHEET

LIST OF PREPARERS

CHAPTER 1 -EXECUTIVE SUMMARY1-1

| | |
|--|-----|
| 1.1. Introduction..... | 1-1 |
| 1.2. Purpose and Need..... | 1-1 |
| 1.2.1. Where is the Project Located..... | 1-1 |
| 1.2.2. Why is the Project Needed?..... | 1-4 |
| 1.2.3. What are the Objectives/Purposes of the Project?..... | 1-4 |
| 1.3. What Alternative(s) Are Being Considered?..... | 1-4 |
| 1.4 How will the Alternative(s) Affect the Environment?..... | 1-5 |
| 1.5. What Are The Costs & Schedules?..... | 1-5 |
| 1.6. Which Alternative is Preferred?..... | 1-6 |
| 1.7. Who Will Decide Which Alternative Will Be Selected And How Can I Be Involved In This Decision?..... | 1-6 |

CHAPTER 2 -PROJECT CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS.....2-1

| | |
|--|-----|
| 2.1. Project History..... | 2-1 |
| 2.2. Transportation Plans and Land Use..... | 2-1 |
| 2.2.1. Local Plans for the Project Area..... | 2-1 |
| 2.2.1.1. Local Master Plan..... | 2-1 |
| 2.2.1.2. Local Private Development Plans..... | 2-1 |
| 2.2.2. Transportation Corridor..... | 2-1 |
| 2.2.2.1. Importance of the Project Route Segment..... | 2-1 |
| 2.2.2.2. Alternate Routes..... | 2-1 |
| 2.2.2.3. Corridor Deficiencies and Needs..... | 2-2 |
| 2.2.2.4. Transportation Plans..... | 2-2 |
| 2.2.2.5. Abutting Highway Segments and Future Plans for Abutting Highway Segments -..... | 2-2 |
| 2.3. Transportation Conditions, Deficiencies and Engineering Considerations..... | 2-2 |
| 2.3.1. Operations (Traffic and Safety) & Maintenance..... | 2-2 |
| 2.3.1.1. Functional Classification and National Highway System (NHS)..... | 2-2 |
| 2.3.1.2. Control of Access..... | 2-3 |
| 2.3.1.3. Traffic Control Devices..... | 2-3 |
| 2.3.1.4. Intelligent Transportation Systems (ITS)..... | 2-3 |
| 2.3.1.5. Speeds and Delay..... | 2-3 |
| 2.3.1.6. Traffic Volumes..... | 2-4 |
| 2.3.1.7. Level of Service and Mobility..... | 2-4 |
| 2.3.1.8. Safety Considerations, Accident History and Analysis..... | 2-5 |
| 2.3.1.9. Existing Police, Fire Protection and Ambulance Access..... | 2-5 |
| 2.3.1.10. Parking Regulations and Parking Related Conditions..... | 2-5 |
| 2.3.1.11. Lighting..... | 2-6 |
| 2.3.1.12. Ownership and Maintenance Jurisdiction..... | 2-6 |
| 2.3.2. Multimodal..... | 2-6 |
| 2.3.2.1. Pedestrians..... | 2-6 |
| 2.3.2.2. Bicyclists..... | 2-6 |
| 2.3.2.3. Transit..... | 2-6 |
| 2.3.2.4. Airports, Railroad Stations, and Ports..... | 2-6 |
| 2.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, State Lands)..... | 2-6 |
| 2.3.3. Infrastructure..... | 2-6 |
| 2.3.3.1. Existing Highway Section..... | 2-6 |
| 2.3.3.2. Geometric Design Elements Not Meeting Standards..... | 2-7 |

TABLE OF CONTENTS

| | |
|--|------------|
| 2.3.3.3. Pavement and Shoulder | 2-7 |
| 2.3.3.4. Drainage Systems | 2-7 |
| 2.3.3.5. Geotechnical..... | 2-7 |
| 2.3.3.6. Structure | 2-7 |
| 2.3.3.7. Hydraulics of Bridges and Culverts..... | 2-9 |
| 2.3.3.8. Guide Railing, Median Barriers and Impact Attenuators | 2-9 |
| 2.3.3.9. Utilities | 2-9 |
| 2.3.3.10. Railroad Facilities | 2-9 |
| 2.3.4. Landscape and Environmental Enhancement Opportunities | 2-9 |
| 2.3.4.1. Landscape | 2-10 |
| CHAPTER 3 -ALTERNATIVES..... | 3-1 |
| 3.1. Alternatives Considered and Eliminated from Further Study..... | 3-1 |
| Null / No Build Alternative | 3-1 |
| Rehabilitation Alternative..... | 3-1 |
| 3.2. Feasible Build Alternatives..... | 3-1 |
| 3.2.1. Description of Feasible Alternatives | 3-1 |
| Reconstruction Alternative – Bridge Replacement with Conventional Structure | 3-1 |
| 3.2.2 Preferred Alternative..... | 3-2 |
| 3.2.3. Design Criteria for Feasible Alternative(s)..... | 3-2 |
| 3.2.3.1. Design Standards | 3-2 |
| 3.2.3.3. Other Design Parameters | 3-4 |
| 3.3. Engineering Considerations | 3-4 |
| 3.3.1. Operations (Traffic and Safety) & Maintenance | 3-4 |
| 3.3.1.1. Functional Classification and National Highway System | 3-4 |
| 3.3.1.2. Control of Access..... | 3-5 |
| 3.3.1.3. Traffic Control Devices | 3-5 |
| 3.3.1.4. Intelligent Transportation Systems (ITS)..... | 3-5 |
| 3.3.1.5. Speeds and Delay | 3-5 |
| 3.3.1.6. Traffic Volumes..... | 3-5 |
| 3.3.1.7. Level of Service and Mobility | 3-5 |
| 3.3.1.8. – Work Zone Safety & Mobility | 3-5 |
| 3.3.1.9. Safety Considerations, Accident History and Analysis..... | 3-5 |
| 3.3.1.10. Impacts on Police, Fire Protection and Ambulance Access..... | 3-5 |
| 3.3.1.11. Parking Regulations and Parking Related Issues..... | 3-6 |
| 3.3.1.12. Lighting | 3-6 |
| 3.3.1.13. Ownership and Maintenance Jurisdiction | 3-6 |
| 3.3.1.14. Constructability Review | 3-6 |
| 3.3.2. Multimodal | 3-6 |
| 3.3.2.1. Pedestrians..... | 3-6 |
| 3.3.2.2. Bicyclists..... | 3-6 |
| 3.3.2.3. Transit..... | 3-6 |
| 3.3.2.4. Airports, Railroad Stations, and Ports..... | 3-6 |
| 3.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, and State Lands)..... | 3-6 |
| 3.3.3. Infrastructure | 3-6 |
| 3.3.3.1. Proposed Highway Section..... | 3-6 |
| 3.3.3.2. Special Geometric Design Elements | 3-7 |
| 3.3.3.3. Pavement and Shoulder | 3-7 |
| 3.3.3.4. Drainage Systems | 3-7 |
| 3.3.3.5. Geotechnical..... | 3-7 |
| 3.3.3.6. Structures | 3-8 |
| 3.3.3.7. Hydraulics of Bridges and Culverts..... | 3-8 |
| 3.3.3.8. Guide Railing, Median Barriers and Impact Attenuators | 3-8 |
| 3.3.3.9. Utilities | 3-8 |
| 3.3.3.10. Railroad Facilities | 3-8 |
| 3.3.4. Landscape and Environmental Enhancements..... | 3-9 |
| 3.3.4.1. Landscape Development and Other Aesthetics Improvements | 3-9 |

TABLE OF CONTENTS

| | |
|--|------------|
| 3.3.5. Miscellaneous | 3-9 |
| CHAPTER 4 -SOCIAL, ECONOMIC AND ENVIRONMENTAL CONDITIONS AND CONSEQUENCES | 4-1 |
| 4.1 Introduction | 4-1 |
| 4.1.1 Environmental Classification | 4-1 |
| NEPA Classification - | 4-1 |
| SEQR Classification - | 4-1 |
| 4.1.2 Coordination with Agencies..... | 4-2 |
| NEPA Cooperating and Participating Agencies - | 4-2 |
| SEQR Cooperating and Participating Agencies - | 4-2 |
| 4.2 Social..... | 4-2 |
| 4.2.1 Land Use | 4-3 |
| Demographics and Affected Population - | 4-3 |
| Comprehensive Plans and Zoning - | 4-3 |
| 4.2.2 Neighborhoods and Community Cohesion..... | 4-3 |
| Community Cohesion - | 4-3 |
| Home and Business Relocations - | 4-3 |
| 4.2.3 Social Groups Benefited or Harmed..... | 4-3 |
| Elderly and/or Disabled Persons or Groups - | 4-3 |
| Transit Dependent - | 4-3 |
| Low Income, Minority and Ethnic Groups (Environmental Justice) - | 4-3 |
| 4.2.4 School Districts, Recreational Areas, and Places of Worship..... | 4-4 |
| School Districts - | 4-4 |
| Recreational Areas - | 4-4 |
| Places of Worship - | 4-4 |
| 4.3 Economic..... | 4-4 |
| 4.3.1 Regional and Local Economies..... | 4-4 |
| 4.3.2 Business District Impacts | 4-4 |
| 4.3.3 Specific Business Impacts..... | 4-4 |
| 4.4 Environmental | 4-5 |
| 4.4.1 Wetlands..... | 4-5 |
| State Freshwater Wetlands - | 4-5 |
| State Tidal Wetlands - | 4-5 |
| Federal Jurisdiction Wetlands - | 4-5 |
| Executive Order 11990 - | 4-6 |
| Mitigation Summary - | 4-6 |
| 4.4.2 Surface Waterbodies and Watercourses..... | 4-6 |
| Surface Waters - | 4-6 |
| Surface Water Classification and Standards - | 4-6 |
| Stream Bed and Bank Protection - | 4-6 |
| 4.4.3 Wild, Scenic, and Recreational Rivers | 4-6 |
| State Wild, Scenic and Recreational Rivers - | 4-7 |
| National Wild and Scenic Rivers - | 4-7 |
| 4.4.4 Navigable Waters | 4-7 |
| State Regulated Waters - | 4-7 |
| Office of General Services Lands and Navigable Waters - | 4-7 |
| Rivers and Harbors Act – Section 9 - | 4-7 |
| Rivers and Harbors Act – Section 10 - | 4-7 |
| 4.4.5 Floodplains | 4-7 |
| State Flood Insurance Compliance Program - | 4-7 |
| Executive Order 11988 - | 4-8 |
| 4.4.6 Coastal Resources | 4-8 |
| State Coastal Zone Management Program - | 4-8 |
| State Coastal Erosion Hazard Area - | 4-8 |
| Waterfront Revitalization and Coastal Resources Program - | 4-8 |

TABLE OF CONTENTS

| | |
|--|------|
| Federal Coastal Barrier Resources Act (CBRA) and Coastal Barrier Improvement Act (CBIA) - | 4-8 |
| 4.4.7 Groundwater Resources, Aquifers, and Reservoirs | 4-8 |
| Aquifers - | 4-8 |
| Drinking Water Supply Wells (Public and Private Wells) and Reservoirs - | 4-8 |
| 4.4.8 Stormwater Management | 4-9 |
| 4.4.9 General Ecology and Wildlife Resources | 4-9 |
| Fish, Wildlife, and Waterfowl - | 4-9 |
| Habitat Areas, Wildlife Refuges, and Wildfowl Refuges - | 4-9 |
| Endangered and Threatened Species - | 4-9 |
| Invasive Species - | 4-9 |
| Roadside Vegetation Management - | 4-10 |
| 4.4.10 Critical Environmental Areas | 4-10 |
| State Critical Environmental Areas - | 4-10 |
| State Forest Preserve Lands - | 4-10 |
| 4.4.11 Historic and Cultural Resources | 4-10 |
| National Heritage Areas Program - | 4-10 |
| National Historic Preservation Act – Section 106 / State Historic Preservation Act – Section 14.09 - ... | 4-10 |
| Architectural Resources - | 4-10 |
| Archaeological Resources - | 4-11 |
| Historic Bridges - | 4-11 |
| Historic Parkways - | 4-11 |
| Native American Involvement - | 4-11 |
| Section 4(f) Involvement - | 4-11 |
| 4.4.12 Parks and Recreational Resources | 4-11 |
| State Heritage Area Program - | 4-11 |
| National Heritage Areas Program - | 4-11 |
| National Registry of Natural Landmarks - | 4-11 |
| Section 4(f) Involvement - | 4-12 |
| Section 6(f) Involvement - | 4-12 |
| Section 1010 Involvement - | 4-12 |
| 4.4.13 Visual Resources | 4-12 |
| 4.4.14 Farmlands | 4-12 |
| State Farmland and Agricultural Districts - | 4-12 |
| Federal Prime and Unique Farmland - | 4-12 |
| 4.4.15 Air Quality | 4-12 |
| Transportation Conformity – | 4-12 |
| Carbon Monoxide (CO) Microscale Analysis - | 4-13 |
| Mesoscale Analysis - | 4-13 |
| Mobile Source Air Toxics (MSATs) Analysis - | 4-13 |
| Particulate Matter (PM) Analysis - | 4-13 |
| Greenhouse Gas Analysis – | 4-13 |
| 4.4.16 Energy | 4-13 |
| 4.4.17 Noise | 4-13 |
| 4.4.18 Asbestos | 4-13 |
| 4.4.19 Lead | 4-14 |
| 4.4.20 PCBs | 4-14 |
| 4.4.19 Hazardous Waste and Contaminated Materials | 4-14 |
| 4.5 Construction Effects | 4-15 |
| 4.5.1 Construction Impacts | 4-15 |
| 4.6 Indirect and Secondary Effects | 4-15 |
| 4.6.1 Indirect Socioeconomic Effects | 4-15 |
| 4.6.2 Social Consequences | 4-16 |
| 4.6.3 Economic Consequences | 4-16 |
| 4.7 Cumulative Effects | 4-16 |

Appendices

| | |
|----|-------------------------------------|
| A. | Concept Plans |
| B. | Environmental Agency Correspondence |
| C. | Smart Growth Checklist |
| D. | Pedestrian Generator Checklist |
| E. | Structures Information |
| F. | Non Standard Features |
| G. | Stakeholder/Public Input |
| H. | Cost Estimate |

Separate Reports

| |
|--|
| Cultural Resource Survey Report (February 2017) |
| Hazardous Waste-Contaminated Materials Screening Report (February 2017) |
| Hazardous Waste-Contaminated Materials Technical Memorandum (Asbestos) (February 2017) |
| Wetland Delineation Letter Report (February 2017) |

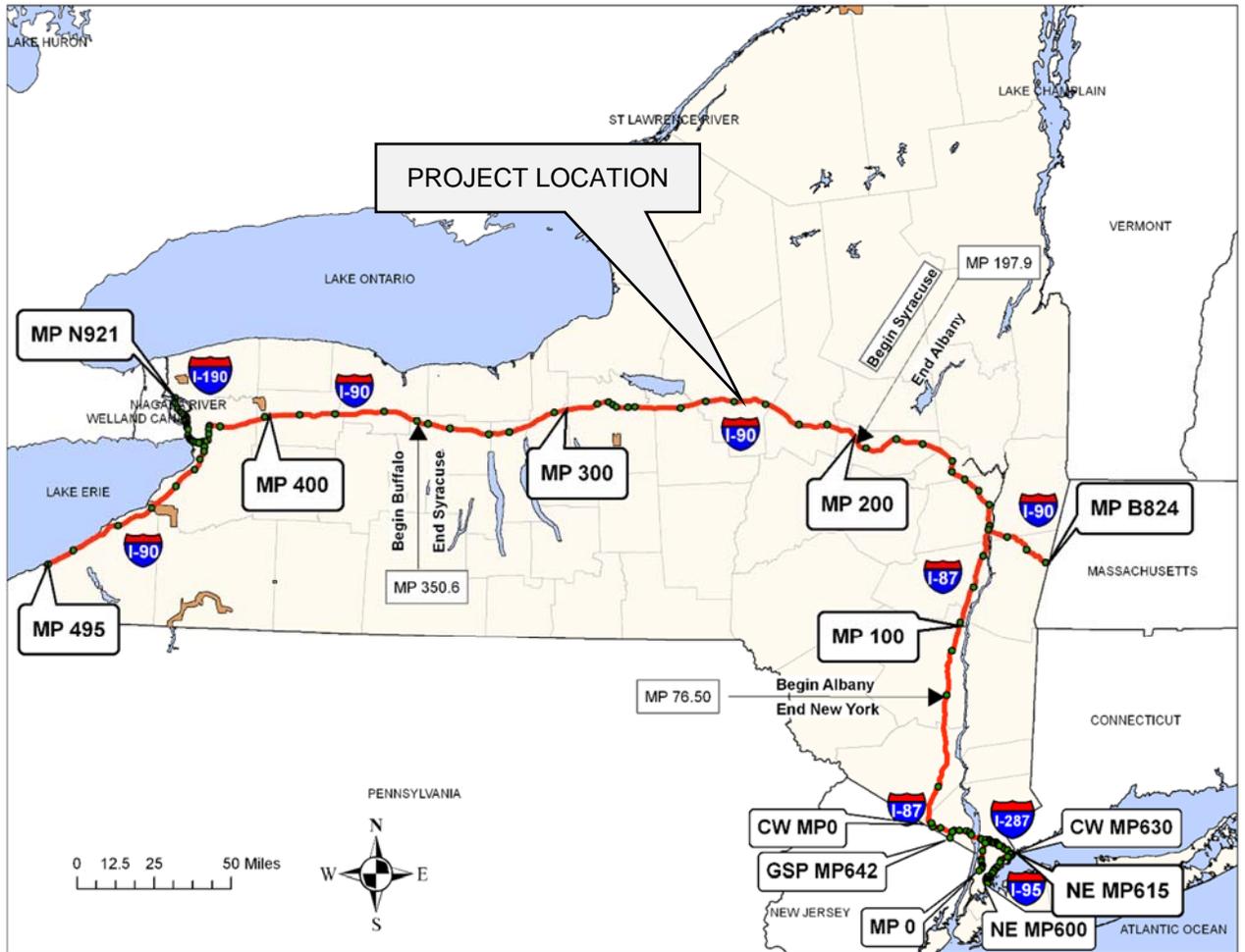


FIGURE 1 - GENERAL LOCATION MAP

NEW YORK STATE THRUWAY AUTHORITY
I-90 EB&WB over Oriskany Boulevard Bridge Replacement
Village of Whitesboro

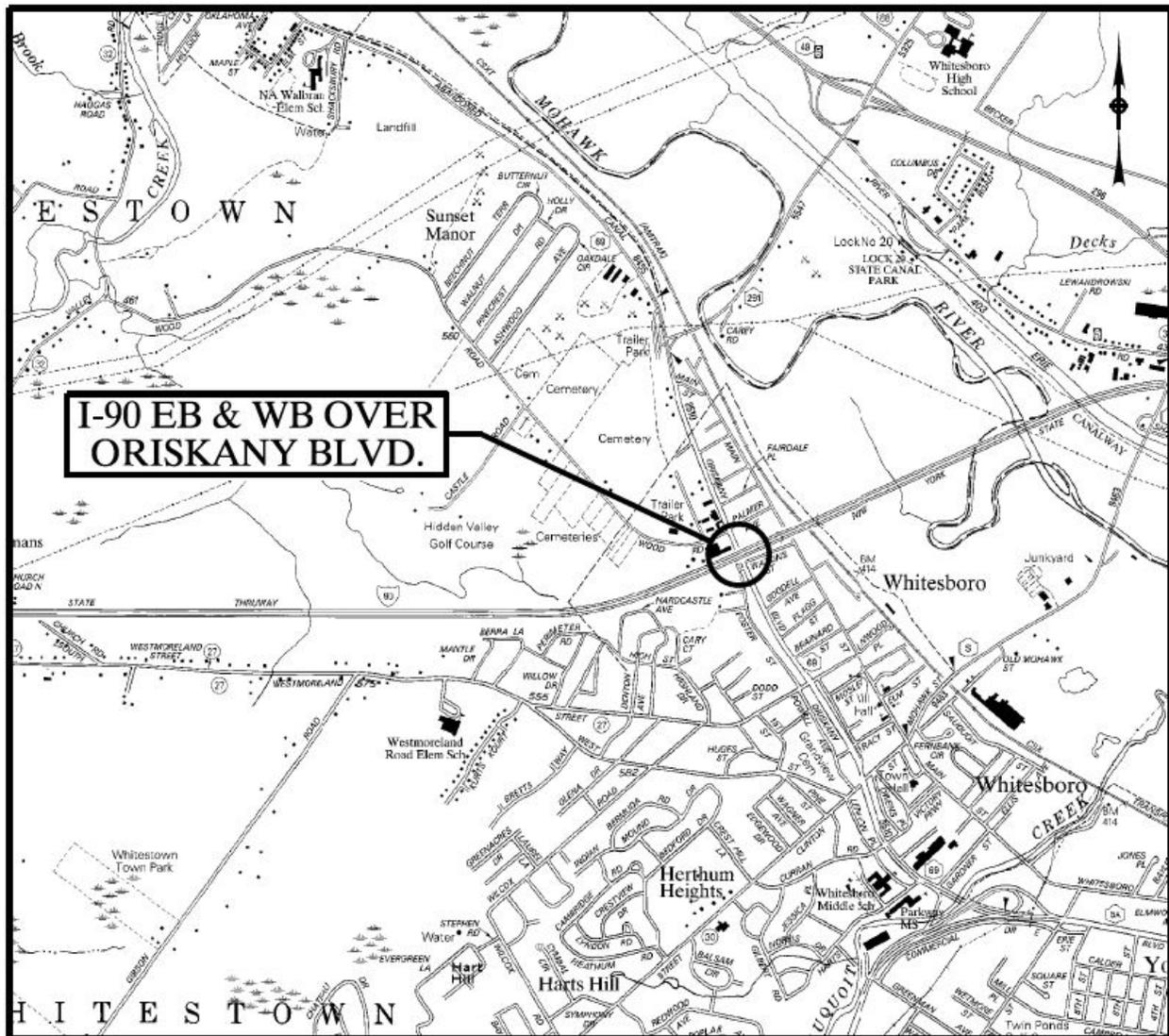


FIGURE 2 - PROJECT LOCATION MAP

NEW YORK STATE THRUWAY AUTHORITY
I-90 EB&WB over Oriskany Boulevard Bridge Replacement
Village of Whitesboro

1.2.2. Why is the Project Needed?

The need for a bridge replacement project was identified by the New York State Thruway Authority after review of Biennial Inspection Reports and a review of the most current inspection report dated September 6, 2016. The existing bridge has a current NYS Condition Rating of 4.16. The bridge is categorized as “Deficient” under the NYS definition based on a NYS Condition Rating less than 5.



1.2.3. What are the Objectives/Purposes of the Project?

The following project objectives have been identified:

- (1) Eliminate structural deficiencies and provide a safe crossing over Oriskany Boulevard with a service life of at least 75 years.
- (2) Meet the objectives above in a socially, economically and environmentally sensitive manner.
- (3) Eliminate existing nonstandard roadway features



1.3. What Alternative(s) Are Being Considered?

The following alternatives representing possible engineering solutions are presented in this report:

- Null or No Build Alternative
- Rehabilitation Alternative
- Reconstruction Alternative

Null or No Build Alternative – Under this alternative the existing structure would remain. NYSTA maintenance forces would continue routine maintenance and repairs on the structure, as required. This alternative does not meet the project objectives, therefore has been eliminated from further review.

Rehabilitation Alternative – Under this alternative the existing structure would be rehabilitated to current standards. The superstructure repair scope would include extensive structural steel repairs on girder webs, stiffeners and flanges due to corrosion and greater than 20% section loss as well as impact damage to fascia girders. All steel would require repainting. It also includes partial deck replacement and deck repairs, as well as joint replacement and bridge rail replacement. Substructure repair work would include replacement of bearings and removal and replacement of all deteriorated concrete, including backwalls, beam seats and piers. Life cycle cost estimates however, place the total cost for the rehabilitation option at \$9,020,000 which is very near the bridge replacement cost. This alternative is therefore eliminated from further review.

Reconstruction Alternative – Bridge Replacement with a Conventional Structure - This alternative would include complete removal and replacement of the existing structure with a new single span bridge on the existing alignment but with vertical clearance above Oriskany Boulevard at least 14'-6". The replacement structure would accommodate a 113'-8½" clear-roadway width, providing for two 12'-0" travel lanes both eastbound and westbound, a 12' right shoulder on both the eastbound and westbound lanes and a 24'-0" left/median shoulder on the eastbound and 17'-8½" left/median shoulder westbound lanes of

I-90. The proposed section allows for the provision of future 12'-0" third lanes in both directions by reducing the current left/median shoulders to 17'-8½" combined left/median shoulders. Approach roadway work would include reconstructing the immediate approach to each end of the bridge as required to accommodate the new bridge and replacement of guide railing and bridge rail to meet current standards.

For a more in-depth discussion of the design criteria see Section 3.2.3. Design Criteria for Feasible Alternative.

1.4 How will the Alternative(s) Affect the Environment?

| Exhibit 1.4-A Environmental Summary | | | |
|--|-------------------|----|-------|
| NEPA Classification | No Federal Action | BY | NYSTA |
| SEQR Type: | Type II | BY | NYSTA |

Summary of Anticipated Permits/Certifications/Coordination:

New York State Department of Environmental Conservation (NYSDEC):

- State Pollutant Discharge Elimination System (SPDES) General Permit (Erosion and Sediment Control Plan only)
- Stormwater Pollution Prevention Plan (SWPPP)

Coordination

- Coordination with the Village of Whitesboro
- Coordination with NYSDEC/NYNHP
- Coordination with Federal Highway Administration
- Coordination with the US Fish and Wildlife Service
- State Historic Preservation Office (SHPO)
- NYSDOT
- Local Municipalities.

Certifications

- NYS Department of Labor: Asbestos Variances

Others

- Local Permits
- Oneida County Highway Permit
- Waste Profile for contaminated soil disposal
- Landfill approval of waste profile
- Part 360/364 permits for contaminated soil disposal

1.5. What Are The Costs & Schedules?

The estimated construction cost for the preferred alternative is \$11.0 million. The project will be funded solely by the New York State Thruway Authority. See Section 3.2, Exhibit 3.2.1 for a summary of alternative costs.

Design Approval is scheduled for July 2017. Construction is scheduled to last 30 months beginning in July 2018.

| Exhibit 1.5 Project Schedule | |
|---|--------------------------------|
| Activity | Date Occurred/Tentative |
| Letter of Intent | March 1, 2017 |
| Request for Qualifications | April 1, 2017 |
| Statement of Qualifications | May 1, 2017 |
| Request for Proposal | July 2017 |
| Proposal Due Date | September 27, 2017 |

1.6. Which Alternative is Preferred?

The preferred alternative is the bridge replacement.

1.7. Who Will Decide Which Alternative Will Be Selected And How Can I Be Involved In This Decision?

The New York State Thruway Authority is responsible for making the decision on the preferred alternative for the project. When making the decision the Thruway considers all comments received from the various review agencies.

| Exhibit 1.7 Schedule of Milestone Dates | |
|--|--------------------------------|
| Activity | Date Occurred/Tentative |
| Design Approval | July 2017 |
| Proposal Due Date | September 2017 |

For further information, questions or comments contact:

Timothy R. Conway, P.E. NYSTA
 200 Southern Boulevard
 Albany, NY 12209
 Email: Timothy.Conway@thruway.ny.gov
 Telephone: (518) 436-2988

The remainder of this report is a detailed technical evaluation of the existing conditions, the proposed alternatives, the impacts of the alternatives, copies of technical reports and plans and other supporting information.

CHAPTER 2 -PROJECT CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS

This chapter addresses the history and existing context of the project site including the existing conditions, deficiencies, and needs for this part of the Interstate 90 corridor including the bridge carrying I-90 eastbound and westbound over Route 69, Oriskany Boulevard at milepost 238.22.

2.1. Project History

Interstate 90, in the vicinity of milepost 238.22, is a full access controlled four-lane divided highway originally funded and constructed by the New York State Thruway Authority. The Thruway was constructed to serve as the primary transportation connecting link of the metropolitan region of New York City with upstate urbanized areas northerly to Albany, westerly to Buffalo, and eventually termination at the Pennsylvania State Line. The highway became part of the Eisenhower Interstate System following passage of the Federal-Aid Highway Act of 1956 and subsequent construction of its highway network. Currently the highway continues to serve its New York based patrons along with interstate and international travelers.

The I-90 EB&WB bridge carries the Thruway at MP 238.22 over Oriskany Boulevard and was constructed as part of the original highway in 1954. The structure has received numerous corrective maintenance repairs and is currently at the end of its economical service life.

The bridge project was initially conceived due to advanced deterioration to various bridge components observed in routine biennial inspections as well as to increase the vertical clearances throughout the corridor. A recent decision was made to advance the project utilizing a design-build procurement package bundled with 7 other structures in the area.

2.2. Transportation Plans and Land Use

2.2.1. Local Plans for the Project Area

2.2.1.1. Local Master Plan

No local master plans will be affected by this project.

2.2.1.2. Local Private Development Plans

There are no approved developments planned within the project area that will impact traffic operations.

2.2.2. Transportation Corridor

2.2.2.1. Importance of the Project Route Segment

The New York State Thruway serves as one of the major connecting transportation network links within New York State and the Northeast. The highway is the primary mobility link between the New York metropolitan area and transportation links in northern and western New York. Oriskany Boulevard /NY Route 69 connects NY Route 5S with NY Route 233, running in an east/west direction along the Mohawk River. Oriskany Boulevard also serves as the connection between the Village of Whitesboro and the Village of Oriskany. Main Street runs parallel to Oriskany Boulevard.

2.2.2.2. Alternate Routes

There are no practical alternate routes for a mainline roadway closure.

2.2.2.3. Corridor Deficiencies and Needs

The existing bridge which accommodates mainline traffic over Oriskany Boulevard is structurally deficient. Replacement of this infrastructure is necessary to maintain mobility of all operators using this segment of the interstate system.

2.2.2.4. Transportation Plans

This project is being progressed as a bridge replacement project, which when bundled with seven other bridge replacement within the Syracuse Division, will be let as a single Design Build Project. Since this project is 100% Thruway funded it has not been added to the Statewide Transportation Improvement Program (STIP).

2.2.2.5. Abutting Highway Segments and Future Plans for Abutting Highway Segments -

The existing I-90 section to the east and west of the project area includes two travel lanes. The posted regulatory speed limit within the project area is 65 mph for Interstate 90. The eastbound and westbound lanes are separated by a box beam/w-beam median barrier.

The existing Oriskany Boulevard highway section through the project limits is typical of a major collector. Two travel lanes exist in each direction with approximately 4' shoulders. The eastbound and westbound travel lanes are separated by a turning lane. The posted regulatory speed limit within the project area is 40 mph for Oriskany Boulevard within the project area.

There are no current plans to reconstruct the adjacent sections of Oriskany Boulevard or Interstate 90.

2.3. Transportation Conditions, Deficiencies and Engineering Considerations

2.3.1. Operations (Traffic and Safety) & Maintenance

2.3.1.1. Functional Classification and National Highway System (NHS)

| Exhibit - 2.3.1.1 Classification Data | | |
|--|-------------------------------|---------------------------|
| Route(s) | I-90 | Oriskany Boulevard |
| Functional Classification | Principal Arterial Interstate | Urban Minor Arterial |
| National Highway System (NHS) | Yes | No |
| Designated Truck Access Route | Yes | No |
| Qualifying Highway | N/A | No |
| Within 0.25 miles of a Qualifying Highway | No | Yes |
| Within the 16 ft. vertical clearance network | Yes | No |

2.3.1.2. Control of Access

Access to I-90 has fully-controlled access. The highway is a toll facility with access limited via toll booths at interchanges. Oriskany Boulevard does not have controlled access.

2.3.1.3. Traffic Control Devices

There are no traffic control devices on I-90. Oriskany Boulevard is controlled by a stop light at the intersection with Wood Street just west of the bridge. There are also traffic lights west on Oriskany Boulevard in downtown Whitesboro. On I-90, all signs, pavement markings, delineators, mile markers and rumble strips conform to the latest guidelines and warrants.

2.3.1.4. Intelligent Transportation Systems (ITS)

The Thruway fiber optic ITS line is located to the north of the westbound lanes and runs parallel to the bridge. It should be outside of the disturbance area during construction.

2.3.1.5. Speeds and Delay

Refer to Exhibit 2.31.5 for existing speed data along Interstate 90 and Oriskany Boulevard within the project limits:

| Exhibit - 2.3.1.5 | | |
|---|---------------------------------|---------------------------------|
| Speed Data | | |
| Route | Interstate 90 | Oriskany Boulevard |
| Existing Speed Limit | 65 MPH | 40 MPH |
| Operating Speed and Method Used for Measurement | 70 MPH ¹ (Estimated) | 45 MPH ¹ (Estimated) |
| Travel Speed and Delay Runs for Existing Conditions | N/A ¹ | N/A ¹ |
| Travel Time and Delay Runs Estimates | N/A ¹ | N/A ¹ |

¹ A speed study was not required for operational studies or for use in accident investigations since the project is a bridge replacement project and does not contain a high accident location.

2.3.1.6. Traffic Volumes

2.3.1.6. (1) Existing traffic volumes

Traffic volume data for I-90 was provided by the NYSTA. Traffic volume data for Oriskany Boulevard was generated from the NYSDOT Traffic Data Viewer. The percent daily truck data and DDHV data for Oriskany Boulevard was unavailable.

Exhibit 2.3.1.6 summarizes the I-90 and Oriskany Boulevard Existing and Future No-Build traffic volume data.

| Exhibit - 2.3.1.6. Existing and Forecast Traffic Volumes | | | | |
|---|-----------------------------|-------|-------|-----------|
| Route | Interstate 90 | | | |
| Year | AADT | DHV* | DDHV | % Trucks |
| Existing (2016) | 23,797 | | 1,608 | 22 |
| ETC (2020) | 25,257 | | 1,707 | 22 |
| ETC+10 (2030) | 29,312 | | 1,981 | 22 |
| ETC+20 (2040) | 34,018 | | 2,299 | 22 |
| ETC+30 (2050) | 39,479 | | 2,668 | 22 |
| Route | Oriskany Boulevard/Route 69 | | | |
| Year | AADT | DHV | DDHV* | % Trucks* |
| Existing (2017) | 16,811 | 1,681 | | |
| ETC (2020) | 17,063 | 1,706 | | |
| ETC+10 (2030) | 17,904 | 1,790 | | |
| ETC+20 (2040) | 18,744 | 1,874 | | |
| ETC+30 (2050) | 19,585 | 1,958 | | |

*Data not available.

2.3.1.6. (2) Future no-build design year traffic volume forecasts

The Estimated Time of Completion, ETC+30 design year was selected per PDM Appendix 5. An ETC+30 year projection was completed as the project involves the replacement of a bridge. A nominal growth rate of 0.5% per year was applied to the Oriskany Boulevard traffic volumes and a 1.5% growth rate per year was applied to the I-90 traffic volumes to generate the future traffic volumes as summarized in Exhibit 2.3.1.6.

2.3.1.7. Level of Service and Mobility

2.3.1.7. (1) Existing level of service and capacity analysis

This project is the replacement of the existing I-90 bridge over Oriskany Boulevard to address current deteriorated conditions. The existing I-90 bridge carries two 12'-0" travel lanes, an 8'-0" right shoulder and

a 24'-0" left/median shoulder eastbound and carries two 12'- 0 travel lanes, an 8'-0" shoulder and a 19'-0" left/median shoulder westbound.

Oriskany Boulevard has two 12'-0" travel lanes northbound, two 12'-0" travel lanes southbound and a 16'-0" shared center-turn lane.

No improvements are being made to Oriskany Boulevard therefore no capacity analysis was conducted for the roadway.

Capacity analysis for I-90 over Oriskany Boulevard was conducted by the NYSTA.

Exhibit 2.3.1.7 summarizes the I-90 Existing and No-Build Conditions capacity analysis results.

| Exhibit - 2.3.1.7 Level of Service Summary Interstate 90 | | | | | |
|--|---------------|----------|-------------|-------------|-------------|
| | 2017 Existing | 2020 ETC | 2030 ETC+10 | 2040 ETC+20 | 2050 ETC+30 |
| Level of Service | B | B | B | C | C |

The geometric design for the proposed bridge reconstruction replicates the geometric design of the existing bridge, therefore the Proposed Conditions traffic capacity analysis results for all the scenarios are expected to maintain those estimated in the Existing and No-Build Conditions capacity analysis results as summarized in Exhibit 2.3.1.7

2.3.1.8. Safety Considerations, Accident History and Analysis

An accident analysis was conducted by the NYSTA for the time period of January 1, 2013 to December 31, 2015 which revealed that a total of 18 accidents occurred on the mainline during this analysis period with no fatalities.

The three year calculated accident rate for the I-90 segment over Oriskany Boulevard is 121.46 acc/MVM, which is slightly higher than the 2013-2015 system-wide rate of 110.1 acc/MVM.

The accident analysis revealed that the top factors contributing to the accidents were unsafe speed (72.2%), failure to yield right-of-way (11.1%) and obstruction or debris in the roadway (11.1%).

There are no Possible High Accident Locations (PHAL'S) within the analysis area between 2013 and 2015.

2.3.1.9. Existing Police, Fire Protection and Ambulance Access

The New York State Police, Troop T is responsible for enforcement along I-90 within the project limits. Access is available for enforcement and emergency responders via periodic gated connections with local roadways and directionally on the system via U-turns. The Village of Oriskany Police department is responsible for enforcement along Oriskany Boulevard.

2.3.1.10. Parking Regulations and Parking Related Conditions

Parking on Interstate highways is restricted by law. The shoulders along Oriskany Boulevard are not wide enough to accommodate parking.

2.3.1.11. Lighting

There is no street lighting present along Interstate 90 within the project area. There is street lighting on existing utility poles along Oriskany Boulevard within the project limits. These lights, although within the project area, are highly unlikely to be impacted by construction activities and no relocation is anticipated.

2.3.1.12. Ownership and Maintenance Jurisdiction

The New York State Thruway Authority operates and maintains the Thruway and the bridge (BIN 5009929) carrying Interstate 90 over Oriskany Boulevard within the project limits. New York State owns and maintains Oriskany Boulevard within the project limits.

2.3.2. Multimodal

2.3.2.1. Pedestrians

Pedestrians are prohibited on Interstate Highways by state law. Pedestrians utilizing Oriskany Boulevard within the project limits are required to use the shoulder areas adjacent to the travel lane section. A pedestrian generator checklist can be found in Appendix D.

2.3.2.2. Bicyclists

Bicyclists are prohibited on Interstate Highways by state law. Bicyclists utilizing Oriskany Boulevard within the project limits are required to use the travel lane section or the existing shoulder.

2.3.2.3. Transit

Northwest of the project area off of Oriskany Boulevard is the Whitesboro School District Bus garage. Access to the garage is through Wood Avenue, which connects to Oriskany Boulevard just west of the bridge. Access to Wood Street must remain open throughout the duration of the project.

2.3.2.4. Airports, Railroad Stations, and Ports

There are no airports, railroad stations, or port entrances within or in the vicinity of the project limits.

2.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, State Lands)

There are no entrances to official recreation areas within the project limits.

2.3.3. Infrastructure

2.3.3.1. Existing Highway Section

Typical sections, plans and profile sheets showing the existing Interstate 90 highway section can be found in Appendix A. The existing structure consists of a 108'-2 1/2" clear-roadway width, providing for one 12'-0" and one 13'-0" travel lanes in each direction, an 9'-6" right shoulder and a 21'-6" left/median shoulder on the eastbound and 17'-8 1/2" left/median shoulder westbound lanes of I-90. The existing pavement and shoulder section consists of 7.5" thick PCC pavement with a 4" wearing surface. The bridge deck and approach pavement have been overlaid with approximately 3" of asphalt concrete. The pavement sections are based on as-built drawings and no core samples were taken. Pavement should be reconstructed full depth where impacted by bridge replacement.

The existing Oriskany Boulevard section through the project limits is typical of an urban minor arterial. Two 12' travel lanes exist in each direction with approximately 4' outside shoulders and a 16' center turning lane. The current asphalt section is unknown and there is no work planned to reconstruct Oriskany Boulevard.

2.3.3.2. Geometric Design Elements Not Meeting Standards

2.3.3.2.(1) Critical Design Elements

The following non-standard features have been identified within the project corridor:

| <u>Roadway</u> | <u>Feature</u> | <u>Existing</u> | <u>Standard</u> |
|----------------|------------------------|-------------------------|-----------------|
| I-90 | Bridge Rail Transition | Non-standard connection | Per BD-RS4E R1 |
| I-90 | Right Shoulder Width | 9.5 ft | 12 ft |
| Oriskany Blvd | Vertical Clearance | 14.06' | 14.5' |

2.3.3.2.(2) Other Design Parameters

No non-conforming features have been identified within the project limits.

2.3.3.3. Pavement and Shoulder

A pavement evaluation was not completed for this project as this is a bridge replacement project.

2.3.3.4. Drainage Systems

Stormwater runoff from I-90 within the project area is collected by an inlet then conveyed through 24" CMP to an outflow location towards the Mohawk River.

Drainage on Oriskany Boulevard is along the shoulder to inlets outside of the project area which are then outlet towards the Mohawk River.

2.3.3.5. Geotechnical

A total of two borings were taken throughout the bridge site. Logs generally show brown silty-clay and no bedrock to a depth of at least 69 ft. Additional information can be found in the geotechnical report associated with this project.

2.3.3.6. Structure

2.3.3.6.(1) Description

There is one structure located within the project limits that carries Interstate 90 over Oriskany Boulevard.

- (a) BIN - 5009929
- (b) Feature carried and crossed – Interstate 90 over Route 69 Oriskany Boulevard.
- (c) Type of bridge, number and length of spans, etc. – The structure is a three span, steel multi-girder superstructure with span length 33'-0", 85'-6" and 30'-3" starting from the west.
- (d) Width of travel lanes and shoulders – The bridge has a curb-to-curb width 108'-2½" clear-roadway width, providing for one 12'-0" and one 13'-0" travel lanes, an 9'-6" right shoulder and a 21'-6" left/median shoulder on the eastbound and 17'-8½" left/median shoulder westbound lanes of I-90. Oriskany Boulevard has two 12'-0" travel lanes in both directions, a 16'-0" median and 4'-0" shoulders on either side.
- (e) Sidewalks – There no sidewalks on this bridge or under it on Oriskany Boulevard.
- (f) Utilities carried – There are no utilities on this bridge.

2.3.3.6.(2) Clearances (Horizontal/Vertical)

The vertical clearance of 14'-0-3/4" for this structure is located near the center span on Oriskany Boulevard and will be increased to 14'-6" during final design. Minimum vertical clearance to Interstate 90 does not apply. Minimum horizontal clearances for both Oriskany Boulevard and Interstate 90 are satisfied and may be found on drawing PRO-01 in Appendix A.

2.3.3.6.(3) History & Deficiencies

This bridge was constructed in 1954 under Contract MT 53-10 and ST 53-23.

A yellow structural flag (YF 15-084) was issued for extensive, heavy spalling over the Span 2 travel lanes under the bridge deck during the 2015 Inspection. Plywood and lumber forms were installed to prevent the concrete from falling onto the travelled way below. Although this work was sufficient to remove the flag the spalling still exists.

During the most recent bridge inspection in 2016 a yellow flag (2B16UMW005) was issued for the ends of the steel girders in all spans, over both piers have section losses to the webs. The section loss is located within the critical bearing area. However, no buckling or localized distortion of the webs was observed. There are no bearing stiffeners at the supports, but there are partial height diaphragms connection plates on both sides of the interior girders and the interior side of the fascia girders. This yellow flag supersedes Yellow Flag 15-067 issued during the 2015 inspection.

2.3.3.6.(4) Inspection

The bridge was last inspected on September 6, 2016. A full copy of the Inspection Report and the current bridge inventory can be found in Appendix E.

- (a) Federal Sufficiency Rating – N/A
- (b) State General Recommendation– 4.0
- (c) Summary of Condition and Inspection Reports: The 2016 biennial inspection report assigns generally fair ratings at the substructure 5 out of 7. There is considerable deterioration at the girder ends which results in a superstructure condition of 4 out of 7.

Advanced deterioration is also noted at the structural deck with ratings of 3 out of 7. Underside delaminations are common with some of these areas over mainline traffic. Steel section losses at the ends of the girders is also noted at all piers resulting in a rating of 4 for Primary Members. Yellow flag 2B16UMW005, for Span 1, Girder G5 over Pier 1 and Span 2, Girder G1 over Pier 1 due to web section loss has been issued.

Other areas of moderate deterioration include the approach pavement, beam seats, backwall, guiderail, curbs and bridge rail.

2.3.3.6.(5) Restrictions

There are currently no load restrictions on the bridge.

2.3.3.6.(6) Future Conditions

If no maintenance actions are taken to address the conditions of this bridge the areas of deterioration will continue to a point where continued and more frequent maintenance will be necessary for the bridge. In addition steel deterioration may progress to a point where load restrictions may be necessary and the deck will continue to spall and fall on the roadway below.

2.3.3.6.(7) Waterway

There is no waterway associated with this bridge.

2.3.3.7. Hydraulics of Bridges and Culverts

There is no waterway associated with this bridge.

2.3.3.8. Guide Railing, Median Barriers and Impact Attenuators

Corrugated W-beam guide rail is present on the left and right approaches to the bridge and box beam median barrier down the median of the bridge. The bridge also includes a four rail discontinuous bridge rail. All of the approach guide rail and bridge rail are in fair condition but exhibit surface corrosion. The transition from W-beam to bridge rail does not meet current standards. There is no guiderail along Oriskany Boulevard within the project area.

2.3.3.9. Utilities

The G4S fiber optic backbone is located within the median area of the northbound and southbound travel lanes.

The following utility companies have been identified as having utilities in the project area.

| <u>Utility Company</u> | <u>Type of Utility</u> |
|-------------------------------------|---|
| AT&T | Fiber, Telephone |
| Buckeye Pipeline Company | Petroleum Pipeline |
| G4S Secure Integration LLC | Fiber |
| National Grid/Central Electric | Electric |
| National Grid/Central Gas | Gas |
| NYS Thruway Authority Syracuse | Traffic Signals, Fiber, Telephone, Electric, Culverts, Sewer, Water |
| NYS DOT Utica Region-2 | Traffic Signals |
| Oneida County/Dept of Water Quality | Sanitary Sewer |
| Sprint Nextel | Fiber |
| Town of Whitesboro | Highway, Culverts, Sanitary Sewer, Sewer, Storm Sewers |
| Mohawk Valley Water Authority | Water |
| Verizon, Syracuse A1 | Fiber, Telephone |
| Village of Whitesboro | Storm Sewer, Sewer |

2.3.3.10. Railroad Facilities

There are no railroads within the project limits and no at-grade crossings within 1 mile that could impact traffic conditions. There is a railroad running parallel to Oriskany Boulevard but it remains outside of the project area.

2.3.4. Landscape and Environmental Enhancement Opportunities

This section focuses on the critical existing areas to identify potential enhancement opportunities related to the project and to help avoid and minimize impacts. Chapter 4 focuses on the impacts, enhancements, and mitigation.

2.3.4.1. Landscape

2.3.4.1.(1) Terrain

The terrain throughout the project corridor is classified as rolling.

2.3.4.1.(2) Unusual Weather Conditions

There are no unusual weather conditions within the project area.

2.3.4.1.(3) Visual Resources

The areas directly adjacent to Interstate 90 and Oriskany Boulevard are largely residential and commercial. Outside of the project area along Interstate 90 are some wooded areas adjacent to the Mohawk River.

There are no practical opportunities for environmental enhancements within the project limits.

CHAPTER 3 -ALTERNATIVES

This chapter discusses the alternatives considered and examines the engineering aspects for all feasible alternatives to address project objectives outlined in Chapter 1 of this report.

3.1. Alternatives Considered and Eliminated from Further Study

The following alternatives have been considered as possible solutions but eliminated from further study since they did not satisfy objectives of the project:

Null / No Build Alternative

The Null alternative would leave the existing structure in place and would not take any action beyond normal maintenance operations. Work required to correct current structural deficiencies is beyond the scope of normal maintenance. As the structure continues to deteriorate and it is deemed unsafe for normal traffic the bridge will be posted for reduced loading and eventually closed to all traffic.

This alternative will not satisfy the project objectives but will be considered further for comparative purposes.

Rehabilitation Alternative

The superstructure repair scope would include extensive structural steel repairs on girder webs, stiffeners and flanges due to corrosion and greater than 20% section loss as well as impact damage to fascia girders. All steel would require repainting. It also includes partial deck replacement and deck repairs, as well as joint replacement and bridge rail replacement. Substructure repair work would include replacement of bearings and removal and replacement of all deteriorated concrete, including backwalls, beam seats and piers. Life cycle cost estimates however, place the total cost for the rehabilitation option very near the bridge replacement cost.

This alternative will not satisfy the project objectives therefore it will be removed from further consideration.

3.2. Feasible Build Alternatives

3.2.1. Description of Feasible Alternatives

Reconstruction Alternative – Bridge Replacement with Conventional Structure

This alternative consists of a complete replacement of the existing bridge essentially on the existing horizontal alignment. The new structure will be a conventional structure. Key elements of this alternative include:

- | | |
|-------------------|--|
| Geometry | <ul style="list-style-type: none"> • All existing horizontal geometric attributes will be maintained under this alternative. The bridge centerline will essentially be maintained at the existing location and all roadway approaches will remain unchanged with non-standard horizontal curvature maintained. The vertical alignment will increase on the existing approach grades to increase the existing vertical clearance from approximately 14'-0" to 14'-6" on Oriskany Street. |
| Operational | <ul style="list-style-type: none"> • This alternative does not affect operations. |
| Control of Access | <ul style="list-style-type: none"> • This alternative does not affect control of access. |
| Right of Way | <ul style="list-style-type: none"> • No acquisition of right of way will be required. |
| Environmental | <ul style="list-style-type: none"> • There are no significant environmental impacts from this project. |

- Project Costs
- Total estimated cost of this alternative is approximately \$11.0M.
- Project Goals
- This alternative will meet all project objectives such as increasing the design life of the structure to over 75 years, increase horizontal clearances/shoulder widths to current standards.

| Exhibit 3.2.1 Activities | | |
|---|---------|-----------------------------------|
| | | Reconstruction Alternative |
| Construction | Bridge | \$4,500,000 |
| | Highway | \$600,000 |
| Subtotal (2017) | | \$5,100,000 |
| Incidentals (2017) 20% | | \$1,020,000 |
| Subtotal (2017) | | \$6,120,000 |
| Contingencies 15% | | \$918,000 |
| Subtotal (2017) | | \$7,040,000 |
| Potential Field Change Order 5% | | \$350,000 |
| Subtotal (2017) | | \$7,390,000 |
| Mobilization (4%) | | \$295,000 |
| Subtotal (2017) | | \$7,685,000 |
| Expected Award Amount – Inflated @ 5%/yr to midpoint of Construction (2019) | | \$8,454,000 |
| Design and Construction Inspection (30%) | | \$2,540,000 |
| Total Cost | | \$10,994,000 |

3.2.2 Preferred Alternative

The preferred alternative is Reconstruction Alternative – Replacement. See Appendix A for proposed concept plans.

3.2.3. Design Criteria for Feasible Alternative(s)

3.2.3.1. Design Standards

Design criteria for this project are based on the New York State Thruway Authority mainline standards and NYSDOT Highway Design Manual standards for urban principal arterial. Other design parameters include the 10-year storm drainage design.

3.2.3.2. Critical Design Elements

The following table identifies critical design elements applicable to this project.

| Exhibit 3.2.3.2.a Critical Design Elements for Interstate 90 – Mainline | | | | |
|--|---------------------------------------|--|---|--|
| PIN: | S52886 | NHS (Y/N): | Yes | |
| Route No. & Name: | I-90, BIN 5009929 | Functional Classification: | Urban Principal Arterial – Interstate (11) | |
| Project Type: | Bridge Replacement & New Construction | Design Classification: | Interstate – HDM 2.7.1.1 | |
| % Trucks: | 22% | Terrain: | Rolling | |
| ADT: | 39,479 | Truck Access/Qualifying Hwy. | Access-Yes; Qualifying-Yes | |
| Element | | Standard | Existing Condition | Proposed Condition |
| 1 | Design Speed ¹ | 70 mph HDM Section 2.7.1.1 A | 70 mph | 70 mph |
| 2 | Lane Width | 12 ft min HDM Section 2.7.1.1 B | 12 ft | 12 ft |
| 3 | Shoulder Width | Left – 4 ft min, 8' desired Right – 10 ft. min., 12' desirable w/ barrier HDM Section 2.7.1.1.C, Exhibit 2-2 | EB 10' Rt/ 21.5'Lt WB 10' Rt/17.75 Lt | EB 12' Rt/ 17.75'Lt WB 12' Rt/24' Lt |
| 4 | Horizontal Curve Radius | 1810 ft. @ e=8.0% HDM Section 2.7.1.1 D, Exhibit 2-2 | Tangent | No change |
| 5 | Superelevation | 8% Maximum HDM Section 2.7.1.1 E, Exhibit 2-2 | NC | No change |
| 6 | Stopping Sight Distance | 730 ft Minimum (Crest) HDM Section 2.7.1.1 F, Exhibit 2-2 | 1,212 ft | No change |
| 7 | Grade | 4% HDM Section 2.7.1.1 G, Exhibit 2-2 | 0.87% | No change |
| 8 | Cross Slope | 1.5% Min. to 2.5% Max. HDM Section 2.7.1.1 H | 1.0%Lt / 0.64 Rt | 2.0% |
| 9 | Vertical Clearance | 14'-6" rehabilitation; 16'-6" replacement (Minimum) NYSTA Structure Design Manual | N/A | N/A |
| 10 | Design Loading Structural Capacity | NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle NYSDOT Bridge Manual, Section 2 | None | N/A |

Notes:

- The Divisional Traffic Engineer has concurred that the use of a Design Speed of 70 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.

| Exhibit 3.2.3.2.b Critical Design Elements Oriskany Street | | | |
|---|---|------------------------------|--|
| PIN: | S52886 | NHS (Y/N): | No |
| Route No. & Name: | Oriskany Blvd- NYS Rt 69 | Functional Classification: | Urban Minor Arterial – Other Roadways, |
| Project Type: | Bridge Replacement & New Construction | Design Classification: | Urban Arterial Non-NHS HDM 2.7.2.3 |
| % Trucks: | Not Available | Terrain: | Rolling |
| ADT: | 19,585 | Truck Access/Qualifying Hwy. | Access-No; Qualifying-No |
| Element | Standard | Existing Condition | Proposed Condition ² |
| 1 Design Speed | 35 mph Minimum, 45 mph Maximum HDM Section 2.7.2.3 A | 45 mph | 45 mph |
| 2 Lane Width | 11 ft HDM Section 2.7.2.3.B, Exhibit 2-4 | 12 ft. | 12 ft |
| 3 Shoulder Width | 6 ft Left, 10 ft desirable HDM Section 2.7.2.3 C Exhibit 2-4 | 4 ft | 6 ft |
| 4 Horizontal Curve Radius | 467 ft min. (at $e_{max}=4\%$) HDM Section 2.7.2.3 D, Exhibit 2-4 | Tangent | Tangent |
| 5 Superelevation | 4% Maximum HDM Section 2.7.2.3 E | N/A | N/A |
| 6 Stopping Sight Distance | 327 ft Minimum (Crest) HDM Section 2.7.2.3 F Exhibit 2-4 | 1585 ft | 1585 ft |
| 7 Grade | 7% Max HDM Section 2.7.2.3 G, Exhibit 2-4 | 0.48% | 0.48% |
| 8 Cross Slope | 1.5% Min. to 3% Max. HDM Section 2.7.2.3 H | 2.0% | 2.0% |
| 9 Vertical Clearance | 14'-0" rehabilitation; 14'-6" replacement (Minimum) NYSDOT Bridge Manual, Section 2 | 14'-0" | 14'-6" |
| 10 Design Loading Structural Capacity | NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle NYSDOT Bridge Manual, Section 2 | HS25 | HL-93 |
| 11 Pedestrian Accommodation / ADA | Complies with HDM Chapter 18 At Ramp Terminal with crossroad HDM Section 2.7.2.3 K | None | None |

Notes:

1. The structure replacement is the I-90 bridge over Oriskany Blvd. Non-standard features on Oriskany Blvd will only be addressed if cost feasible and are not considered a primary objective for this project.
2. Information on the local road (Proposed Conditions) shall be used to establish the bridge replacement length that would be needed to accommodate future local road improvements (including widening). No work on the local under passing road is proposed at this time.

3.2.3.3. Other Design Parameters

There are no other design parameters.

3.3. Engineering Considerations**3.3.1. Operations (Traffic and Safety) & Maintenance****3.3.1.1. Functional Classification and National Highway System**

This project will not change the functional classification of either roadway.

3.3.1.2. Control of Access

Access control will remain unchanged on both roadway, however placement of substructures must allow for future construction of sidewalks along Oriskany Blvd.

3.3.1.3. Traffic Control Devices

Traffic Signals: No new traffic signals are proposed.

Roadway Striping and Signage: Will be replaced within the project limits.

3.3.1.4. Intelligent Transportation Systems (ITS)

No additional ITS measures are proposed

3.3.1.5. Speeds and Delay

The existing posted speed limits of both roadways will remain unchanged. Travel time estimates are not applicable for a bridge replacement project.

3.3.1.6. Traffic Volumes

No changes in traffic volumes are anticipated (see Section 2.3.1.6 for existing and future traffic volumes).

3.3.1.7. Level of Service and Mobility

There are no anticipated changes in Levels of Service (see Section 2.3.1.7 for existing and future Levels of Service).

3.3.1.8. – Work Zone Safety & Mobility

For the replacement of the bridge, construction zone traffic operations will include temporary mainline cross-overs to allow for staged operations. Refer to Appendix A for general plans for cross-overs and staged construction.

There are no feasible solutions to detour traffic from Oriskany Boulevard to other local roads so phased construction shall occur. The details for work zone traffic control will be prepared and evaluated during final design.

3.3.1.9. Safety Considerations, Accident History and Analysis

No accident reduction or preventative needs have been identified for this project. As part of the replacement scope existing substandard approach guide railing and bridge rail will be replaced and will meet current standards.

3.3.1.10. Impacts on Police, Fire Protection and Ambulance Access

There are no anticipated detours, however there will be temporary lane closures and flaggers onsite. Close coordination with emergency service providers will be required during final design and construction.

No significant impacts to emergency vehicle access through the project site are anticipated upon project completion.

3.3.1.11. Parking Regulations and Parking Related Issues

No changes are proposed.

3.3.1.12. Lighting

No changes are proposed.

3.3.1.13. Ownership and Maintenance Jurisdiction

No changes are proposed. Refer to section 2.3.1.12.

3.3.1.14. Constructability Review

A review by the NYSTA Constructability review team of the NYSTA will take place during final design phases.

3.3.2. Multimodal

3.3.2.1. Pedestrians

Pedestrians are prohibited on Interstate Highways by state law. Within the project limits pedestrians will be accommodated along Oriskany Street on the roadway shoulders. See Appendix D for the Pedestrian Generator Checklist.

3.3.2.2. Bicyclists

Bicyclists are prohibited on Interstate Highways by state law. Within the project limits bicyclists will be accommodated along Oriskany Boulevard in the travel lane or the shoulders by law.

3.3.2.3. Transit

No changes are proposed.

3.3.2.4. Airports, Railroad Stations, and Ports

No changes are proposed.

3.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, and State Lands)

No changes are proposed.

3.3.3. Infrastructure

3.3.3.1. Proposed Highway Section

Interstate 90 within the project limits will be reconstructed and to provide the current standards for an Urban Principal Interstate. Two 12 feet travel lanes will be provided in each direction. The shoulders approaching the structure will be 8 feet wide. A minimum shoulder of 2 feet will be provided when a full 6 feet shoulder cannot be constructed. The existing median and shoulder along Interstate 90 will be reconstructed with this project and current lane and shoulder widths maintained. Refer to Appendix A for a typical section.

3.3.3.1. (1) Right of Way

No right of way acquisitions will be required.

3.3.3.1. (2) Curb

Concrete curbing exists on Oriskany Boulevard within the project limits.

3.3.3.1. (3) Grades

In general the roadway approach grades will be maintained. It is anticipated that the profile for the bridge design will be a crest curve spanning the entire bridge length.

3.3.3.1. (4) Intersection Geometry and Conditions

Wood Road/Palmer Avenue to Oriskany Boulevard: Double lane access road on the western side of Oriskany Boulevard, north of I-90. Currently controlled by traffic light shall be maintained.

Watkins Street/Foster Street Access: Single lane roads intersect with Oriskany Boulevard south of I-90. Provide access to residential areas. Currently uncontrolled and shall remain.

3.3.3.1. (6) Roadside Elements

(a) Snow Storage, Sidewalks, Utility Strips, Bikeways, Bus Stops – There are no sidewalks under the bridge on Oriskany Boulevard on either side. Snow storage will be accommodated in the area outside of the roadway shoulder.

(b) Driveways – There is a driveway for Chiropractic Family Care adjacent to the project area which must be maintained throughout construction.

(c) Clear Zone - The clear zone width at the bridge along I-90 will be set based on the current NYS standard of 30.0' from the outside edge of travel lane. When this minimum cannot be met, the area will be protected by the replacement of guiderails.

3.3.3.2. Special Geometric Design Elements

3.3.3.2. (1) Non-Standard Features

The existing non-standard right shoulders on I-90 will not be maintained. The existing non-standard cross slope on I-90 will not be maintained unless during design build the cross slope is unable to be altered.

3.3.3.3. Pavement and Shoulder

A pavement evaluation is not required for a bridge replacement project. Approach roadway and side street sections will utilize a conventional pavement design section.

3.3.3.4. Drainage Systems

The current drainage patterns within the project limits will be maintained.

3.3.3.5. Geotechnical

In total two borings were taken throughout the bridge site. Logs show in general brown silts and shale. Bedrock was not found in the 69 feet in which boring were taken.

3.3.3.6. Structures

The existing bridge will be completely removed and replaced with a new structure. The new bridge will be constructed along the same horizontal alignment. The vertical alignment will be maintained so that the clearance to the Oriskany Boulevard is 16'-0" minimum.

3.3.3.6. (1) Description of Work

- (a) The new bridge will be replaced with the most efficient structure as determined by the design build team.
- (b) The bridge will carry two 12 foot travel lanes with 12 foot right shoulders and 44.5 foot medians. Refer to the typical section included in Appendix A.
- (c) There are no utilities carried by the bridge.

3.3.3.6. (2) Clearances

Horizontal clearances will be equal to the new shoulder widths. A minimum of 16'-0" vertical clearance will be provided.

3.3.3.6. (3) Live Load

The new bridge will be designed to carry HL-93 and the NYS Design Permit Vehicle.

3.3.2.6. (4) Associated Work

The existing bridge will be removed down to the foundation level below grade. No special considerations have been identified and the construction of the new bridge is assumed to be routine.

3.3.3.6. (5) Waterway

There are no waterways within the project limits.

3.3.3.7. Hydraulics of Bridges and Culverts

There are no waterways within the project limits.

3.3.3.8. Guide Railing, Median Barriers and Impact Attenuators

All of the approach guide rail and bridge railing will be upgraded to guide rail meeting current standards.

3.3.3.9. Utilities

The G4S fiber optic backbone is located within the median area of the eastbound and westbound travel lanes. It should remain unaffected by the proposed work.

Overhead utility lines are present along Oriskany Boulevard on both the east and west sides of the roadway. There are also utilities which cross over the interstate east of the bridge, from north to south. No utility poles are expected to be relocated due to the proposed construction.

3.3.3.10. Railroad Facilities

There are no railroad facilities within the project limits.

3.3.4. Landscape and Environmental Enhancements

3.3.4.1. Landscape Development and Other Aesthetics Improvements

No significant landscape or other aesthetic enhancements are planned for this project.

3.3.5. Miscellaneous

There are no other special or unique aspects to this project.

CHAPTER 4 -SOCIAL, ECONOMIC and ENVIRONMENTAL CONDITIONS and CONSEQUENCES

4.1 Introduction

4.1.1 Environmental Classification

NEPA Classification -

This project is 100% Thruway funded; therefore, NEPA does not apply.

SEQR Classification -

In accordance with 6 NYCRR, Part 617, "State Environmental Quality Review", the Thruway has determined that this project is a SEQR Type II Action. No further SEQR processing is required. The New York State Thruway Authority is the SEQR lead agency. The project has been identified as a Type II action, per 6 NYCRR Part 617.5, Subdivision (c), Item 2. This permits the project to be classified as Type II since the project does not meet or exceed any of the thresholds in Section 617.4, and is of a scale and scope illustrated by the following:

- (2) replacement, rehabilitation or reconstruction of a structure or facility, in kind, on the same site, including upgrading buildings to meet building or fire codes, unless such action meets or exceeds any of the thresholds in Section 617.4 of this Part.

As stated in Section 617.4 (b), actions that meet the thresholds listed below are Type I if they are to be directly undertaken, funded or approved by an agency.

The proposed project does not include or result in:

- (1) the adoption of a municipality's land use plan, the adoption by any agency of a comprehensive resource management plan or the initial adoption of a municipality's comprehensive zoning regulations;
- (2) the adoption of changes in the allowable uses within any zoning district, affecting 25 or more acres of the district;
- (3) the granting of a zoning change, at the request of an applicant, for an action that meets or exceeds one or more of the thresholds given elsewhere in this list;
- (4) the acquisition, sale, lease, annexation or other transfer of 100 or more contiguous acres of land by a state or local agency;
- (5) construction of new residential units that meet or exceed the following thresholds:
 - (i) 10 units in municipalities that have not adopted zoning or subdivision regulations;
 - (ii) 50 units not to be connected (at the commencement of habitation) to existing community or public water and sewerage systems including sewage treatment works;
 - (iii) in a city, town or village having a population of less than 150,000, 250 units to be connected (at the commencement of habitation) to existing community or public water and sewerage systems including sewage treatment works;
 - (iv) in a city, town or village having a population of greater than 150,000 but less than 1,000,000, 1,000 units to be connected (at the commencement of habitation) to existing community or public water and sewerage systems including sewage treatment works; or
 - (v) in a city or town having a population of greater than 1,000,000, 2,500 units to be connected (at the commencement of habitation) to existing community or public water and sewerage systems including sewage treatment works;
- (6) activities, other than the construction of residential facilities, that meet or exceed any of the following thresholds; or the expansion of existing nonresidential facilities by more than 50 percent of any of the following thresholds:

- (i) a project or action that involves the physical alteration of 10 acres;
 - (ii) a project or action that would use ground or surface water in excess of 2,000,000 gallons per day;
 - (iii) parking for 1,000 vehicles; (iv) in a city, town or village having a population of 150,000 persons or less, a facility with more than 100,000 square feet of gross floor area;
 - (v) in a city, town or village having a population of more than 150,000 persons, a facility with more than 240,000 square feet of gross floor area;
- (7) any structure exceeding 100 feet above original ground level in a locality without any zoning regulation pertaining to height;
 - (8) any Unlisted action that includes a nonagricultural use occurring wholly or partially within an agricultural district (certified pursuant to Agriculture and Markets Law, article 25AA, sections 303 and 304) and exceeds 25 percent of any threshold established in this section;
 - (9) any Unlisted action (unless the action is designed for the preservation of the facility or site) occurring wholly or partially within, or substantially contiguous to, any historic building, structure, facility, site or district or prehistoric site that is listed on the National Register of Historic Places, or that has been proposed by the New York State Board on Historic Preservation for a recommendation to the State Historic Preservation Officer for nomination for inclusion in the National Register, or that is listed on the State Register of Historic Places (The National Register of Historic Places is established by 36 *Code of Federal Regulations* [CFR] parts 60 and 63, 1994 [see section 617.17 of this Part]);
 - (10) any Unlisted action, that exceeds 25 percent of any threshold in this section, occurring wholly or partially within or substantially contiguous to any publicly owned or operated parkland, recreation area or designated open space, including any site on the Register of National Natural Landmarks pursuant to 36 CFR part 62, 1994 (see section 617.17 of this Part); or
 - (11) any Unlisted action that exceeds a Type I threshold established by an involved agency pursuant to section 617.14 of this Part.

4.1.2 Coordination with Agencies

NEPA Cooperating and Participating Agencies -

This project is 100% State funded; therefore, the FHWA NEPA requirements for Cooperating and Participating Agencies do not apply.

SEQR Cooperating and Participating Agencies -

The following agencies have been identified as involved and Interested Agencies under SEQR:

The New York State Department of Environmental Conservation (NYSDEC)

4.2 Social

The purpose of this section is to discuss the social environment of the site. This project involves the replacement of the New York State Thruway (Interstate Route 90) bridge over Oriskany Boulevard in Whitesboro, New York. The project involves the replacement of the existing bridge on the existing horizontal alignment. If necessary, the vertical alignment will be raised in order to provide the required clearance over the Oriskany Boulevard. Minor improvements to the intersecting roadways may be required. Based on the scope of the project, no adverse effects to the surrounding social environment are anticipated as a result of this project.

4.2.1 Land Use

Demographics and Affected Population -

The project is located in the Village of Whitesboro in Oneida County. The project vicinity is heavily developed, with commercial and residential properties occupying most of the surrounding areas.

The 2010 US Census reports that the Town has a population of 3,772 persons. The median reported age was 38.8, with 14.7% of the population being reported at age 65 or older. 95.7% of the population was identified as white. Based on data collected from the US Census' American Community Survey, approximately 8.3% of the Village's population identified as disabled under age 65 (although specific disabilities were not listed). This percentage is lower than the percentage for Herkimer County, 11.3%, and higher than the percentage for New York State, 7.4%. In 2015, the Village had 15.3% of its population reported to be below the poverty level, which was below that year's national average of 15.5%.

This project is not located in a potential NYSDEC Environmental Justice Area.

Comprehensive Plans and Zoning -

Replacement of the existing bridge on the same general alignment will not conflict with any local community's comprehensive plans, nor will it affect local zoning.

4.2.2 Neighborhoods and Community Cohesion

Community Cohesion -

The project will not divide neighborhoods, isolate part of a neighborhood, generate new development or otherwise affect community cohesion. During construction, a temporary detour will be in place, which will increase travel times. There will be no permanent effect on neighborhoods or community cohesion.

Home and Business Relocations -

Since this project involves the replacement of an existing bridge on the existing alignment, the proposed project will require no displacement of residences or businesses and there will be no relocation impacts.

4.2.3 Social Groups Benefited or Harmed

Elderly and/or Disabled Persons or Groups -

A review of US Census data in Section 4.2.1.1 indicates that there is no significant concentration of elderly or disabled persons in the project area. No social groups will be benefited or harmed as a result of this project.

Transit Dependent -

This project involves the replacement of an existing bridge on the existing alignment and does not involve existing transit facilities such as bus or train stations, nor park and ride lots.

Low Income, Minority and Ethnic Groups (Environmental Justice) -

The project is not located in or near a potential NYSDEC environmental justice area.

4.2.4 School Districts, Recreational Areas, and Places of Worship

School Districts -

The proposed project is within the Whitesboro Central School District. There are no schools or school properties within or near the project corridor. During construction, a temporary detour will be in place, which will increase travel times. The NYS Thruway Authority will coordinate the construction schedule and detour details with the Whitesboro Central School District.

Recreational Areas -

There are no parks or recreational properties within or near the Study Area. Thus, this project will have no impacts on existing recreational areas.

Places of Worship –

There are no places of worship within the Study Area. However, the Crosspoint Church is located on Oriskany Boulevard, immediately adjacent to the Study Area. The proposed project is not expected to have a direct impact on this church; however, during construction, a temporary detour will be in place that may increase travel times. This project will have no permanent impacts on existing places of worship.

4.3 Economic

4.3.1 Regional and Local Economies

There will be no measurable or apparent adverse impact on the general economic conditions, tax base, employment opportunities, economic development zones, or property values within the project limits or surrounding area as a result of this project.

4.3.2 Business District Impacts

This project is not located within a defined business district. There will be no permanent adverse impact on businesses as a result of this project. During construction, a temporary detour will be in place that will increase travel times.

4.3.3 Specific Business Impacts

There will be no permanent measurable or known adverse impacts to established businesses as a result of this project. During construction, a temporary detour will be in place that will increase travel times to businesses along Oriskany Boulevard.

4.4 Environmental

4.4.1 Wetlands

A site visit was conducted on November 10, 2016, which identified wetlands within and adjacent to the Study Area. The Wetland Delineation Letter Report is included in Appendix B.

State Freshwater Wetlands -

There are NYSDEC regulated freshwater wetlands and regulated adjacent areas (100-feet) to the southeast of the Study Area, as per the NYSDEC Environmental Resource Mapper. This was verified by a site visit on November 10, 2016. A Wetland Field Delineation Letter Report is included as Appendix B.

The project may require a NYSDEC Article 24 Freshwater Wetlands Permit, pursuant to 9 NYCRR 578, for proposed work in the state-regulated wetland or regulated adjacent area (100-feet). The permit will be obtained from NYSDEC once the location and extent of the impacts are ascertained.

State Tidal Wetlands -

A review of the NYSDEC GIS wetland data files indicates that there are no NYSDEC jurisdictional tidal wetlands or regulated adjacent areas within or near the project limits, and ECL Article 25 does not apply.

Federal Jurisdiction Wetlands -

A review of the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Maps indicated that no mapped wetlands are located within the Study Area; however, mapped NWI wetlands and NYSDEC wetlands are located to the northeast and southeast of the Study Area, east of the existing railroad tracks. No streams are mapped within or adjacent to the Study Area (see Figure 3 of the Wetland Delineation Letter Report).

The Study Area has been reviewed for wetlands in accordance with the criteria defined in the 1987 US Army Corps of Engineers Wetland Delineation Manual. The Wetland Delineation Letter Report is included in Appendix B. The Wetland Delineation Letter Report concluded:

EDR delineated one palustrine open water wetland (POW) and two palustrine forested wetlands (PFO) in the eastern portion of the Study Area, as well as one palustrine emergent wetland (PEM) adjacent the northeastern boundary of the Study Area. These wetlands were identified based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. The forested and adjacent wetlands appear to have an indirect and direct surface water connection to the Mohawk River, and therefore are likely to be considered jurisdictional by the USACE under Section 404 of the Clean Water Act. The POW wetland is likely connected to Wetland A, C, and D. The POW wetland is also likely to be considered jurisdictional by the USACE under Section 404 of the Clean Water Act. However, final determination of the jurisdictional status must be made by the USACE.

Because the PFO wetland in the southeastern portion of the Study Area is a mapped NYSDEC wetland, and due to the potentially large size of each PFO wetland and the likelihood of connectivity, in EDR's opinion, the two PFO wetlands (Wetlands C and D) may be regulated under Article 24 of the Environmental Conservation Law. Due to the lack of significant hydrologic or habitat connectivity, in EDR's opinion, the POW wetland (Wetland B) and adjacent PEM wetland (Wetland A) should not be regulated under Article 24 of the Environmental Conservation Law.

Depending on the final project design, if the project will impact wetlands, wetland permitting through the USACE is expected to be authorized under a Nationwide Permit. If the project proceeds under a USACE Nationwide Permit, it is anticipated that a Blanket Section 401 Water Quality Certification (WQC) will also apply to this project.

As noted above, the project may also require a NYSDEC Article 24 Freshwater Wetlands Permit for proposed work in the state-regulated wetland or regulated adjacent area (100-feet). The permit will be obtained from NYSDEC once the location and extent of the impacts are ascertained.

If wetland permits are necessary, work will not commence until the permits are acquired, and work will adhere to all permit conditions.

Executive Order 11990 -

Federal funding will not be used in the design or construction of this project. Therefore, the requirements of Executive Order 11990 do not apply to this project.

Mitigation Summary -

If necessary, depending on the final project design, appropriate measures will be taken to avoid and minimize wetland impacts. Note that if impacts to wetlands are 1/10 of an acre or less and a Nationwide Permit applies to the proposed activities, no wetland mitigation/monitoring plan would be required.

4.4.2 Surface Waterbodies and Watercourses

Surface Waters –

No mapped surface waterbodies were identified within or adjacent to the Study Area. However, during the wetland delineation, one POW wetland was identified within the Study Area (Wetland B). This open water wetland was located within a fenced vacant lot that was characterized by invasive plant species such as Japanese knotweed. The Thruway is elevated above this vacant lot.

If the proposed project activities will require impacts to Waters of the U.S., it is expected that this work will be authorized under a USACE Nationwide Permit. The permit(s) will be obtained once the location and the extent of the impacts are ascertained. Work will not commence until the permit is acquired, and will adhere to any conditions set forth by the permit requirements.

Surface Water Classification and Standards -

Based upon a review of the NYSDEC GIS data maps for regulated streams, there are no mapped surface waterways within the proposed project limits.

Stream Bed and Bank Protection -

Based upon a review of the NYSDEC GIS database, and as verified by a site visit, there are no protected streams, nor 50-foot regulated stream banks (on either side of a regulated stream) in the Study Area.

4.4.3 Wild, Scenic, and Recreational Rivers

State Wild, Scenic and Recreational Rivers -

There are no NYSDEC Designated, Study, or Inventory State Wild, Scenic or Recreational Rivers within or adjacent to the Study Area. No further review is required.

National Wild and Scenic Rivers -

The project does not involve a National Wild and Scenic River as shown by the Nationwide Rivers Inventory List of National Wild and Scenic Rivers. No further review is required.

4.4.4 Navigable Waters**State Regulated Waters -**

There are no state regulated navigable waters located within the project's area of potential effect that will be impacted by the work.

Office of General Services Lands and Navigable Waters -

There are no OGS underwater holdings located within the Study Area that will be impacted by the project.

Rivers and Harbors Act – Section 9 -

Since the project does not involve the construction or modification of any bridge, dam, dike, or causeway over any navigable water of the United States, Section 9 is not applicable.

Rivers and Harbors Act – Section 10 -

Since the project does not involve the creation of any obstruction to the navigable capacity of any of the waters of the United States, or in any manner alter or modify the course, location, condition, or capacity of any navigable water of the United States, Section 10 is not applicable.

4.4.5 Floodplains**State Flood Insurance Compliance Program -**

The eastern portion of the Study Area (east of Main Street) is within the 100-year floodplain of the Mohawk River, as indicated by the FEMA Flood Insurance Rate Map (see Appendix B). In accordance with the provisions of 6 NYCRR 502 - Flood Plain Management for State Projects, this action has considered and evaluated the practicality of alternatives to any floodplain encroachments. As a result of this evaluation, it is concluded that: (1) a significant encroachment does not exist, (2) there is no significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles, (3) there are no significant impacts on natural beneficial floodplain values.

If work is proposed within the floodplain, it is expected that a floodplain hydraulic analysis will be performed by the design-builder during the advance detail plan phase.

Executive Order 11988 -

In order to comply with EO 11988, there will be an evaluation of potential effects of any actions taken within the floodplain, and alternatives to avoid any adverse effects shall be considered. If the project alternatives require the use of a floodplain, there will be an attempt to minimize potential impacts, and consistent with the regulations issued in accord with section 2(d) of this Order, an explanation of why the action is proposed to be located within the floodplain will be prepared and circulated.

4.4.6 Coastal Resources

State Coastal Zone Management Program –

The proposed project is not located in a State Coastal Zone Management (CZM) area, according to the Coastal Zone Area Map from the NYS Department of State's Coastal Zone Management Unit.

State Coastal Erosion Hazard Area -

The proposed project is not located in or near a Coastal Erosion Hazard Area.

Waterfront Revitalization and Coastal Resources Program -

According to NYS DOS "List of Approved Coastal Local Waterfront Revitalization Programs (LWRPs)," dated July 2016, the proposed project is not located in a Local Waterfront Revitalization Area. No further action is required.

Federal Coastal Barrier Resources Act (CBRA) and Coastal Barrier Improvement Act (CBIA) -

The proposed project is not located in, or near a coastal area under the jurisdiction of the Coastal Barrier Resources Act (CBRA) or the Coastal Barrier Improvement Act (CBIA).

4.4.7 Groundwater Resources, Aquifers, and Reservoirs

Aquifers -

NYSDEC aquifer GIS data files have been reviewed, and it has been determined that the proposed project is not located in an identified Primary Water Supply or Principal Aquifer Area. No further investigation for NYSDEC designated aquifers is required.

Drinking Water Supply Wells (Public and Private Wells) and Reservoirs -

There are no municipal drinking water wells, wellhead influence zones, or reservoirs within or near the project area, according to the *NYS Atlas of Community Water System Sources*, dated 1982, issued by the NYS Department of Health and the NYS Department of Environmental Conservation Water Wells GIS data.

In January 2017, Environmental Data Resource, Inc. was contracted by EDR to provide a listing of published databases of hazardous waste sites in the vicinity of the Study Area. These databases also include a listing of physical setting sources, such as water wells and public water supply wells as identified by a review of Federal, State and local databases. The environmental database report indicates that no wells are located within 0.25 mile of the Study Area. No public water supply wells were identified within one mile of the Study Area.

4.4.8 Stormwater Management

A SPDES General Permit GP-0-15-002 will be required because the project includes more than one acre of soil disturbance. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed. Based on the SWPPP, permanent stormwater management practices will be required due to greater than 1 acre total disturbance and changes in total impervious area.

4.4.9 General Ecology and Wildlife Resources

The Study Area encompasses a NYSTA Thruway bridge and portions of the Thruway and Oriskany Boulevard in a highly disturbed, urban area. The Study Area includes primarily paved roadways with mowed lawn and shrubs along the right-of-way, and provides very limited habitat opportunities for wildlife.

Fish, Wildlife, and Waterfowl -

A cursory review of the Study Area indicates that there is not a special habitat or breeding area for certain species of plants or animals at or adjacent to the project.

Habitat Areas, Wildlife Refuges, and Wildfowl Refuges -

The proposed project is 100% State funded; therefore, Section 4(f) of the US Department of Transportation Act does not apply.

Endangered and Threatened Species -

Information regarding the occurrence of rare, threatened, and endangered species and significant natural communities in the project area was solicited from the New York Natural Heritage Program (NYNHP) and the U.S. Fish and Wildlife Service (USFWS). Consultation with the USFWS through the Information, Planning, and Conservation (IPaC) decision support system was conducted. The USFWS Official Species List (see Appendix B) indicated that one Federally Threatened species could potentially be present in the vicinity of the Study Area: the northern long-eared bat (*Myotis septentrionalis*).

No clearing of trees greater than 3 inches in diameter at breast height is expected to be required for this project. Further, no evidence of bats was noted under the bridge during the site reconnaissance (guano, staining, etc.). As such, the project is not expected to impact habitat suitable for the northern long-eared bat. If it is determined during detailed design that clearing of trees greater than 3 inches in diameter at breast height is required, clearing activities will only be permitted during the winter clearing period of October 31st through March 31st.

According to the NYNHP, this office does not have any records of known occurrences of rare, or state-listed animals or plants, or significant natural communities within or immediately in the vicinity of the proposed project site.

Invasive Species -

This project includes an interstate highway bridge over Oriskany Boulevard, and associated rights of way.

During the site reconnaissance for the project, typical roadside invasive species were identified at ground level including, but not limited to: common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), mugwort (*Artemisia vulgaris*), garlic mustard (*Alliaria petiolata*), and bush honeysuckle (*Lonicera* sp.). The lot at the northeast corner of the Thruway and Main Street adjacent to Wetland B was also noted to contain a significant quantity of Japanese knotweed (*Reynoutria japonica*).

Precautions will be taken to prevent the spread of invasive species, intentionally or accidentally, during project design and construction.

Roadside Vegetation Management -

Existing roadside vegetation consists primarily of maintained lawn areas and shrubs. Efforts will be made to replace wildlife-supporting vegetation that is removed in the course of construction.

4.4.10 Critical Environmental Areas

State Critical Environmental Areas –

According to information obtained from NYSDEC, the proposed project does not involve work in or near a Critical Environmental Area.

State Forest Preserve Lands -

According to information obtained from NYSDEC, the proposed project does not involve work in or near state forest preserve lands.

4.4.11 Historic and Cultural Resources

National Heritage Areas Program -

The proposed project will not impact areas identified as National Heritage Areas.

National Historic Preservation Act – Section 106 / State Historic Preservation Act – Section 14.09 -

A Project Submittal Package (PSP) has been prepared for the proposed project (see Appendix B). The PSP will be submitted to the Thruway's Preservation Officer for review.

Architectural Resources -

As stated in the PSP, the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Cultural Resources Information System (CRIS) website was reviewed to determine the location of properties listed on the National Register of Historic Places (NRHP) within and immediately adjacent to the Area of Potential Effect (APE).

No properties previously listed on, or determined eligible for, the NRHP are located within the APE. Therefore, the proposed project is not anticipated to affect historic properties previously listed on or eligible for listing in the NRHP.

Archaeological Resources -

As stated in the PSP, review of the NYSOPRHP CRIS website determined that the APE is not located in an archaeologically sensitive area, and there are no previously reported archaeological sites in the APE. In addition, no previous cultural resources surveys have been conducted within or immediately adjacent to the proposed APE.

A review of historic aerial photographs indicates that the land within and adjacent to the APE has been heavily disturbed by the construction of the New York State Thruway in the early to mid-1950s. The APE for the proposed project is considered to have low archaeological sensitivity for historic and prehistoric cultural resources, and the proposed project is not expected to impact archaeological resources.

Historic Bridges -

The 2002 New York State Department of Transportation (NYSDOT) *Evaluation of National Register Eligibility: Task C3 of the Historic Bridge Inventory and Management Plan* does not identify BIN 5009929 as eligible for listing on the NRHP.

Historic Parkways -

This project does not have the potential to impact Historic Parkways.

Native American Involvement -

The proposed project does not lie within Federal or Native-American-owned property. Further, the project is 100% State funded; therefore, the Act for the Preservation of American Antiquities does not apply.

Section 4(f) Involvement -

The proposed project is 100% State funded; therefore, Section 4(f) of the U.S. Department of Transportation Act does not apply.

4.4.12 Parks and Recreational Resources

State Heritage Area Program -

The proposed project will not impact areas identified as State Heritage Areas.

National Heritage Areas Program -

The proposed project will not impact areas identified as National Heritage Areas.

National Registry of Natural Landmarks -

There are no listed nationally significant natural areas within, or adjacent to, the project area.

Section 4(f) Involvement -

The proposed project is 100% State funded. This section does not apply.

Section 6(f) Involvement -

The project does not impact parklands or facilities that have been partially or fully federally funded through the Land and Water Conservation Act. No further consideration under Section 6(f) is required.

Section 1010 Involvement -

This project does not involve the use of land from a park to which Urban Park and Recreation Recovery Program funds have been applied.

4.4.13 Visual Resources

The project will involve a temporary disturbance to the visual environment through the establishment of a project construction staging area. The staging area will be in place during construction and will be removed upon project completion. The bridge replacement will have a similar appearance in terms of span, design, and materials as the existing bridge. No significant permanent visual impacts are anticipated from the project.

4.4.14 Farmlands**State Farmland and Agricultural Districts -**

Based on a review of the NYS Agricultural District Maps for Oneida County, the proposed project is not located in or adjacent to an Agricultural District.

Federal Prime and Unique Farmland -

The proposed project is 100% State funded; therefore, the Federal Farmland Protection Policy Act does not apply.

4.4.15 Air Quality**Transportation Conformity –**

The project is not located within a non-attainment area; therefore, the transportation conformity regulations, published by the EPA on August 15, 1997 (40 CFR Parts 51 and 93), do not apply.

Carbon Monoxide (CO) Microscale Analysis -

An air quality analysis for CO is not required since this project will not increase traffic volumes, reduce source-receptor distances by 10% or more, or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards. The project does not require a project-level conformity determination.

Mesoscale Analysis -

A Mesoscale Analysis is not required for this project since it does not significantly affect air quality conditions over a large area and is not a regionally significant project.

Mobile Source Air Toxics (MSATs) Analysis -

This project modifies existing highway infrastructure and does not add capacity or new interchanges that would contribute to additional vehicular usage. It can therefore be concluded that the project will have no significant adverse impact on ambient MSAT levels.

Particulate Matter (PM) Analysis -

This project has been classified as a SEQR Type II project and has been determined to result in no significant increase in traffic volumes. The project actions do not individually or cumulatively have a significant effect on PM emissions. It can therefore be concluded that the project will have no significant adverse impact on ambient PM levels.

Greenhouse Gas Analysis –

This project will not add capacity or new interchanges that will result in additional vehicular usage. It can therefore be concluded that the project will have no significant adverse impact on ambient greenhouse gas levels.

4.4.16 Energy

Construction of the project will involve the use of energy in the form of fuel for construction equipment. The completed project involves no direct energy consumption.

4.4.17 Noise

Construction equipment operation will cause noise levels to temporarily increase. The completed project will not significantly change either the horizontal or vertical alignment of the bridge, or increase the number of through-traffic lanes. Therefore, no long-term noise impact will occur as a result of the project.

4.4.18 Asbestos

An asbestos screening has been performed for this project which reviewed the “as-builts” of the utilities and the bridge. Based on the materials revealed from the screening, an Asbestos Assessment was performed and it has been determined that there are areas of positively identified asbestos material: the patches around the bearings on each end of the bridge. See the attached Hazardous Materials Screening Report for sampling and laboratory results.

4.4.19 Lead

4.4.19.1 Screening

A screening for lead has been performed for this project which reviewed the “as built” for the bridge to identify the potential for lead containing materials. It has been determined from the review that there are areas of positively identified lead material: the pads under the bridge bearings and at diaphragm connections to girders. See the attached Hazardous Materials Screening Report for sampling and laboratory results.

4.4.20 PCBs

4.4.20.1 Screening

A screening for PCBs has been performed for this project and it has been determined that there are no positively identified PCB containing materials. See the attached Hazardous Materials Screening Report for the sampling and laboratory results.

4.4.19 Hazardous Waste and Contaminated Materials

A Hazardous Waste/Contaminated Materials Site Screening has been conducted in accordance with the NYSDOT Environmental Procedures Manual, Chapter 5, to document the likely presence or absence of hazardous/contaminated environmental conditions. A hazardous/contaminated environmental condition is the presence or likely presence of any hazardous substances or petroleum products (including products currently in compliance with applicable regulations) on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

The Hazardous Waste/Contaminated Materials Screening is included in Appendix B.

This assessment included a walkover reconnaissance of the Study Area on November 10, 2016, a review of existing information about past and current land use, and a review of published databases and government records, including Inactive Hazardous Waste Site Registry, Chemical and Petroleum Bulk Storage records, waste incident/chemical releases reports, and other federal, state, county, and local sources of information. In January 2017, Environmental Data Resource, Inc. was contracted by EDR to provide a listing of published databases of hazardous waste sites in the vicinity of the Study Area. These databases provide a listing of sites of potential concern as identified by a review of Federal, State and local databases. This database review was supplemented with a review of published databases available through the NYSDEC web site. The environmental database report is available upon request.

The conclusions of this screening included the following:

A marker indicating the presence of a buried petroleum pipeline was observed along Watkins Street, adjacent to the Study Area. Based on the location of this marker, it is expected that the buried petroleum pipeline runs parallel to the Thruway in an east/west direction adjacent to the Study Area. Prior to excavations for the proposed Project, the location of the pipeline should be confirmed to avoid potential impacts to this pipeline.

Murnane Associates, Inc., a commercial building contractor, is located adjacent to the Study Area to the north of the Thruway. A storage yard on this parcel was noted to contain building supplies as well as several 55-gallon drums. This property is a registered Petroleum Bulk Storage facility, and reportedly has one current 1,000-gallon fuel oil Underground Storage Tanks (UST). This facility also has reportedly had historic USTs containing gasoline. No spills or releases have been reported for this

adjacent property. However, due to the use of oil and/or hazardous materials (OHM) and proximity to the Study Area, soils excavated adjacent to this parcel should be observed for potential evidence of contamination. As needed, appropriate sampling is recommended.

The property located at 259 Oriskany Boulevard was identified several times on the database report as a former gas station and auto repair facility with leaking USTs. This parcel is occupied by CMT Auto Sales and Recreation, and reportedly conducts sales and repair of vehicles. One New York State Department of Environmental Conservation (NYSDEC) spill remains open for this property. Based on current operations and open releases at this facility, this property is considered a potential threat to soil and/or groundwater contamination. However, it is located over 400 feet south of the Study Area, and topographically cross to downgradient of the Study Area. It is unlikely that significant contamination from this property has migrated onto the Study Area. However, if excavation at the southern portion of the Study Area results in visual or olfactory evidence of contamination, appropriate sampling is recommended.

Whitesboro Spring Services at 247-253 Oriskany Boulevard is an active auto repair facility that has had several reported releases of OHM. Although extensive remediation at this site has been reported, reported releases for the property remain open in the NYSDEC records. Based on current operations and open releases at this facility, this property is considered a potential threat to soil and/or groundwater contamination. However, it is located over 500 feet south of the Study Area, and topographically cross to downgradient of the Study Area. It is unlikely that significant contamination from this property has migrated onto the Study Area. If excavation at the southern portion of the Study Area results in visual or olfactory evidence of contamination, appropriate sampling is recommended.

No other significant hazardous waste/contaminated materials were identified within or adjacent to the Study Area during the course of the Hazardous Waste/Contaminated Materials Site Screening.

4.5 Construction Effects

4.5.1 Construction Impacts

Construction of the proposed project is expected to include traditional construction methods and products. The impacts of construction can therefore be reasonably anticipated and mitigated by using conventional methods. Construction impacts are temporary in nature. Temporary soil erosion and increased dust may occur from disturbance of soils during construction activities. Soil erosion and runoff can impact the water quality of nearby surface water bodies. A site-specific Stormwater Pollution Prevention Plan (SWPPP) will be developed that will include soil erosion control, dust control, and runoff control measures.

Construction of the proposed project may also have temporary noise impacts. The proposed project is a portion of the mainline of the NYS Thruway, and surrounding properties are largely commercial and/or residential in nature. Temporary noise impacts are not expected to have a significant adverse impact on nearby businesses and residences.

4.6 Indirect and Secondary Effects

4.6.1 Indirect Socioeconomic Effects

The proposed project is a replacement of an existing bridge in the same location; therefore, the project is not expected to have indirect social or economic effects.

4.6.2 Social Consequences

The proposed project is a replacement of an existing bridge in the same location; therefore, the project will not affect land use, planning, or zoning. Existing adjacent properties will be minimally affected and no social groups will be harmed.

4.6.3 Economic Consequences

The proposed project is a replacement of an existing bridge in the same location; therefore, the project will not affect the regional or local economies. No business districts will be impacted, and no businesses will be relocated. Any economic impacts associated with the project will be minimal and temporary, resulting from construction impacts.

4.7 Cumulative Effects

No adverse cumulative effects are anticipated to result from the proposed project.

Appendix A Concept Plans

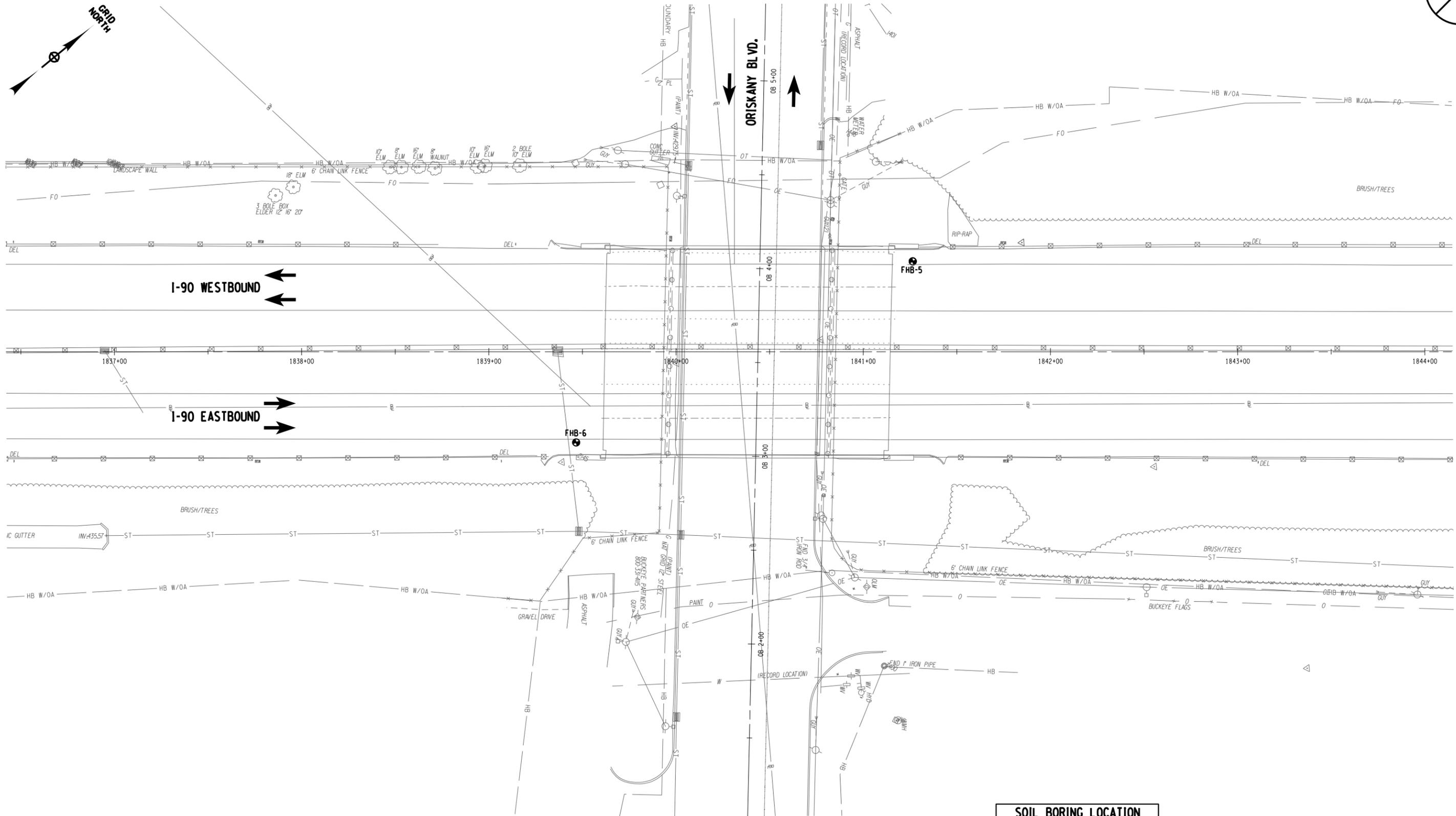
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DRAFTED BY:

CHECKED BY:

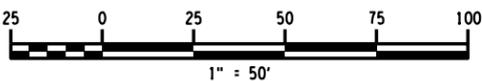
DESIGNED BY:

DESIGN SUPERVISOR:



SOIL BORING LOCATION PLAN
SCALE: 1" = 50'

| SOIL BORING LOCATION | | |
|----------------------|------------|-------------|
| BORING | LATITUDE | LONGITUDE |
| FHB-5 | 43.1301078 | -75.3005751 |
| FHB-6 | 43.1296622 | -75.3010377 |



| REVISIONS | | | |
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| DATE | DESCRIPTION | BY | SYM. |
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| | | | |
| | | | |

NEW YORK STATE OF OPPORTUNITY

Thruway Authority

FISHER ASSOCIATES

TITLE OF PROJECT
I-90 EASTBOUND AND WESTBOUND OVER ORISKANY BLVD. (BIN 5009929)

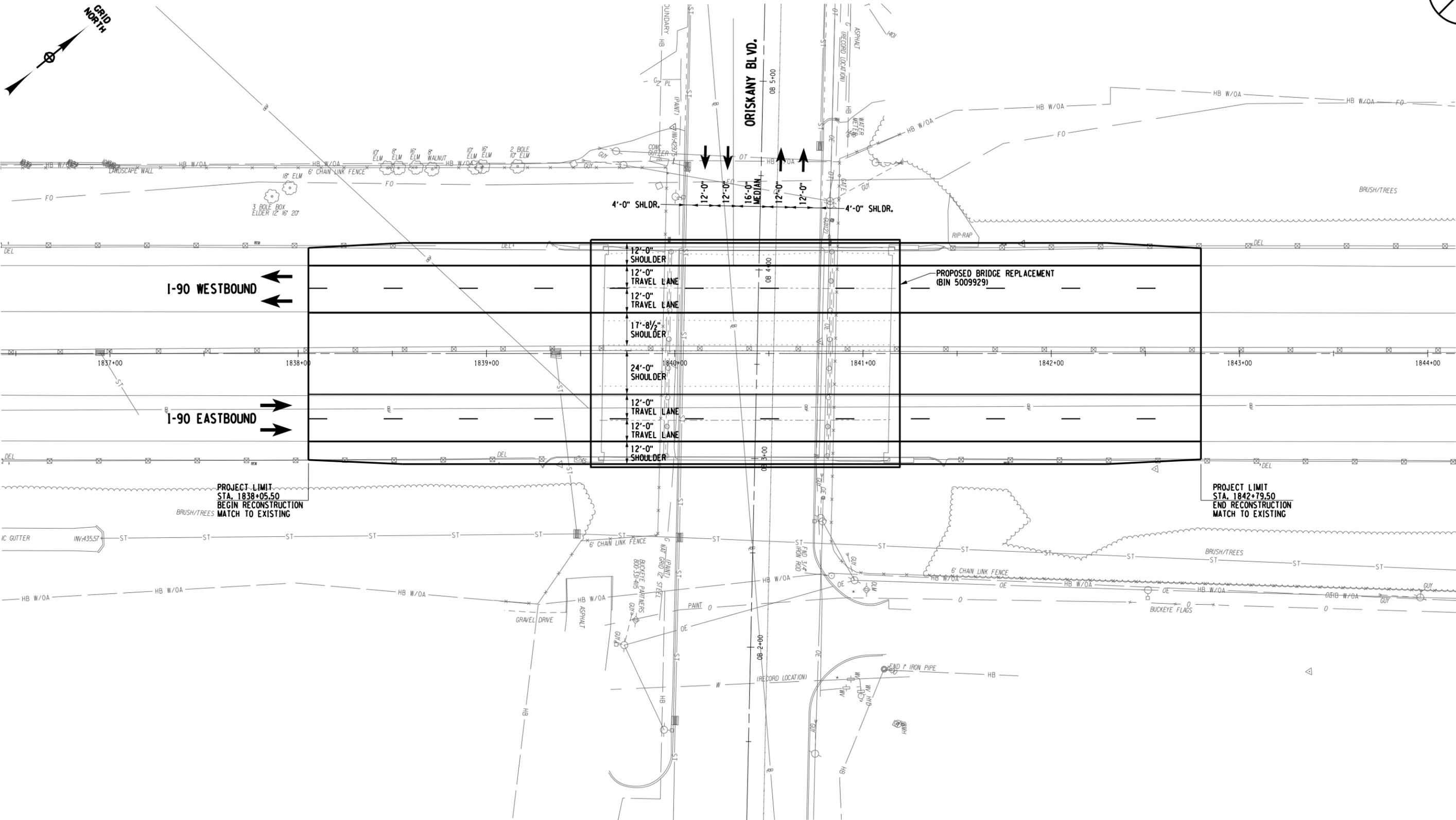
LOCATION OF PROJECT
SYRACUSE DIVISION
M.P. 238.22

TITLE OF DRAWING
BORING LOCATION PLAN

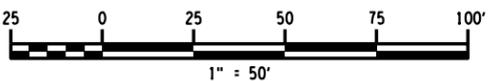
CONTRACT NUMBER:
TAB-17-XX

DATE:
06/07/17

DRAWING NUMBER:
BP-03



PROPOSED BRIDGE PLAN
SCALE: 1" = 50'



| REVISIONS | | | |
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| DATE | DESCRIPTION | BY | SYM. |
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NEW YORK STATE OF OPPORTUNITY

Thruway Authority

FISHER ASSOCIATES

TITLE OF PROJECT
I-90 EASTBOUND AND WESTBOUND OVER
ORISKANY BLVD. (BIN 5009929)

LOCATION OF PROJECT
SYRACUSE DIVISION
M.P. 238.22

TITLE OF DRAWING
PROPOSED BRIDGE PLAN

CONTRACT NUMBER:
TAB-17-XX

DATE:
06/07/17

DRAWING NUMBER:
PL-01

CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR:

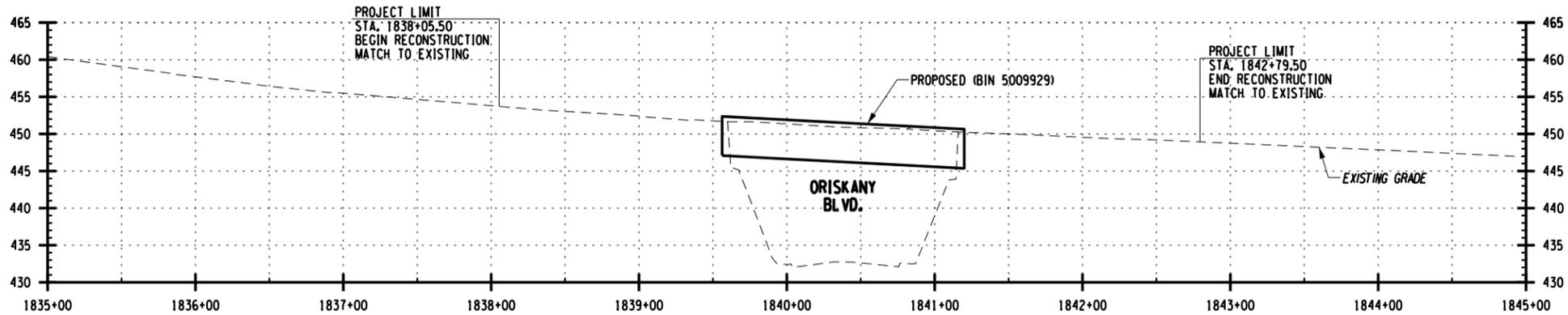
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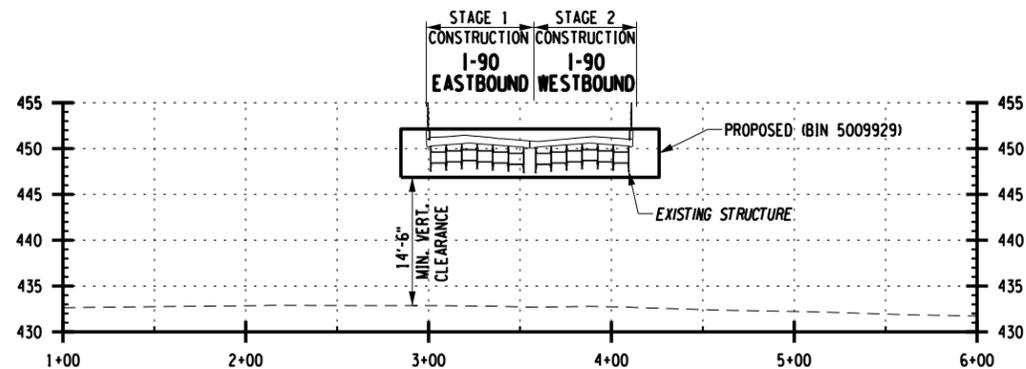
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DESIGNED BY:

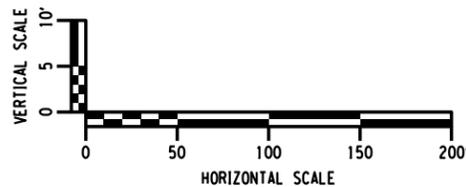
DESIGN SUPERVISOR:



NEW YORK STATE THRUWAY



ORISKANY BLVD.



| REVISIONS | | | |
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TITLE OF PROJECT
I-90 EASTBOUND AND WESTBOUND OVER
ORISKANY BLVD. (BIN 500929)

LOCATION OF PROJECT
SYRACUSE DIVISION
M.P. 238.22

TITLE OF DRAWING
ROADWAY
PROFILES

CONTRACT NUMBER:
TAB-17-XX

DATE:
06/07/17

DRAWING NUMBER:
PRO-01

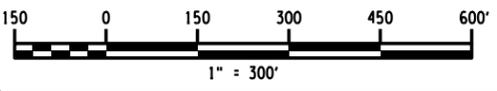
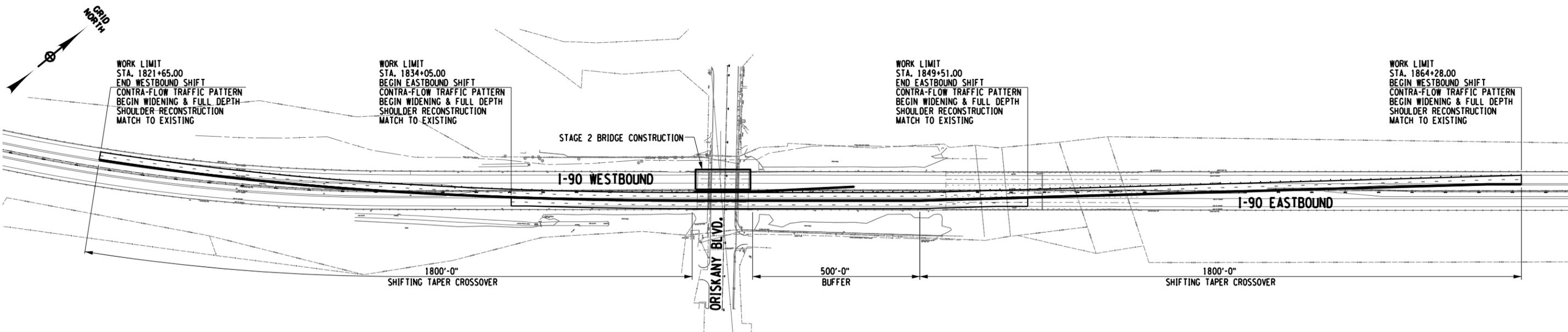
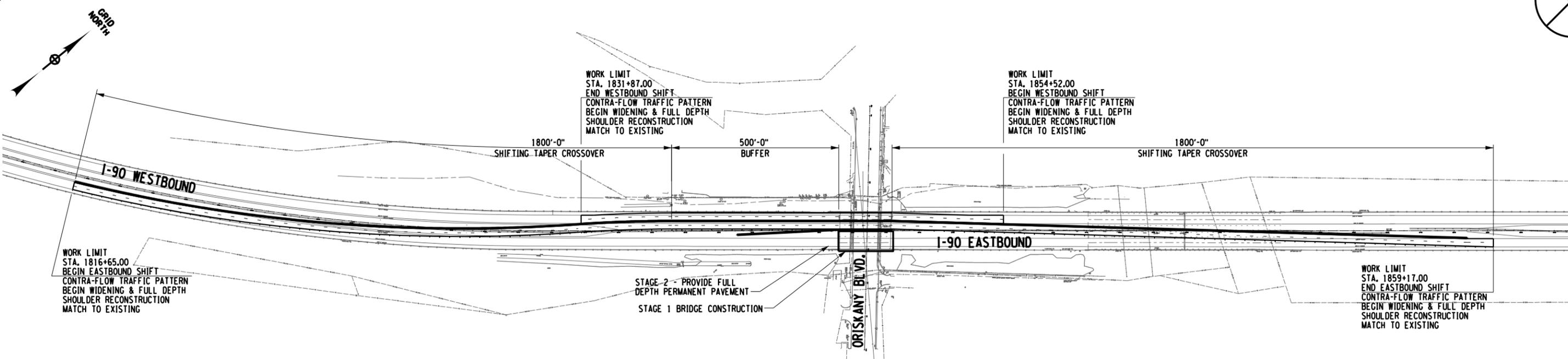
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DESIGNED BY:

DESIGN SUPERVISOR:



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| TITLE OF PROJECT I-90 EASTBOUND AND WESTBOUND OVER ORISKANY BLVD. (BIN 5009929) | CONTRACT NUMBER: TAB-17-XX |
| LOCATION OF PROJECT SYRACUSE DIVISION M.P. 238.22 | DATE: 06/07/17 |
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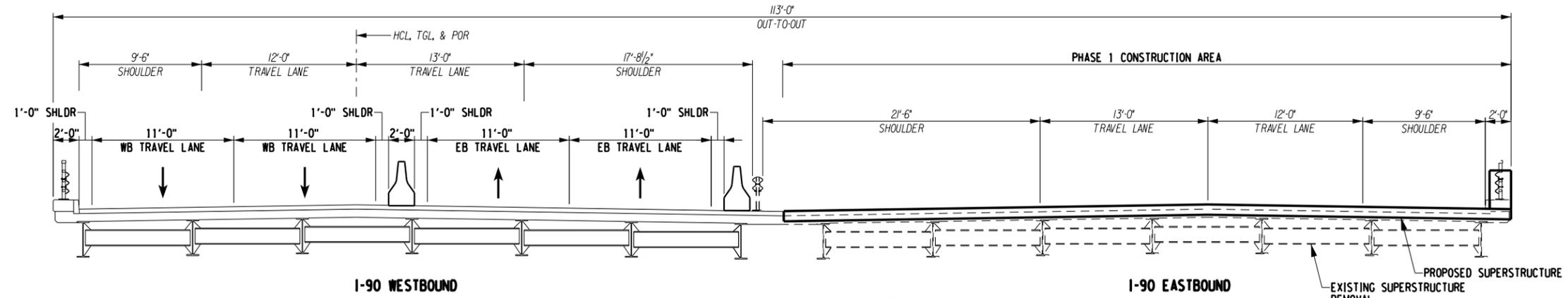
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DRAFTED BY:

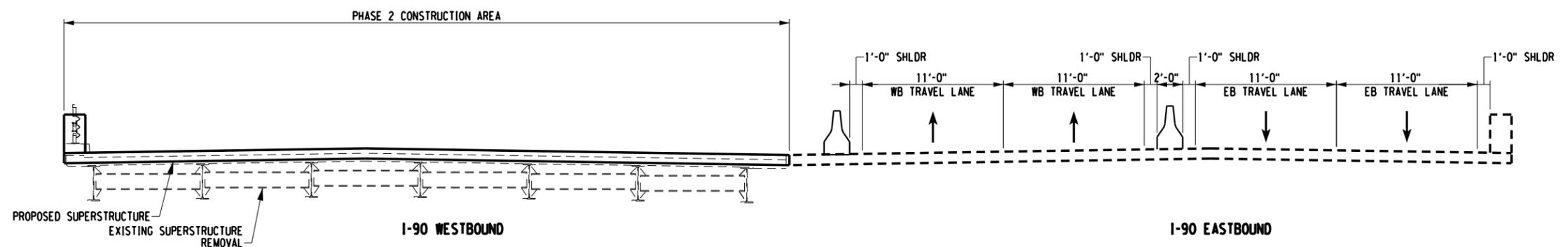
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DESIGNED BY:

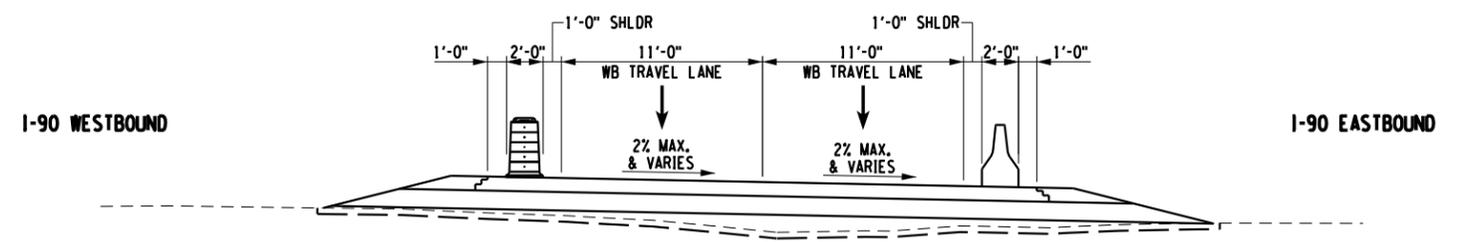
DESIGN SUPERVISOR:



PHASE 1 EASTBOUND CROSSOVER BRIDGE SECTION



PHASE 2 WESTBOUND CROSSOVER BRIDGE SECTION



TYPICAL TWO LANE MAINLINE CROSSOVER
WESTBOUND CROSSOVER SHOWN, EASTBOUND SIMILAR

| REVISIONS | | | |
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| DATE | DESCRIPTION | BY | SYMBOL |
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Thruway Authority


TITLE OF PROJECT
 I-90 EASTBOUND AND WESTBOUND OVER
 ORISKANY BLVD. (BIN 5009929)
 LOCATION OF PROJECT
 SYRACUSE DIVISION
 M.P. 238.22
 TITLE OF DRAWING
 TYPICAL STAGING SECTIONS
 I-90 EASTBOUND CROSSOVER
 I-90 WESTBOUND CROSSOVER

CONTRACT NUMBER:
 TAB-17-XX
 DATE:
 06/07/17
 DRAWING NUMBER:
 WZTYP-01

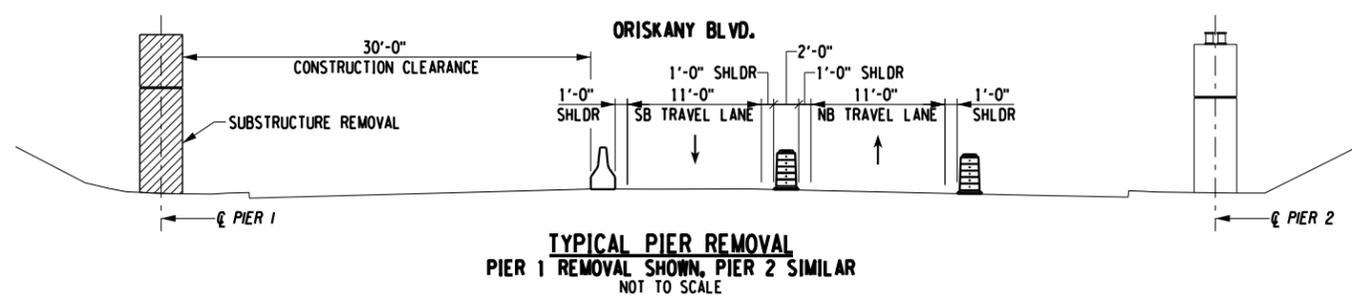
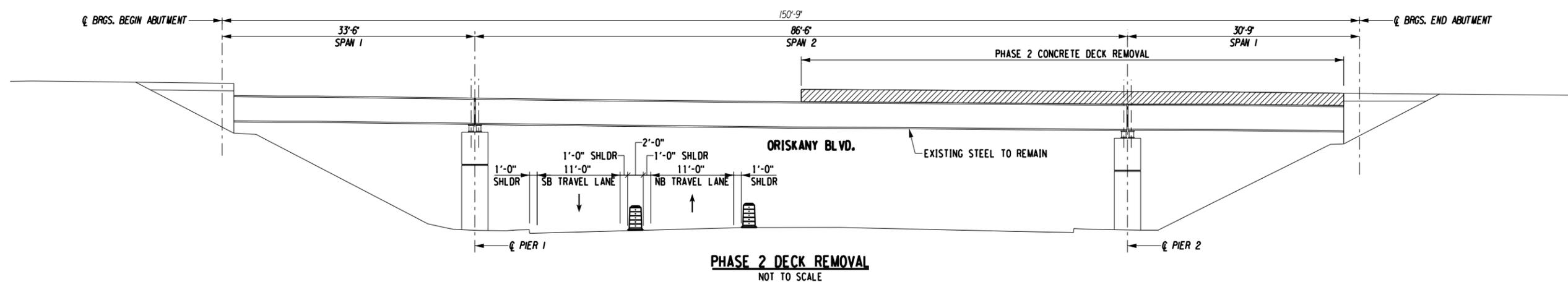
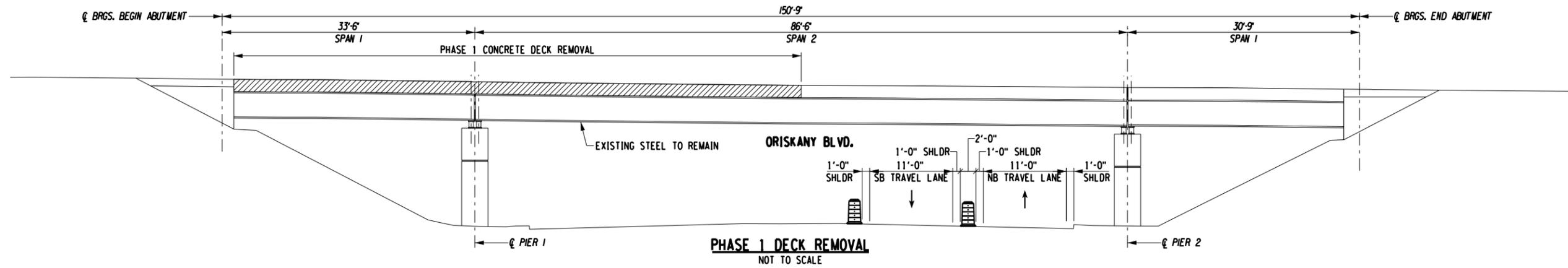
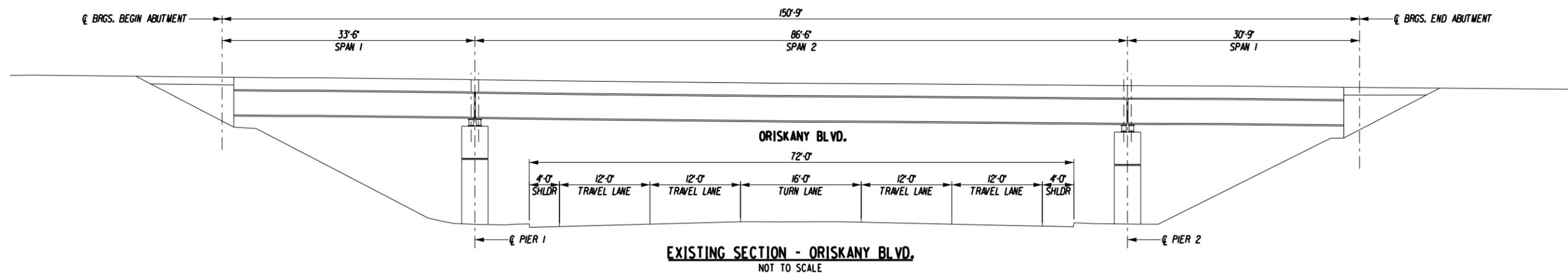
CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR:



NOTES:
 1. SUPERSTRUCTURE STEEL REMOVAL AND SETTING OF NEW STEEL TO BE DONE UNDER FULL ROAD CLOSURE OF ORISKANY BLVD.

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| TITLE OF PROJECT I-90 EASTBOUND AND WESTBOUND OVER ORISKANY BLVD. (BIN 5009929) | CONTRACT NUMBER: TAB-17-XX |
| LOCATION OF PROJECT SYRACUSE DIVISION M.P. 238.22 | DATE: 06/07/17 |
| TITLE OF DRAWING STAGING SECTIONS ORISKANY BLVD. | DRAWING NUMBER: WZTYP-02 |

Appendix B Environmental Agency Correspondence

**HAZARDOUS WASTE-CONTAMINATED MATERIALS
TECHNICAL MEMORANDUM**

for

NEW YORK STATE THRUWAY AUTHORITY

**D214385 BIN 5009929
I-90 OVER ORISKANY BLVD
TOWN OF WHITESBORO
ONEIDA COUNTY**

Prepared by:



February 2017

TABLE OF CONTENTS

| | | |
|------------|---|----------|
| 1.0 | INTRODUCTION | 1 |
| 1.1 | Purpose and Scope | 1 |
| 1.2 | Background | 1 |
| 2.0 | MATERIAL SAMPLING AND LABORATORY METHODOLOGY | 2 |
| 3.0 | SAMPLE RESULTS AND LOCATIONS..... | 2 |
| 3.1 | Asbestos Containing Materials | 2 |
| 3.2 | Lead Containing Materials (LCMs)..... | 3 |
| 3.3 | Polychlorinated Biphenyls (PCBs) | 4 |
| 4.0 | QUANTITY ESTIMATES | 4 |
| 4.1 | Asbestos..... | 4 |
| 4.2 | Lead..... | 4 |
| 4.2 | PCBs..... | 5 |
| 5.0 | CONCLUSIONS..... | 5 |
| 5.1 | Asbestos..... | 5 |
| 5.2 | Lead..... | 5 |
| 5.3 | PCBs..... | 5 |

Appendices

Appendix A – Project Location Map

Appendix B – Fisher Associates’ Certifications and Laboratory Accreditation

Appendix C – Laboratory Analytical Data

Appendix D – Sample Location Plans

Appendix E – Hazardous Material Location Plans

1.0 INTRODUCTION

Fisher Associates P.E., L.S., L.A., D.P.C. (“Fisher Associates”) is working with Stantec Consulting Services, Inc. (Stantec), and the New York State Thruway Authority (NYSTA), to prepare this Hazardous Materials Technical Memorandum, here after referred to as HMTM, in technical support of the proposed replacement of the I-90 Thruway bridge over Oriskany Boulevard in the Town of Whitesboro, Oneida County, New York. The project area was investigated on December 1, 2016 as part of the project. The project location is shown on the Project Location Map in Appendix A.

1.1 Purpose and Scope

The purpose of this HMTM is to identify asbestos-containing materials (ACMs), lead based paint (LBP), lead containing materials (LCMs), and polychlorinated biphenyls (PCBs), collectively known as Hazardous Waste Contaminated Materials (HWCM), within the bridge rehabilitation project corridor, and to develop quantity estimates for abatement of identified HWCMs.

1.2 Background

This HMTM is consistent with the requirements outlined in the NYSDOL Industrial Code Rule 56 (Code Rule 56), which requires an asbestos pre-demolition survey and asbestos abatement to be performed prior to any alterations, renovations or demolition.

1.3 Records Review Activities

Fisher Associates received no previous sampling reports to review. As-built drawings of the bridge were reviewed to identify potential ACM sample locations and for the presence of lead containing materials such as bearing pads or joint spacers.

1.4 Summary of Findings

Table 1.1 summarizes those materials found to be positive for ACM, LBP, and/or PCBs based on current sample analysis. Added detail is presented in the following sections.

Table 1.1
Summary of Findings
I-90 Mainline over Oriskany Blvd

| Sample Identification | Material | Sample Location | Approx. Quantity |
|-----------------------|-------------|-----------------|------------------|
| LBP-2 | Green Paint | Guard Railings | 490 SF |

2.0 MATERIAL SAMPLING AND LABORATORY METHODOLOGY

A NYSDOL-certified asbestos inspector from Fisher Associates collected bulk samples of suspect asbestos-containing materials (ACMs) on December 1, 2016. Bulk samples were collected using hand tools from each matrix identified as a potential ACM. Additionally, paint samples were collected and analyzed for lead, and caulking/adhesive materials were collected and analyzed for PCBs. Upon completion of the sampling, a chain-of-custody form was completed for the materials sampled.

Samples were delivered under standard chain-of-custody protocol to Paradigm Environmental Services, Inc. (Paradigm), a New York State Department of Health (NYSDOH) certified laboratory. The procedures followed are in accordance with the NYSDOH Environmental Laboratory Approval Program (ELAP). New York State Department of Labor (NYSDOL) Code Rule 56 defines materials containing greater than one percent (1%) asbestos by weight as being Asbestos Containing Materials.

The paint samples were analyzed via SW846 Method 3050 /6010 to determine the lead content of the paints. Those materials having a concentration equal or greater than 0.5% by weight in lead are considered to be lead based.

The materials sampled for PCBs were analyzed by USEPA Method 8082. According to the USEPA, materials containing greater than fifty (50) parts per million (ppm) are considered PCB-containing.

Copies of Fisher Associates' Asbestos Handling License, the Asbestos Inspector's certification, and the Laboratory's Accreditation are in Appendix B. Copies of the laboratory's analytical results are included in Appendix C. The Sample Location Plans are included in Appendix D. The Hazardous Material Locations Plans are included in Appendix E.

3.0 SAMPLE RESULTS AND LOCATIONS

3.1 Asbestos Containing Materials

Table 3.1 provides a summary of the laboratory analytical results for the samples collected from the building materials identified on and around the bridge structure and nearby roadway that may be disturbed. Those samples identified as being ACMs (greater than one percent asbestos) are shaded in the table. Refer to the Sample Location Plans in Appendix D for locations of sample collection.

Table 3.1
Summary of Samples Collected and Results
I-90 Mainline over Oriskany Blvd

| Sample Identification | Material | Sample Location | % Asbestos |
|-----------------------|-------------|-----------------------|------------|
| 1-A | Green Paint | Outside Bridge Girder | NAD |
| 1-B | Green Paint | Outside Bridge Girder | NAD |

| Sample Identification | Material | Sample Location | % Asbestos |
|-----------------------|------------------------|--|------------------|
| 2-A | Green Paint | Guard Railings | NAD |
| 2-B | Green Paint | Guard Railings | NAD |
| 3-A | Grey Paint | Underside of Bridge, Inside Girders | NAD |
| 3-B | Grey Paint | Underside of Bridge, Inside Girders | NAD |
| 4-A | White Paint | Concrete Abutments | NAD |
| 4-B | White Paint | Concrete Abutments | NAD |
| 5-A | Black Tar Paper | B/w Abutments | Wollastonite 45% |
| 5-B | Black Tar Paper | B/w Abutments | Wollastonite 40% |
| 7-A | Black Fibrous Material | B/w Abutments Joints and Wingwall Joints | NAD |
| 7-B | Black Fibrous Material | B/w Abutments Joints and Wingwall Joints | NAD |
| 8-A | Black Caulk | Top of Wingwall | NAD |
| 8-B | Black Caulk | Top of Wingwall | NAD |
| 9-A | Black Waterproofing | Base of Concrete Piers | N/A |
| 9-B | Black Waterproofing | Base of Concrete Piers | NAD |

3.2 Lead Containing Materials (LCMs)

Table 3.2 below lists the sample Identification, the type of material, the sample location, and the percent of lead for each sample. Those samples identified as being Lead Based Paint (LBP), having a concentration of 0.5% by weight or greater, are shaded in the table.

Table 3.2
Summary of Lead Based Paint Samples Collected and Results
I-90 Mainline over Oriskany Blvd

| Sample Identification | Material | Sample Location | Lead (% by weight) |
|-----------------------|-------------|---------------------------------------|--------------------|
| LBP-1 | Green Paint | Outside of Bridge Girder | 0.0101 |
| LBP-2 | Green Paint | Guard Railing | 6.94 |
| LBP-3 | Grey Paint | Underside of Bridge, Inside of Girder | 0.0136 |
| LBP-4 | White Paint | Concrete Abutments | 0.00962 |

3.3 Polychlorinated Biphenyls (PCBs)

Fisher Associates collected samples of caulking materials from representative locations. The samples were collected from materials that typically would have had petroleum-like products intermixed to prevent the caulking materials from drying out.

Table 3.3
Summary of PCB Samples Collected and Results
I-90 Mainline over Oriskany Blvd

| Sample Identification | Material | Sample Location | PCBs (mg/Kg=ppm) |
|-----------------------|----------|--------------------------------|------------------|
| PCB-8 | Caulk | Top of Abutment/Wingwall Joint | < 4.95 |

4.0 QUANTITY ESTIMATES

This section summarizes estimated quantities of the positively identified ACMs, LBPs, and/or PCBs found in the various materials sampled during the assessment. The approximate locations and extent of the ACMs are shown on the Sample Location Plans shown in Appendix D.

4.1 Asbestos

Potential ACMs were sampled by Fisher Associates and tested via laboratory analysis. None of the samples analyzed are considered to be ACMs.

4.2 Lead

Samples were collected of potential lead-containing materials during the investigation conducted by Fisher Associates and tested via laboratory analysis. Samples of green paint from the bridge guard railings tested positive as LBP.

Table 4.1
Summary Quantities of Lead-Containing Materials
I-90 Mainline over Oriskany Blvd

| Sample Identification | Material | Location | Approximate Quantity |
|-----------------------|-------------|----------------|----------------------|
| LBP-2 | Green Paint | Guard Railings | 490 SF |

4.3 PCBs

The investigation conducted by Fisher Associates also included the testing for PCBs. Those materials tested included caulking and/or sealants. Materials are considered to be PCB-containing if the total concentration of the PCB compounds exceeds fifty (50) parts per million (ppm). Based on the laboratory results, none of the materials tested are considered PCB-containing.

5.0 CONCLUSIONS

5.1 Asbestos

Asbestos containing materials (ACMs) were not identified as part of this assessment. If suspect asbestos containing materials not identified in this pre-demolition asbestos survey report are discovered during the demolition process, it is required that the presence, location and quantity of newly discovered material, be conveyed within twenty-four (24) hours of discovery to the owner or their representative. All activities must cease in the area where the presumed asbestos containing material or suspect miscellaneous ACM is found, until a licensed asbestos contractor appropriately assesses and manages the discovered materials. In accordance with 12 NYCRR 56, no demolition or renovation work shall be commenced by any owner or agent prior to completion of asbestos abatement performed by a licensed asbestos abatement contractor.

5.2 Lead

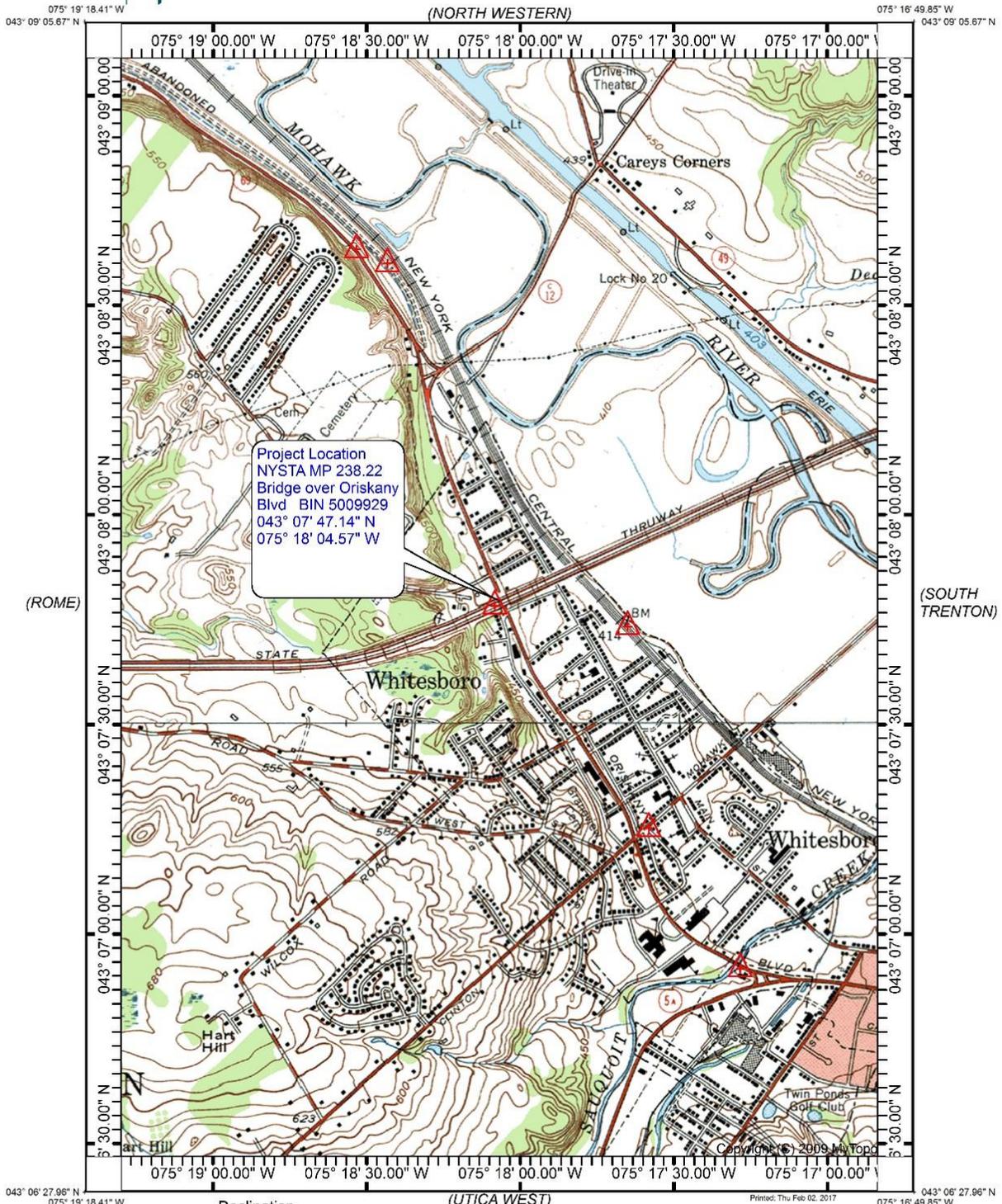
Lead based paint was identified as part of this assessment. It is recommended that a Lead Abatement and Handling of Lead Containing Materials specification section be developed. This section specifies the requirements for the detection and prevention of lead dust contamination in lead dust control work areas and areas adjacent to them, protection of workers, post-work cleaning, pre-disposal testing and appropriate disposal of removed material.

Finally, all trades must follow the Occupational Safety & Health Administration (OSHA) 29 CFR 1926.62 regulation, which considers any amount of Lead to be of concern. The regulation states that the employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air ($50 \mu\text{g}/\text{m}^3$) averaged over an 8-hour period.

5.3 PCBs

The investigation conducted by Fisher Associates also included the testing for PCBs. Those materials tested included caulking and sealants. Materials are considered to be PCB-containing if the total concentration of the PCB compounds exceeds fifty (50) parts per million (ppm). Based on the laboratory results, none of the materials tested are considered PCB-containing.

APPENDIX A
PROJECT LOCATION MAP



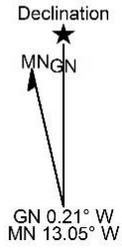
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NYSTA MP 238.22
Bridge over Oriskany
Blvd BIN 5009929
043° 07' 47.14" N
075° 18' 04.57" W

(CLINTON)

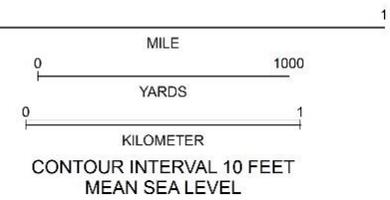
Produced by MyTopo Terrain Navigator
Topography based on USGS 1:24,000
Maps

North American 1983 Datum (NAD83)
Polyconic Projection

To place on the predicted North American
1927 move the projection lines 8M N and
31M E



(UTICA WEST) SCALE 1:24000



(UTICA EAST)

ORISKANY, NY
1955

APPENDIX B
FISHER ASSOCIATES' CERTIFICATIONS
LABORATORY ACCREDITATION

New York State – Department of Labor

Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Fisher Associates, P.E., L.S., P.C.
Suite A
135 Calkins Road
Rochester, NY 14623

FILE NUMBER: 99-0504
LICENSE NUMBER: 29344
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 08/03/2016
EXPIRATION DATE: 08/31/2017

Duly Authorized Representative – Robert W Goossen:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



Eileen M. Franko, Director
For the Commissioner of Labor

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE



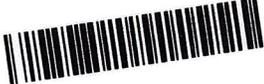
MARK T STEIN
CLASS(EXPIRES)
C ATEC(03/17) D INSP(03/17)
H PM (03/17) I PD (03/17)



CERT# 00-07444
DMV# 457924110

EXCELSIOR

MUST BE CARRIED ON ASBESTOS PROJECTS



IF FOUND RETURN TO:
NYS DOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240



01213 000706159 17

EYES BLU
HAIR BRO
HGT 6' 03"

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2017
Issued April 01, 2016
Revised May 20, 2016

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. STEVE DEVITO
PARADIGM ENVIRONMENTAL SERVICES INC
179 LAKE AVENUE
ROCHESTER, NY 14608

NY Lab Id No: 10958

is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Acrylates

Acrylonitrile EPA 8260C

Amines

1,2-Diphenylhydrazine EPA 8270D

2-Nitroaniline EPA 8270D

3-Nitroaniline EPA 8270D

4-Chloroaniline EPA 8270D

4-Nitroaniline EPA 8270D

Aniline EPA 625

EPA 8270D

Carbazole EPA 8270D

Pyridine EPA 625

EPA 8270D

Benzidines

3,3'-Dichlorobenzidine EPA 625

EPA 8270D

Benzidine EPA 625

EPA 8270D

Chlorinated Hydrocarbon Pesticides

4,4'-DDD EPA 8081B

EPA 608

4,4'-DDE EPA 8081B

EPA 608

4,4'-DDT EPA 8081B

EPA 608

Chlorinated Hydrocarbon Pesticides

Aldrin EPA 8081B

EPA 608

alpha-BHC EPA 8081B

EPA 608

alpha-Chlordane EPA 8081B

beta-BHC EPA 8081B

EPA 608

Chlordane Total EPA 8081B

EPA 608

delta-BHC EPA 8081B

EPA 608

Dieldrin EPA 8081B

EPA 608

Endosulfan I EPA 8081B

EPA 608

Endosulfan II EPA 8081B

EPA 608

Endosulfan sulfate EPA 8081B

EPA 608

Endrin EPA 8081B

EPA 608

Endrin aldehyde EPA 8081B

EPA 608

Endrin Ketone EPA 8081B

gamma-Chlordane EPA 8081B

Heptachlor EPA 8081B

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Chlorinated Hydrocarbon Pesticides

| | |
|--------------------|----------------------|
| Heptachlor | EPA 608 |
| Heptachlor epoxide | EPA 8081B EPA 608 |
| Lindane | EPA 8081B EPA 608 |
| Methoxychlor | EPA 8081B EPA 608 |
| Toxaphene | EPA 8081B EPA 608 |

Chlorinated Hydrocarbons

| | |
|----------------------------|----------------------|
| 1,2,3-Trichlorobenzene | EPA 8260C |
| 1,2,4,5-Tetrachlorobenzene | EPA 8270D |
| 1,2,4-Trichlorobenzene | EPA 625 EPA 8270D |
| 2-Chloronaphthalene | EPA 625 EPA 8270D |
| Hexachlorobenzene | EPA 625 EPA 8270D |
| Hexachlorobutadiene | EPA 625 EPA 8270D |
| Hexachlorocyclopentadiene | EPA 625 EPA 8270D |
| Hexachloroethane | EPA 625 EPA 8270D |

Fuel Oxygenates

| | |
|-------------------------|-----------|
| Methyl tert-butyl ether | EPA 8260C |
| tert-butyl alcohol | EPA 8260C |

Haloethers

| | |
|------------------------------|----------------------|
| 2,2'-Oxybis(1-chloropropane) | EPA 625 EPA 8270D |
| 4-Bromophenylphenyl ether | EPA 625 EPA 8270D |
| 4-Chlorophenylphenyl ether | EPA 625 EPA 8270D |
| Bis(2-chloroethoxy)methane | EPA 625 EPA 8270D |
| Bis(2-chloroethyl)ether | EPA 625 EPA 8270D |

Metals I

| | |
|-----------------|---------------------------------|
| Barium, Total | EPA 200.7 Rev. 4.4 EPA 6010C |
| Cadmium, Total | EPA 200.7 Rev. 4.4 EPA 6010C |
| Calcium, Total | EPA 200.7 Rev. 4.4 EPA 6010C |
| Chromium, Total | EPA 200.7 Rev. 4.4 EPA 6010C |
| Copper, Total | EPA 200.7 Rev. 4.4 EPA 6010C |
| Iron, Total | EPA 200.7 Rev. 4.4 |

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| | | | |
|------------------|--------------------|--|---------------------|
| Metals I | | Metals II | |
| Iron, Total | EPA 6010C | Mercury, Total | EPA 7470A |
| Lead, Total | EPA 200.7 Rev. 4.4 | Selenium, Total | EPA 200.7 Rev. 4.4 |
| | EPA 6010C | | EPA 6010C |
| Magnesium, Total | EPA 200.7 Rev. 4.4 | Vanadium, Total | EPA 200.7 Rev. 4.4 |
| | EPA 6010C | | EPA 6010C |
| Manganese, Total | EPA 200.7 Rev. 4.4 | Zinc, Total | EPA 200.7 Rev. 4.4 |
| | EPA 6010C | | EPA 6010C |
| Nickel, Total | EPA 200.7 Rev. 4.4 | Metals III | |
| | EPA 6010C | Cobalt, Total | EPA 200.7 Rev. 4.4 |
| Potassium, Total | EPA 200.7 Rev. 4.4 | | EPA 6010C |
| | EPA 6010C | Molybdenum, Total | EPA 200.7 Rev. 4.4 |
| Silver, Total | EPA 200.7 Rev. 4.4 | | EPA 6010C |
| | EPA 6010C | Thallium, Total | EPA 200.7 Rev. 4.4 |
| Sodium, Total | EPA 200.7 Rev. 4.4 | | EPA 6010C |
| | EPA 6010C | Mineral | |
| Metals II | | Hardness, Total | EPA 200.7 Rev. 4.4 |
| Aluminum, Total | EPA 200.7 Rev. 4.4 | Miscellaneous | |
| | EPA 6010C | Boron, Total | EPA 200.7 Rev. 4.4 |
| Antimony, Total | EPA 200.7 Rev. 4.4 | | EPA 6010C |
| | EPA 6010C | Cyanide, Total | EPA 9014 |
| Arsenic, Total | EPA 200.7 Rev. 4.4 | | SM 4500-CN E-99,-11 |
| | EPA 6010C | Oil and Grease Total Recoverable (HEM) | EPA 1664B |
| Beryllium, Total | EPA 200.7 Rev. 4.4 | Specific Conductance | SM 2510B-97,-11 |
| | EPA 6010C | Total Petroleum Hydrocarbons | EPA-1664B |
| Mercury, Total | EPA 245.1 Rev. 3.0 | | |

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Nitroaromatics and Isophorone

| | |
|--------------------|-----------|
| 2,4-Dinitrotoluene | EPA 625 |
| | EPA 8270D |
| 2,6-Dinitrotoluene | EPA 625 |
| | EPA 8270D |
| Isophorone | EPA 625 |
| | EPA 8270D |
| Nitrobenzene | EPA 625 |
| | EPA 8270D |

Phthalate Esters

| | |
|----------------------|-----------|
| Diethyl phthalate | EPA 625 |
| | EPA 8270D |
| Dimethyl phthalate | EPA 625 |
| | EPA 8270D |
| Di-n-butyl phthalate | EPA 625 |
| | EPA 8270D |
| Di-n-octyl phthalate | EPA 625 |
| | EPA 8270D |

Nitrosoamines

| | |
|---------------------------|-----------|
| N-Nitrosodimethylamine | EPA 625 |
| | EPA 8270D |
| N-Nitrosodi-n-propylamine | EPA 625 |
| | EPA 8270D |
| N-Nitrosodiphenylamine | EPA 625 |
| | EPA 8270D |

Polychlorinated Biphenyls

| | |
|----------|-----------|
| PCB-1016 | EPA 8082A |
| | EPA 608 |
| PCB-1221 | EPA 8082A |
| | EPA 608 |
| PCB-1232 | EPA 8082A |
| | EPA 608 |
| PCB-1242 | EPA 8082A |
| | EPA 608 |
| PCB-1248 | EPA 8082A |
| | EPA 608 |
| PCB-1254 | EPA 8082A |
| | EPA 608 |
| PCB-1260 | EPA 8082A |
| | EPA 608 |
| PCB-1262 | EPA 8082A |
| PCB-1268 | EPA 8082A |

Organophosphate Pesticides

| | |
|----------|-----------|
| Atrazine | EPA 8270D |
|----------|-----------|

Petroleum Hydrocarbons

| | |
|-----------------------|-----------|
| Diesel Range Organics | EPA 8015D |
|-----------------------|-----------|

Phthalate Esters

| | |
|-----------------------------|-----------|
| Benzyl butyl phthalate | EPA 625 |
| | EPA 8270D |
| Bis(2-ethylhexyl) phthalate | EPA 625 |
| | EPA 8270D |

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All approved analytes are listed below:

Polynuclear Aromatics

| | |
|------------------------|----------------------|
| Acenaphthene | EPA 625 EPA 8270D |
| Acenaphthylene | EPA 625 EPA 8270D |
| Anthracene | EPA 625 EPA 8270D |
| Benzo(a)anthracene | EPA 625 EPA 8270D |
| Benzo(a)pyrene | EPA 625 EPA 8270D |
| Benzo(b)fluoranthene | EPA 625 EPA 8270D |
| Benzo(ghi)perylene | EPA 625 EPA 8270D |
| Benzo(k)fluoranthene | EPA 625 EPA 8270D |
| Chrysene | EPA 625 EPA 8270D |
| Dibenzo(a,h)anthracene | EPA 625 EPA 8270D |
| Fluoranthene | EPA 625 EPA 8270D |
| Fluorene | EPA 625 EPA 8270D |
| Indeno(1,2,3-cd)pyrene | EPA 625 EPA 8270D |

Polynuclear Aromatics

| | |
|--------------|----------------------|
| Naphthalene | EPA 625 EPA 8270D |
| Phenanthrene | EPA 625 EPA 8270D |
| Pyrene | EPA 625 EPA 8270D |

Priority Pollutant Phenols

| | |
|----------------------------|----------------------|
| 2,3,4,6 Tetrachlorophenol | EPA 8270D |
| 2,4,5-Trichlorophenol | EPA 8270D |
| 2,4,6-Trichlorophenol | EPA 625 EPA 8270D |
| 2,4-Dichlorophenol | EPA 625 EPA 8270D |
| 2,4-Dimethylphenol | EPA 625 EPA 8270D |
| 2,4-Dinitrophenol | EPA 625 EPA 8270D |
| 2,6-Dichlorophenol | EPA 8270D |
| 2-Chlorophenol | EPA 625 EPA 8270D |
| 2-Methyl-4,6-dinitrophenol | EPA 625 EPA 8270D |
| 2-Methylphenol | EPA 625 EPA 8270D |
| 2-Nitrophenol | EPA 625 |

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All approved analytes are listed below:*

Priority Pollutant Phenols

| | |
|-------------------------|-----------|
| 2-Nitrophenol | EPA 8270D |
| 4-Chloro-3-methylphenol | EPA 625 |
| | EPA 8270D |
| 4-Methylphenol | EPA 625 |
| | EPA 8270D |
| 4-Nitrophenol | EPA 625 |
| | EPA 8270D |
| Cresols, Total | EPA 8270D |
| Pentachlorophenol | EPA 625 |
| | EPA 8270D |
| Phenol | EPA 625 |
| | EPA 8270D |

Residue

| | |
|-------------------|------------------|
| Settleable Solids | SM 2540 F-97,-11 |
|-------------------|------------------|

Semi-Volatile Organics

| | |
|------------------------------------|-----------|
| 1,1'-Biphenyl | EPA 8270D |
| 1,2-Dichlorobenzene, Semi-volatile | EPA 8270D |
| 1,3-Dichlorobenzene, Semi-volatile | EPA 8270D |
| 1,4-Dichlorobenzene, Semi-volatile | EPA 8270D |
| 2-Methylnaphthalene | EPA 8270D |
| Acetophenone | EPA 8270D |
| Benzaldehyde | EPA 8270D |
| Benzoic Acid | EPA 8270D |
| Benzyl alcohol | EPA 8270D |
| Caprolactam | EPA 8270D |

Semi-Volatile Organics

| | |
|--------------|-----------|
| Dibenzofuran | EPA 8270D |
|--------------|-----------|

Volatile Aromatics

| | |
|----------------------------------|-----------|
| 1,2,4-Trichlorobenzene, Volatile | EPA 8260C |
| 1,2,4-Trimethylbenzene | EPA 8260C |
| 1,2-Dichlorobenzene | EPA 8260C |
| | EPA 624 |
| 1,3,5-Trimethylbenzene | EPA 8260C |
| 1,3-Dichlorobenzene | EPA 8260C |
| | EPA 624 |
| 1,4-Dichlorobenzene | EPA 8260C |
| | EPA 624 |
| 2-Chlorotoluene | EPA 8260C |
| 4-Chlorotoluene | EPA 8260C |
| Benzene | EPA 8260C |
| | EPA 624 |
| Bromobenzene | EPA 8260C |
| Chlorobenzene | EPA 8260C |
| | EPA 624 |
| Ethyl benzene | EPA 8260C |
| | EPA 624 |
| Isopropylbenzene | EPA 8260C |
| m/p-Xylenes | EPA 8260C |
| | EPA 624 |
| Naphthalene, Volatile | EPA 8260C |
| n-Butylbenzene | EPA 8260C |

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Volatile Aromatics

| | |
|-------------------------------|----------------------|
| n-Propylbenzene | EPA 8260C |
| o-Xylene | EPA 8260C EPA 624 |
| p-Isopropyltoluene (P-Cymene) | EPA 8260C |
| sec-Butylbenzene | EPA 8260C |
| Styrene | EPA 8260C |
| tert-Butylbenzene | EPA 8260C |
| Toluene | EPA 8260C EPA 624 |
| Total Xylenes | EPA 8260C EPA 624 |

Volatile Halocarbons

| | |
|---------------------------------------|----------------------|
| 1,1,1,2-Tetrachloroethane | EPA 8260C |
| 1,1,1-Trichloroethane | EPA 8260C EPA 624 |
| 1,1,2,2-Tetrachloroethane | EPA 8260C EPA 624 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | EPA 8260C |
| 1,1,2-Trichloroethane | EPA 8260C EPA 624 |
| 1,1-Dichloroethane | EPA 8260C EPA 624 |
| 1,1-Dichloroethene | EPA 8260C EPA 624 |
| 1,1-Dichloropropene | EPA 8260C |

Volatile Halocarbons

| | |
|-----------------------------|----------------------|
| 1,2,3-Trichloropropane | EPA 8260C |
| 1,2-Dibromo-3-chloropropane | EPA 8260C |
| 1,2-Dibromoethane | EPA 8260C |
| 1,2-Dichloroethane | EPA 8260C EPA 624 |
| 1,2-Dichloropropane | EPA 8260C EPA 624 |
| 1,3-Dichloropropane | EPA 8260C |
| 2,2-Dichloropropane | EPA 8260C |
| 2-Chloroethylvinyl ether | EPA 624 |
| Bromochloromethane | EPA 8260C |
| Bromodichloromethane | EPA 8260C EPA 624 |
| Bromoform | EPA 8260C EPA 624 |
| Bromomethane | EPA 8260C EPA 624 |
| Carbon tetrachloride | EPA 8260C EPA 624 |
| Chloroethane | EPA 8260C EPA 624 |
| Chloroform | EPA 8260C EPA 624 |
| Chloromethane | EPA 8260C EPA 624 |
| cis-1,2-Dichloroethene | EPA 8260C |

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Volatiles Halocarbons

| | |
|-------------------------------|-----------|
| cis-1,2-Dichloroethene | EPA 624 |
| cis-1,3-Dichloropropene | EPA 8260C |
| | EPA 624 |
| Dibromochloromethane | EPA 8260C |
| | EPA 624 |
| Dibromomethane | EPA 8260C |
| Dichlorodifluoromethane | EPA 8260C |
| | EPA 624 |
| Hexachlorobutadiene, Volatile | EPA 8260C |
| Methylene chloride | EPA 8260C |
| | EPA 624 |
| Tetrachloroethene | EPA 8260C |
| | EPA 624 |
| trans-1,2-Dichloroethene | EPA 8260C |
| | EPA 624 |
| trans-1,3-Dichloropropene | EPA 8260C |
| | EPA 624 |
| Trichloroethene | EPA 8260C |
| | EPA 624 |
| Trichlorofluoromethane | EPA 8260C |
| | EPA 624 |
| Vinyl chloride | EPA 8260C |
| | EPA 624 |

Volatiles Organics

| | |
|----------------------------------|-----------|
| 2-Butanone (Methyl ethyl ketone) | EPA 8260C |
| 2-Hexanone | EPA 8260C |
| 4-Methyl-2-Pentanone | EPA 8260C |
| Acetone | EPA 8260C |
| Carbon Disulfide | EPA 8260C |
| Cyclohexane | EPA 8260C |
| Isopropanol | EPA 8260C |
| Methyl acetate | EPA 8260C |
| Methyl cyclohexane | EPA 8260C |
| Vinyl acetate | EPA 8260C |

Sample Preparation Methods

| |
|--------------------------|
| EPA 5030C |
| SM 4500-CN B or C-99,-11 |
| EPA 3005A |
| EPA 3510C |
| EPA 9010C |

Volatiles Organics

| | |
|-------------|-----------|
| 1,4-Dioxane | EPA 8260C |
|-------------|-----------|

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ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Acrylates

Acrylonitrile EPA 8260C

Amines

1,2-Diphenylhydrazine EPA 8270D

2-Nitroaniline EPA 8270D

3-Nitroaniline EPA 8270D

4-Chloroaniline EPA 8270D

4-Nitroaniline EPA 8270D

Aniline EPA 8270D

Carbazole EPA 8270D

Benzidines

3,3'-Dichlorobenzidine EPA 8270D

Benzidine EPA 8270D

Characteristic Testing

Corrosivity EPA 9040C

EPA 9045D

Free Liquids EPA 9095B

Ignitability EPA 1030

EPA 1010A

Synthetic Precipitation Leaching Proc. EPA 1312

TCLP EPA 1311

Chlorinated Hydrocarbon Pesticides

4,4'-DDD EPA 8081B

4,4'-DDE EPA 8081B

4,4'-DDT EPA 8081B

Chlorinated Hydrocarbon Pesticides

Aldrin EPA 8081B

alpha-BHC EPA 8081B

alpha-Chlordane EPA 8081B

Atrazine EPA 8270D

beta-BHC EPA 8081B

Chlordane Total EPA 8081B

delta-BHC EPA 8081B

Dieldrin EPA 8081B

Endosulfan I EPA 8081B

Endosulfan II EPA 8081B

Endosulfan sulfate EPA 8081B

Endrin EPA 8081B

Endrin aldehyde EPA 8081B

Endrin Ketone EPA 8081B

gamma-Chlordane EPA 8081B

Heptachlor EPA 8081B

Heptachlor epoxide EPA 8081B

Lindane EPA 8081B

Methoxychlor EPA 8081B

Toxaphene EPA 8081B

Chlorinated Hydrocarbons

1,2,3-Trichlorobenzene EPA 8260C

1,2,4,5-Tetrachlorobenzene EPA 8270D

1,2,4-Trichlorobenzene EPA 8270D

2-Chloronaphthalene EPA 8270D

Serial No.: 54681

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2017
Issued April 01, 2016

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. STEVE DEVITO
PARADIGM ENVIRONMENTAL SERVICES INC
179 LAKE AVENUE
ROCHESTER, NY 14608

NY Lab Id No: 10958

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Chlorinated Hydrocarbons

| | |
|---------------------------|-----------|
| Hexachlorobenzene | EPA 8270D |
| Hexachlorobutadiene | EPA 8270D |
| Hexachlorocyclopentadiene | EPA 8270D |
| Hexachloroethane | EPA 8270D |

Haloethers

| | |
|------------------------------|-----------|
| 2,2'-Oxybis(1-chloropropane) | EPA 8270D |
| 4-Bromophenylphenyl ether | EPA 8270D |
| 4-Chlorophenylphenyl ether | EPA 8270D |
| Bis(2-chloroethoxy)methane | EPA 8270D |
| Bis(2-chloroethyl)ether | EPA 8270D |

Metals I

| | |
|------------------|-----------|
| Barium, Total | EPA 6010C |
| Cadmium, Total | EPA 6010C |
| Calcium, Total | EPA 6010C |
| Chromium, Total | EPA 6010C |
| Copper, Total | EPA 6010C |
| Iron, Total | EPA 6010C |
| Lead, Total | EPA 6010C |
| Magnesium, Total | EPA 6010C |
| Manganese, Total | EPA 6010C |
| Nickel, Total | EPA 6010C |
| Potassium, Total | EPA 6010C |
| Silver, Total | EPA 6010C |
| Sodium, Total | EPA 6010C |

Metals II

| | |
|------------------|-----------|
| Aluminum, Total | EPA 6010C |
| Antimony, Total | EPA 6010C |
| Arsenic, Total | EPA 6010C |
| Beryllium, Total | EPA 6010C |
| Mercury, Total | EPA 7471B |
| Selenium, Total | EPA 6010C |
| Vanadium, Total | EPA 6010C |
| Zinc, Total | EPA 6010C |

Metals III

| | |
|-------------------|-----------|
| Cobalt, Total | EPA 6010C |
| Molybdenum, Total | EPA 6010C |
| Thallium, Total | EPA 6010C |

Miscellaneous

| | |
|----------------|-----------|
| Boron, Total | EPA 6010C |
| Cyanide, Total | EPA 9014 |

Nitroaromatics and Isophorone

| | |
|--------------------|-----------|
| 2,4-Dinitrotoluene | EPA 8270D |
| 2,6-Dinitrotoluene | EPA 8270D |
| Isophorone | EPA 8270D |
| Nitrobenzene | EPA 8270D |
| Pyridine | EPA 8270D |

Nitrosoamines

| | |
|---------------------------|-----------|
| N-Nitrosodimethylamine | EPA 8270D |
| N-Nitrosodi-n-propylamine | EPA 8270D |

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ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Nitrosoamines

N-Nitrosodiphenylamine EPA 8270D

Petroleum Hydrocarbons

Diesel Range Organics EPA 8015D

Phthalate Esters

Benzyl butyl phthalate EPA 8270D
Bis(2-ethylhexyl) phthalate EPA 8270D
Diethyl phthalate EPA 8270D
Dimethyl phthalate EPA 8270D
Di-n-butyl phthalate EPA 8270D
Di-n-octyl phthalate EPA 8270D

Polychlorinated Biphenyls

PCB-1016 EPA 8082A
PCB-1221 EPA 8082A
PCB-1232 EPA 8082A
PCB-1242 EPA 8082A
PCB-1248 EPA 8082A
PCB-1254 EPA 8082A
PCB-1260 EPA 8082A
PCB-1262 EPA 8082A
PCB-1268 EPA 8082A
PCBs in Oil EPA 8082A

Polynuclear Aromatic Hydrocarbons

Acenaphthene EPA 8270D
Acenaphthylene EPA 8270D

Polynuclear Aromatic Hydrocarbons

Anthracene EPA 8270D
Benzo(a)anthracene EPA 8270D
Benzo(a)pyrene EPA 8270D
Benzo(b)fluoranthene EPA 8270D
Benzo(ghi)perylene EPA 8270D
Benzo(k)fluoranthene EPA 8270D
Chrysene EPA 8270D
Dibenzo(a,h)anthracene EPA 8270D
Fluoranthene EPA 8270D
Fluorene EPA 8270D
Indeno(1,2,3-cd)pyrene EPA 8270D
Naphthalene EPA 8270D
Phenanthrene EPA 8270D
Pyrene EPA 8270D

Priority Pollutant Phenols

2,3,4,6 Tetrachlorophenol EPA 8270D
2,4,5-Trichlorophenol EPA 8270D
2,4,6-Trichlorophenol EPA 8270D
2,4-Dichlorophenol EPA 8270D
2,4-Dimethylphenol EPA 8270D
2,4-Dinitrophenol EPA 8270D
2,6-Dichlorophenol EPA 8270D
2-Chlorophenol EPA 8270D
2-Methyl-4,6-dinitrophenol EPA 8270D
2-Methylphenol EPA 8270D

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All approved analytes are listed below:

Priority Pollutant Phenols

| | |
|-------------------------|-----------|
| 2-Nitrophenol | EPA 8270D |
| 4-Chloro-3-methylphenol | EPA 8270D |
| 4-Methylphenol | EPA 8270D |
| 4-Nitrophenol | EPA 8270D |
| Pentachlorophenol | EPA 8270D |
| Phenol | EPA 8270D |

Semi-Volatile Organics

| | |
|------------------------------------|-----------|
| 1,1'-Biphenyl | EPA 8270D |
| 1,2-Dichlorobenzene, Semi-volatile | EPA 8270D |
| 1,3-Dichlorobenzene, Semi-volatile | EPA 8270D |
| 1,4-Dichlorobenzene, Semi-volatile | EPA 8270D |
| 2-Methylnaphthalene | EPA 8270D |
| Acetophenone | EPA 8270D |
| Benzaldehyde | EPA 8270D |
| Benzoic Acid | EPA 8270D |
| Benzyl alcohol | EPA 8270D |
| Caprolactam | EPA 8270D |
| Dibenzofuran | EPA 8270D |

Volatile Aromatics

| | |
|----------------------------------|-----------|
| 1,2,4-Trichlorobenzene, Volatile | EPA 8260C |
| 1,2,4-Trimethylbenzene | EPA 8260C |
| 1,2-Dichlorobenzene | EPA 8260C |
| 1,3,5-Trimethylbenzene | EPA 8260C |
| 1,3-Dichlorobenzene | EPA 8260C |
| 1,4-Dichlorobenzene | EPA 8260C |

Volatile Aromatics

| | |
|-------------------------------|-----------|
| 2-Chlorotoluene | EPA 8260C |
| 4-Chlorotoluene | EPA 8260C |
| Benzene | EPA 8260C |
| Bromobenzene | EPA 8260C |
| Chlorobenzene | EPA 8260C |
| Ethyl benzene | EPA 8260C |
| Isopropylbenzene | EPA 8260C |
| m/p-Xylenes | EPA 8260C |
| Naphthalene, Volatile | EPA 8260C |
| n-Butylbenzene | EPA 8260C |
| n-Propylbenzene | EPA 8260C |
| o-Xylene | EPA 8260C |
| p-Isopropyltoluene (P-Cymene) | EPA 8260C |
| sec-Butylbenzene | EPA 8260C |
| Styrene | EPA 8260C |
| tert-Butylbenzene | EPA 8260C |
| Toluene | EPA 8260C |
| Total Xylenes | EPA 8260C |

Volatile Halocarbons

| | |
|---------------------------------------|-----------|
| 1,1,1,2-Tetrachloroethane | EPA 8260C |
| 1,1,1-Trichloroethane | EPA 8260C |
| 1,1,2,2-Tetrachloroethane | EPA 8260C |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | EPA 8260C |
| 1,1,2-Trichloroethane | EPA 8260C |
| 1,1-Dichloroethane | EPA 8260C |

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All approved analytes are listed below:

Volatile Halocarbons

| | |
|-----------------------------|-----------|
| 1,1-Dichloroethene | EPA 8260C |
| 1,1-Dichloropropene | EPA 8260C |
| 1,2,3-Trichloropropane | EPA 8260C |
| 1,2-Dibromo-3-chloropropane | EPA 8260C |
| 1,2-Dibromoethane | EPA 8260C |
| 1,2-Dichloroethane | EPA 8260C |
| 1,2-Dichloropropane | EPA 8260C |
| 1,3-Dichloropropane | EPA 8260C |
| 2,2-Dichloropropane | EPA 8260C |
| Bromochloromethane | EPA 8260C |
| Bromodichloromethane | EPA 8260C |
| Bromoform | EPA 8260C |
| Bromomethane | EPA 8260C |
| Carbon tetrachloride | EPA 8260C |
| Chloroethane | EPA 8260C |
| Chloroform | EPA 8260C |
| Chloromethane | EPA 8260C |
| cis-1,2-Dichloroethene | EPA 8260C |
| cis-1,3-Dichloropropene | EPA 8260C |
| Dibromochloromethane | EPA 8260C |
| Dibromomethane | EPA 8260C |
| Dichlorodifluoromethane | EPA 8260C |
| Methylene chloride | EPA 8260C |
| Tetrachloroethene | EPA 8260C |
| trans-1,2-Dichloroethene | EPA 8260C |
| trans-1,3-Dichloropropene | EPA 8260C |

Volatile Halocarbons

| | |
|------------------------|-----------|
| Trichloroethene | EPA 8260C |
| Trichlorofluoromethane | EPA 8260C |
| Vinyl chloride | EPA 8260C |

Volatile Organics

| | |
|---------------------------------|-----------|
| 1,4-Dioxane | EPA 8260C |
| 2-Butanone (Methylethyl ketone) | EPA 8260C |
| 2-Hexanone | EPA 8260C |
| 4-Methyl-2-Pentanone | EPA 8260C |
| Acetone | EPA 8260C |
| Carbon Disulfide | EPA 8260C |
| Cyclohexane | EPA 8260C |
| Isopropanol | EPA 8260C |
| Methyl acetate | EPA 8260C |
| Methyl cyclohexane | EPA 8260C |
| Methyl tert-butyl ether | EPA 8260C |
| tert-butyl alcohol | EPA 8260C |
| Vinyl acetate | EPA 8260C |

Sample Preparation Methods

| |
|-------------|
| EPA 5035A-L |
| EPA 5035A-H |
| EPA 3580A |
| EPA 3050B |
| EPA 3550C |
| EPA 9010C |

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ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved analytes are listed below:*

Metals II

Beryllium, Total NIOSH 7303

Metals III

Chromium, Total NIOSH 7303



Serial No.: 54683

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NY Lab Id No: 10958

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ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:*

Miscellaneous

| | |
|--------------------------------------|---|
| Asbestos in Friable Material | Item 198.1 of Manual EPA 600/M4/82/020 |
| Asbestos in Non-Friable Material-PLM | Item 198.6 of Manual (NOB by PLM) |
| Asbestos in Non-Friable Material-TEM | Item 198.4 of Manual |
| Lead in Dust Wipes | EPA 6010C |
| Lead in Paint | EPA 6010C |

Sample Preparation Methods

EPA 3050B

NEW
YORK
STATE

Department
of Health

Serial No.: 54682

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WADSWORTH CENTER



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ROCHESTER, NY 14608

NY Lab Id No: 10958

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ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:*

Metals I

Lead, Total NIOSH 7303

Miscellaneous

Asbestos 40 CFR 763 APXA No. III

NIOSH 7402

Fibers NIOSH 7400 A RULES

NEW
YORK
STATE

Department
of Health

Serial No.: 54684

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APPENDIX C
LABORATORY ANALYTICAL DATA



PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1, 198.4 and 198.6

Client: Fisher Associates
Location: BIN 5009929

Job No: 12198-16
Page: 1 of 4

Sample Date: 12/1/2016

| Client ID | Lab ID | Sampling Location | Description | PLM Asbestos Fibers Type & Percentage | PLM Total Asbestos | NOB | TEM Asbestos Fibers Type & Percentage | TEM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | Non-Fibrous Matrix Material % |
|-----------|--------|-------------------|-------------------|---------------------------------------|--------------------|-----|---------------------------------------|--------------------|---|-------------------------------|
| 1A | 101836 | Outside of Girder | Green Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 1B | 101837 | Outside of Girder | Green Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 2A | 101838 | Guard Railing | Green Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 2B | 101839 | Guard Railing | Green Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 3A | 101840 | Inside Girder | Green Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 3B | 101841 | Inside Girder | Green Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 4A | 101842 | On Concrete | White Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 4B | 101843 | On Concrete | White Paint | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 5A | 101844 | B/W Abutments | Black Fibrous Tar | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | Wollastonite 45% | 55% |
| 5B | 101845 | B/W Abutments | Black Fibrous Tar | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | Wollastonite 40% | 60% |

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
 √ NOB (non-friable organically bound) denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.
 √ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
 # denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.
 X denotes sample prepped only by ELAP Method 198.6.
 ** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.
 Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0).



Lab Code 200530-0 for PLM Analysis

PLM Date Analyzed: 12/12/2016
Microscope: Olympus BH-2 #221797
Analyst: T. Ma

TEM Date Analyzed: 12/12/2016
TEM Analyst: F. Weinman

ELAP ID No.: 10958

Laboratory Results Approved By:
Asbestos Operations Manager or Designee

Mary Dohr

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PLM & TEM BULK ASBESTOS ANALYSIS REPORT
via NYSDOH ELAP Method 198.1, 198.4 and 198.6

Client: Fisher Associates
Location: BIN 5009929

Job No: 12198-16
Page: 2 of 4

Sample Date: 12/1/2016

| Client ID | Lab ID | Sampling Location | Description | PLM Asbestos Fibers Type & Percentage | PLM Total Asbestos | NOB | TEM Asbestos Fibers Type & Percentage | TEM Total Asbestos | PLM Non-Asbestos Fibers Type & Percentage | Non-Fibrous Matrix Material % |
|-----------|--------|---------------------------|------------------------|--|--------------------|-----|---------------------------------------|--------------------|---|-------------------------------|
| 7A | 101846 | B/W Abutments & Wing Wall | Black Fibrous Material | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 7B | 101847 | B/W Abutments & Wing Wall | Black Fibrous Material | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 8A | 101848 | Top of Wing Wall | Black Caulk | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 8B | 101849 | Top of Wing Wall | Black Caulk | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| 9A | 101850 | Bottom of Concrete Piers | Black Waterproofing | <1.0% Residue Remaining. PLM and TEM Not Required. | N/A | X | N/A | N/A | N/A | N/A |
| 9B | 101851 | Bottom of Concrete Piers | Black Waterproofing | Inconclusive No Asbestos Detected | 0% | √ | None Detected | <1.0% | None Detected | 100% |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).
 √ NOB (non-friable organically bound) denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.
 √̂ denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
 # denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.
 X denotes sample prepped only by ELAP Method 198.6.
 ** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.
 Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 and/or EPA 600/R-93/116 (NVLAP Lab Code 2000530-0).



Lab Code 200530-0 for PLM Analysis

PLM Date Analyzed: 12/12/2016

TEM Date Analyzed: 12/12/2016

Microscope: Olympus BH-2 #221797

TEM Analyst: F. Weinman

Analyst: T. Ma

ELAP ID No.: 10958

Laboratory Results Approved By:
Asbestos Operations Manager or Designee

Mary Dohr

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CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

179 Lake Avenue, Rochester, New York 14608
 1815 Love Road, Grand Island, New York 14072

Office: 585-647-2530
 Office: 716-775-5777

1082

2082
 2082
 1 of 2

| | | | |
|--|----------------------------------|--|---|
| Client Mailing Address: 135 Calkins Road Rochester, NY 14623 | | Client: Fisher Associates | Contact: Mark Stein |
| Results To Mark Stein | | Phone Number: (585) 334-1310 | Email Address for Data: mstein@fisherassoc.com |
| Date Sampled: 12/01/16 | Project Location: BIN 5009929 | Turn Around Time: 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input checked="" type="checkbox"/> Other <input type="checkbox"/> | Material Type/Quantity: NOB TEM |

| | |
|---------------------|----------|
| OFFICE USE ONLY | |
| Job #: | 12198-16 |
| Page _____ of _____ | |
| Date Logged In: | 12-0-16 |
| Logged In By: | VK |

| Client ID | Lab ID | Sampling Location | Color | Material Size | Type of Material |
|-----------|--------|-------------------|-------|---------------|------------------|
| 1 | 2A | 101830 | Green | | Paint |
| 2 | 1B | 837 | | | |
| 3 | 2A | 838 | | | |
| 4 | 20 | 839 | | | |
| 5 | 3A | 840 | | | |
| 6 | 3B | 841 | | | |
| 7 | 4A | 842 | White | | |
| 8 | 4B | 843 | " | | |
| 9 | 5A | 844 | Black | | Tar |
| 10 | 5B | 845 | " | | " |

| | |
|-----------------------------|-------|
| Sampled By: | Date: |
| Transported to Paradigm By: | Date: |
| Received By: | Date: |

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1, 198.4 and 198.6) unless EPA 600/4/82/020 per 40 CFR 763 and/or EPA 600/R-93/716 methods are requested.
 CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS
 or provide TEM contact name: _____
 TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: 10 NOB

VK 12-0-16



CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS

179 Lake Avenue, Rochester, New York 14608
 1815 Love Road, Grand Island, New York 14072

Office: 585-647-2530
 Office: 716-775-5777

20f2

20f2

Client Mailing Address:
 135 Calkins Road
 Rochester, NY 14623

Client: Fisher Associates
Phone Number: (585) 334-1310
Results To: Mark Stein
Date Sampled: 12/01/16
Project Location: BIN 5009929

Contact: Mark Stein
Email Address for Data: mstein@fisherassoc.com

Turn Around Time: 1 2 3 5 Other
Material Type/Quantity: NOB TEM
 Friable Non-Friable
 Note: Ng # 6 sample

OFFICE USE ONLY
Job #: 12198110
Page _____ **of** _____
Date Logged In: 12.18.16
Logged In By: VK

| Client ID | Lab ID | Sampling Location | Color | Material Size | Type of Material |
|-----------|--------|-------------------|-------|---------------|------------------|
| 1 | 7A | 1D8U1D | Black | F | Fibrous Mat. |
| 2 | 7B | 8U7 | | ↓ | " " |
| 3 | 8A | 8U8 | | NDB | Caulk |
| 4 | 8B | 8U9 | | | " " |
| 5 | 9A | 85D | | | Waterproofing |
| 6 | 9B | 85T | | | " " |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

Sampled By: [Signature] **Date:** 12/01/16
Transported to Paradigm By: [Signature] **Date:** 12/05/16
Received By: [Signature] **Date:** 12/15/16

All samples will be analyzed by the appropriate New York State Department of Health methods (198.1, 198.4 and 198.6) unless EPA 600/4-82/020 per-40 CFR 763 and/or EPA 600/R-93/116 methods are requested.
CHECK TO AUTOMATICALLY PERFORM TEM ON NOBS
 or provide TEM contact name: _____
TOTAL NUMBER OF SAMPLES ON ALL CHAINS OF CUSTODY: 25 UNDB

VK 12.10.16



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Fisher Associates

For Lab Project ID

165260

Referencing

Bridge Haz Survey, 151021-09, BIN 5009929

Prepared

Monday, December 12, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below:

Reduced sample size used for Lead analysis due to limited sample volume. Kindly refer to the Chain of Custody Supplement for the affected sample(s).

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Lab Project ID: 165260

Client: Fisher Associates

Project Reference: Bridge Haz Survey, 151021-09, BIN 5009929

Sample Identifier: LBP 1

Lab Sample ID: 165260-01

Date Sampled: 12/1/2016

Matrix: Paint

Date Received: 12/5/2016

Lead

| Analyte | Result | Units | Qualifier | Date Analyzed |
|----------------|---------------|--------------|------------------|----------------------|
| Lead | 0.0101 | % | | 12/8/2016 10:25 |

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 12/6/2016

Data File: 120816a



Lab Project ID: 165260

Client: Fisher Associates

Project Reference: Bridge Haz Survey, 151021-09, BIN 5009929

Sample Identifier: LBP 2

Lab Sample ID: 165260-02

Date Sampled: 12/1/2016

Matrix: Paint

Date Received: 12/5/2016

Lead

| Analyte | Result | Units | Qualifier | Date Analyzed |
|----------------|---------------|--------------|------------------|----------------------|
| Lead | 6.94 | % | | 12/8/2016 10:30 |

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 12/6/2016

Data File: 120816a



Lab Project ID: 165260

Client: Fisher Associates

Project Reference: Bridge Haz Survey, 151021-09, BIN 5009929

Sample Identifier: LBP 3

Lab Sample ID: 165260-03

Date Sampled: 12/1/2016

Matrix: Paint

Date Received: 12/5/2016

Lead

| Analyte | Result | Units | Qualifier | Date Analyzed |
|----------------|---------------|--------------|------------------|----------------------|
| Lead | 0.0136 | % | | 12/8/2016 10:34 |

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 12/6/2016

Data File: 120816a



Client: Fisher Associates

Project Reference: Bridge Haz Survey, 151021-09, BIN 5009929

Sample Identifier: LBP 4

Lab Sample ID: 165260-04

Matrix: Paint

Date Sampled: 12/1/2016

Date Received: 12/5/2016

Lead

| Analyte | Result | Units | Qualifier | Date Analyzed |
|----------------|----------------|--------------|------------------|----------------------|
| Lead | 0.00962 | % | | 12/8/2016 10:38 |

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 12/6/2016

Data File: 120816a



Client: Fisher Associates

Project Reference: Bridge Haz Survey, 151021-09, BIN 5009929

Sample Identifier: PCB 8

Lab Sample ID: 165260-05

Date Sampled: 12/1/2016

Matrix: Caulk

Date Received: 12/5/2016

PCBs

| Analyte | Result | Units | Qualifier | Date Analyzed |
|----------|--------|-------|-----------|-----------------|
| PCB-1016 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1221 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1232 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1242 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1248 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1254 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1260 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1262 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |
| PCB-1268 | < 4.95 | mg/Kg | | 12/9/2016 14:13 |

| Surrogate | Percent Recovery | Limits | Outliers | Date Analyzed |
|----------------------|------------------|----------|----------|-----------------|
| Decachlorobiphenyl | 73.9 | 10 - 144 | | 12/9/2016 14:13 |
| Tetrachloro-m-xylene | 72.2 | 10 - 140 | | 12/9/2016 14:13 |

Method Reference(s): EPA 8082A

EPA 3550C

Preparation Date: 12/9/2016



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

***" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, December 12, 2016

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, December 12, 2016

CHAIN OF CUSTODY

1 of 2



REPORT TO:

INVOICE TO:

| | | | | | | |
|-----------------------------------|---|------------------------------|--------------------------|--|--|------------------|
| COMPANY: Fisher Associates | ADDRESS: 135 Calkins Road, Suite A | CITY: Rochester | STATE: NY | ZIP: 14623 | PHONE: (585) 334-1310 | FAX: |
| COMPANY: Same | ADDRESS: | CITY: | STATE: | ZIP: | PHONE: | FAX: |
| ATTN: Mark Stein | COMMENTS: <i>BRIN 5009229</i> | LAB PROJECT #: 165260 | CLIENT PROJECT #: | TURNAROUND TIME (WORKING DAYS): | <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 | STD OTHER |

PROJECT NAME/SITE NAME: Bridge Haz Survey - 151021-09

REQUESTED ANALYSIS

| DATE | TIME | COMPOSITE | GRA B | SAMPLE LOCATION/FIELD ID | MATRIX | CONTAMINANTS | LEAD | PCB | REMARKS | PARADIGM LAB SAMPLE NUMBER |
|------------|-------|-----------|-------|--------------------------|--------|--------------|------|-----|---------|----------------------------|
| 1 12/01/16 | 15:30 | | | LBP 1 | Paint | 1 | X | | | 01 |
| 2 | | | | LBP 2 | | 2 | X | | | 02 |
| 3 | | | | LBP 3 | | 2 | X | | | 03 |
| 4 | | | | PCO 8 | Caalk | 1 | | X | | 04 |
| 5 | | | | LBP 4 | Paint | 1 | X | | | 04 |
| 6 | | | | Oil sample label / MS | | | | | | |
| 7 | | | | GE 12 / 5 / 16 | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/E LAP 210/241/242/243/244

Receipt Parameter: NELAC Compliance

Container Type: Y N

Preservation: Y N

Holding Time: Y N

Comments: Y N

Temperature: 20°C 12/5/16 16:40

Sampled By: *[Signature]* Date/Time: 12/01/16 15:30 Total Cost:

Relinquished By: *[Signature]* Date/Time: 12/05/16 16:30

Received By: *[Signature]* Date/Time: 12/5/16 16:43 P.I.F.

Received @ Lab By: *[Signature]* Date/Time: 12/5/16 16:43

05
00
12/5/16



Chain of Custody Supplement

Client: Fisher Associates

Completed by: Glen Pezzulo

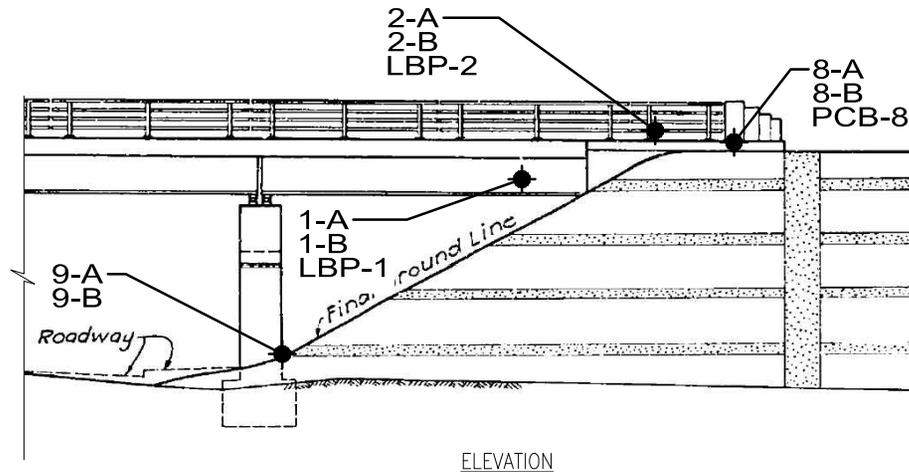
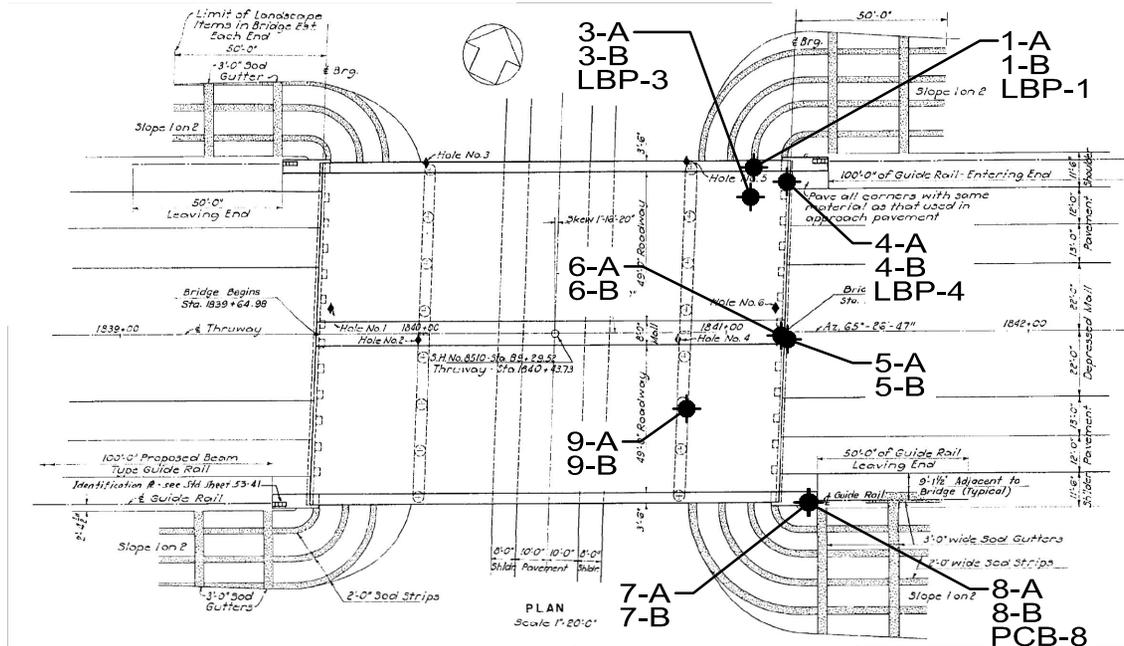
Lab Project ID: 165260

Date: 12/5/16

Sample Condition Requirements Per NELAC/ELAP 210/241/242/243/244

| Condition | NELAC compliance with the sample condition requirements upon receipt | | |
|--|--|---|---|
| | Yes | No | N/A |
| Container Type | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments | _____ | | |
| Transferred to method-compliant container | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Headspace (<1 mL) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Comments | _____ | | |
| Preservation | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Comments | _____ | | |
| Chlorine Absent (<0.10 ppm per test strip) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Comments | _____ | | |
| Holding Time | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments | _____ | | |
| Temperature | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> MTR/S |
| Comments | <u>20°C</u> | | |
| Sufficient Sample Quantity | <input checked="" type="checkbox"/> MPBR 01-03 | <input checked="" type="checkbox"/> MPBR 04 | <input type="checkbox"/> |
| Comments | <u>1.0 volume of MPBR</u> | | |

APPENDIX D
SAMPLE LOCATION PLANS



Not to Scale

FISHER 
ASSOCIATES

WWW.FISHERASSOC.COM

LEGEND:

 1-A SAMPLE LOCATION AND IDENTIFICATION

Figure No. H1.01

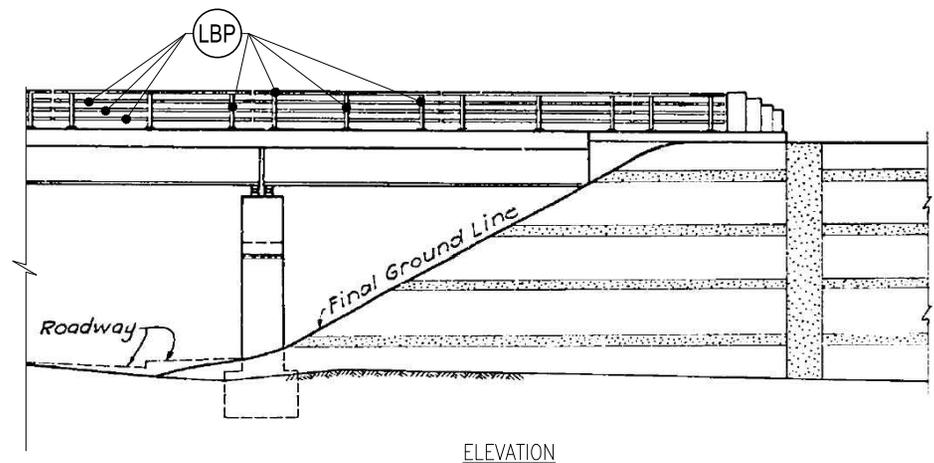
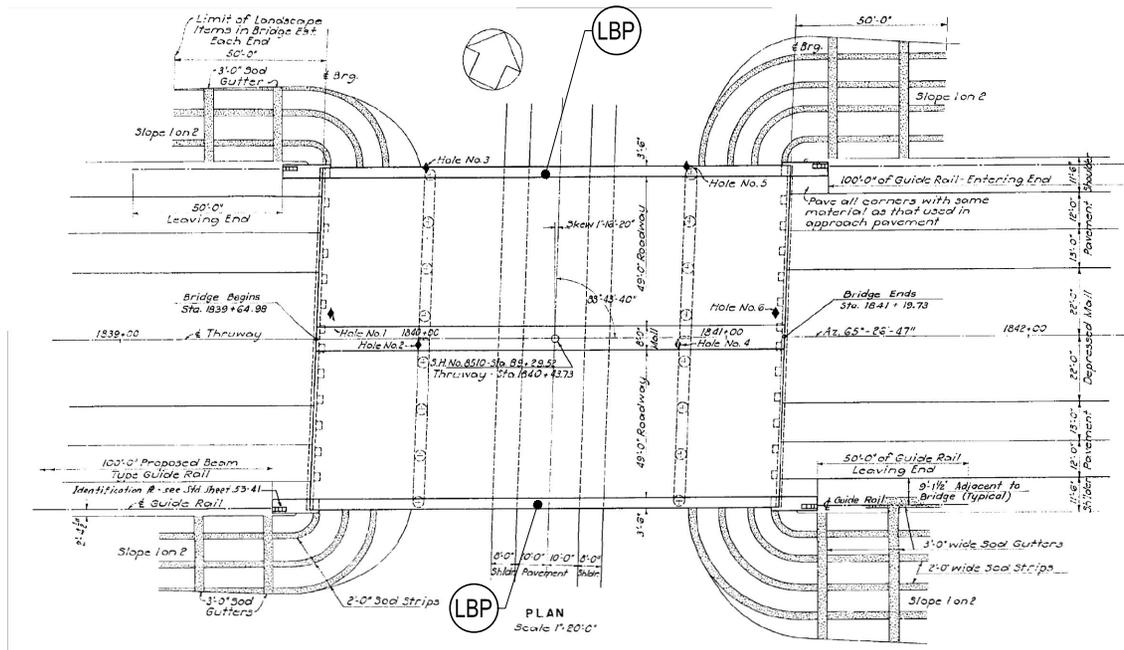
SAMPLE LOCATION PLAN
D214385 B.I.N. 5009929

I-90 MAINLIKE BRIDGE OVER ORISKANY BLVD.
TOWN OF WHITESBORO
ONEIDA COUNTY, NEW YORK

FA #151021.09

FEBRUARY 2017

APPENDIX E
HAZARDOUS MATERIAL LOCATION PLANS



NOTE:
LEAD BASED PAINT IS ON GUIDERAILS, EITHER SIDE OF BRIDGE.

Not to Scale



LEGEND

- AC ASBESTOS-CONTAINING
- PCB POLYCHLORINATED BIPHENYLS
- LF LINEAR FEET
- SF SQUARE FEET
- (LBP) LEAD-BASED PAINT

APPROXIMATE QUANTITIES (ENTIRE STRUCTURE)

(LBP) 490 SF

Figure No. H2.01
HAZARDOUS MATERIALS LOCATION PLAN
D214385 B.I.N. 5009929
I-90 MAINLIKE BRIDGE OVER ORISKANY BLVD.
TOWN OF WHITESBORO
ONEIDA COUNTY, NEW YORK
FA #151021.09 FEBRUARY 2017



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 LUKER ROAD
CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Code: 05E1NY00-2017-SLI-0237

November 07, 2016

Event Code: 05E1NY00-2017-E-00611

Project Name: NYSTA MP238.22 Oriskany Blvd.

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (

http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: NYSTA MP238.22 Oriskany Blvd.

Official Species List

Provided by:

New York Ecological Services Field Office

3817 LUKER ROAD

CORTLAND, NY 13045

(607) 753-9334

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Code: 05E1NY00-2017-SLI-0237

Event Code: 05E1NY00-2017-E-00611

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Name: NYSTA MP238.22 Oriskany Blvd.

Project Description: The purpose of this environmental review is to facilitate the preliminary design for the rehabilitation or replacement of an existing bridge.

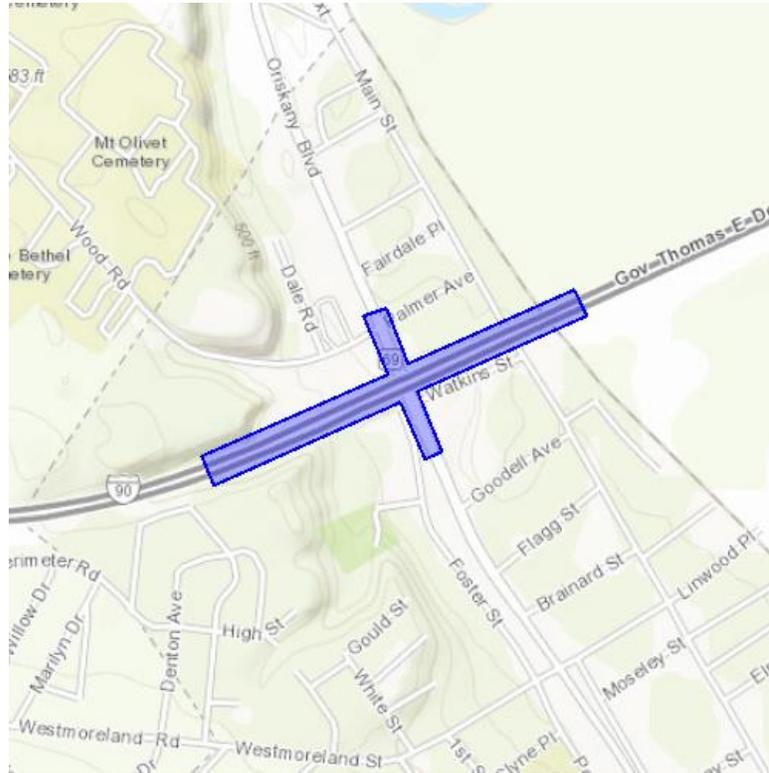
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: NYSTA MP238.22 Oriskany Blvd.

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-75.30595779418945 43.128543339407045, -75.30118346214294 43.13006236739442, -75.30180573463439 43.13115071991907, -75.30123710632324 43.131315145594925, -75.30066847801208 43.1302816054319, -75.2964198589325 43.13164399562051, -75.29613018035889 43.131174209328385, -75.30043244361877 43.129764828800894, -75.2998101711273 43.128629470868816, -75.30025005340576 43.128504188702514, -75.30086159706116 43.12956907893685, -75.30563592910767 43.12800305747123, -75.30595779418945 43.128543339407045)))

Project Counties: Oneida, NY



United States Department of Interior
Fish and Wildlife Service

Project name: NYSTA MP238.22 Oriskany Blvd.

Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

| Mammals | Status | Has Critical Habitat | Condition(s) |
|---|------------|----------------------|--------------|
| Northern long-eared Bat (<i>Myotis septentrionalis</i>) Population: Wherever found | Threatened | | |



United States Department of Interior
Fish and Wildlife Service

Project name: NYSTA MP238.22 Oriskany Blvd.

Critical habitats that lie within your project area

There are no critical habitats within your project area.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish & Wildlife
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



December 14, 2016

Caitlin Graff
Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, NY 13202

Re: NYSTA MP 238.22, New York State Thruway Bridge over Oriskany Boulevard, Whitesboro,
BIN 5009929, EDR No. 16134-3

Town/City: Whitestown. County: Oneida.

Dear Ms. Graff:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage Database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 6 Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

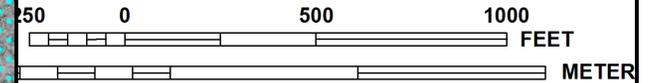
Sincerely,

A handwritten signature in black ink that reads "Nick Conrad".

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program



MAP SCALE 1" = 500'



NFP

PANEL 0593F

FIRM

FLOOD INSURANCE RATE MAP

for ONEIDA COUNTY, NEW YORK
(ALL JURISDICTIONS)

CONTAINS:

| <u>COMMUNITY</u> | <u>NUMBER</u> |
|---------------------|---------------|
| MARCY, TOWN OF | 360533 |
| WHITESBORO, VILLAGE | 360566 |
| OF | |
| WHITESTOWN, TOWN OF | 360567 |

PANEL 593 OF 926

MAP SUFFIX: F

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
36065C0593F



EFFECTIVE DATE
SEPTEMBER 27, 2013

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Section 106 Project Submittal Package

Replacement of Syracuse Division Bridges

Milepost 238.22: Oriskany Boulevard, Town of Whitesboro, New York

BIN 5009929

Town of Whitesboro, Oneida County, New York

NYSTA Project ID:

Prepared for:



New York State Thruway Authority
200 Southern Blvd.
P.O. Box 189
Albany, NY 12201-0189



Stantec
61 Commercial Street, Suite 100
Rochester, NY 14614
www.stantec.com

Prepared by:



**Environmental Design & Research,
Landscape Architecture, Engineering, & Environmental Services, D.P.C.**
217 Montgomery Street, Suite 1000
Syracuse, New York 13202
www.edrdpc.com

February 2017

NEW YORK STATE THRUWAY AUTHORITY (NYSTA) PROJECT SUBMITTAL PACKAGE
Section 106 of the National Historic Preservation Act

A Project Submittal Package is prepared by the NYSTA (Sponsor) or their consultants for federal aid transportation projects to provide sufficient information for NYSTA assessment of Section 106 obligations.

DATE February 10, 2017 NYSTA PROJECT ID _____ BINs 5009929

IDENTIFICATION

Project Name (if any) MP 238.22, Oriskany Boulevard, Whitesboro

Project Area Boundaries See attached mapping for limits of Projects. Section 1.1 contains a full description of Project limits.

(Indicate State or County Route # and/or local street name, and clearly defined endpoints)

County Oneida

Town/City Whitesboro

Village/Hamlet: N/A

Have you consulted the NYSHPO web site at *<http://nysparks.state.ny.us> to determine the preliminary presence or absence of previously identified cultural resources within or adjacent to the project area? If yes: Yes No

- Was the project site wholly or partially included within an identified archaeologically sensitive area? Yes No
- Does the project site involve or is it substantially contiguous to a National Register of Historic Places listed property? Yes No

*<http://nysparks.state.ny.us> then select **HISTORIC PRESERVATION** then **Historic Preservation Field Services Bureau** then **On Line Tools – CRIS**

| |
|---|
| ALL PROJECTS SUBMITTED FOR REVIEW SHOULD INCLUDE THE FOLLOWING INFORMATION |
|---|

Project Description – Attach a full description of the nature and extent of the work to be undertaken as part of this project. This should include, but not limited to, potential activities that might involve drainage, cutting, excavation, grading, filling, on-site detours, new sidewalks, right-of-way acquisition. Relevant portions of the project applications or environmental statements may be submitted. This could be from sections of the Draft Design Report/ Draft Scoping Document.

Location Maps - Provide USGS Quad or DOT Planimetric map showing project area location. The map must clearly show street and road names surrounding the project area as well as all portions of the project.

Photos - Provide clear, original color photographs of the entire project area keyed to a site plan. These photos should indicate:

- Buildings/structures more than 50 years old that are located along the property or on adjoining property
- Areas of prior ground disturbance (removal of original topsoil; filling and plowing are not considered disturbance)

LOCAL SPONSOR CONTACT

Name: Albert Mastroianni Title: Project Manager
Firm/Agency: New York State Thruway Authority
Address: 200 Southern Boulevard City: Albany State: NY Zip: 12201
Phone: 518-436-2909 E-Mail: Albert.mastroianni@thruway.ny.gov

Consultant Name: Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.
Contact Information: 217 Montgomery Street, Suite 1000, Syracuse, NY 13202
Phone: (315) 471-0688

1.0 Project Information

The purpose of this Section 106 Project Submittal Package (PSP) is to document the potential for impact on cultural resources that may result from replacement of the New York State Thruway bridge over Oriskany Boulevard, at Milepoint (MP) 238.22 on the New York State Thruway, in the Town of Whitesboro, Oneida County, New York (hereafter, the Project). This PSP was prepared by Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) on behalf of the New York State Thruway Authority (NYSTA). This submittal was prepared by EDR cultural resources staff who meet the qualifications specified by the Secretary of the Interior's Standards for Historic Preservation and Archaeology per 36 CFR Part 61.

1.1 Project Location

The proposed Project consists of the replacement of the New York State Thruway (Interstate 90) mainline bridge over Oriskany Boulevard, in the Town of Whitesboro, Oneida County (see Attachment A). The existing steel multi-girder bridge is oriented east/west and was constructed in 1954.

The following terms are used throughout the PSP to describe the proposed action:

- **NYSTA MP 238.22: Oriskany Boulevard, (BIN 5009929) (the Project):** The proposed Project consists of the replacement an existing steel stringer/steel multi-girder bridges. The existing bridge serves as the mainline of the New York State Thruway, carrying Interstate 90 over Oriskany Boulevard. The existing bridge was constructed circa 1954. As stated in a 2015 Bridge Inspection Report (see Attachment B), several components of the bridge structure have deteriorated, and are in need of repair and/or replacement.
- **Area of Potential Effect (APE):** The APE for this Project is defined as a 1500-foot corridor in both the east and west directions along the thruway from the bridge, as well as a 500-foot corridor in both the north and south directions along Oriskany Boulevard (see Attachment A for limits of the APE).

1.2 Potential Impact on Historic-Architectural Resources

The New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Cultural Resources Information System (CRIS) website was reviewed to determine the location of properties listed on the National Register of Historic Places (NRHP) within 1500 feet to the upper span of the proposed Project, as well as 500 feet from the underlying road (Oriskany Boulevard). No properties previously listed on, or determined eligible for, the NRHP are located within the APE. Therefore, the proposed Project is not anticipated to affect historic properties previously listed on or eligible for the NRHP.

The proposed project will include superstructure replacement. This approach will not significantly alter the appearance of the bridge, and therefore, the Project has no potential to adversely impact the setting of any historic resources.

The bridges were initially constructed as a part of the new Interstate 90 (New York State Thruway) circa 1954, as confirmed in the 2015 Inspection Report (Attachment B). EDR has reviewed the 2002 New York State Department of Transportation (NYSDOT) *Evaluation of National Register Eligibility: Task C3 of the Historic Bridge Inventory and Management Plan*, which does not identify BIN 5009929 as eligible for listing on the NRHP.

1.3 Archaeological Sensitivity

A review of the NYSOPRHP CRIS website determined that the APE is not located in an archaeologically sensitive area, there are no previously reported archaeological sites in the APE, and no previous cultural resources surveys have been conducted within or immediately adjacent to the proposed APE.

A review of historic aerial photographs (see Attachment C) has been developed since the early twentieth century. The east-west length of the APE was initially disturbed by construction of the Thruway in the early-to-mid 1950s, and some structures near the eastern end of the APE appear to have been demolished. The north-south portion of the APE included several structures along the western edge of Oriskany Boulevard that appear to have been demolished during the widening of that road circa 1970. The entire APE has been disturbed by road widening and maintenance throughout the late twentieth century.

The land within and immediately adjacent to the APE has been heavily disturbed by the construction of the New York State Thruway and associated bridges and ramps. Therefore, the APE for the proposed Project is considered to have low archaeological sensitivity for historic and prehistoric cultural resources.

1.4 Archaeological Impact Assessment

There are no previously reported archaeological sites in the APE. All ground disturbance will be restricted to the areas around existing bridge abutments and piers, which consist of made land built up during the construction of Interstate 90 (the New York State Thruway) circa 1954. Therefore, the proposed Project is not anticipated to impact any archaeological resources.

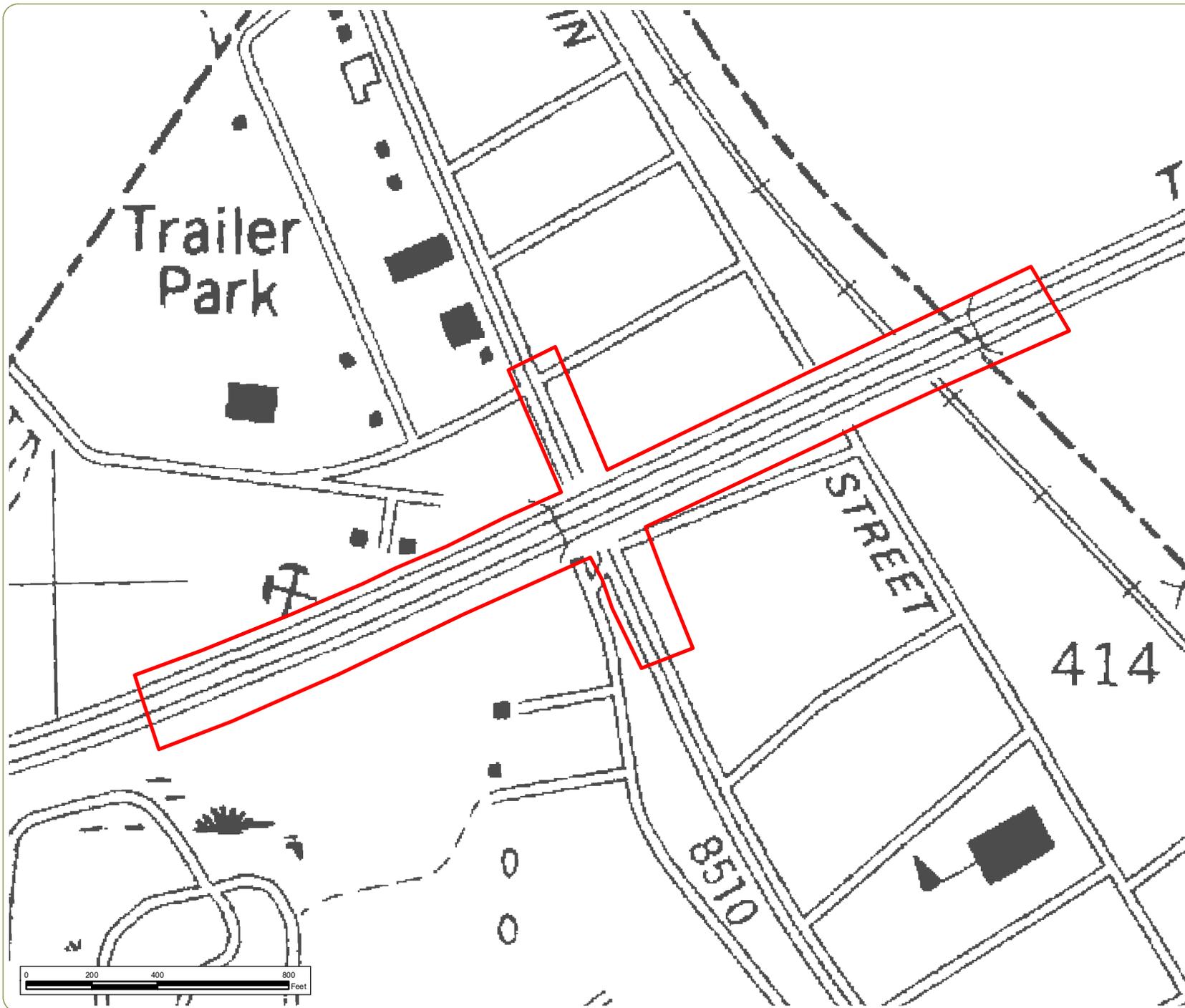
1.5 Photographs

A site visit was conducted by EDR staff on December 1st, 2016, in order to document existing conditions within the project area, including existing land use, visual character, and previous ground disturbance. Photograph locations are noted on a map included as Attachment D and selected photographs from this site visit are included as Attachment E.

LIST OF ATTACHMENTS

- Attachment A. Project Location Map
- Attachment B. 2015 Bridge Inspection Report (Excerpt)
- Attachment C. Historic Aerial Photographs
- Attachment D. Photograph Locations
- Attachment E. Photographs

Attachment A:
Project Location Map



Replacement of Syracuse Division Bridges

**MP 238.22: Oriskany
Boulevard (BIN 5009929)**

Town of Whitesboro,
Oneida County, New York

Attachment A: Project Location

February 2017

 Area of Potential Effect

Notes:
1. Basemap: NYSDOT *Oriskany, NY*
1:24000 planimetric quadrangle.
2. This is a color graphic. Reproduction
in grayscale may misrepresent the data.



Attachment B:
2015 Inspection Report (Excerpt)

BIN: 5009929 **MP:** 238.22
Region: 2 **County:** 6 ONEIDA
Feature Carried: 90IX
Feature Crossed: NYS Route 69, Oriskany Blvd.
General Recommendation: 4
Condition Rating: 3.61
Inspect Date: 9/2/2015



New York State Thruway Authority - Bridge Inspection Report

2015 INSPECTION

| | | | | |
|--------------|------------------------------|--|--|--|
| FLAGS | <input type="checkbox"/> RED | <input checked="" type="checkbox"/> YELLOW | <input checked="" type="checkbox"/> SAFETY | <input type="checkbox"/> NONE |
| | <input type="checkbox"/> PIA | | <input type="checkbox"/> PIA | <input type="checkbox"/> REMOVE / INACTIVE |

REVIEWED BY: Garret Hoffmann
 Garret Hoffmann

TITLE: Quality Control Engineer PE# 70686

**NEW YORK STATE
THRUWAY AUTHORITY
FLAGGED BRIDGE REPORT**

INITIAL:

AL RED FLAG
YELLOW FLAG
SAFETY FLAG

FLAG NUMBER: 15-067
SUPERSEDED FLAG(S): _____
INSPECTOR: Andrew Lachina
DATE OF INSPECTION: 8/19/2015

CURRENT FLAG INDICATOR: **ACTIVE**

PROMPT INTERIM ACTION RECOMMENDED: _____ YES X NO

BRIDGE DESCRIPTION:

MP: 238.22 BIN: 5009929
REGION: 2 COUNTY: 6 (ONEIDA) TOWN: Whitesboro
FEATURES: CARRIED: 90IX CROSSED: NYS Route 69, Oriskany Blvd.
NUMBER OF SPANS BY TYPE: 3 Span; Steel Stringer/Multi-Beam or Girder
YEAR BUILT: 1954

POSTED FOR LOAD: _____ YES X NO TONS: _____

IS BRIDGE WHOLLY OR PARTIALLY THRUWAY OWNED: X YES _____ NO

DESCRIPTION OF FLAGGED CONDITION (Be specific as to exact nature and location of **problem**) :

The Girder ends over Piers 1 and 2 exhibit heavy active corrosion, with significant web section loss in the lower portion of the critical bearing area. Significant web section typically extends for a height of at least 8" above the bearing. There is no distortion or buckling at this time, however it is apparent that corrosion and section loss are progressing at a very rapid rate.
There are no bearing stiffeners and there is only a partial-height diaphragm connection plate on both sides of the interior girders, and on the "inside" of the fascia girders. These typically heavily corroded connection plates only provide support to prevent sidesway buckling, and provide no support against local web yielding or local web crippling.
Two Locations meet NYSDOT Yellow Flag criteria of >50% web section loss directly over bearing:
Span 1, Girder G5 at Pier 1 - 55% section loss
Span 2, Girder G1 at Pier 1 - 50% section loss
Span 1, Girder G1 at the Begin Abutment and 15 additional girder end locations over Piers 1 & 2 have similar (26%-41%) web section loss, but do not meet the extent of deterioration to warrant a Yellow Flag. See attached Section Loss Documentation.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES _____ NO IF YES, NUMBER ATTACHED: 3

FLAGGED BRIDGE REPORT COMPLETED BY: Andrew Lachina DATE: 8/20/2015

VERBAL NOTIFICATION: (For Red Flags and Safety Flags with PIA only)

TO: _____ of Headquarters on _____
TO: _____ (Responsible Party) on _____
BY: _____

* The appropriate caption in the upper left of this form shall be initialed by the individual who is the initialled

Andrew Lachina 8/20/15
Signature of Thruway Team Leader Date:

| | | |
|---|---|---|
| Location: | 238.22-FLG-99-00-15S1P1G5.JPG | 1 |
| Span 1, Girder G5 over Pier 1 from Right |  | |
| Description: | | |
| Lower portion of the web bearing area exhibits heavy active corrosion, with 55% section loss. | | |
| Reference: | | |
| FLAG #: 15-067 | | |

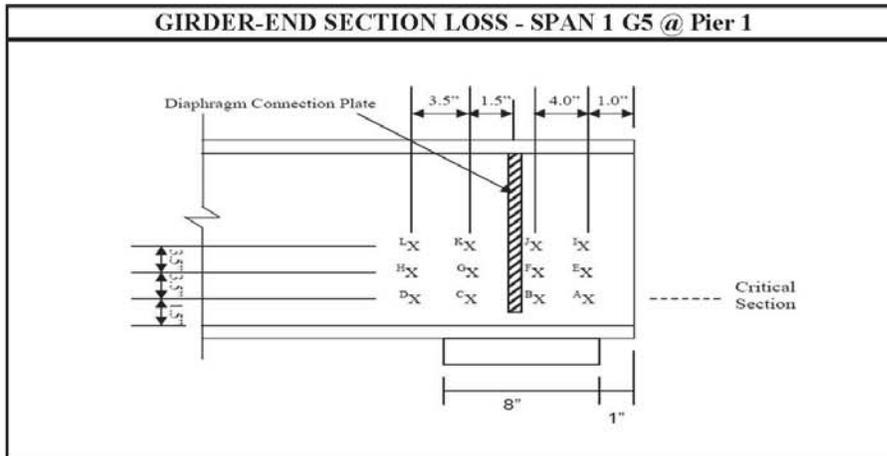
| | | |
|---|--|---|
| Location: | 238.22-FLG-99-02-15S2P1G1.JPG | 2 |
| Span 2, Girder G1 over Pier 1 from Left |  | |
| Description: | | |
| Bearing area has significant active corrosion, with 50% section loss in the lower portion of the web. | | |
| Reference: | | |
| FLAG #: 15-067 | | |

| | | |
|---|---|---|
| Location: | 238.22-FLG-99-03-15S2P1G1.JPG | 3 |
| Span 2, Girder G1 over Pier 1 from Right |  | |
| Description: | | |
| Heavy active corrosion with 50% section loss directly over the bearing. | | |
| Reference: | | |
| FLAG #: 15-067 | | |

Flag Log No: 15-067

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-01-15S1G5P1.jpg



| | | | | | | | | | | | | |
|--------------------|------------|------------|-----------|-------------------------|------------|-------|-----------|---------------------------|------------|-------|-----------|-------|
| W 30x116 | | tw = 0.564 | | Span Side Length= 5.076 | | | | Joint Side Length = 5.000 | | | | |
| S1 G5 @ Pier 1 | Row 1 | | | | Row 2 | | | | Row 3 | | | |
| | Joint Side | | Span Side | | Joint Side | | Span Side | | Joint Side | | Span Side | |
| | A | B | C | D | E | F | G | H | I | J | K | L |
| | 0.134 | 0.218 | 0.317 | 0.337 | 0.362 | 0.348 | 0.464 | 0.454 | 0.384 | 0.434 | 0.501 | 0.497 |
| Average (in) | 0.176 | | 0.327 | | 0.355 | | 0.459 | | 0.409 | | 0.499 | |
| Weighted Ave. (in) | 0.252 | | | | 0.407 | | | | 0.454 | | | |
| % SL | 55% | | | | 28% | | | | 19% | | | |

| Span 1, G5 @ Pier1 | Percent Section Loss | |
|--|----------------------|--|
| Design Section per Plan: W 30x116; | 2015 | |
| Web Thickness: 0.564", Bearing Stiffener: None* | | |
| Avg. Web SL. Span Side (9*tw=5.076") [Avg% / Worst%] | 24% / 42% | |
| Avg. Web SL. Joint Side (5.0") [Avg% / Worst%] | 44% / 69% | |
| Computed Ave. SL. | 34% | |
| Computed Ave. SL. for critical Section (Row 1) | 55% | |
| Notes: | | |
| 2015: Web Section Loss monitoring established. | | |
| | | |
| | | |

*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 5.076" + 5.0" = 10.076"

Total original effective bearing area = 10.076" x 0.564" = 5.682 in²

Sample calculations: (Row 1)

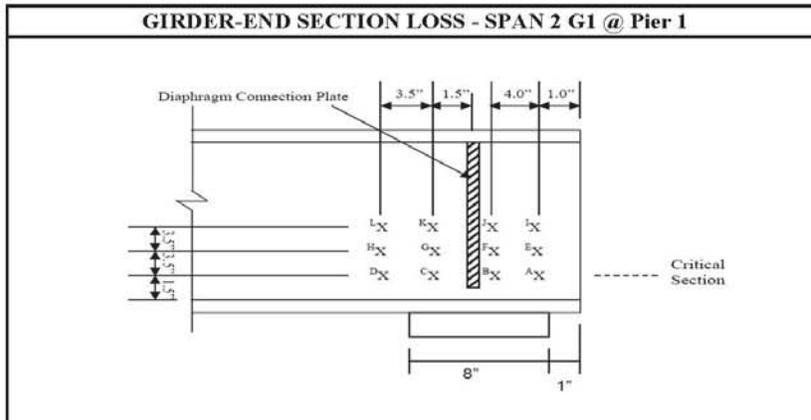
Weighted Ave. = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / Total effective bearing length

Weighted Average = [(0.327" x 5.076") + (0.176" x 5.0")] / (10.076") = 0.252"

Flag Log No: 15-067

Sketch Type: Flag/Condition Alert

File Name: 238.22-FLG-99-02-15S2G1P1.jpg



| | | | | | | | | | | | | |
|--------------------|------------|------------|-------------------------|---------------------------|------------|-------|-----------|-------|-------|-------|-------|-------|
| W 36x230 | | tw = 0.765 | Span Side Length= 6.885 | Joint Side Length = 5.000 | | | | | | | | |
| S2 G1 @ Pier 1 | Row 1 | | Row 2 | | Row 3 | | | | | | | |
| | Joint Side | | Span Side | | Joint Side | | Span Side | | | | | |
| | A | B | C | D | E | F | G | H | I | J | K | L |
| | 0.329 | 0.284 | 0.406 | 0.476 | 0.389 | 0.342 | 0.509 | 0.492 | 0.487 | 0.518 | 0.602 | 0.542 |
| Average (in) | 0.307 | | 0.441 | | 0.366 | | 0.501 | | 0.503 | | 0.572 | |
| Weighted Ave. (in) | 0.384 | | | | 0.444 | | | | 0.543 | | | |
| % SL | 50% | | | | 42% | | | | 29% | | | |

| | | |
|--|----------------------|--|
| Span 2, G1 @ Pier1 | Percent Section Loss | |
| Design Section per Plan: W 36x230; | 2015 | |
| Web Thickness: 0.765", Bearing Stiffener: None* | | |
| Avg. Web SL. Span Side (9*tw=6.885") [Avg% / Worst%] | 34% / 42% | |
| Avg. Web SL. Joint Side (5.0") [Avg% / Worst%] | 49% / 60% | |
| Computed Ave. SL. | 40% | |
| Computed Ave. SL. for critical Section (Row 1) | 50% | |
| Notes: | | |
| 2015: Web Section Loss monitoring continued. | | |
| | | |
| | | |

*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 6.885" + 5.0" = 11.885"

Total original effective bearing area = 11.885" x 0.765" = 9.09 in²

Sample calculations: (Row 1)

Weighted Average = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / (Total effective bearing length)

Weighted Average = [(0.441" x 6.885") + (0.307" x 5.0")] / (11.885") = 0.384"

**NEW YORK STATE
THRUWAY AUTHORITY
FLAGGED BRIDGE REPORT**

INITIAL:

____ RED FLAG
____ YELLOW FLAG
Ad. SAFETY FLAG

FLAG NUMBER: 15-084
SUPERSEDED FLAG(S): _____
INSPECTOR: Andrew Lachina
DATE OF INSPECTION: 9/2/2015

CURRENT FLAG INDICATOR: **ACTIVE**

PROMPT INTERIM ACTION RECOMMENDED: _____ YES X NO

BRIDGE DESCRIPTION:

MP: 238.22 BIN: 5009929
REGION: 2 COUNTY: 6 (ONEIDA) TOWN: Whitesboro
FEATURES: CARRIED: 90IX CROSSED: NYS Route 69, Oriskany Blvd.
NUMBER OF SPANS BY TYPE: 3 Span; Steel Stringer/Multi-Beam or Girder
YEAR BUILT: 1954
POSTED FOR LOAD: _____ YES X NO TONS: _____

IS BRIDGE WHOLLY OR PARTIALLY THRUWAY OWNED: X YES _____ NO

DESCRIPTION OF FLAGGED CONDITION (Be specific as to exact nature and location of problem) :

Safety Flag is being issued based on QC comments.
In Span 2 and Span 3, the Deck is only 7.5" thick and exhibits widespread severe spalling with exposed, debonded and heavily corroded transverse and longitudinal reinforcement. Spalled areas are up to 4" deep, and exhibit moderate to heavy dampness. Exposed reinforcement bars typically have 20% to 40% section loss, with isolated areas where rebar has rusted through. Further deterioration may result in a punch-thru.
Worst locations of deck damage include:

Span 2, Bay 1 at Begin - 4" deep spalling, with severely corroded & debonded rebar. Remaining concrete is very soft.
Span 2, Bay 4 at L/3 - 5' L x 8' W x 3" D spill w/ 13 debonded bars. Remaining concrete is very damp.
Span 2, Bays 10 & 11 - 2.5" to 4" deep spalling with debonded rebar Full-width between girders.
Span 3, Bay 1 at Begin - 6' L x 8' W area of 3" deep spalling with several main transverse bars completely rusted thru.
Span 3, Median Bay 7 - 12 SF area of spalling up to 9" deep, completely debonding entire bottom mat of rebar.

Other areas have similar, but less severe spalling, see attached deck notes and sketches.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES _____ NO IF YES, NUMBER ATTACHED: 6

FLAGGED BRIDGE REPORT COMPLETED BY: Andrew Lachina DATE: 10/22/2015

VERBAL NOTIFICATION: (For Red Flags and Safety Flags with PIA only)

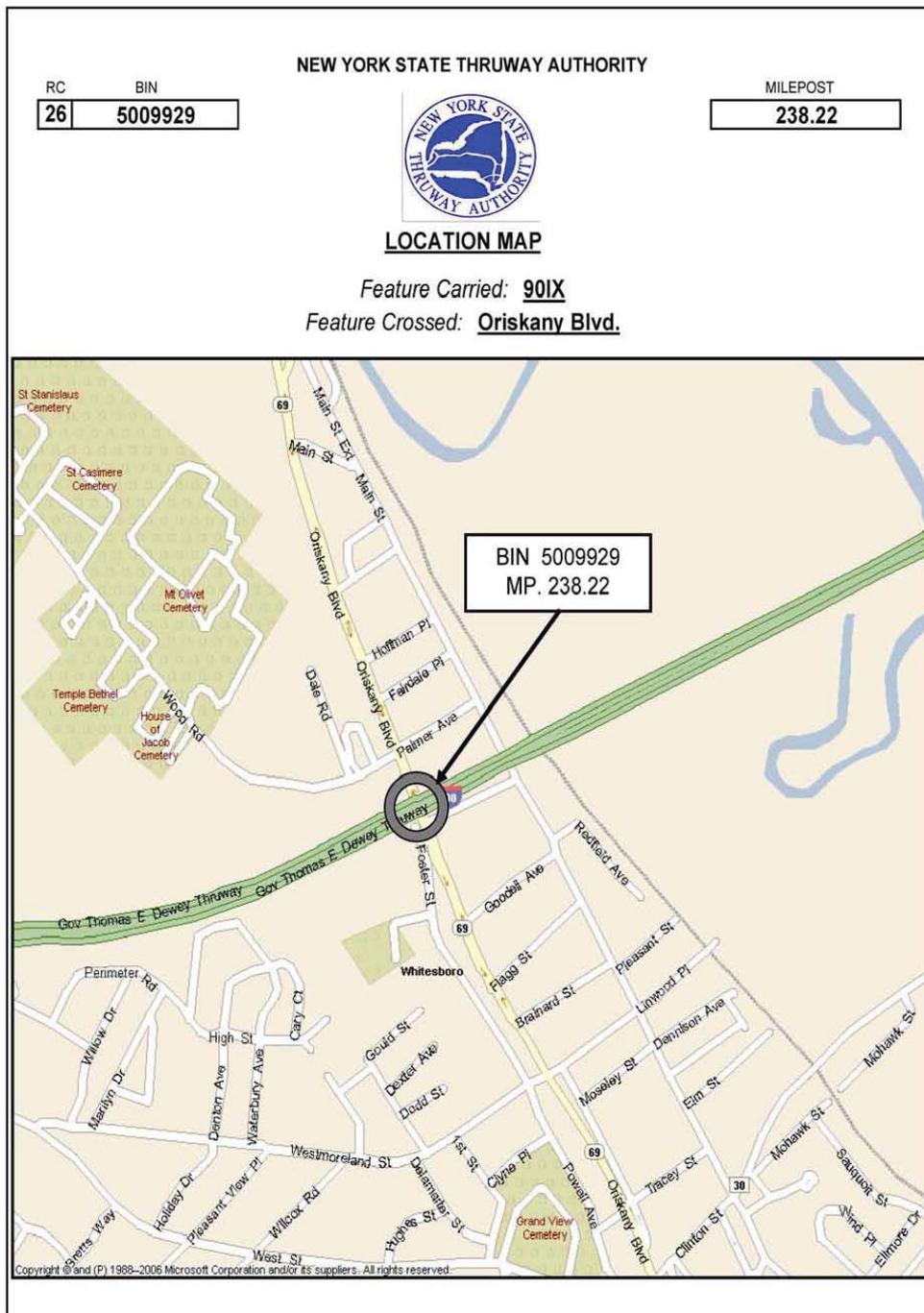
TO: _____ of Headquarters on _____
TO: _____ (Responsible Party) on _____
BY: _____

* The appropriate caption in the upper left of this form shall be initialled by the individual who is the initialled

Andrew Lachina 10/22/15
Signature of Thruway Team Leader Date:

Sketch Type: Location Map

File Name: 238.22-10-01-15LOCMAP.jpg



Attachment C:
Historic Aerial Photographs



MP 238.22

Oriskany Blvd

Whitesboro, NY 13492

Inquiry Number: 4827840.5

January 13, 2017

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Site Name:

MP 238.22
 Oriskany Blvd
 Whitesboro, NY 13492
 EDR Inquiry # 4827840.5

Client Name:

Environmental Design & Research, d.p.c
 217 Montgomery Street
 Syracuse, NY 13202
 Contact: Caitlin Graff



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

| <u>Year</u> | <u>Scale</u> | <u>Details</u> | <u>Source</u> |
|-------------|--------------|--------------------------------|---------------|
| 2011 | 1"=500' | Flight Year: 2011 | USDA/NAIP |
| 2009 | 1"=500' | Flight Year: 2009 | USDA/NAIP |
| 2008 | 1"=500' | Flight Year: 2008 | USDA/NAIP |
| 2006 | 1"=500' | Flight Year: 2006 | USDA/NAIP |
| 1997 | 1"=500' | Acquisition Date: May 02, 1997 | USGS/DOQQ |
| 1985 | 1"=500' | Flight Date: May 08, 1985 | USGS |
| 1981 | 1"=500' | Flight Date: May 07, 1981 | USGS |
| 1974 | 1"=500' | Flight Date: April 17, 1974 | USGS |
| 1960 | 1"=500' | Flight Date: May 06, 1960 | USGS |
| 1957 | 1"=500' | Flight Date: July 17, 1957 | USGS |
| 1952 | 1"=500' | Flight Date: March 27, 1952 | USGS |
| 1941 | 1"=500' | Flight Date: May 04, 1941 | USGS |

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INQUIRY #: 4827840.5

YEAR: 2011

— = 500'



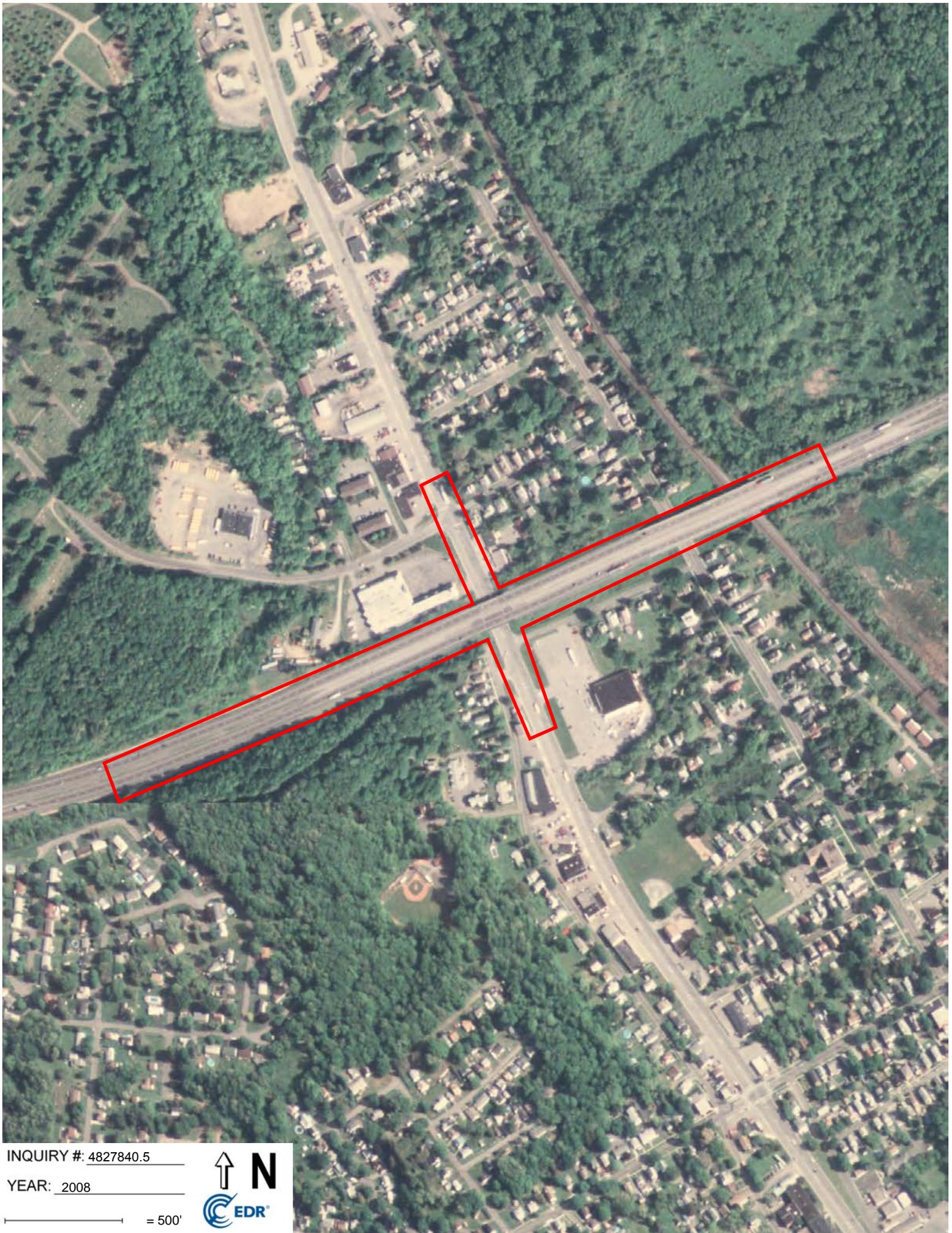


INQUIRY #: 4827840.5

YEAR: 2009

— = 500'





INQUIRY #: 4827840.5

YEAR: 2008

— = 500'





INQUIRY #: 4827840.5

YEAR: 2006

— = 500'





INQUIRY #: 4827840.5

YEAR: 1997

— = 500'



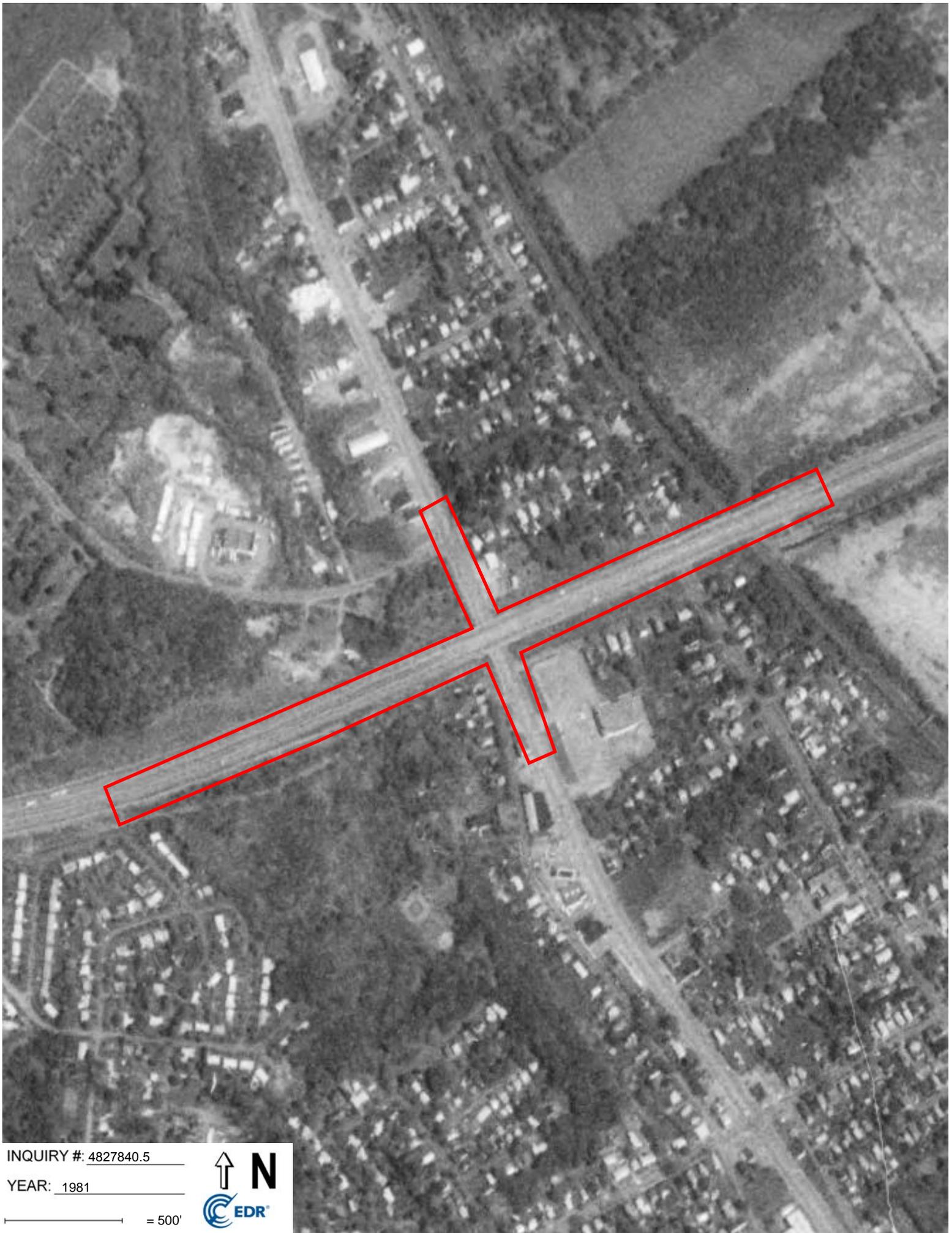


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YEAR: 1985

— = 500'





INQUIRY #: 4827840.5

YEAR: 1981

— = 500'



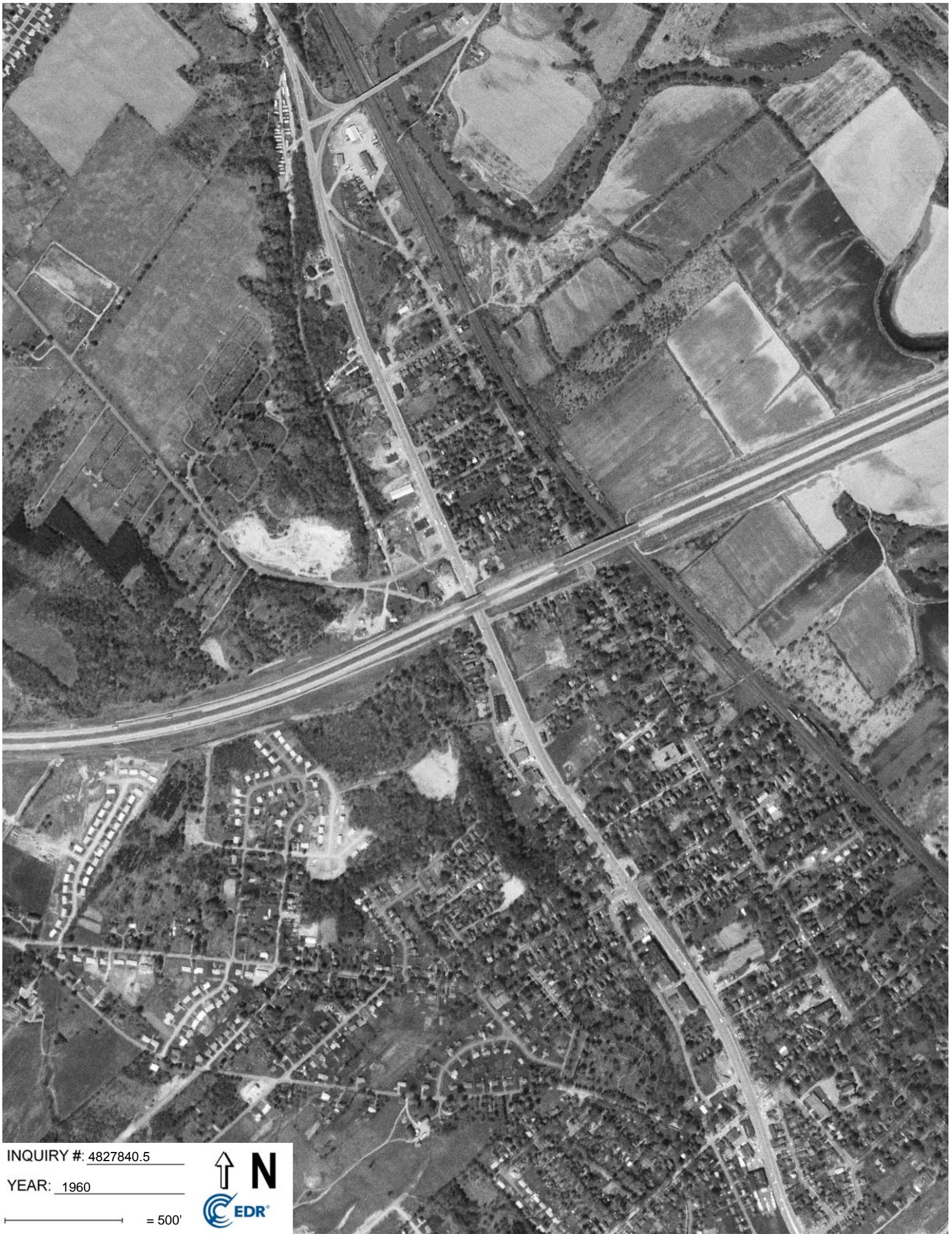


INQUIRY #: 4827840.5

YEAR: 1974

— = 500'





INQUIRY #: 4827840.5

YEAR: 1960

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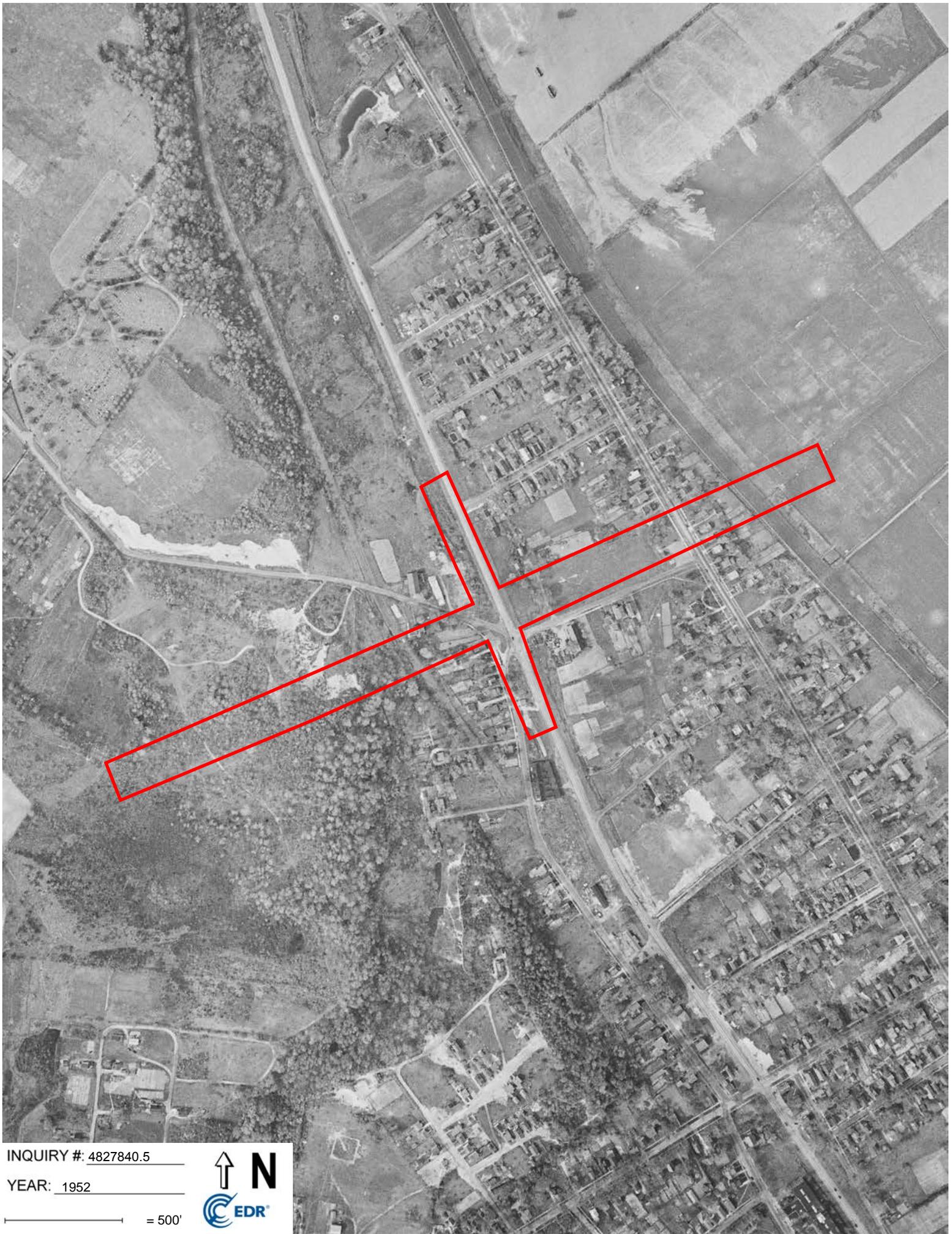


INQUIRY #: 4827840.5

YEAR: 1957

— = 500'





INQUIRY #: 4827840.5

YEAR: 1952

— = 500'





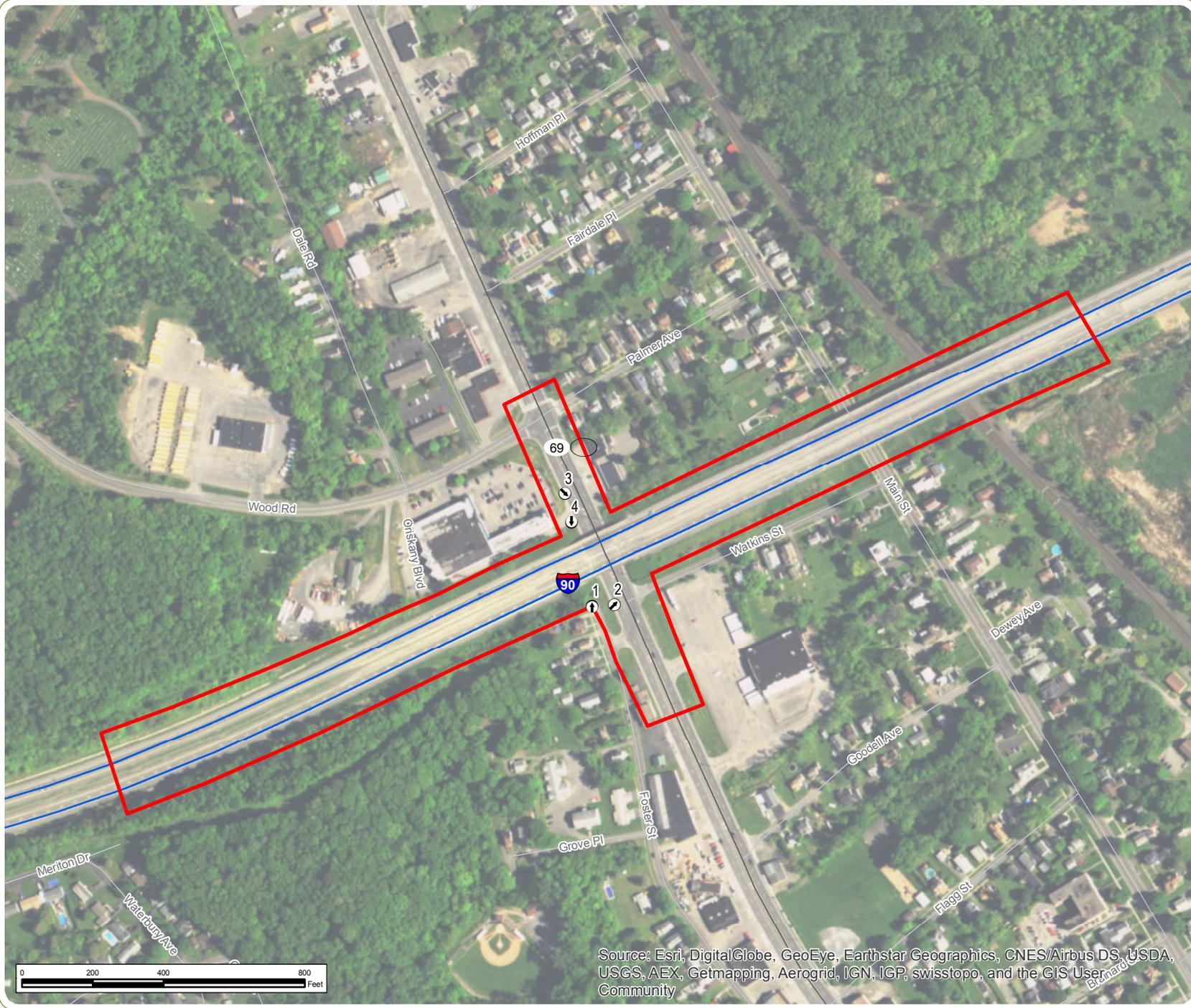
INQUIRY #: 4827840.5

YEAR: 1941

— = 500'



**Attachment D:
Photograph Locations**



Replacement of Syracuse Division Bridges

**MP 238.22:
Oriskany Boulevard
(BIN 5009929)**

Town of Whitesboro, Oneida County
New York

Attachment D: Photograph Locations

February 2017

-  Photograph Location
-  Area of Potential Effect

Notes:
 1. Basemap: ESRI ArcGIS "World Imagery" online map database.
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Attachment E:
Photographs



Photo 1

View of the Thruway bridge over Oriskany Boulevard showing cut-and-fill disturbance, facing north.



Photo 2

View of the Thruway bridge over Oriskany Boulevard showing cut-and-fill disturbance, facing northeast.

Replacement of Syracuse Division Bridges

MP 238.22: Oriskany Boulevard (BIN 5009929)

Town of Whitesboro, Oneida County, New York

Attachment E: Photographs

Sheet 1 of 2



Photo 3

View of the Thruway bridge over Oriskany Boulevard showing cut-and-fill disturbance, facing east from the Crosspoint Church.



Photo 4

View of the Thruway bridge over Oriskany Boulevard showing cut-and-fill disturbance, facing southwest.

Replacement of Syracuse Division Bridges

MP 238.22: Oriskany Boulevard (BIN 5009929)

Town of Whitesboro, Oneida County, New York

Attachment E: Photographs

Sheet 2 of 2

HAZARDOUS WASTE/ CONTAMINATED MATERIALS SCREENING (DRAFT)

Replacement of Syracuse Division Bridges

Milepost 238.22: Oriskany Boulevard

BIN 5009929

Town of Whitesboro, Oneida County, New York

Prepared for:



New York State Thruway Authority
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February 2017

TABLE OF CONTENTS

| | |
|---|----|
| EXECUTIVE SUMMARY | 1 |
| LIMITATIONS | 2 |
| 1.0 INTRODUCTION | 3 |
| 2.0 METHODOLOGY | 3 |
| 2.1 Site Inspection..... | 3 |
| 2.2 Past and Current Land Use Research..... | 3 |
| 2.3 Records Review | 4 |
| 3.0 FINDINGS | 4 |
| 3.1 Site Inspection Findings | 4 |
| 3.2 Past and Current Land Use Research Findings | 5 |
| 3.3 Records Review Findings..... | 6 |
| 3.4 Locations of Concern..... | 7 |
| 4.0 CONCLUSIONS AND RECOMMENDATIONS | 8 |
| REFERENCES..... | 10 |

Attachments

Appendix A: Figures

Appendix B: Site Photographs

Appendix C: Sanborn Maps

Appendix D: Historic and Recent Aerial Photographs

EXECUTIVE SUMMARY

A Hazardous Waste/ Contaminated Materials Screening was conducted for the New York State Thruway bridge over Oriskany Boulevard, at Mile Point (MP) 238.22 on the New York State Thruway (Interstate 90), in the Town of Whitesboro, Oneida County, New York (BIN 5009929). The screening is focused on a Study Area extending approximately 1,500 feet in both the east and west directions along the Thruway from the bridge, as well as a 500-foot corridor in both the north and south directions along Oriskany Boulevard. The Study Area was defined by Stantec. This screening included a review of available records and a Study Area walkover inspection, which was conducted on November 10, 2016. The purpose of this screening is to identify potential areas of environmental concern that may be disturbed during construction.

Based on the information reviewed for this screening, the following is noted:

- A marker indicating the presence of a buried petroleum pipeline was observed along Watkins Street, adjacent to the Study Area. Based on the location of this marker, it is expected that the buried petroleum pipeline runs parallel to the Thruway in an east/west direction adjacent to the Study Area. Prior to excavations for the proposed Project, the location of the pipeline should be confirmed to avoid potential impacts to this pipeline.
- Murnane Associates, Inc., a commercial building contractor, is located adjacent to the Study Area to the north of the Thruway. A storage yard on this parcel was noted to contain building supplies as well as several 55-gallon drums. This property is a registered Petroleum Bulk Storage facility, and which reportedly has one current 1,000-gallon fuel oil Underground Storage Tanks (UST). This facility also has reportedly had historic USTs containing gasoline. No spills or releases have been reported for this adjacent property. However, due to the use of oil and/or hazardous materials (OHM) and proximity to the Study Area, soils excavated adjacent to this parcel should be observed for potential evidence of contamination. As needed, appropriate sampling is recommended.
- The property located at 259 Oriskany Boulevard was identified several times on the database report as a former gas station and auto repair facility with leaking USTs. This parcel is occupied by CMT Auto Sales and Recreation, and reportedly conducts sales and repair of vehicles. One New York State Department of Environmental Conservation (NYSDEC) spill remains open for this property. Based on current operations and open releases at this facility, this property is considered a potential threat to soil and/or groundwater contamination. However, it is located over 400 feet south of the Study Area, and topographically cross to downgradient of the Study Area. It is unlikely that significant contamination from this property has migrated onto the Study Area. However, if excavation at the southern portion of the Study Area results in visual or olfactory evidence of contamination, appropriate sampling is recommended.
- Whitesboro Spring Services at 247-253 Oriskany Boulevard is an active auto repair facility that has had several reported releases of OHM. Although extensive remediation at this site has been reported, reported releases for the property remain open in the NYSDEC records. Based on current operations and open releases at this facility, this property is considered a potential threat to soil and/or groundwater contamination. However, it is located over 500 feet south of the Study Area, and topographically cross to downgradient of the Study Area. It is unlikely that significant contamination from this property has migrated onto the Study Area. If excavation at the southern portion of the Study Area results in visual or olfactory evidence of contamination, appropriate

sampling is recommended.

The following report discusses the complete findings of the Hazardous Waste/ Contaminated Materials Screening.

LIMITATIONS

The findings presented in this screening are based on a description of project activities provided by Stantec, observations noted on the date of the site reconnaissance, and the accuracy and timeliness of the published databases and government records. Should any of the proposed project components change, so may the findings of this screening. Additionally, while this investigation was performed in accordance with the New York State Thruway Authority (NYSTA) Scope of Services provided by Stantec, good commercial and customary practice, and generally accepted protocols, Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) cannot guarantee that the property is free of hazardous substances or other materials or conditions. The presence or absence of any such condition can only be confirmed through the collection and analysis of air, soil and/or groundwater samples, which was beyond the scope of this investigation.

This screening was prepared for the exclusive use of Stantec and the NYSTA, and should not be reproduced or disseminated without the written approval of EDR. Use of this report in whole or in part by parties other than Stantec and the NYSTA is prohibited.

1.0 INTRODUCTION

EDR, as sub-consultant to Stantec has been retained to perform a Hazardous Waste/ Contaminated Materials Screening for the New York State Thruway bridge over Oriskany Boulevard, at MP 238.22 on the New York State Thruway, in the Town of Whitesboro, Oneida County, New York. The screening is focused on a Study Area, defined by Stantec, which extends approximately 1,500 feet in both the east and west directions along the Thruway from the bridge, as well as a 500-foot corridor in both the north and south directions along Oriskany Boulevard.

The NYSDOT *Environmental Manual (TEM)* Chapter 4.4.20 was utilized for guidance during this assessment. The project location is indicated on the Regional Project Location Map (Figure 1), and the Study Area is identified on the Site Location Map (Figure 2).

As described in the NYSTA Scope of Services provided by Stantec, this preliminary screening is a general review to identify properties within the right-of-way or in close proximity to the project that could contain or be a source of hazardous wastes or contaminated materials.

2.0 METHODOLOGY

This assessment included a walkover reconnaissance of the Study Area, a review of existing information about past and current land use, and a review of published databases and government records, including Inactive Hazardous Waste Site Registry, Chemical and Petroleum Bulk Storage records, waste incident/chemical releases reports, and other federal, state, county, and local sources of information (see References). In January, 2017, Environmental Data Resource, Inc. was contracted by EDR to provide a listing of published databases of hazardous waste sites in the vicinity of the Study Area. These databases provide a listing of sites of potential concern as identified by a review of Federal, State and local databases. This database review was supplemented with a review of published databases available through the NYSDEC web site. The environmental database report is available upon request.

2.1 Site Inspection

A walkover site reconnaissance of the Study Area was conducted on November 10, 2016. The walkover was performed in an attempt to identify visual evidence of contamination such as: discolored or stained soil, stressed or dead vegetation, spills, leaks, leachate or discolored water, air emissions or odors, evidence of previous fires, and evidence of oil sheens on water. In addition, the walkover included a visual survey that attempted to identify whether the following are present within the Study Area: underground or aboveground tanks, vent/fill pipes, well casings or riser pipes from monitoring wells, refueling or pump islands, drums or chemical containers, discarded transformers or transformer pads, surface impoundments or lagoons, landfills or dumps, dumpsters or bulk solid waste, railroad tracks or railyards, sumps, drywells, or septic systems.

2.2 Past and Current Land Use Research

Historical mapping and aerial photography are utilized as part of the Hazardous Waste/ Contaminated Materials screening as they serve as an historical reference to prior land use. Historical mapping and aerial photography was reviewed to identify locations where past use(s) could be considered an environmental concern. Examples of how a past land usage

could lead to an environmental concern is the presence of contaminated soils from a former filling station, automotive repair shop, large manufacturing plant, chemical plant, drycleaner, etc. Based on the location of such sites with respect to the Study Area and the specific past land use, the need for further investigation may be eliminated or warranted.

The following resources were researched to establish the past and current land use within the Study Area:

Sanborn Map Review – Sanborn maps for the Study Area were reviewed for the following years: 1894, 1904, 1911, 1925, 1950, 1952, 1969, 1973, and 1986. Supplemental Sanborn maps showing the western boundary of the Study Area were reviewed for the following years: 1925, 1950, 1952, 1973, and 1986. Supplemental Sanborn maps showing the eastern boundary of the Study Area were reviewed for the following years: 1904, 1911, 1925, 1950, 1952, 1969, 1973, and 1986.

Aerial Photographs - Aerial photographs taken in 1941, 1952, 1957, 1960, 1974, 1981, 1985, 1997, 2006, 2008, 2009, and 2011 supplied by Environmental Data Resource, Inc. were reviewed. These aerial photographs are included in Appendix D. Supplemental aerial photography from Google Earth for the years, 1997, 2003, 2006, 2008, 2009, 2011, and 2015, was also reviewed.

2.3 Records Review

A review of Federal, State and local Environmental databases was conducted. Environmental Data Resource, Inc. was contracted by EDR to provide a comprehensive review of Federal, State and local listed data on potential hazardous waste sites in the vicinity of the Study Area. The environmental database report is available upon request. This data search was performed in accordance with ASTM E-1527-05 standards for minimum search distance. The use of the database report allows for a comprehensive listing of sites of potential concern.

United States Environmental Protection Agency (USEPA) and NYSDEC online databases were reviewed and cross-referenced as part of the review process to supplement the environmental database review referenced above.

3.0 FINDINGS

The project is located in the Town of Whitesboro, Oneida County, New York (Figure 2). The project includes the replacement of the existing New York State Thruway bridge (BIN 5009929) over Oriskany Boulevard at MP 238.22. According to Stantec, the purpose of the project is to improve traffic operations and safety of this Thruway bridge.

3.1 Site Inspection Findings

The Study Area was observed to be occupied primarily by the mainline of the New York State Thruway (I-90), a built-up interstate highway which passes over Oriskany Boulevard in the center of the Study Area. The north-south oriented portion of the Study Area is occupied by Oriskany Boulevard. No buildings are located within the Study Area, and no evidence of underground or aboveground tanks, chemical storage/drums, or other evidence of hazardous material releases were observed in the Study Area during the site walkover.

The topography of the Study Area has been substantially modified, as the Thruway is a built-up roadway and bridge,

and much of the eastern portion of the Study Area is also an elevated section of Thruway. The Thruway section at the eastern portion of the Study Area is elevated over Main Street as well as over active railroad tracks. Note that the eastern portion of the Study Area beyond Main Street was not accessible at the time of the site reconnaissance due to locked fencing. Based on EDR's review of aerial photography of this area and a driving survey, the Thruway remains as an elevated highway over active railroad tracks in this area. Further east, the Thruway continues as a built-up interstate highway to the eastern boundary of the Study Area. The areas north and south of the eastern portion of the Thruway are low-lying areas that are undeveloped and largely wooded.

The overall area generally slopes down toward the east. Mapped wetlands are located at-grade within the eastern portion of the Study Area, and the Mohawk River is located approximately 0.5-mile northeast of the Study Area. Groundwater at the Study Area is expected to generally flow to the east/northeast toward the Mohawk River.

Solid waste debris was observed along the side of the Thruway and Oriskany Boulevard within the Study Area; however, evidence of a release of OHM was not noted at the time of the site walkover. Pole-mounted transformers were observed along the boundaries of the Study Area along Oriskany Boulevard. Evidence of leakage was not noted around the transformers observed within or adjacent to the Study Area at the time of the site reconnaissance.

Note that a marker indicating the presence of a buried petroleum pipeline was observed along Watkins Street, adjacent to the Study Area. Based on the location of this marker, it is expected that the buried petroleum pipeline runs parallel to the Thruway in an east/west direction adjacent to the Study Area.

Properties in the immediate vicinity of the Study Area include:

- Crosspoint Church is located at the northwest corner of the intersection of the Thruway and Oriskany Boulevard, just south of Wood Road.
- West of the Crosspoint Church along Wood Road (north of the Study Area) is a parcel occupied by Murnane Associates, Inc., a commercial building contractor. A storage yard on this parcel was noted to contain building supplies as well as several 55-gallon drums.
- Southwest of the Study Area, Oriskany Boulevard and Foster Street are developed with a mix of residential and commercial properties. Further west is undeveloped land, followed by a network of residential streets.
- The parcel immediately southeast of the bridge intersection is occupied by an American Freight Furniture and Mattress commercial facility.
- Residential properties are located north and south of the elevated section of Thruway at the eastern portion of the Study Area, along Watkins Street and Main Street.
- Further east, the elevated Thruway continues, and crosses over active railroad tracks. Beyond the railroad tracks, the Thruway continues as a built-up interstate highway, with undeveloped and largely wooded areas to the north and south.

Photographs obtained during the walkover site inspection of the Study Area are included in Appendix B.

3.2 Past and Current Land Use Research Findings

The Sanborn Map review for the Study Area (Appendix C) identified the following:

- Between 1894 and 1904, the Study Area was shown as primarily vacant on Sanborn Maps. Scattered

- residences were present to the east of the Study Area along Main Street.
- In the 1911 Sanborn Map, the Erie Canal crossed through the Study Area in a north/south orientation in the approximate location of Oriskany Boulevard. Scattered residences were present to the south and east of the Study Area, and the Whitesboro Canning Company was present to the northwest along the Erie Canal.
 - In 1925, the Erie Canal was no longer present in the Study Area, but Oriskany Boulevard had not yet been constructed. The road currently called Wood Road to the northwest was labeled as Valley Road. Scattered residences were present in the vicinity of the Study Area, particularly to the east along Main Street. Railroad tracks were present to the east.
 - In the 1950 and 1952 Sanborn Maps, the Thruway had not yet been developed. Roadways including Oriskany Boulevard, Foster Street, Watkins Street, Woods Road, and Dales Road were present. An additional road, Brierly Avenue, led north off Watkins Street and was occupied by residential properties. The vicinity roads were occupied primarily by dwellings, with scattered commercial development. Railroad tracks were present at the eastern portion of the Study Area.
 - Between 1969 and 1986, the Study Area remained largely consistent. The Thruway was present, as well as Oriskany Boulevard. During this time, Wood Road northwest of the Study Area appears to cross under the Thruway and connect with Foster Street. The area surrounding the Study Area was occupied primarily by residential properties, both single-family residences, and a few small apartment buildings to the southeast. Two restaurants were also present along Oriskany Boulevard. The property to the northwest of the bridge intersection is identified as vacant. The railroad tracks at the eastern portion of the Study Area were present. A truck repair facility to the northwest of the Study Area along Dale Road.

Aerial photographs reviewed for the Study Area (Appendix D) were consistent with the findings of the Sanborn Map review.

Additional discussion of the findings of the historical mapping and aerial photography review is included in the discussion of the properties and/or locations of concern in Section 3.3 of this report, if warranted.

3.3 Records Review Findings

Table 1 summarizes the information available through the Environmental Data Resource, Inc. database search and supplemented through a review on line databases, an understanding of the Study Area, and a site reconnaissance.

Table 1: Environmental Records Review

| Standard Environmental Record Sources | Minimum Search Distance – ASTM Standard: miles (kilometers) | No. of Listed Properties¹ |
|---|--|---|
| Federal NPL Site List | 1.0 (1.6) | 0 |
| Federal Delisted NPL Site List | 0.5 (0.8) | 0 |
| Federal CERCLIS List (SEMS) | 0.5 (0.8) | 0 |
| Federal CERCLIS NFRAP Site List (SEMS Archive) | 0.5 (0.8) | 0 |
| Federal RCRA CORRACTS Facilities List | 1.0 (1.6) | 0 |
| Federal RCRA non-CORRACTS TSD Facilities List (RCRA-TSDF) | 0.5 (0.8) | 0 |
| Federal RCRA Generators List | Property and adjoining properties only | 0 |
| Federal Institutional Control/ Engineering Control Registries | Property only | 0 |
| Federal ERNS List | Property only | 0 |
| State equivalent NPL | 1.0 (1.6) | 1 |

| Standard Environmental Record Sources | Minimum Search Distance – ASTM Standard: miles (kilometers) | No. of Listed Properties¹ |
|--|--|---|
| State equivalent CERCLIS (Inactive Hazardous Waste Disposal Sites – SHWS) | 0.5 (0.8) | 0 |
| State Landfill and/or Solid Waste Disposal Site Lists (Solid Waste Facility/Landfill – SWF/LF) | 0.5 (0.8) | 0 |
| State Leaking Storage Tank Lists (LTANKS) | 0.5 (0.8) | 11 |
| State Registered Storage Tank Lists (UST/AST) | 0.25 (0.4) | 8 |
| State Institutional Control/Engineering Control Registries | Property only | 0 |
| State Voluntary Cleanup Sites | 0.5 (0.8) | 0 |
| State Brownfield Sites | 0.5 (0.8) | 0 |
| Additional Environmental Record Sources: | | |
| Federal FINDS | Property only | 0 |
| Local List of Registered Storage Tanks (NY HIST UST/AST) | 0.25 (0.4) | 8 |
| State Leaking Storage Tank Lists (HIST LTANKS) | 0.5 (0.8) | 0 |
| NY Spills | 0.125 (0.2) | 8 |
| Federal RCRA – NonGen | 0.25 (0.4) | 3 |
| State Manifest Records | 0.25 (0.4) | 0 |

¹Sites may be listed in more than one database.

3.4 Locations of Concern

Based on the site inspection and records review, sites identified as potentially posing a negative impact on the proposed project are described below:

335 Oriskany Boulevard

The property at 335 Oriskany Boulevard (approximately 150 feet north of the Study Area) is identified on the database report as a historic drycleaner, which was a generator of hazardous waste. This property is no longer registered as a hazardous waste generator. This property is currently occupied by the EZ Wash Laundromat. No RCRA violations or releases were identified on the database report for this property.

Wood Road: Murnane Associates

Murnane Associates on Wood Road is located adjacent to the Study Area to the northwest. This property is a registered Petroleum Bulk Storage facility, and which reportedly has one current 1,000-gallon fuel oil UST. This facility also has reportedly had historic USTs containing gasoline. No spills or releases have been reported for this adjacent property.

259 Oriskany Boulevard

This property was identified several times on the database report as both Mario's Sunoco Service and Tony's Sunoco. This address is listed as having several NYSDEC reported spills, as well current and historic USTs, and leaking USTs. The property is also listed as a historic auto repair facility. This parcel is occupied by CMT Auto Sales and Recreation, and reportedly conducts sales and repair of cars, trucks, and power sports equipment (jet skis, etc.). One NYSDEC spill remains open for this property.

247-253 Oriskany Boulevard

This property is occupied by Whitesboro Spring Services, which is an automotive repair facility. It is listed as a

NYSDEC Spill site, a leaking UST site, and has had several historic USTs, as well as one current 500-gallon fuel oil UST. Remediation at this site has reportedly included the removal of leaking USTs, the excavation of contaminated soils, and groundwater monitoring. Although extensive remediation at this site is reported, reported releases for the property remain open in the NYSDEC records.

Conrail: I 90, MP 237.6

A NYSDEC Spill site was mapped within the Study Area. This release occurred in 1987, and was identified as vandalism of batteries that were left out overnight by a contractor, near the intersection of the Thruway and the Conrail railroad tracks. Battery acid was reportedly released to the environment. The spill was closed by the NYSDEC in 1988, indicating that no additional remedial actions are required.

Woods Road: Rt 69 Woods Road

A NYSDEC spill was reported at this location in 1990, which was identified as being at the northeast boundary of the Study Area. This spill involved a 55-gallon drum in the back of a pick-up truck that tipped over, and released up to 10 gallons of gasoline. The material was reportedly cleaned up, and the spill was listed as closed by the NYSDEC in 1990.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the information reviewed and the site inspection the following items of environmental concern were identified:

- A petroleum pipeline marker was noted along Watkins Street adjacent to the Study Area, indicating that a buried petroleum pipeline is present. Prior to excavations for the proposed Project, the location of the pipeline should be confirmed to avoid potential impacts.
- Murnane Associates, north of the Thruway, was noted to contain building supplies as well as several 55-gallon drums. This property was listed on the database to have current and historic USTs. No spills or releases have been reported for this adjacent property. However, due to the use of OHM and proximity to the Study Area, soils excavated adjacent to this parcel should be observed for potential evidence of contamination. As needed, appropriate sampling is recommended.
- The property located at 259 Oriskany Boulevard was identified several times on the database report as a former gas station and auto repair facility with leaking USTs. This parcel is occupied by CMT Auto Sales and Recreation, and reportedly conducts sales and repair of vehicles. One NYSDEC spill remains open for this property. Based on current operations and open releases at this facility, this property is considered a potential threat to soil and/or groundwater contamination. However, it is located over 400 feet south of the Study Area, and topographically cross to downgradient of the Study Area. It is unlikely that significant contamination from this property has migrated onto the Study Area. However, if excavation at the southern portion of the Study Area results in visual or olfactory evidence of contamination, appropriate sampling is recommended.
- Whitesboro Spring Services at 247-253 Oriskany Boulevard is an active auto repair facility that has had several reported releases of OHM. Although extensive remediation at this site has been reported, reported releases for the property remain open in the NYSDEC records. Based on current operations and open releases at this facility, this property is considered a potential threat to soil and/or groundwater contamination. However, it is

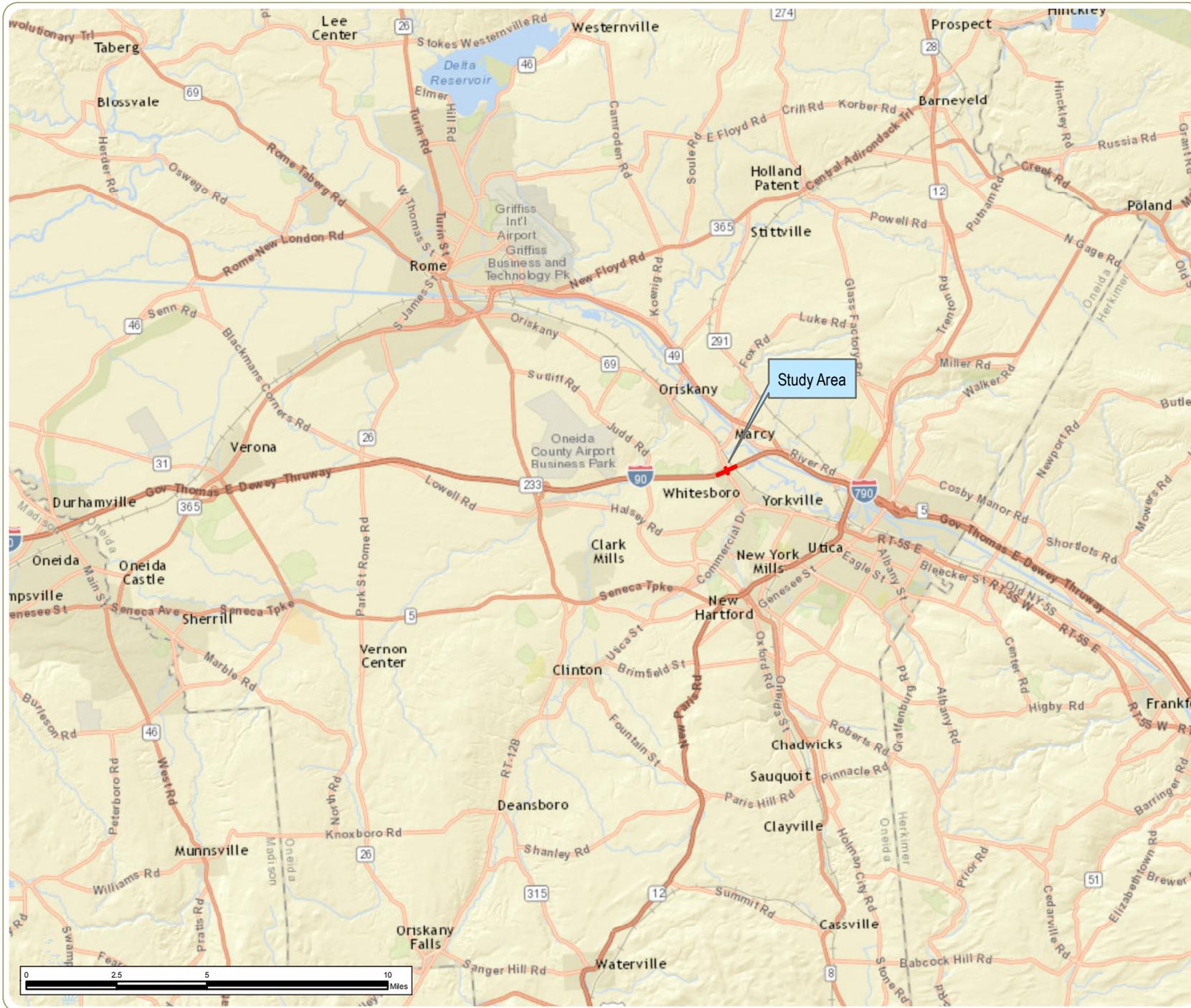
located over 500 feet south of the Study Area, and topographically cross to downgradient of the Study Area. It is unlikely that significant contamination from this property has migrated onto the Study Area. If excavation at the southern portion of the Study Area results in visual or olfactory evidence of contamination, appropriate sampling is recommended.

Note that this preliminary screening is intended to be a general review to identify properties within the right-of-way or in close proximity to the project that could contain or be a source of hazardous wastes or contaminated materials. The findings presented in this screening are based on the proposed project activities, observations noted at the time of the site walkover, and the accuracy and timeliness of the published databases and government records. Should any of the proposed project components change, so may the findings of this report. As noted in the Limitations section above, EDR cannot guarantee that the property is free of hazardous substances or other materials or conditions. The presence or absence of any such condition can only be confirmed through the collection and analysis of air, soil and/or groundwater samples, which was beyond the scope of this investigation.

REFERENCES

- Environmental Data Resources, Inc. 2017. *The EDR Radius Map Report with GeoCheck*. January 13, 2017.
- Environmental Data Resources, Inc. 2017. *Certified Sanborn Map Report*. January 19, 2017 (Appendix C).
- Environmental Data Resources, Inc. 2017. *The EDR Aerial Photo Decade Package*. January 13, 2017 (Appendix D).
- New York State Department of Environmental Conservation. 2017. *Spills Incident Database Search*. Available at: <https://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=2>
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- Environmental Protection Agency. 2016. *National Priorities List (NPL) Sites – by State*. Available at: <https://www.epa.gov/superfund/national-priorities-list-npl-sites-state>

Appendix A: Figures



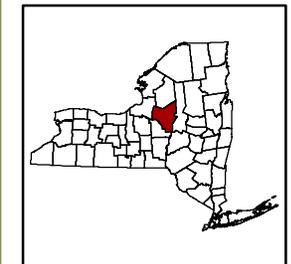
Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

Figure 1. Regional Project Location - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

February 2017

 Study Area



Notes:
 1. Basemap: ESRI ArcGIS Online "World Street Map" Map Service.
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

**Figure 2. Study Area -
Oriskany Boulevard,
Whitesboro, NY
MP 238.22
(BIN 5009929)**

February 2017

 Study Area

- Notes:**
1. Basemap: ESRI ArcGIS Online "World Imagery" Map Service
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.



Appendix B: Site Photographs



Photo 1

View of bridge from
Crosspoint Church, facing
SE



Photo 2

View facing north along
Oriskany Boulevard

Replacement of Syracuse Division Bridges

Town of Whitesboro, Oneida County, New York

Appendix B: Site Photographs - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

Sheet 1 of 4



Photo 3

View of bridge from American Freight & Mattress, facing NW



Photo 4

View from American Freight & Mattress, facing south along Oriskany Boulevard

Replacement of Syracuse Division Bridges

Town of Whitesboro, Oneida County, New York

Appendix B: Site Photographs - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

Sheet 2 of 4



Photo 5

View of underground petroleum pipeline marker, facing east along Watkins Street



Photo 6

Underside of Thruway bridge that crosses Main Street, at eastern portion of Study Area

Replacement of Syracuse Division Bridges

Town of Whitesboro, Oneida County, New York

Appendix B: Site Photographs - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

Sheet 3 of 4



Photo 7

Example of solid waste debris noted at edge of Study Area; elevated section of Thruway over Main Street visible



Photo 8

Construction materials and drums noted at Murnane Associates, adjacent to Study Area

Replacement of Syracuse Division Bridges

Town of Whitesboro, Oneida County, New York

Appendix B: Site Photographs - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

Sheet 4 of 4

Appendix C: Sanborn Maps

MP 238.22

Oriskany Blvd

Whitesboro, NY 13492

Inquiry Number: 4827840.3

January 19, 2017

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

01/19/17

Site Name:

MP 238.22
Oriskany Blvd
Whitesboro, NY 13492
EDR Inquiry # 4827840.3

Client Name:

Environmental Design & Research, d.p.c
217 Montgomery Street
Syracuse, NY 13202
Contact: Caitlin Graff



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PO # NA

Project 16134-3

Maps Provided:

| | |
|------|------|
| 1986 | 1894 |
| 1973 | |
| 1969 | |
| 1952 | |
| 1950 | |
| 1925 | |
| 1911 | |
| 1904 | |



Sanborn® Library search results

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- Library of Congress
- University Publications of America
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Sanborn Sheet Key

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1986 Source Sheets



Volume 2, Sheet 249

1973 Source Sheets



Volume 2, Sheet 249

1969 Source Sheets



Volume 2, Sheet 249

1952 Source Sheets



Volume 2, Sheet 249

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



1950 Source Sheets



Volume 2&3, Sheet 238



Volume 2&3, Sheet 249

1925 Source Sheets



Volume 2&3, Sheet 238



Volume 2&3, Sheet 249

1911 Source Sheets



Volume 1, Sheet 2

1904 Source Sheets



Volume 1, Sheet 2

Sanborn Sheet Key

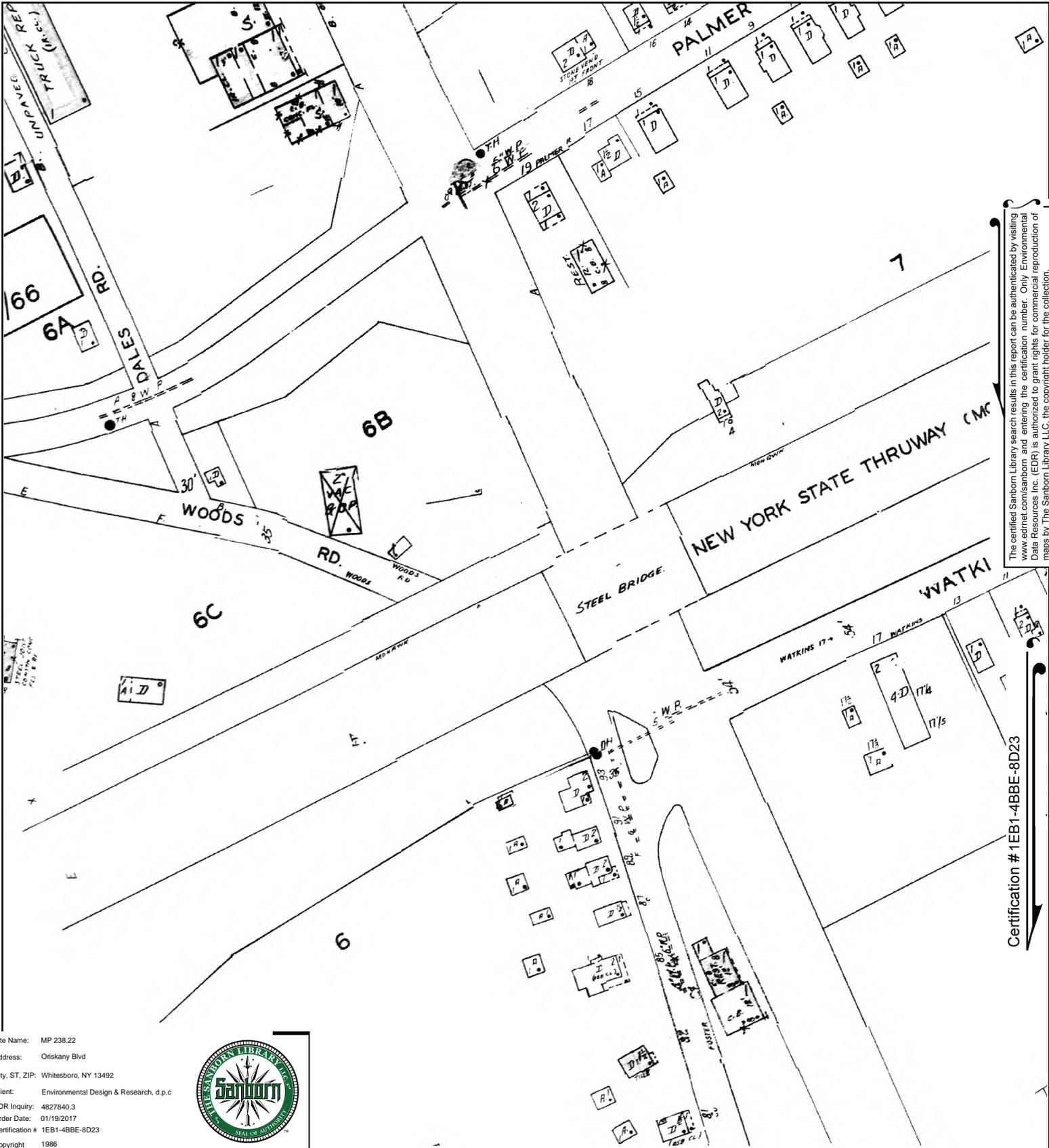
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1894 Source Sheets

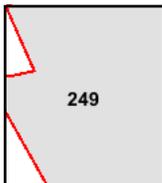
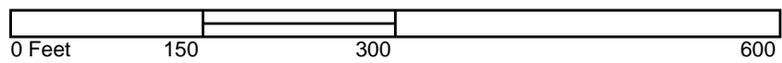


Volume 1, Sheet 2



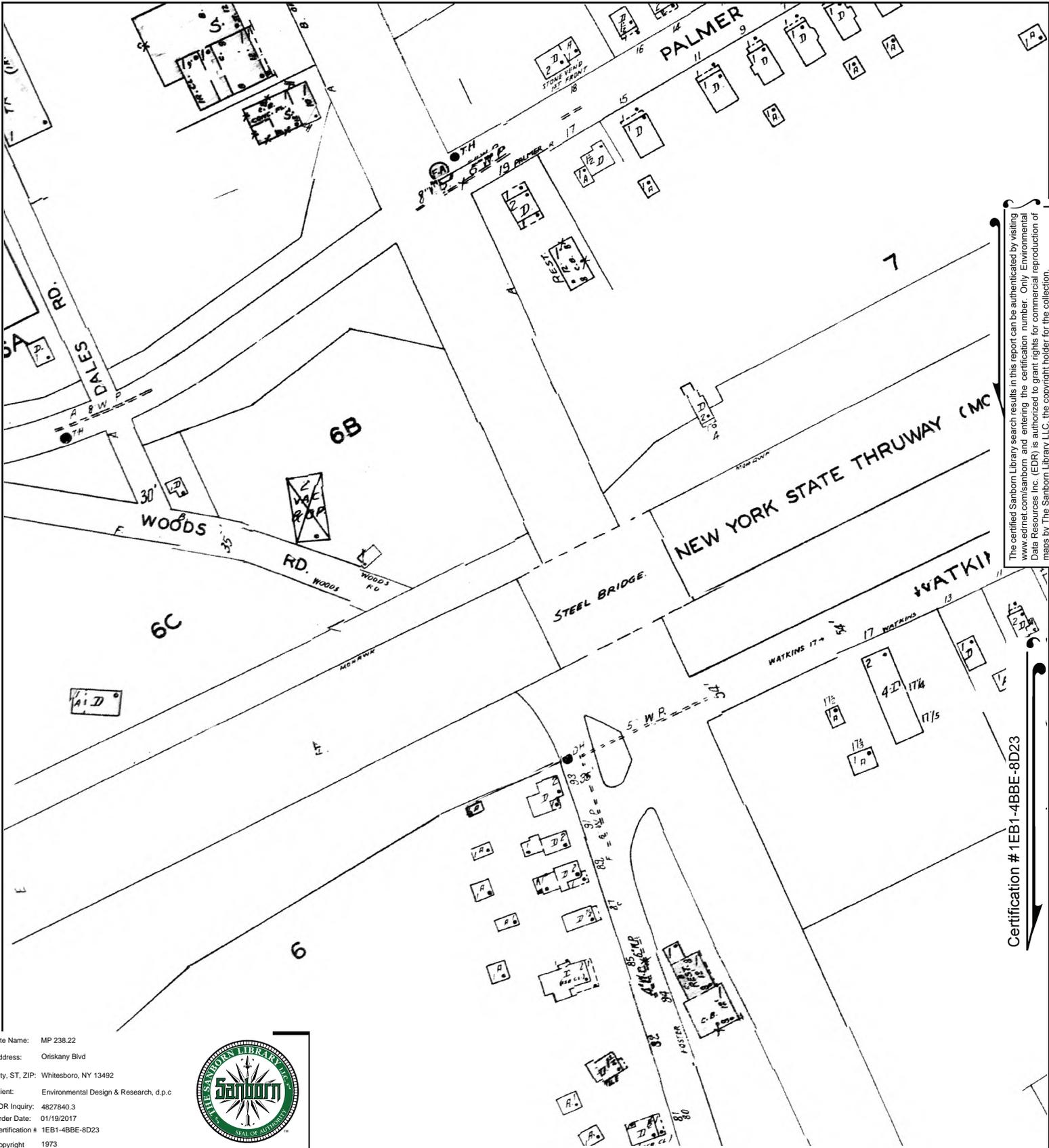
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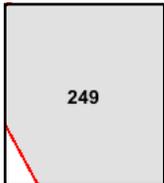
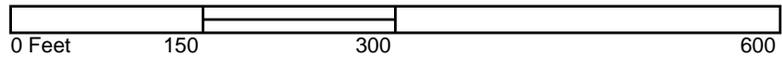




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 EDR Inquiry: 4827840.3
 Order Date: 01/19/2017
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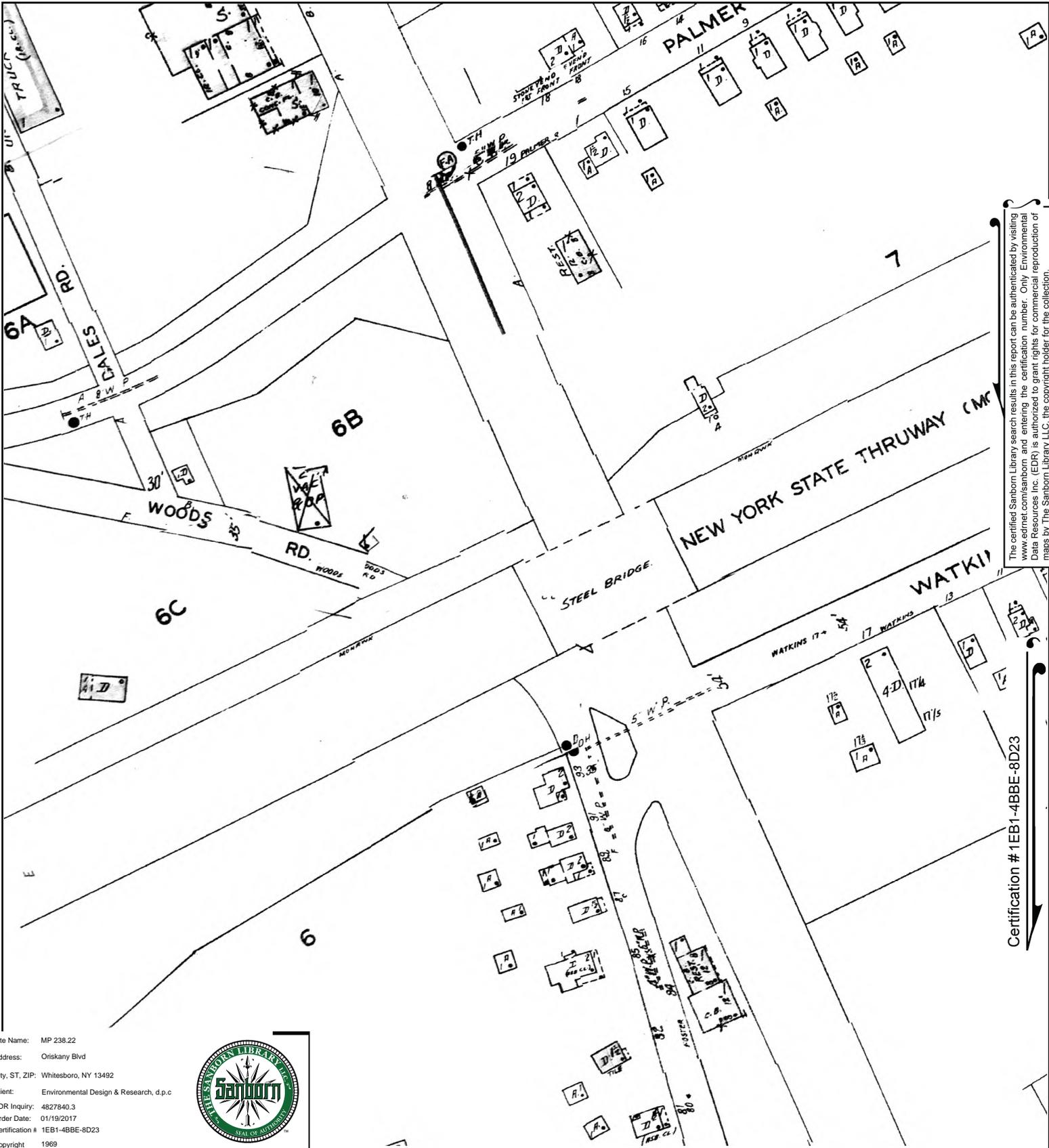
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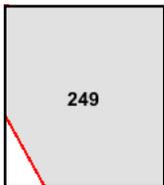
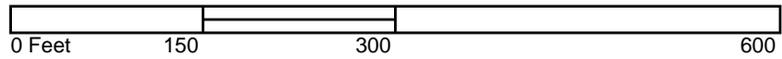
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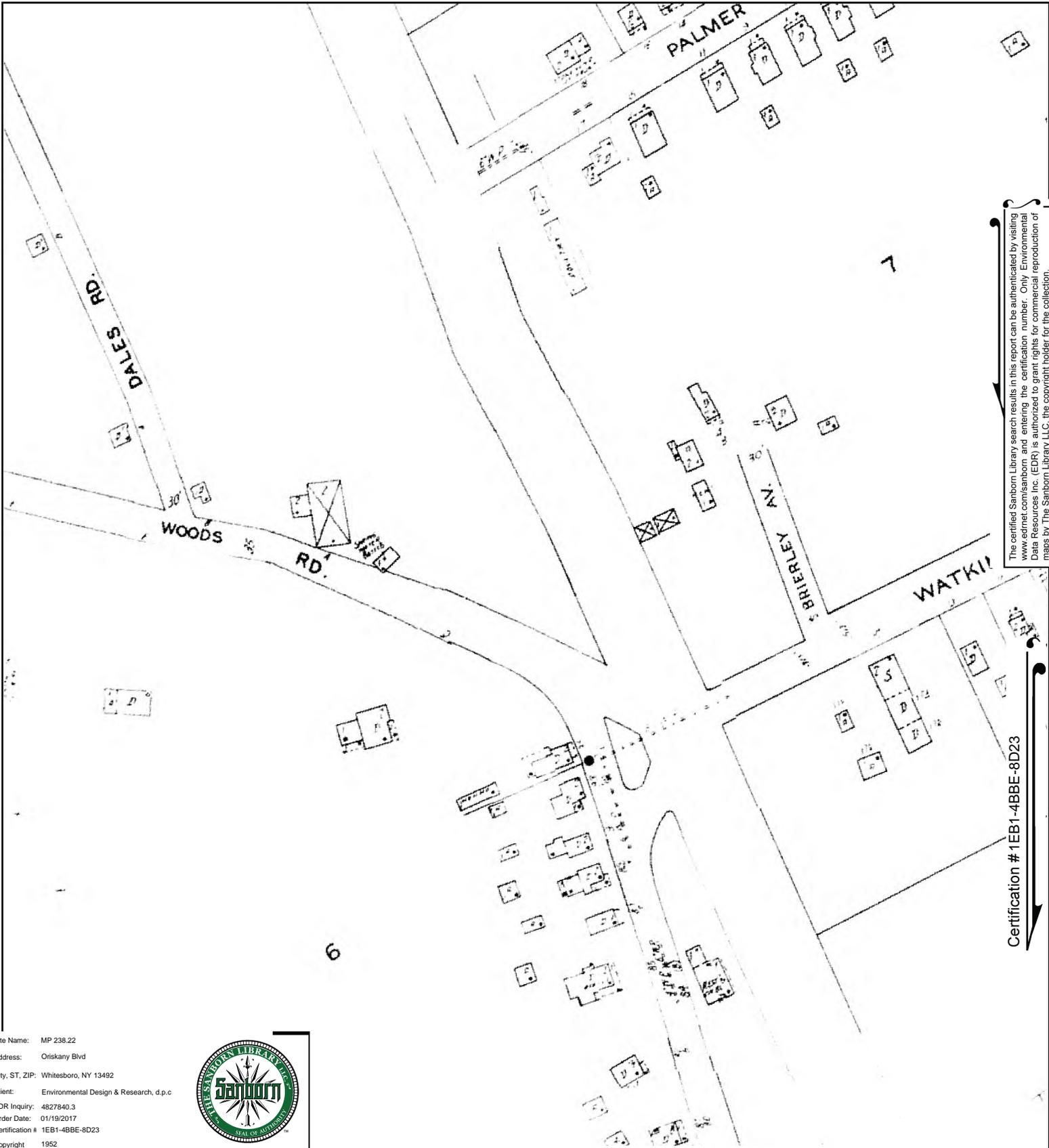


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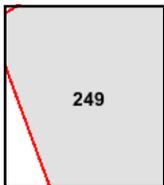
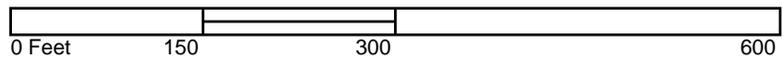




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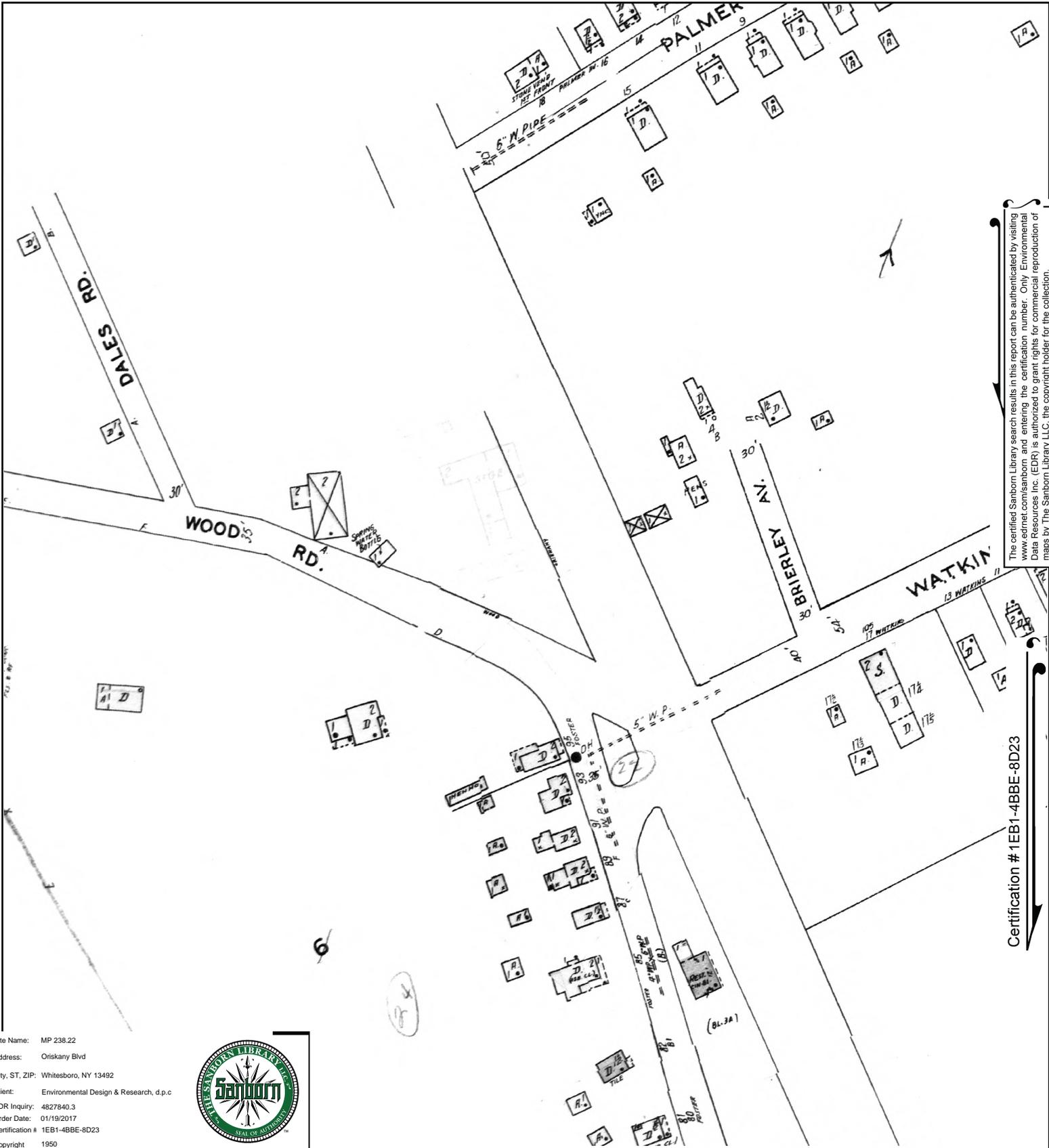


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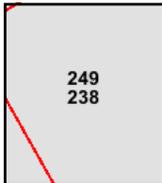
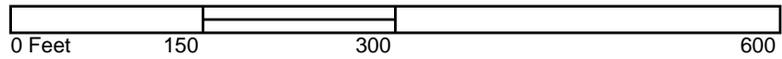
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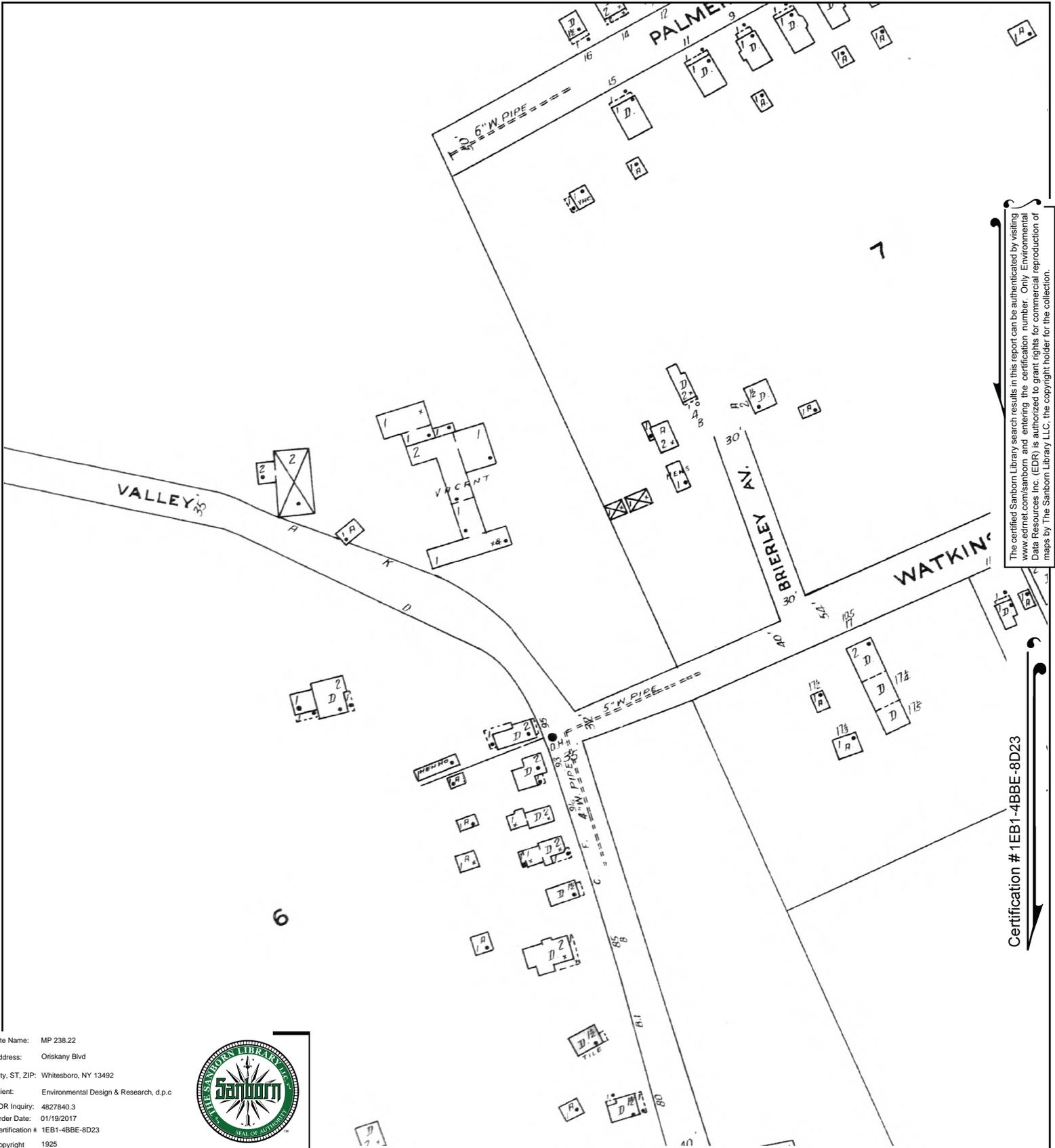


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 Volume 2&3, Sheet 238





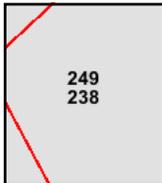
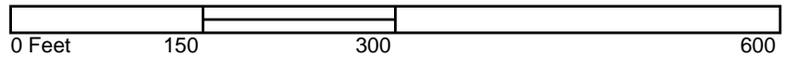
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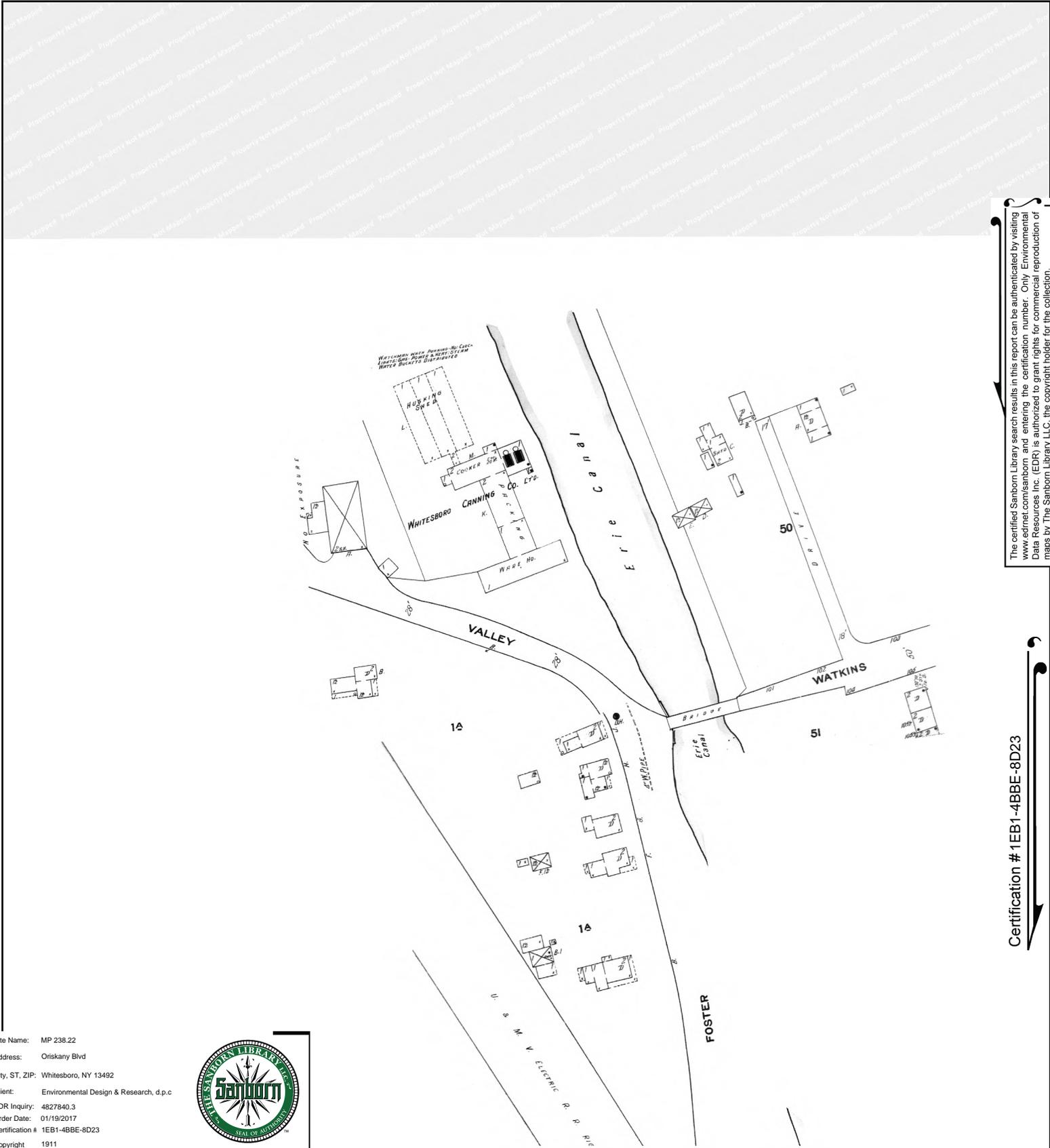


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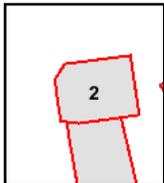
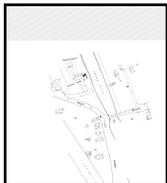
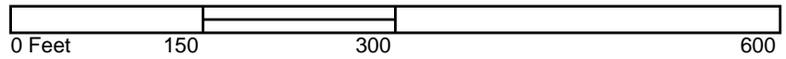
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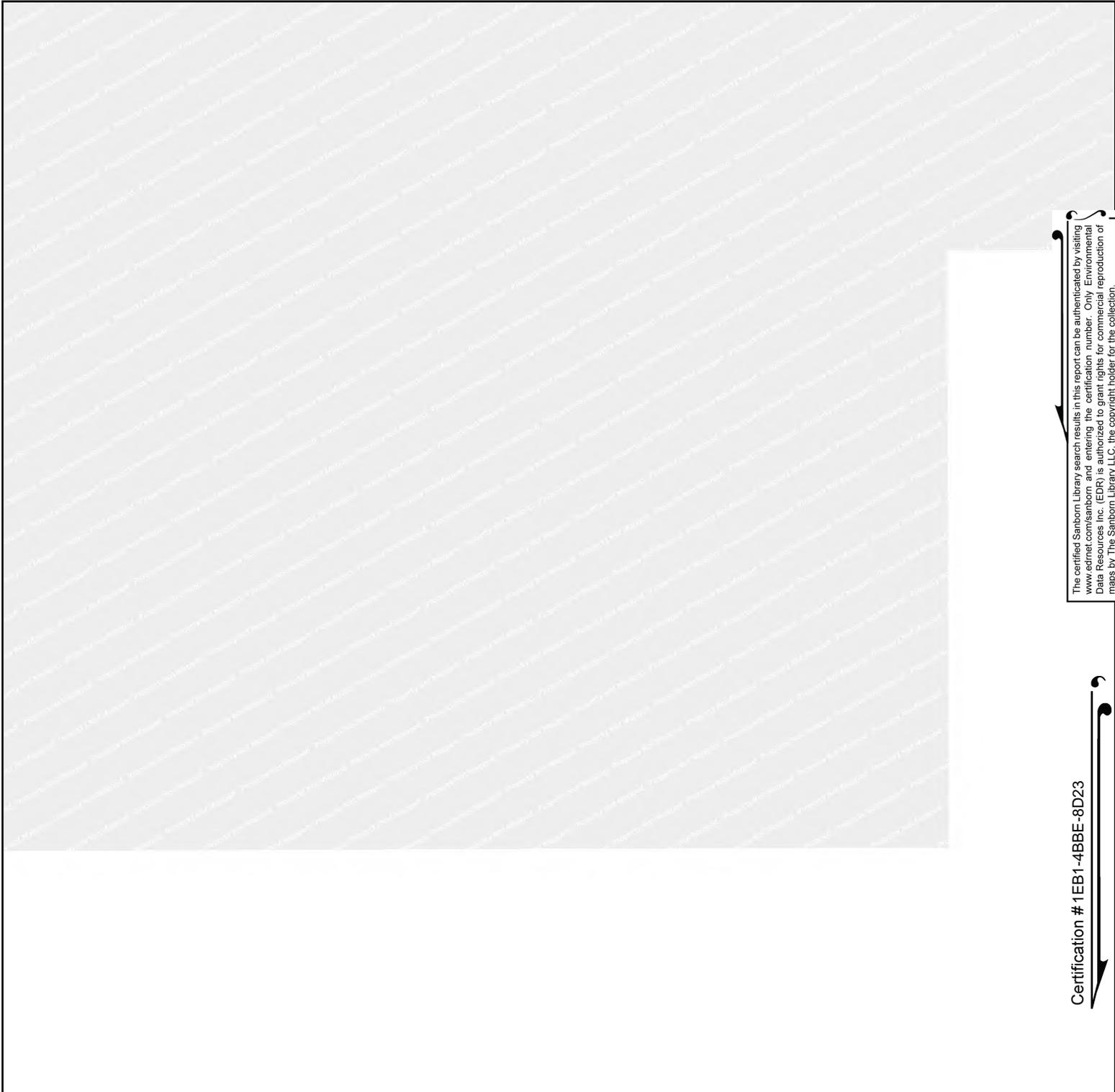


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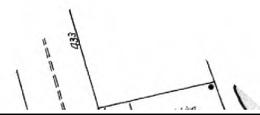




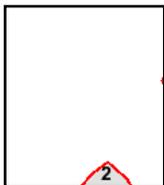
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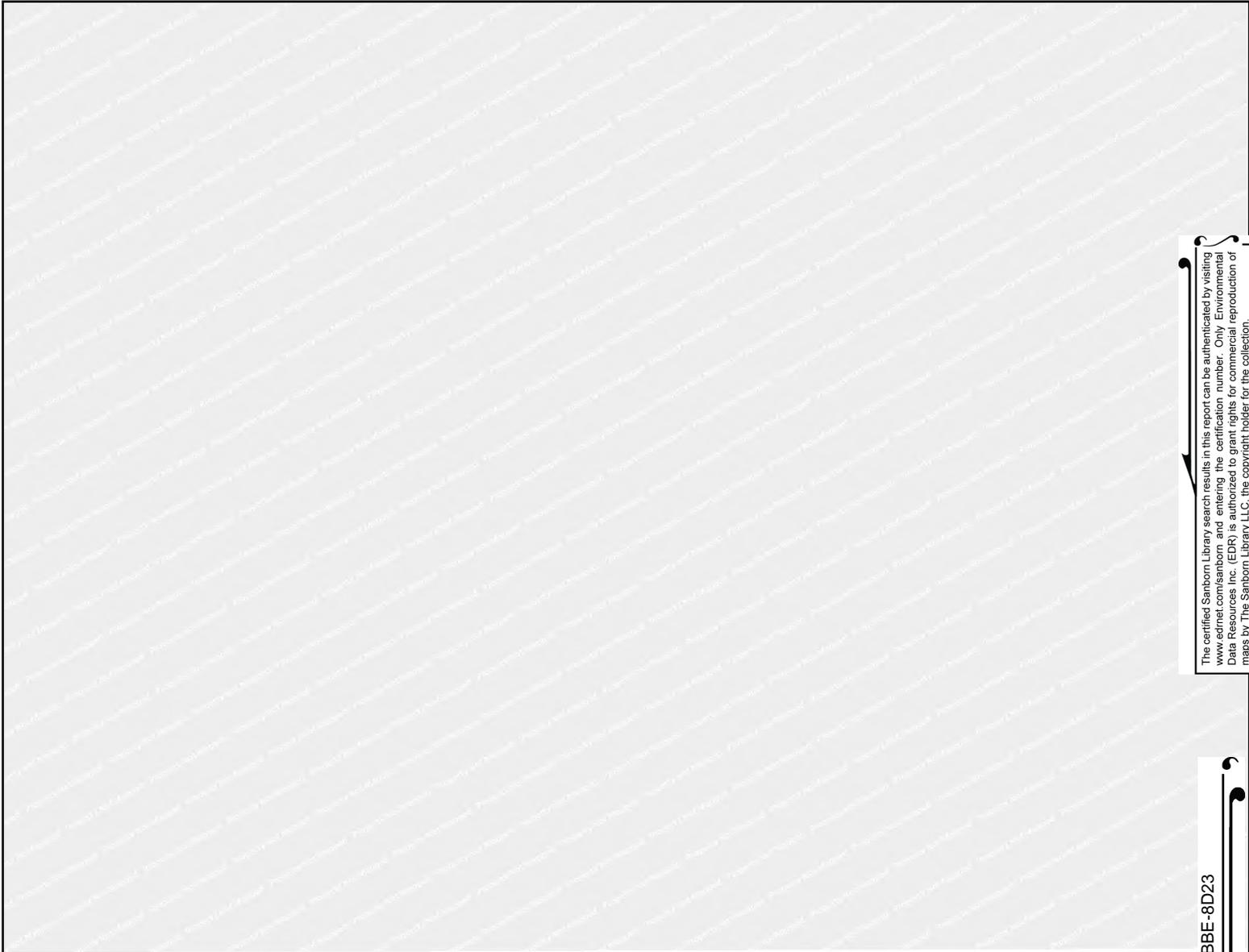


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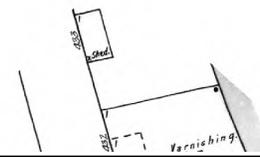




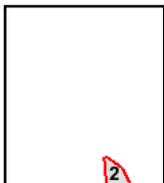
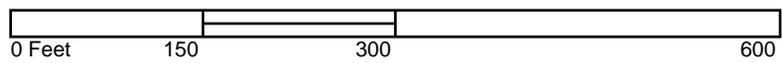
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MP 238.22

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PO # NA

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1986
1973
1969
1952
1950
1925



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1986 Source Sheets



Volume 2, Sheet 249

1973 Source Sheets



Volume 2, Sheet 249

1969 Source Sheets



Volume 2, Sheet 249

1952 Source Sheets



Volume 2, Sheet 249

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



1950 Source Sheets



Volume 2&3, Sheet 238



Volume 2&3, Sheet 249

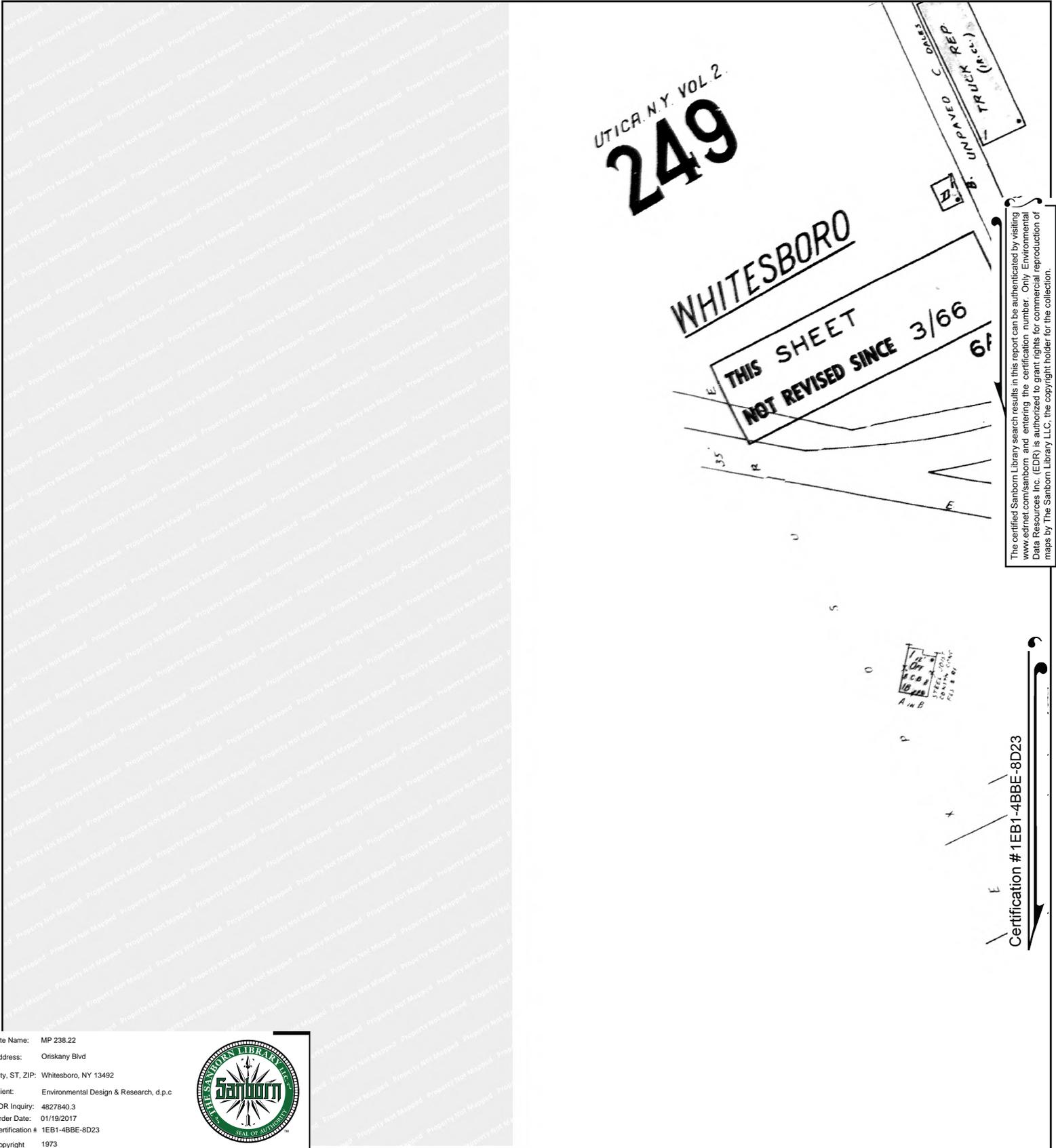
1925 Source Sheets



Volume 2&3, Sheet 238



Volume 2&3, Sheet 249



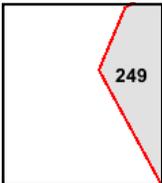
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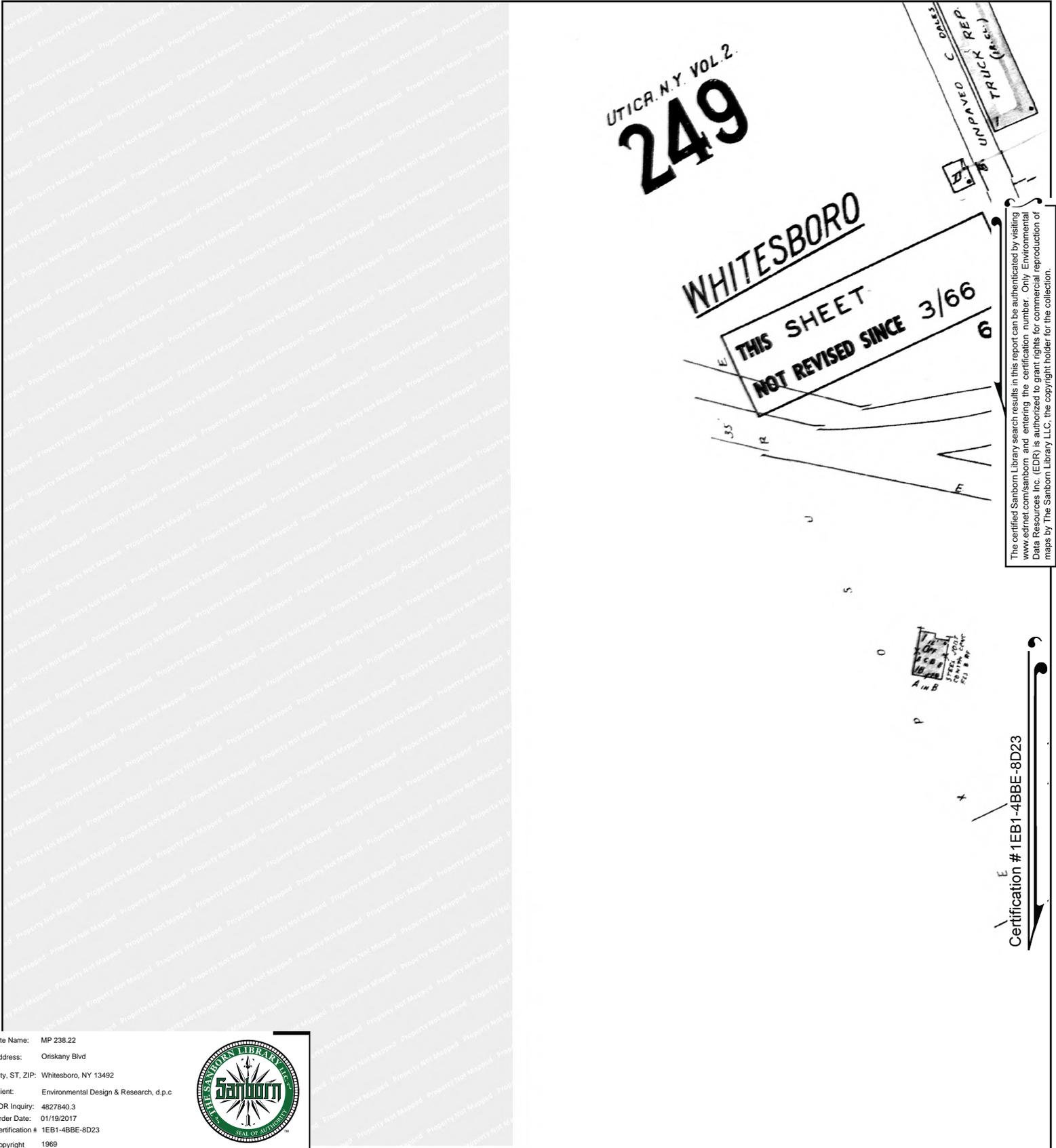
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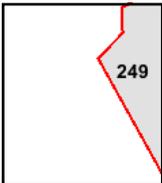
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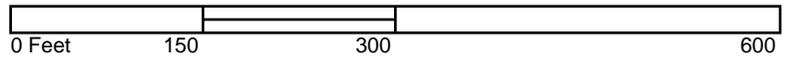
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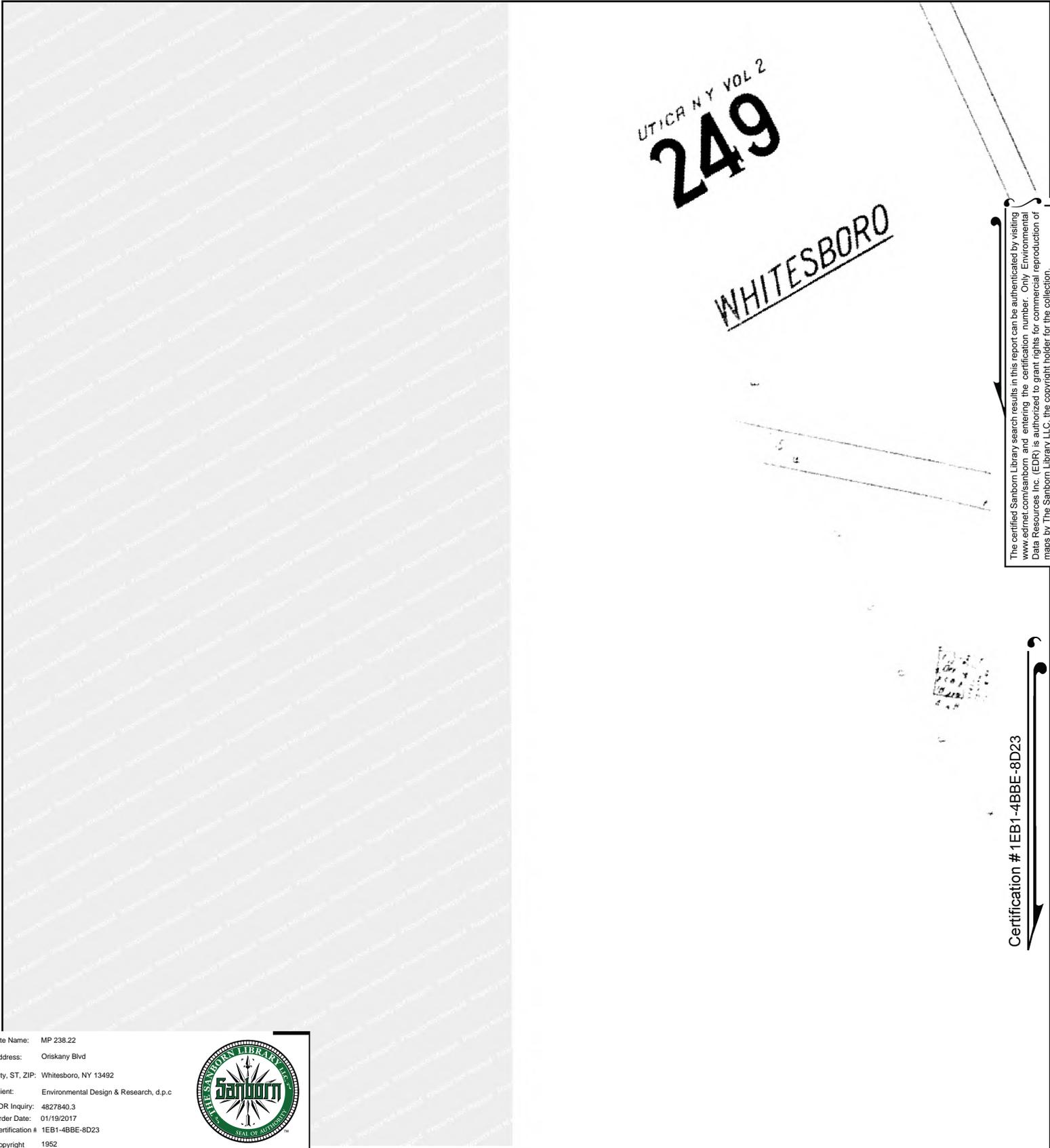


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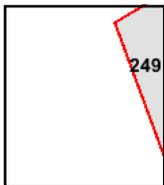


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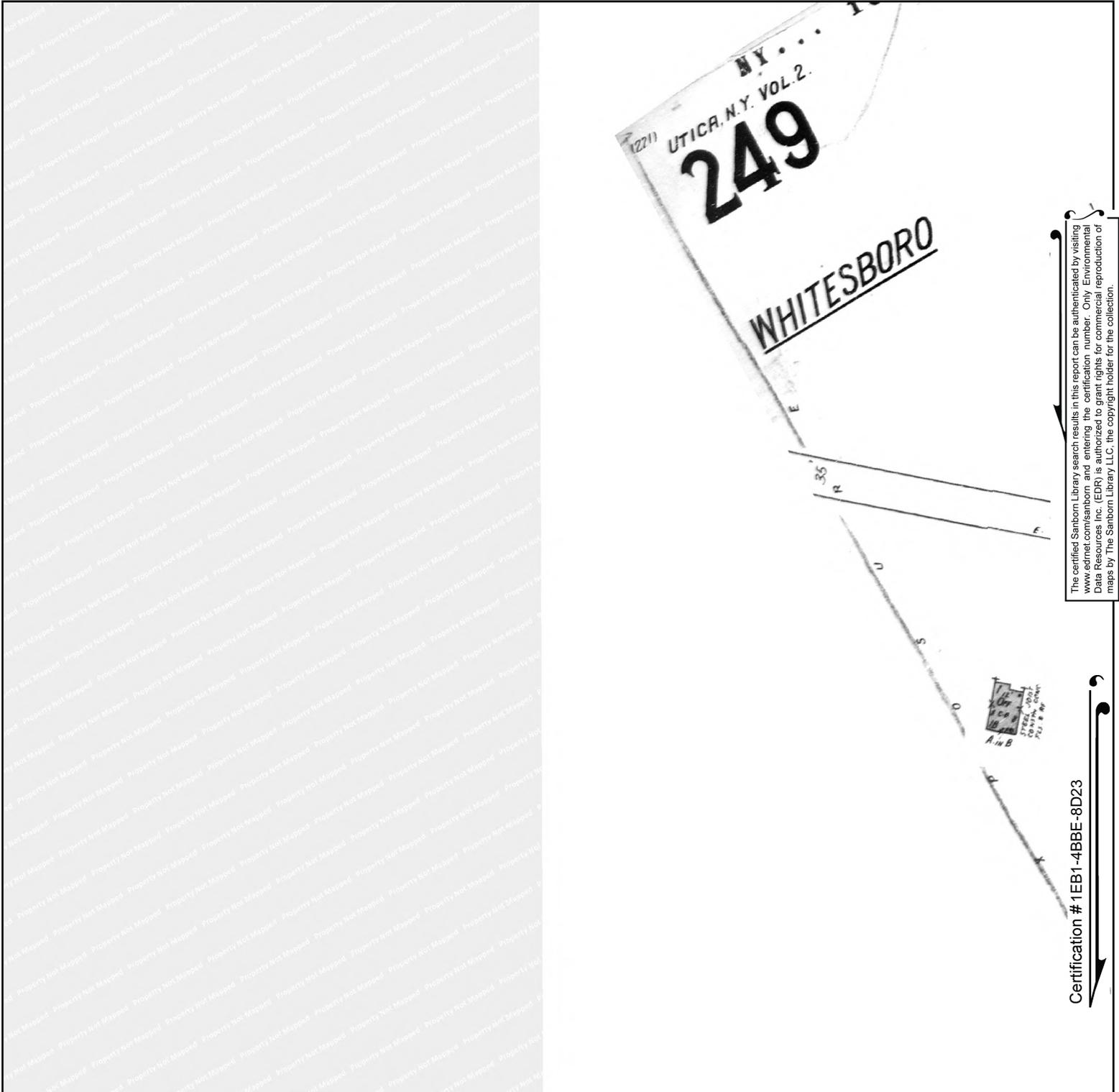


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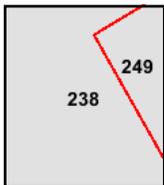
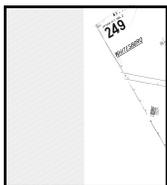
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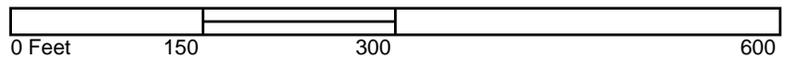
Site Name: MP 238.22
 Address: Oriskany Blvd
 City, ST, ZIP: Whitesboro, NY 13492
 Client: Environmental Design & Research, d.p.c
 EDR Inquiry: 4827840.3
 Order Date: 01/19/2017
 Certification # 1EB1-4BBE-8D23
 Copyright 1950

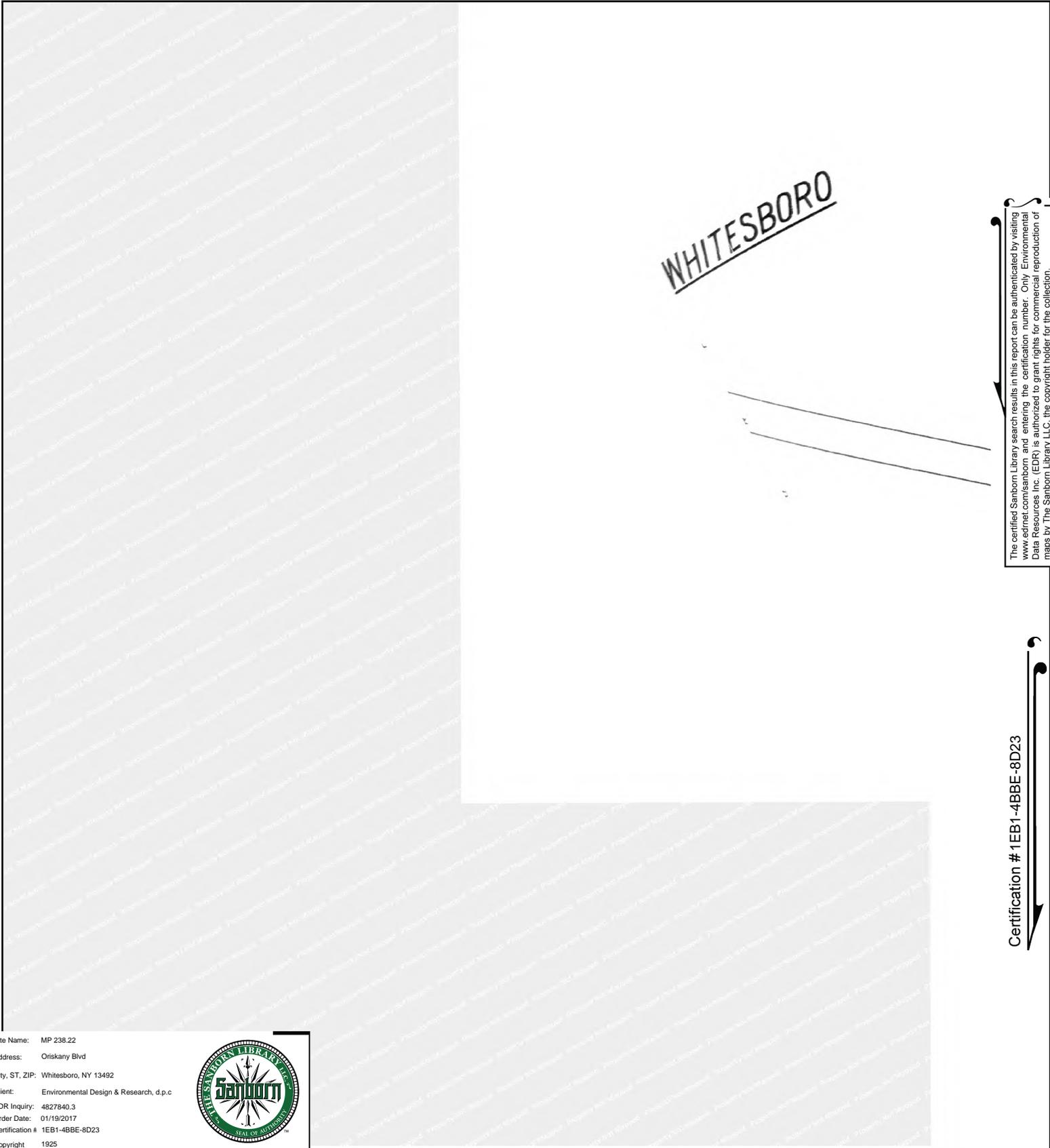


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Volume 2&3, Sheet 249
 Volume 2&3, Sheet 238





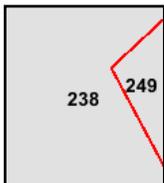
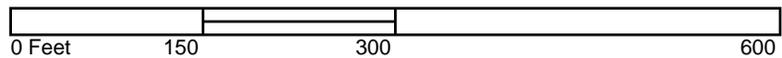
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 City, ST, ZIP: Whitesboro, NY 13492
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Volume 2&3, Sheet 249
 Volume 2&3, Sheet 238



MP 238.22

Oriskany Blvd

Whitesboro, NY 13492

Inquiry Number: 4827840.3

January 19, 2017

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

01/19/17

Site Name:

MP 238.22
Oriskany Blvd
Whitesboro, NY 13492
EDR Inquiry # 4827840.3

Client Name:

Environmental Design & Research, d.p.c
217 Montgomery Street
Syracuse, NY 13202
Contact: Caitlin Graff



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Environmental Design & Research, d.p.c were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 1EB1-4BBE-8D23

PO # NA

Project 16134-3

Maps Provided:

1986
1973
1969
1952
1950
1925
1911
1904



Sanborn® Library search results

Certification #: 1EB1-4BBE-8D23

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

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Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



1986 Source Sheets



Volume 2, Sheet 249

1973 Source Sheets



Volume 2, Sheet 249

1969 Source Sheets



Volume 2, Sheet 249

1952 Source Sheets



Volume 2, Sheet 249

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



1950 Source Sheets



Volume 2&3, Sheet 238

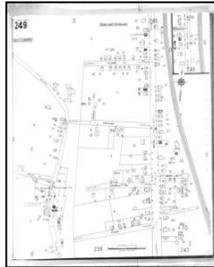


Volume 2&3, Sheet 249

1925 Source Sheets

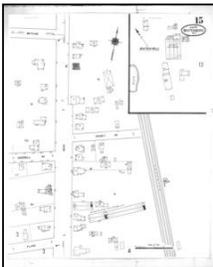


Volume 2&3, Sheet 238



Volume 2&3, Sheet 249

1911 Source Sheets

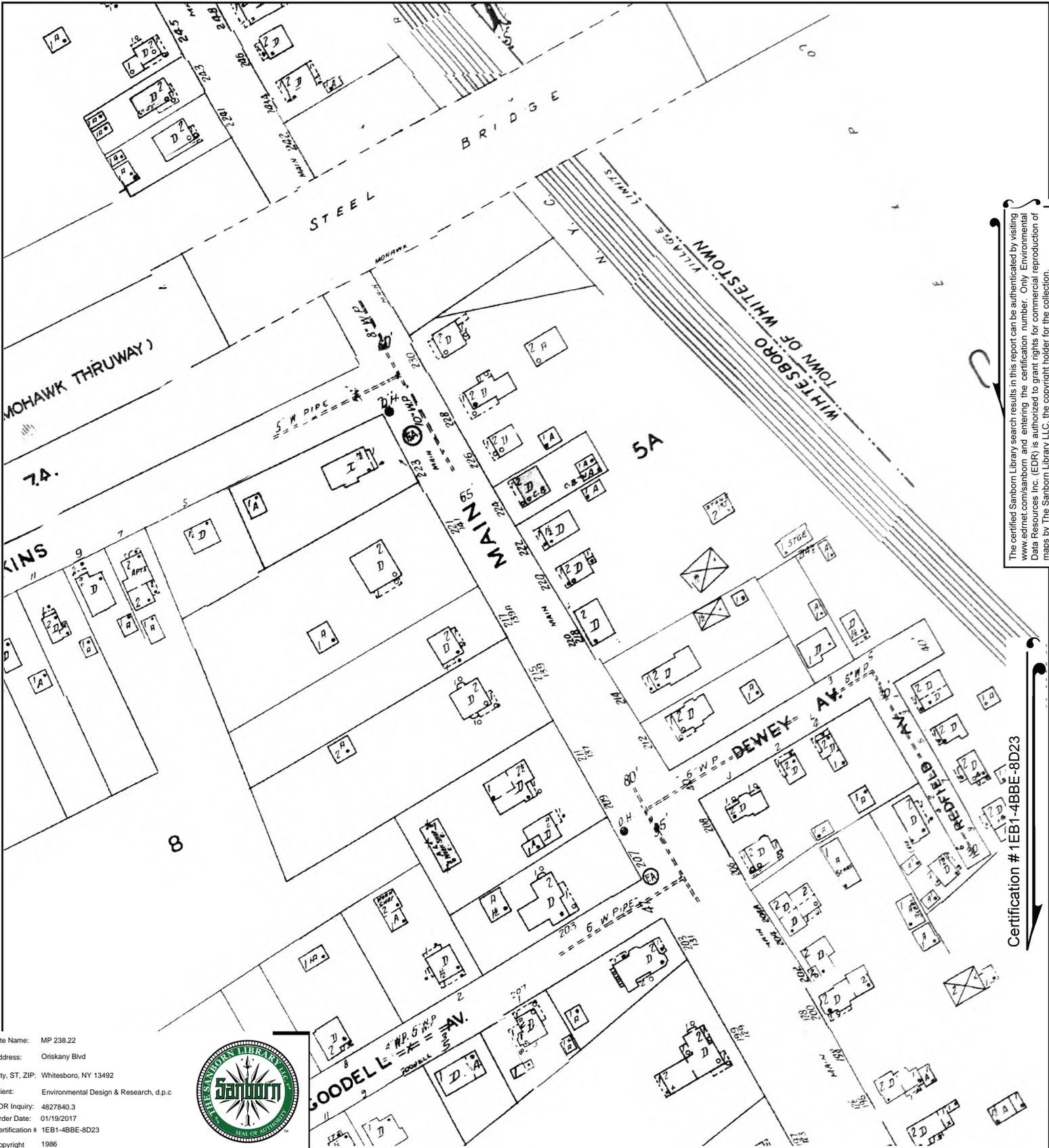


Volume 1, Sheet 15

1904 Source Sheets



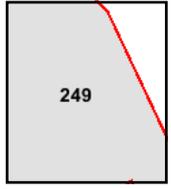
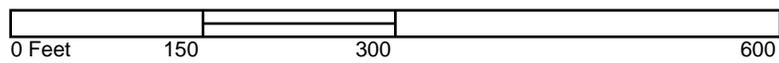
Volume 1, Sheet 9



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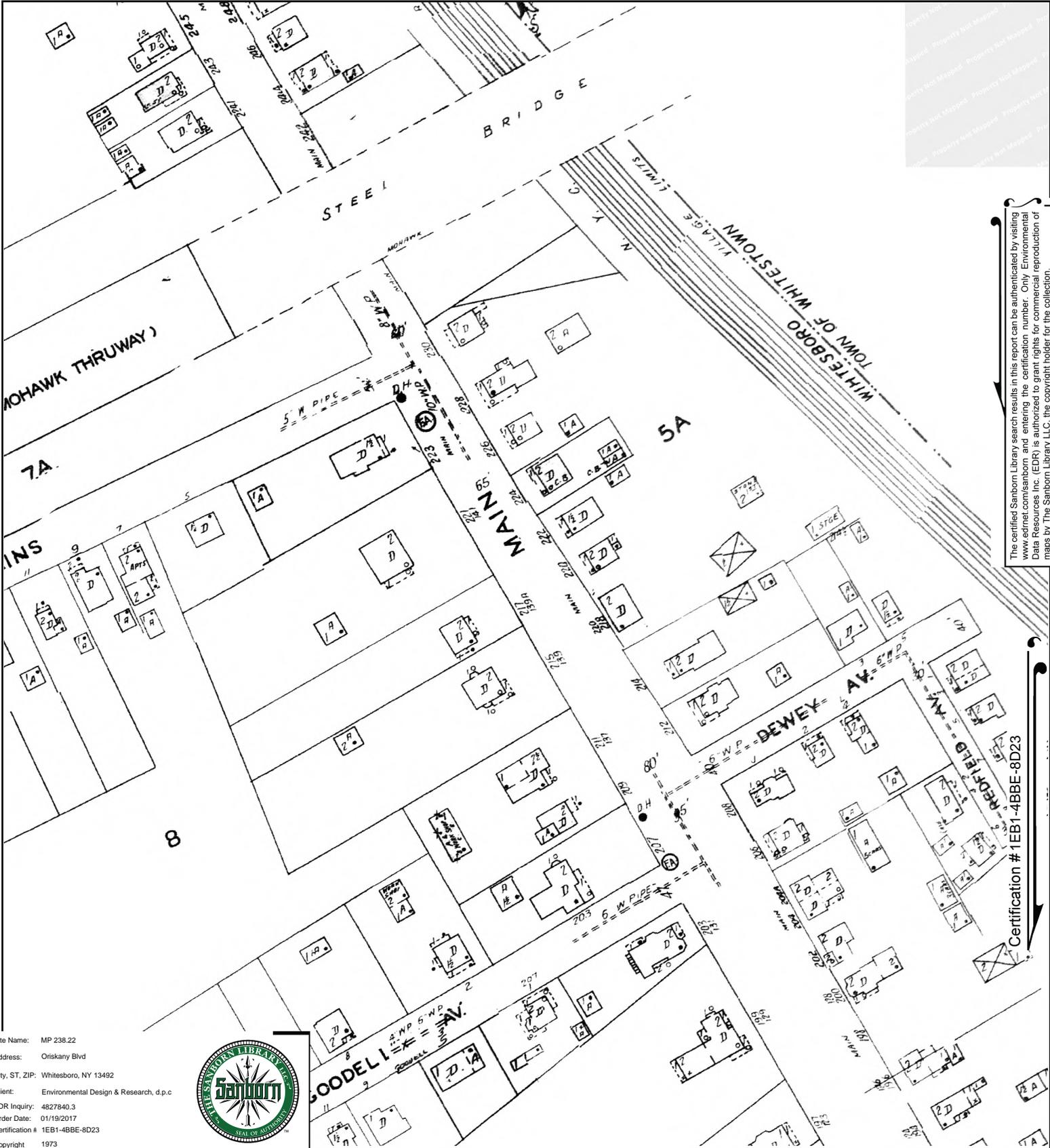
Certification # 1EB1-4BBE-8D23

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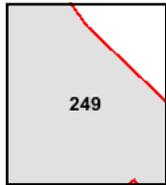
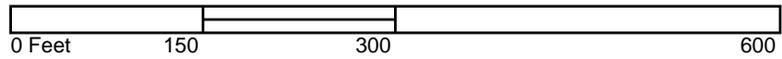




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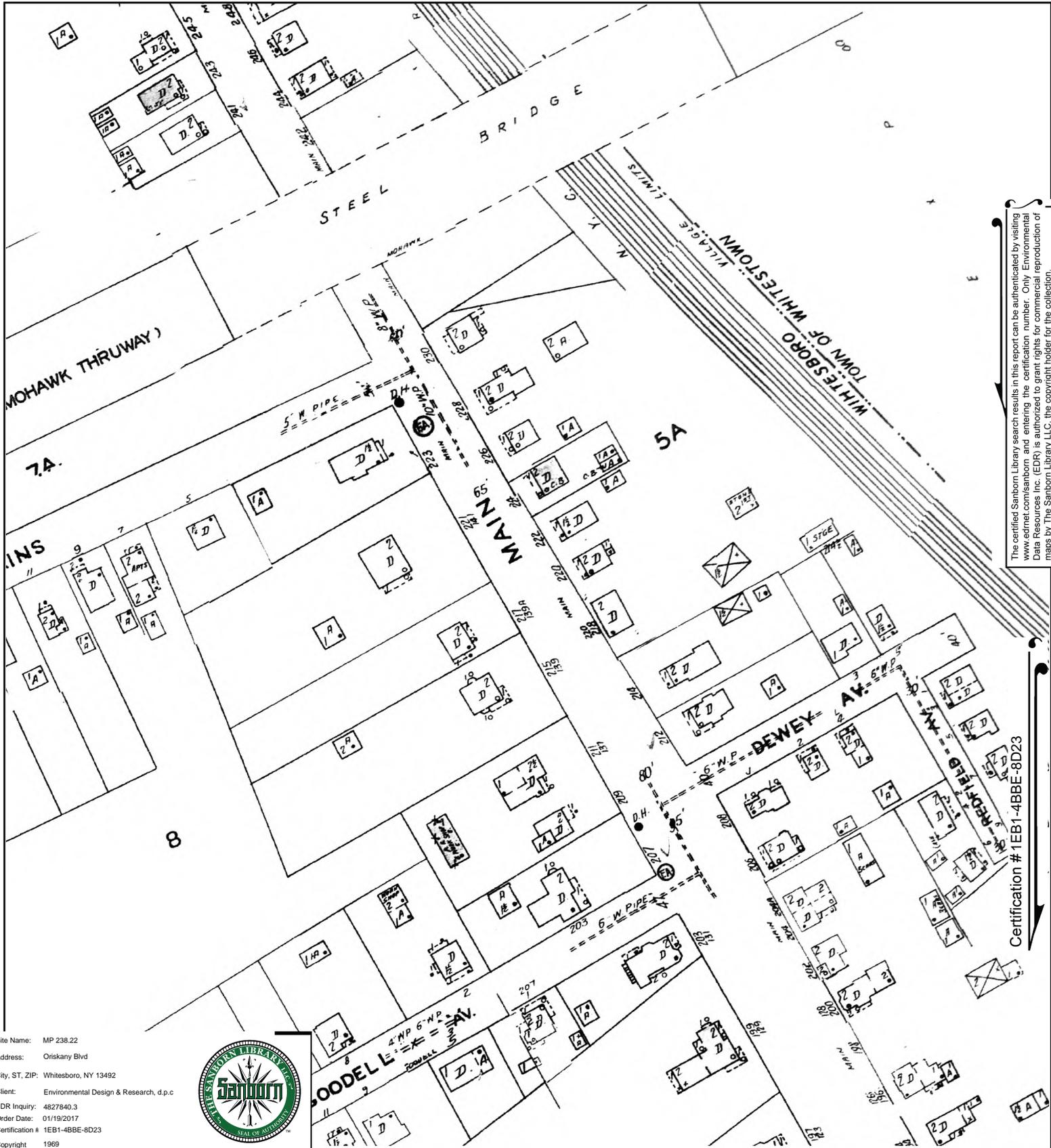
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Volume 2, Sheet 249





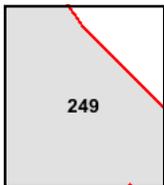
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 EDR Inquiry: 4827840.3
 Order Date: 01/19/2017
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 Copyright 1969

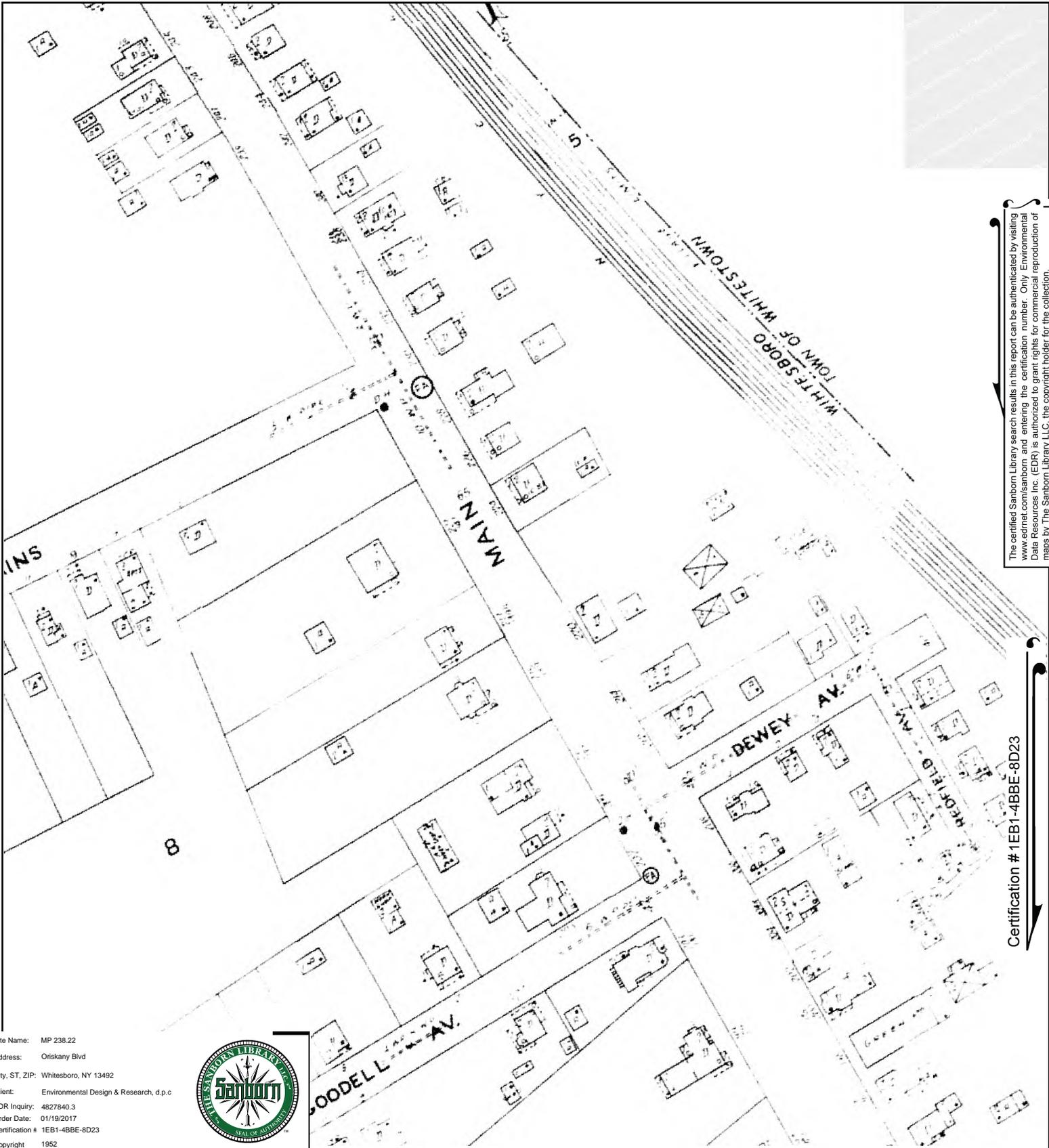


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Volume 2, Sheet 249





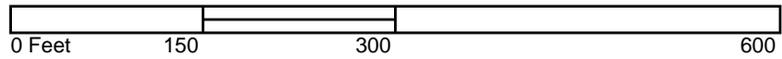
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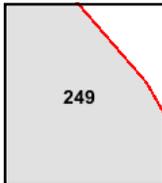
Site Name: MP 238.22
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 City, ST, ZIP: Whitesboro, NY 13492
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 EDR Inquiry: 4827840.3
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 Copyright 1952

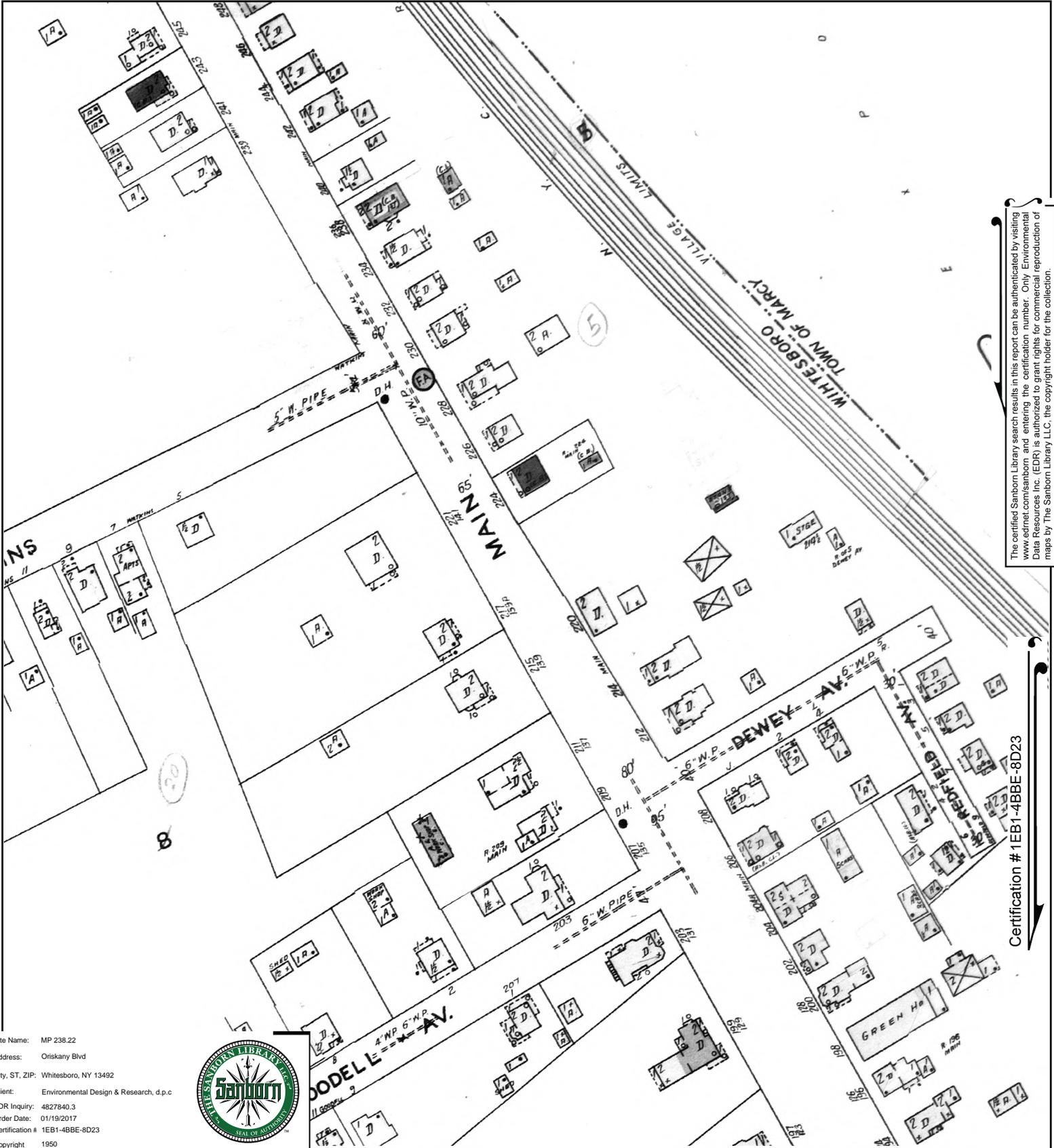


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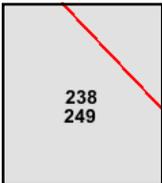
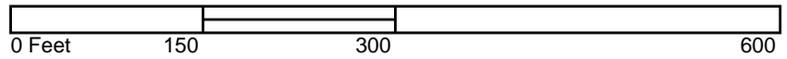


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 Order Date: 01/19/2017
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 Copyright 1950

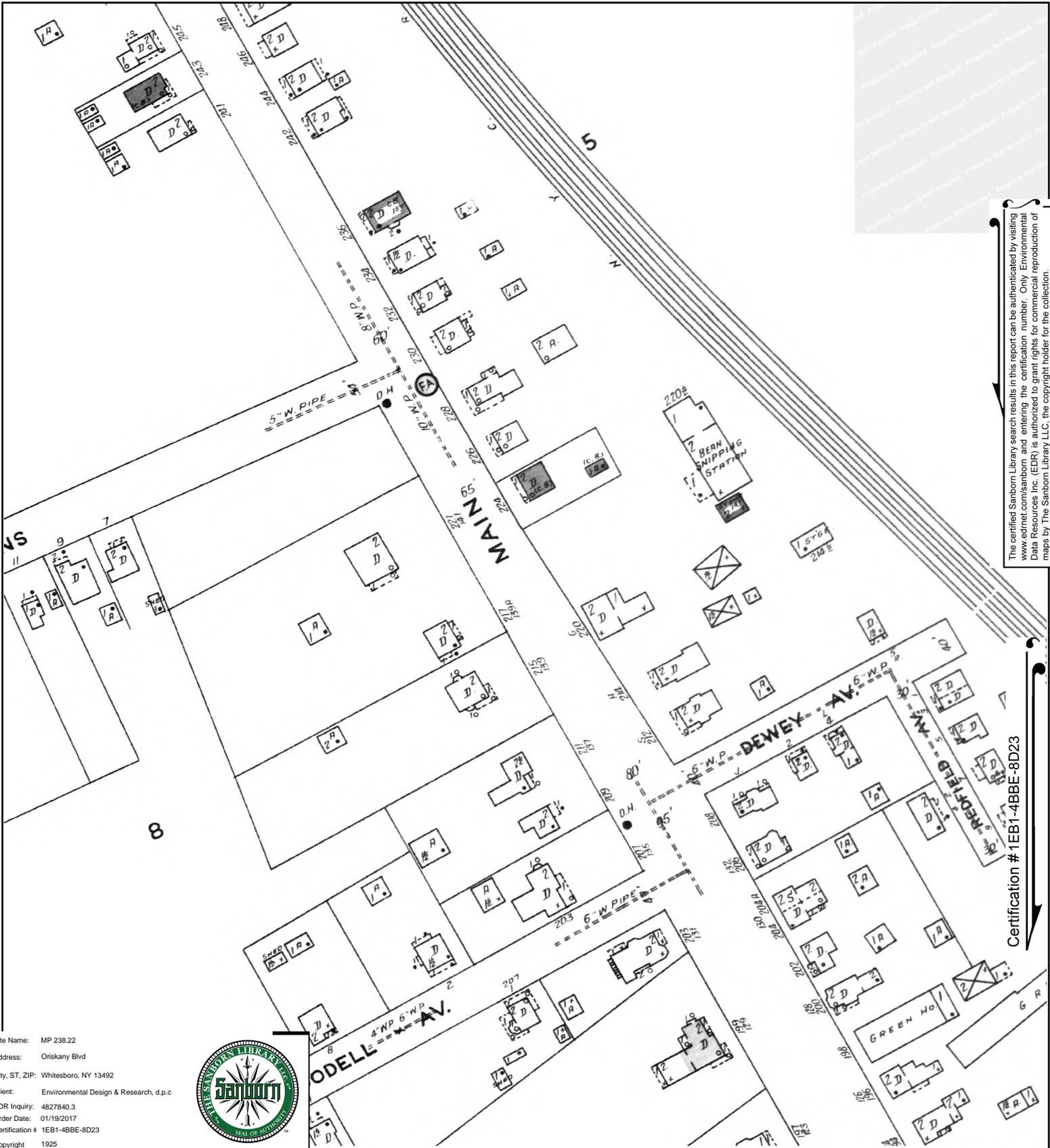


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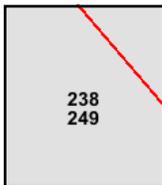
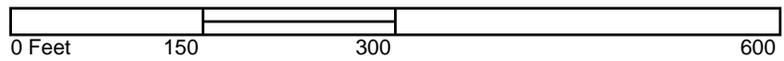


Volume 2&3, Sheet 249
 Volume 2&3, Sheet 238



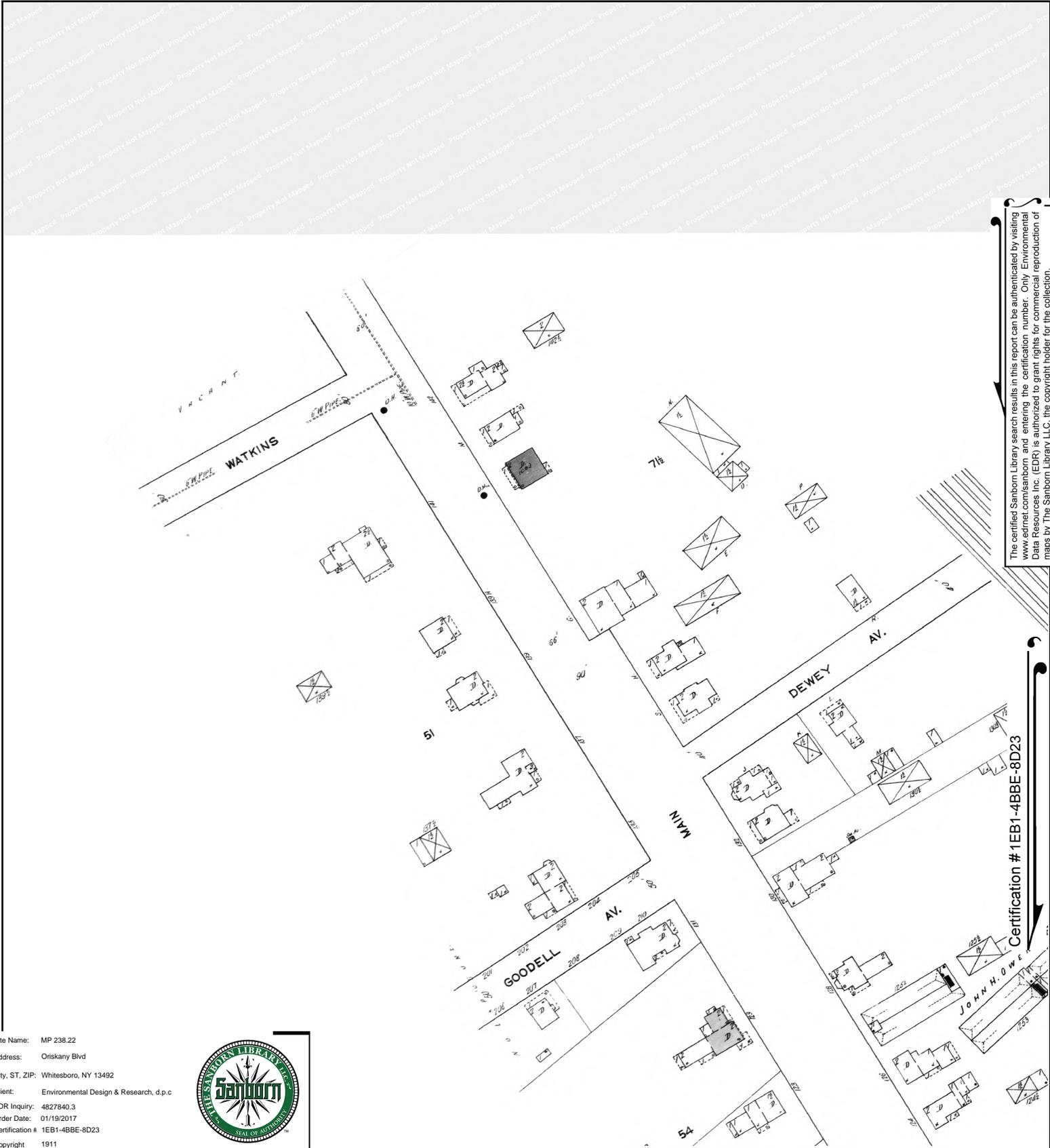


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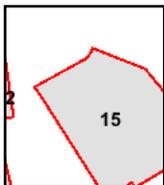
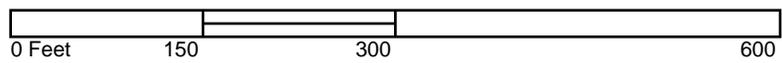


Volume 2&3, Sheet 249
 Volume 2&3, Sheet 238



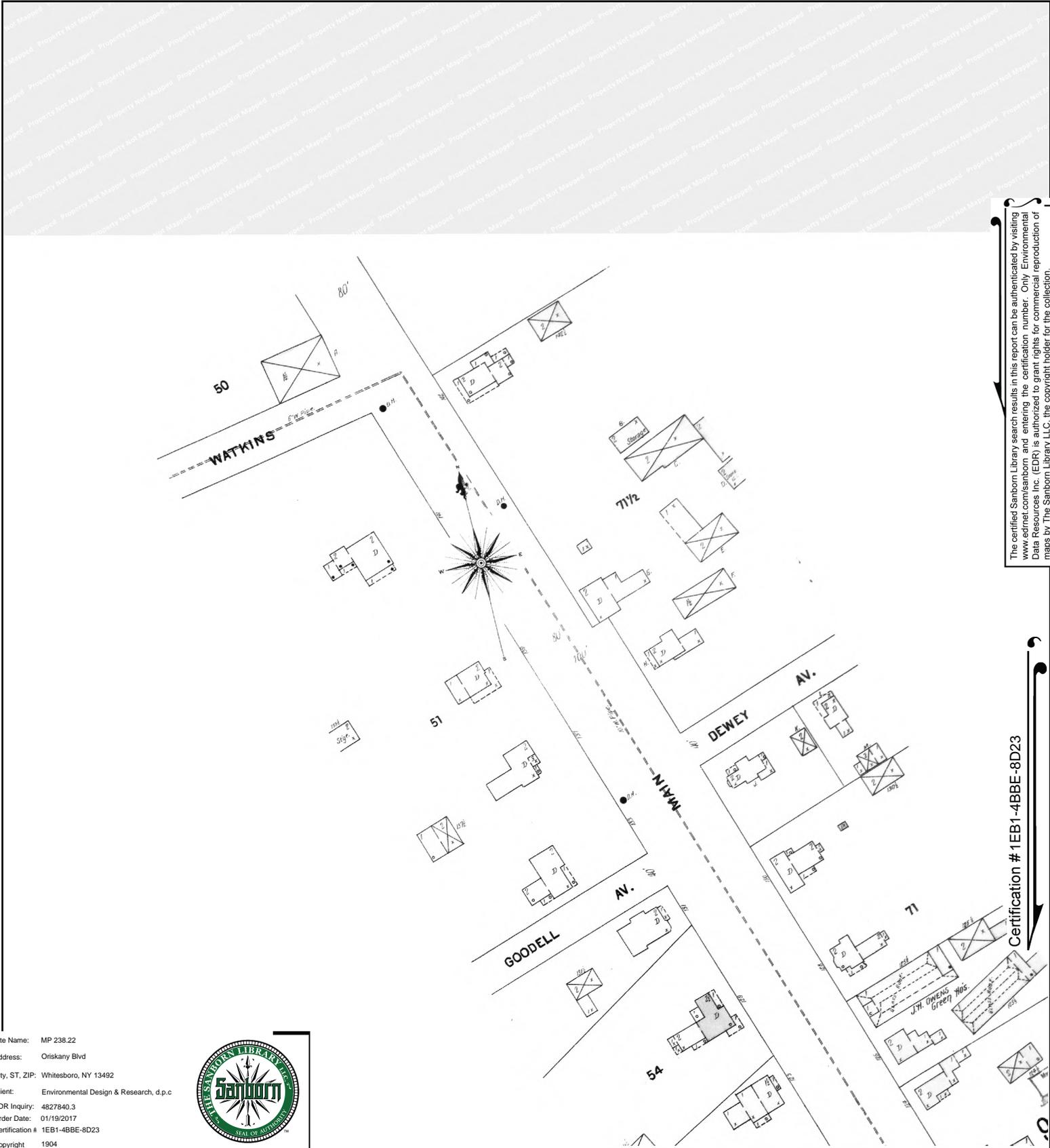


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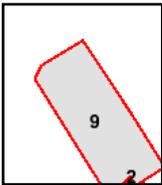
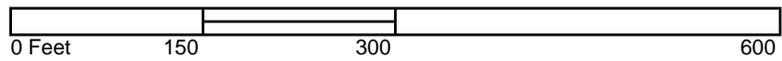
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Volume 1, Sheet 9



Appendix D: Historic and Recent Aerial Photographs



MP 238.22

Oriskany Blvd

Whitesboro, NY 13492

Inquiry Number: 4827840.5

January 13, 2017

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Site Name:

MP 238.22
 Oriskany Blvd
 Whitesboro, NY 13492
 EDR Inquiry # 4827840.5

Client Name:

Environmental Design & Research, d.p.c
 217 Montgomery Street
 Syracuse, NY 13202
 Contact: Caitlin Graff



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Search Results:

| <u>Year</u> | <u>Scale</u> | <u>Details</u> | <u>Source</u> |
|-------------|--------------|--------------------------------|---------------|
| 2011 | 1"=500' | Flight Year: 2011 | USDA/NAIP |
| 2009 | 1"=500' | Flight Year: 2009 | USDA/NAIP |
| 2008 | 1"=500' | Flight Year: 2008 | USDA/NAIP |
| 2006 | 1"=500' | Flight Year: 2006 | USDA/NAIP |
| 1997 | 1"=500' | Acquisition Date: May 02, 1997 | USGS/DOQQ |
| 1985 | 1"=500' | Flight Date: May 08, 1985 | USGS |
| 1981 | 1"=500' | Flight Date: May 07, 1981 | USGS |
| 1974 | 1"=500' | Flight Date: April 17, 1974 | USGS |
| 1960 | 1"=500' | Flight Date: May 06, 1960 | USGS |
| 1957 | 1"=500' | Flight Date: July 17, 1957 | USGS |
| 1952 | 1"=500' | Flight Date: March 27, 1952 | USGS |
| 1941 | 1"=500' | Flight Date: May 04, 1941 | USGS |

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INQUIRY #: 4827840.5

YEAR: 2011

— = 500'



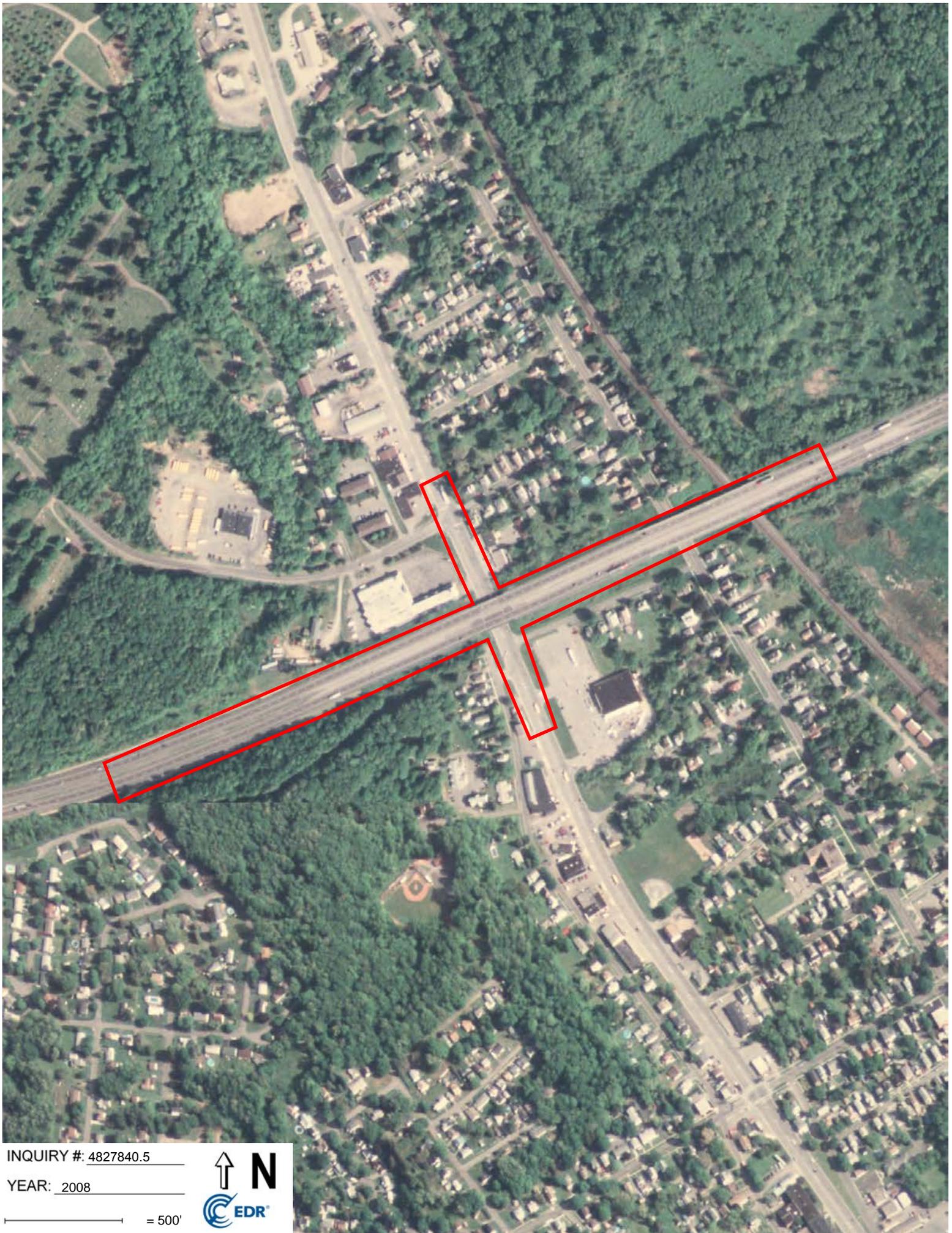


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YEAR: 2009

— = 500'





INQUIRY #: 4827840.5

YEAR: 2008

— = 500'





INQUIRY #: 4827840.5

YEAR: 2006

— = 500'





INQUIRY #: 4827840.5

YEAR: 1997

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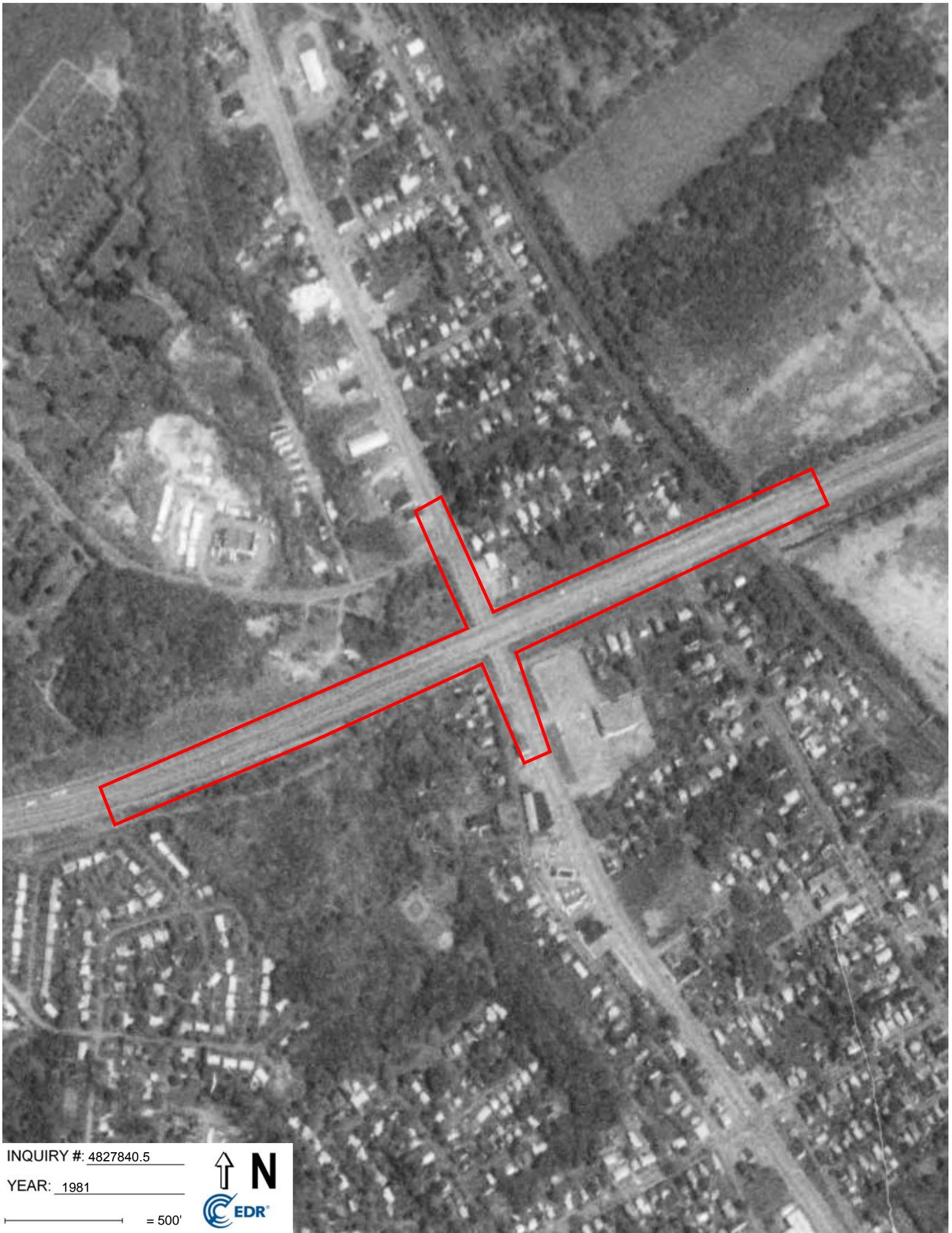


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YEAR: 1985

— = 500'





INQUIRY #: 4827840.5

YEAR: 1981

— = 500'





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— = 500'





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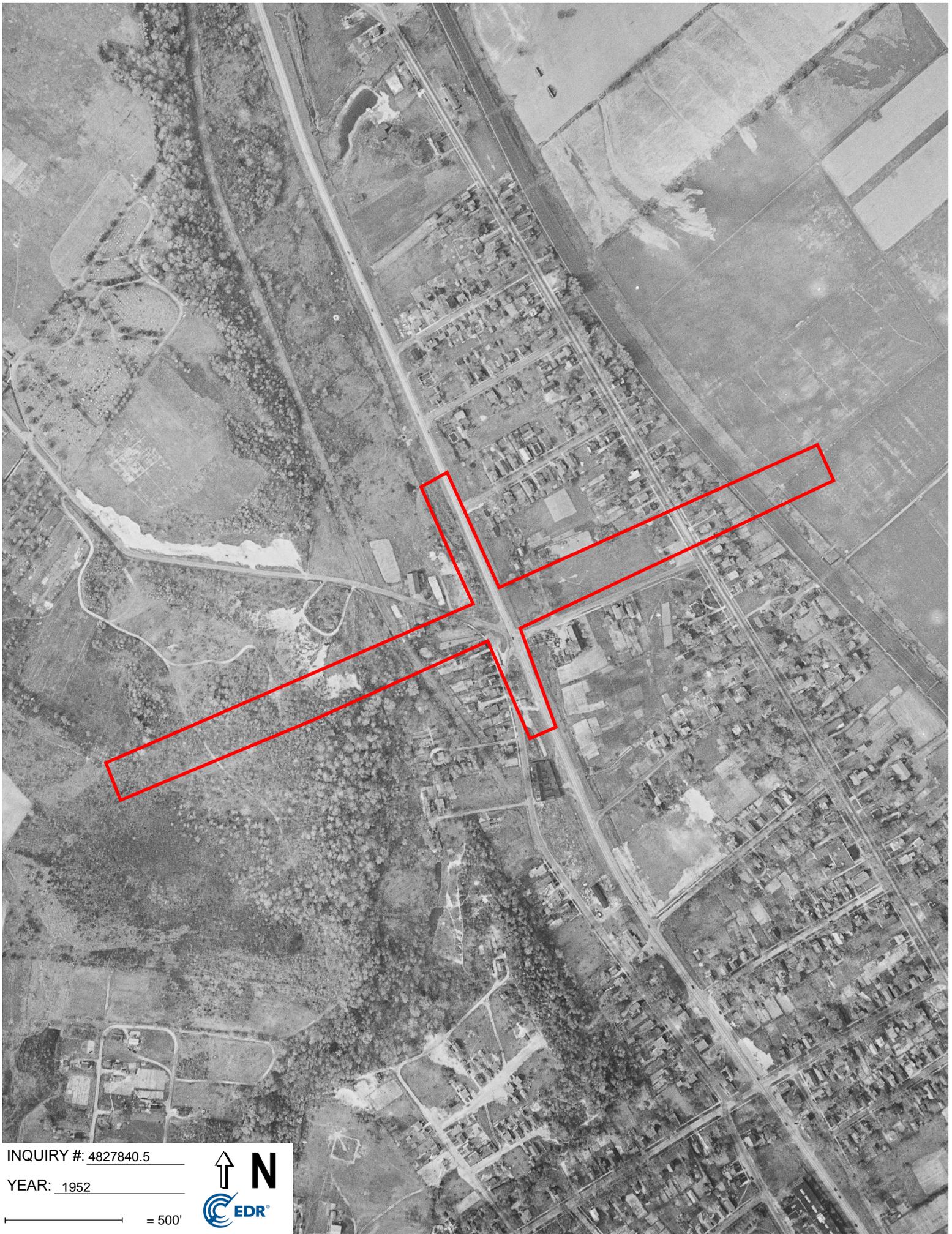


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YEAR: 1957

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INQUIRY #: 4827840.5

YEAR: 1952

— = 500'





INQUIRY #: 4827840.5

YEAR: 1941

— = 500'





Environmental Design & Research,
Landscape Architecture, Engineering & Environmental Services, D.P.C.
217 Montgomery Street, Suite 1000, Syracuse, New York 13202
P. 315.471.0688 • F. 315.471.1061 • www.edrdpc.com

February 10, 2017

Mr. Tim Bradley
Senior Associate
Stantec
61 Commercial Street, Suite 100
Rochester, NY 14614-1009
Sent via email to: tim.bradley@stantec.com

RE: Wetland Delineation Letter Report
MP 238.22, Oriskany Boulevard, Whitesboro, Oneida County, New York (BIN 5009929)
EDR Project No. 16134

Dear Mr. Bradley:

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) is pleased to provide you with this brief Wetland Delineation Letter Report for the above referenced project. As requested by Stantec (the Client), and on behalf of the New York State Thruway Authority (NYSTA), EDR conducted a wetland delineation within the Study Area, which is located at the intersection of the New York State Thruway (I-90) and Oriskany Boulevard in the Town of Whitesboro, Oneida County, New York (see Figures 1 and 2). The Study Area was defined by the Client. This letter report summarizes our review of background data, field visit, methodology, and findings. Supporting figures are attached.

Review of Background Data

A review of existing wetland and stream databases (National Wetland Inventory [NWI], New York State Department of Environmental Conservation [NYSDEC] mapped wetlands, and NYSDEC mapped streams) did not indicate the presence of mapped wetlands or streams within the Study Area. However, adjacent to the eastern portion of the Study Area along I-90, there are two NWI mapped wetlands and one NYSDEC mapped wetland. No streams are shown adjacent to the Study Area (See Figure 3).

Field Visit and Methodology

On November 10, 2016, EDR biologists conducted a site visit to determine if wetlands exist within the Study Area, and to delineate the extent of existing wetlands. The identification of wetland boundaries was made based on the methodology described in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987). The determination of wetland boundaries was also guided by the methodologies presented in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE, 2012). According to the U.S Army Corps of Engineers (Corps) methodologies, wetland hydrology, when combined with a hydrophytic plant community and hydric soils, indicate the presence of a wetland. Attention was also given to the identification of potential hydrologic connections between wetlands and areas that could influence their jurisdictional status.

Wetland boundaries were defined in the field and mapped using a Trimble GeoXH 6000 GPS unit with reported sub-meter accuracy. As discussed with the Client, wetland data forms were not completed due to field work being conducted outside of the growing season. If the Client indicates that delineated wetlands may be impacted by proposed Project construction, EDR will confirm wetland boundaries and collect wetland data from sample plots within the delineated wetlands in the spring of 2017, and data will be recorded on Routine Wetland Data forms. The data collected will include vegetation, hydrology indicators, and soils characteristics.

Findings

Based on our field investigations, wetlands are present within the Study Area. This includes one palustrine open water (POW) wetland and two palustrine forested (PFO) wetlands located in the eastern portions of the Study Area. The POW wetland was characterized by impounded surface water, while the PFO wetlands were characterized by standing water, drainage patterns, and visible saturation shown on aerial imagery. The POW wetland is located in an unvegetated, open lot, and appeared to be the result of the underlying substrate collapsing, forming a sink-hole. Hydrophytic vegetation observed at the two PFO wetlands includes red maple (*Acer rubrum*), American elm (*Ulmus americana*), and green ash (*Fraxinus pennsylvanica*). Please note that the eastern portion of the Study Area beyond Main Street was not accessible at the time of the site reconnaissance due to locked fencing. These wetland boundaries are based on EDR's review of aerial photography of this area and a driving survey. The Thruway remains as an elevated highway over active railroad tracks in this area, and allowed for direct observation of these wetlands. Additionally, one palustrine emergent (PEM) wetland was observed adjacent to the northeastern portion of the Study Area. Based on our observations, this wetland is characterized by hydrologic wetland indicators of soil saturation and surface water. Hydrophytic vegetation observed includes narrowleaf cattail (*Typha angustifolia*), common reed (*Phragmites australis*) and canary reed grass (*Phalaris arundinacea*). Vegetation observations will need to be confirmed during the growing season if this wetland may be disturbed. These wetlands are listed below in Table 1 and the locations are indicated in Figure 4.

A network of roadside ditches exists throughout the Study Area. These features collect surface water runoff from adjacent parking lots and roads, and appear to be created wholly in uplands for the purpose of controlling and conveying stormwater runoff from the surrounding impervious surfaces. At the time of the field work, flow was not present within these roadside ditches. According to the June 5, 2007 Clean Water Act jurisdiction guidance issued by the United States Environmental Protection Agency (EPA) and the Department of Army (DOA) following the Supreme Court's decision in *Rapanos and Carabell* (547 U.S., June 29, 2006), "Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water" are not considered jurisdictional Waters of the U.S. Therefore, because the ditches within the Study Area do not exhibit an ordinary high water mark or relatively permanent flow, and do not drain jurisdictional wetlands, in EDR's opinion, the network of roadside ditches found throughout the Study Area are not jurisdictional (subject to USACE concurrence).

Table 1. Delineated Wetlands

| Wetland ID | Community Type | Area ¹ | Federal Jurisdiction ² | State Jurisdiction ² |
|----------------|----------------|-------------------|-----------------------------------|---------------------------------|
| A ³ | PEM | 0.05 | Yes | No |
| B | POW | 0.07 | Yes | No |
| C | PFO | 0.33 | Yes | Yes – Article 24 |
| D | PFO | 0.39 | Yes | Yes – Article 24 |

¹ Area is expressed in acres, and includes portions of wetlands within the Study Area only.

² Based on agency mapping and field observations of hydrologic connections. Final jurisdiction will be determined by the USACE and/or NYSDEC

³ Wetland located adjacent to the Study Area, outside of the Study Area boundary.

Conclusion

EDR delineated one POW wetland and two PFO wetlands in the eastern portion of the Study Area, as well as one PEM wetland adjacent the northeastern boundary of the Study Area. These wetlands were identified based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. The forested and adjacent wetlands appear to have an indirect and direct surface water connection to the Mohawk River, and therefore are likely to be considered jurisdictional by the USACE under Section 404 of the Clean Water Act. The POW wetland is likely connected to Wetland A, C, and D, and is possibly a result of an underground drainage collapse. The POW wetland is also likely to be considered jurisdictional by the USACE under Section 404 of the Clean Water Act. However, final determination of the jurisdictional status must be made by the USACE. Because the PFO wetland in the southeastern portion of the Study Area is a mapped NYSDEC wetland, and due to the potentially large size of each PFO wetland and the likelihood of connectivity, in EDR's opinion, the two PFO wetlands may be regulated under Article 24 of the Environmental Conservation Law. Due to the lack of significant hydrologic or habitat connectivity, in EDR's opinion the POW wetland and adjacent PEM wetland should not be regulated under Article 24 of the Environmental Conservation Law.

If wetlands may be impacted by proposed Project construction, EDR plans to confirm wetland boundaries and collect wetland data in the spring of 2017.

Thank you for the opportunity to prepare this review. If you have any questions or require any additional information, please contact us at (315) 471-0688 or cgraff@edrdpc.com.

Sincerely,



Carin LeFevre
 Environmental Analyst



Michael Kopansky, PWS, CAE
 Project Manager



Caitlin Graff
 Project Manager

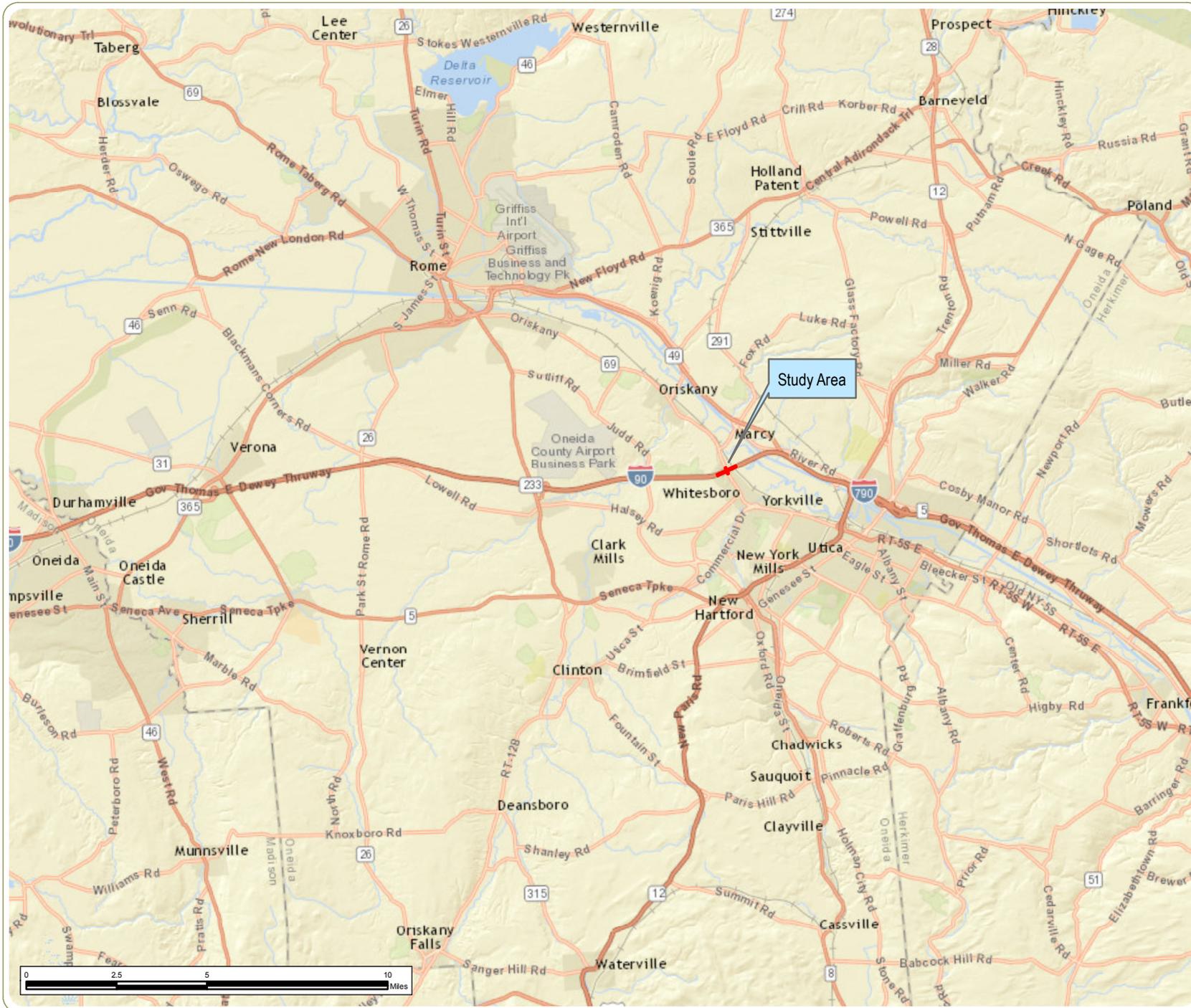
List of Attachments:

- Figure 1. Regional Project Location
- Figure 2. Study Area
- Figure 3. Mapped Wetlands and Streams
- Figure 4. Delineated Wetlands
- Photos of Representative Wetland Communities

References

Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*. Technical Report Y-87-1. U.S. Army Corps of Engineers: Waterways Experiment Station; Vicksburg, MS.

United States Army Corps of Engineers (USACE). 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.



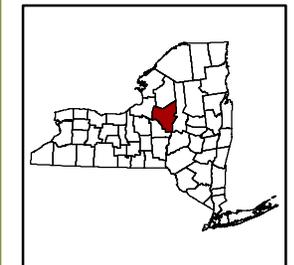
Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

Figure 1. Regional Project Location - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

February 2017

 Study Area



Notes:
 1. Basemap: ESRI ArcGIS Online "World Street Map" Map Service.
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

Figure 2. Study Area - Oriskany Boulevard, Whitesboro, NY MP 238.22 (BIN 5009929)

February 2017

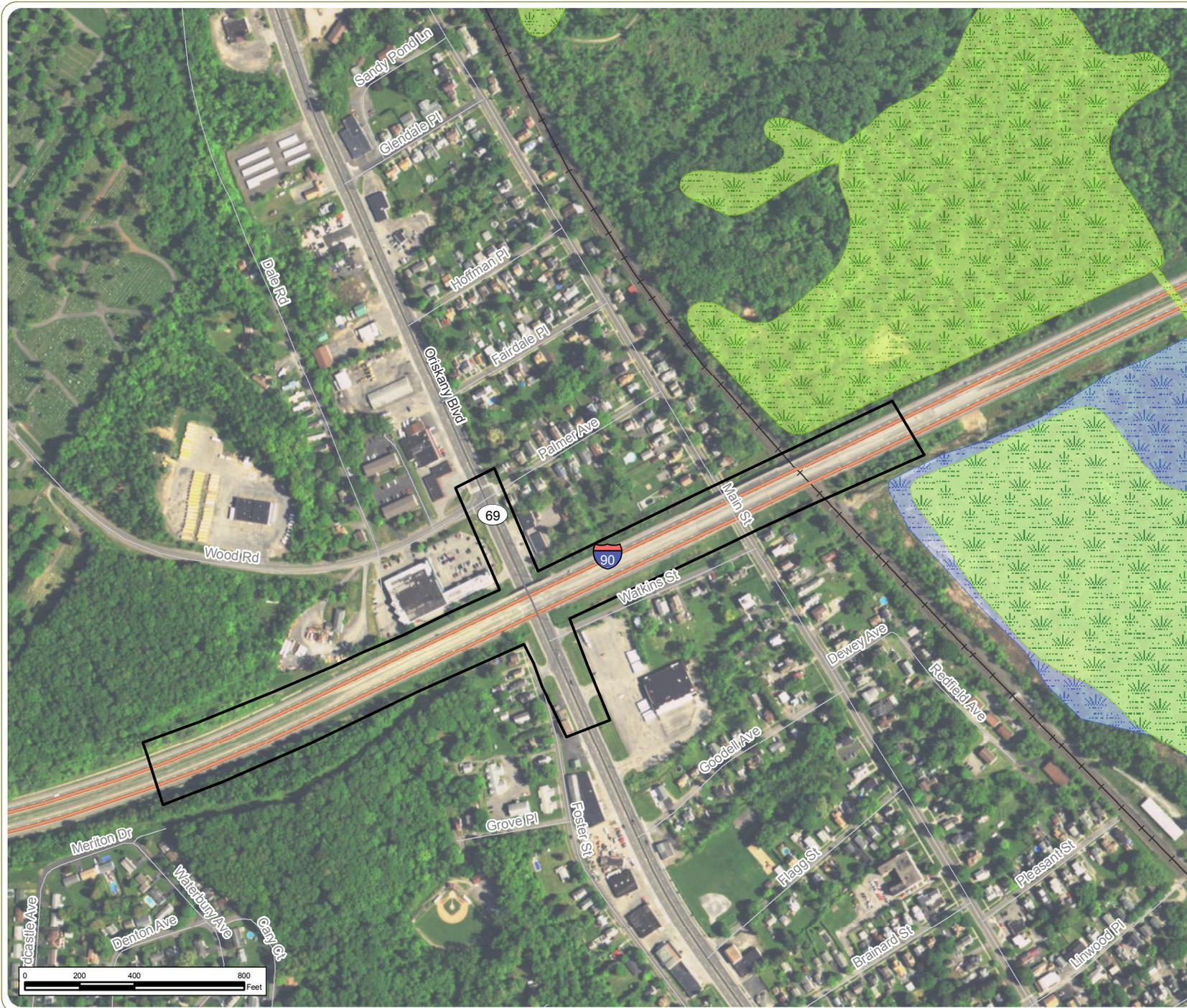
 Study Area

- Notes:**
1. Basemap: ESRI ArcGIS Online "World Imagery" Map Service
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





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Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

Figure 3. Mapped Wetlands and Streams - Oriskany Boulevard, Whitesboro, NY MP 238.22 (BIN 5009929)

February 2017

-  Study Area
-  NWI Wetland
-  NYSDEC Wetlands

Notes:
 1. Basemap: ESRI ArcGIS Online "World Imagery" Map Service
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





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Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

Figure 4. Delineated Wetlands and Streams - Oriskany Boulevard, Whitesboro, NY MP 238.22 (BIN 5009929)

February 2017

-  Study Area
-  Delineated Wetland

Notes:
 1. Basemap: ESRI GIS Online "World Imagery" Map Service
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.



Replacement of Syracuse Division Bridges

Town of Whitesboro,
Oneida County, New York

Site Photograph Locations-
Oriskany Boulevard,
Whitesboro, NY
MP 238.22
(BIN 5009929)

February 2017

-  Photo Locations
-  Study Area
-  Delineated Wetland
-  Wetland Continue

Notes:
1. Basemap: ESRI GIS Online "World Imagery" Map Service
2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





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Photo 1

Wetland F, view to the east.



Photo 2

Wetland F, view to the west.

Replacement of Syracuse Division Bridges

Town of Whitesboro, Oneida County, New York

Site Photographs - Oriskany Boulevard, Whitesboro, NY, MP 238.22 (BIN 5009929)

Sheet 1 of 1

Appendix C Smart Growth Checklist

Smart Growth Screening Tool

PIN

Prepared By: Fisher Associates

Smart Growth Screening Tool (STEP 1)

NYSDOT & Local Sponsors – Fill out the Smart Growth Screening Tool until the directions indicate to **STOP** for the project type under consideration. For all other projects, complete answering the questions. For any questions, refer to [Smart Growth Guidance](#) document.

Title of Proposed Project: NYSTA I-90 over Oriskany Boulevard

Location of Project: Village of Whitesboro

Brief Description: The replacement of the I-90 bridge over Oriskany Boulevard.

A. Infrastructure:

Addresses SG Law criterion a. –

(To advance projects for the use, maintenance or improvement of existing infrastructure)

1. Does this project use, maintain, or improve existing infrastructure?

Yes

No

N/A

Explain: (use this space to expand on your answers above – the form has no limitations on the length of your narrative)

The project is for the replacement of the I-90 bridge over Oriskany Boulevard.

Maintenance Projects Only

a. Continue with screening tool for the four (4) types of maintenance projects listed below, as defined in **NYSDOT PDM Exhibit 7-1 and described in 7-4:**

<https://www.dot.ny.gov/divisions/engineering/design/dqab/pdm>

- Shoulder rehabilitation and/or repair;
- Upgrade sign(s) and/or traffic signals;
- Park & ride lot rehabilitation;

Smart Growth Screening Tool

- 1R projects that include single course surfacing (inlay or overlay), per Chapter 7 of the NYSDOT Highway Design Manual.
- b. For all other maintenance projects, **STOP here**. Attach this document to the programmatic [Smart Growth Impact Statement and signed Attestation](#) for Maintenance projects.

For all other projects (**other than maintenance**), continue with screening tool.

B. Sustainability:

NYSDOT defines Sustainability as follows: A sustainable society manages resources in a way that fulfills the community/social, economic and environmental needs of the present without compromising the needs and opportunities of future generations. A transportation system that supports a sustainable society is one that:

- Allows individual and societal transportation needs to be met in a manner consistent with human and ecosystem health and with equity within and between generations.
- Is safe, affordable, and accessible, operates efficiently, offers choice of transport mode, and supports a vibrant economy.
- Protects and preserves the environment by limiting transportation emissions and wastes, minimizes the consumption of resources and enhances the existing environment as practicable.

For more information on the Department's Sustainability strategy, refer to Appendix 1 of the Smart Growth Guidance and the NYSDOT web site, www.dot.ny.gov/programs/greenlites/sustainability

(Addresses SG Law criterion j : to promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain and implement.)

1. Will this project promote sustainability by strengthening existing communities?

Yes No N/A

2. Will the project reduce greenhouse gas emissions?

Yes No N/A

Explain: (use this space to expand on your answers above)

Smart Growth Screening Tool

C. Smart Growth Location:

Plans and investments should preserve our communities by promoting its distinct identity through a local vision created by its citizens.

(Addresses SG Law criteria b and c: to advance projects located in municipal centers; to advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan.)

1. Is this project located in a developed area?

Yes No N/A

2. Is the project located in a municipal center?

Yes No N/A

3. Will this project foster downtown revitalization?

Yes No N/A

4. Is this project located in an area designated for concentrated infill development in a municipally approved comprehensive land use plan, waterfront revitalization plan, or Brownfield Opportunity Area plan?

Yes No N/A

Explain: (use this space to expand on your answers above)

The project is located in the Village of Whitesboro.

D. Mixed Use Compact Development:

Future planning and development should assure the availability of a range of choices in housing and affordability, employment, education transportation and other essential services to encourage a jobs/housing balance and vibrant community-based workforce.

(Addresses SG Law criteria e and i: to foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial

Smart Growth Screening Tool

development and the integration of all income groups; to ensure predictability in building and land use codes.)

1. Will this project foster mixed land uses?

Yes No N/A

2. Will the project foster brownfield redevelopment?

Yes No N/A

3. Will this project foster enhancement of beauty in public spaces?

Yes No N/A

4. Will the project foster a diversity of housing in proximity to places of employment and/or recreation?

Yes No N/A

5. Will the project foster a diversity of housing in proximity to places of commercial development and/or compact development?

Yes No N/A

6. Will this project foster integration of all income groups and/or age groups?

Yes No N/A

7. Will the project ensure predictability in land use codes?

Yes No N/A

8. Will the project ensure predictability in building codes?

Yes No N/A

Explain: (use this space to expand on your answers above)

This project is not in a brownfield location. No effect on adjacent land uses or housing stock is expected. The Villiage anticipates no direct effects on land use cods or building codes.

E. Transportation and Access:

NYS DOT recognizes that Smart Growth encourages communities to offer a wide range of transportation options, from walking and biking to transit and automobiles, which increase people's access to jobs, goods, services, and recreation.

(Addresses SG Law criterion f: to provide mobility through transportation choices including improved public transportation and reduced automobile dependency.)

Smart Growth Screening Tool

1. Will this project provide public transit?

Yes No N/A

2. Will this project enable reduced automobile dependency?

Yes No N/A

3. Will this project improve bicycle and pedestrian facilities (such as shoulder widening to provide for on-road bike lanes, lane striping, crosswalks, new or expanded sidewalks or new/improved pedestrian signals)?

Yes No N/A

(Note: Question 3 is an expansion on question 2. The recently passed Complete Streets legislation requires that consideration be given to complete street design features in the planning, design, construction, reconstruction and rehabilitation, but not including resurfacing, maintenance, or pavement recycling of such projects.)

Explain: (use this space to expand on your answers above)

The project will not provide public transit and will not enable reduced automobile dependency.

F. Coordinated, Community-Based Planning:

Past experience has shown that early and continuing input in the transportation planning process leads to better decisions and more effective use of limited resources. For information on community based planning efforts, the MPO may be a good resource if the project is located within the MPO planning area.

(Addresses SG Law criteria g and h: to coordinate between state and local government and inter-municipal and regional planning; to participate in community based planning and collaboration.)

1. Has there been participation in community-based planning and collaboration on the project?

Yes No N/A

2. Is the project consistent with local plans?

Yes No N/A

3. Is the project consistent with county, regional, and state plans?

Yes No N/A

Smart Growth Screening Tool

4. Has there been coordination between inter-municipal/regional planning and state planning on the project?

Yes No N/A

Explain: (use this space to expand on your answers above)

NYSTA has full ownership and maintenance of the bridge.

G. Stewardship of Natural and Cultural Resources:

Clean water, clean air and natural open land are essential elements of public health and quality of life for New York State residents, visitors, and future generations. Restoring and protecting natural assets, and open space, promoting energy efficiency, and green building, should be incorporated into all land use and infrastructure planning decisions.

(Addresses SG Law criterion d :To protect, preserve and enhance the State’s resources, including agricultural land, forests surface and ground water, air quality, recreation and open space, scenic areas and significant historic and archeological resources.)

1. Will the project protect, preserve, and/or enhance agricultural land and/or forests?

Yes No N/A

2. Will the project protect, preserve, and/or enhance surface water and/or groundwater?

Yes No N/A

3. Will the project protect, preserve, and/or enhance air quality?

Yes No N/A

4. Will the project protect, preserve, and/or enhance recreation and/or open space?

Yes No N/A

5. Will the project protect, preserve, and/or enhance scenic areas?

Yes No N/A

6. Will the project protect, preserve, and/or enhance historic and/or archeological resources?

Yes No N/A

Explain: (use this space to expand on your answers above)

Smart Growth Screening Tool

The project will maintain the existing levels of air quality.

Smart Growth Screening Tool

Smart Growth Impact Statement (STEP 2)

NYSDOT: Complete a Smart Growth Impact Statement (SGIS) below using the information from the Screening Tool.

Local Sponsors: The local sponsors are **not** responsible for completing a Smart Growth Impact Statement. Proceed to **Step 3**.

Smart Growth Impact Statement

PIN: S

Project Name: NYSTA US Interstate 90 Over Mohawk Street

Pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act. This project has been determined to meet the relevant criteria, to the extent practicable, described in ECL Sec. 6-0107. Specifically, the project:

- To advance projects for the use, maintenance or improvement of existing infrastructure
- To protect, preserve and enhance the state's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archeological resources
- To coordinate between state and local government and intermunicipal and regional planning
-
-
-

This publically supported infrastructure project complies with the state policy of maximizing the social, economic and environmental benefits from public infrastructure development. The project will not contribute to the unnecessary costs of sprawl development, including environmental degradation, disinvestment in urban and suburban communities, or loss of open space induced by sprawl.

Smart Growth Screening Tool

Review & Attestation Instructions (STEP 3)

Local Sponsors: Once the Smart Growth Screening Tool is completed, the next step is to submit the project certification statement (**Section A**) to Responsible Local Official for signature. After signing the document, the completed Screening Tool and Certification statement should be sent to NYSDOT for review as noted below.

NYSDOT: For state-let projects, the Screening Tool and SGIS is forwarded to Regional Director/ RPPM/Main Office Program Director or designee for review, and upon approval, the attestation is signed (**Section B.2**). For locally administered projects, the sponsor's submission and certification statement is reviewed by NYSDOT staff, the appropriate box (**Section B.1**) is checked, and the attestation is signed (Section B.2).

A. CERTIFICATION (LOCAL PROJECT)

I HEREBY CERTIFY, to the best of my knowledge, all of the above to be true and correct.

Preparer of this document:

Signature

Date

Project Manager _____
Title

Emily Smith, PE _____
Printed Name

Responsible Local Official (for local projects):

Signature

Date

Title

Printed Name

Smart Growth Screening Tool

B. ATTESTATION (NYSDOT)

1. I HEREBY:

Concur with the above certification, thereby attesting that this project is in compliance with the State Smart Growth Public Infrastructure Policy Act

Concur with the above certification, with the following conditions (information requests, confirming studies, project modifications, etc.):

(Attach additional sheets as needed)

do not concur with the above certification, thereby deeming this project ineligible to be a recipient of State funding or a subrecipient of Federal funding in accordance with the State Smart Growth Public Infrastructure Policy Act.

2. **NOW THEREFORE**, pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act, to the extent practicable, as described in the attached Smart Growth Impact Statement.

NYSDOT Commissioner, Regional Director, MO Program Director,
Regional Planning & Programming Manager (or official designee):

Signature

Date

Title

Printed Name

Appendix D Pedestrian Generator Checklist

PIN: BIN: 5009929
DESCRIPTION: I-90 EB&WB Over Oriskany Blvd
MUNICIPALITY/COUNTY: Oneida
PEDESTRIAN GENERATOR CHECKLIST

DATE: 2/15/17 PREPARED BY: SKH REVIEWED BY:

Note: The term Agenerator@ in this document refers to both pedestrian generators (where pedestrians originate) and destinations (where pedestrians travel to). A check of yes indicates a potential need to accommodate pedestrians and coordination with the Regional Bicycle and Pedestrian Coordinator is necessary during project scoping. Answers to the following questions should be checked with the local municipality to ensure accuracy.

| | | |
|------------|--|---|
| 1. | Is there an existing or planned sidewalk, trail, or pedestrian crossing facility? Comments: There are no pedestrians permitted on I-90 EB&WB and there are no existing sidewalks along Oriskany Blvd. | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 2. | Are there bus stops, transit stations or depots/terminals located in or within 800m of the project area? Comments: The Whitesboro School District has a bus depot off of Wood Road which intersects Oriskany Blvd just north of the bridge. | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| 3. | Is there more than occasional pedestrian activity? Evidence of pedestrian activity may include a worn path. Comments: | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 4. | Are there existing or approved plans for generators of pedestrian activity in or within 800m of the project that promote or have the potential to promote pedestrian traffic in the project area, such as schools, parks, playgrounds, places of employment, places of worship, post offices, municipal buildings, restaurants, shopping centers or other commercial areas, or shared-use paths? Comments: There is the Crosspoint Church just north of the bridge and some local businesses along Oriskany Blvd however none appear to be generating pedestrian traffic as shown in Number 3 above. | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| 5. | Are there existing or approved plans for seasonal generators of pedestrian activity in or within 800m of the project that promote or have the potential to promote pedestrian traffic in the project area, such as ski resorts, state parks, camps, amusement parks? Comments: | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 6. | Is the project located in a residential area within 800m of existing or planned pedestrian generators such as those listed in #4? Comments: | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 7. | From record plans, were pedestrian facilities removed during a previous highway reconstruction project? Comments: | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 8. | Did a study of secondary impacts indicate that the project promotes or is likely to promote commercial and/or residential development within the intended life cycle of the project? Comments: N/A | YES <input type="checkbox"/> NO <input type="checkbox"/> |
| 9. | Does the community=s comprehensive plan call for development of pedestrian facilities in the area? Comments: | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 10. | Based on the ability of students to walk and bicycle to school, would the project benefit from engineering measures under the Safe-Routes-To-School-Program? Eligible infrastructure-related improvements must be within a 3.2km radius of the project. Comments: | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |

ADDITIONAL COMMENTS:
Include comment on exceptional circumstances from EI 04-011 if pedestrian accommodations are warranted but not provided.

Note: This checklist should be revisited due to a project delay or if site conditions or local planning changes during the project development process.

Appendix E Structure Information

New York State Department of Transportation General Bridge Inspection Report

Inspection Date: September 06, 2016

Structure Information

BIN: 5009929

Feature Carried: 90IX

Feature Crossed: NYS Route 69, Ori

Orientation: 6 - SOUTHWEST

Region: 02 - UTICA

County: ONEIDA

Political Unit: Village of WHITESBORO

Approximate Year Built: 1954

Primary Owner: 2L - NYS Thruway Authority

Primary Maintenance Responsibility: 2L - NYS Thruway Authority

General Type Main Span: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 3

Postings

Posted Vertical Clearance On: Not Posted

Bridge Load Posting: Not Posted

Posted Vertical Clearance Under: Not Posted

Number of Flags Issued

Red PIA: 0

Red: 0

Yellow: 1

Safety PIA: 0

New York State Inspection Overview

General Recommendation: 4

Federal NBI Ratings

NBI Deck Condition: 3

NBI Channel Condition: N

NBI Superstructure Condition: 4

NBI Culvert Condition: N

NBI Substructure Condition: 5

Action Items

Non-Structural Condition Observations noted: NO

Vulnerability Reviews Recommended: Steel

Diving Inspection Requested: NO

Further Investigation Requested: NO

Inspector & Reviewer Signature Information

Inspection Signature: Mark E. Fabend, P.E. 085884-1

Date: October 19, 2016

Review Signature: Andre Bigos, P.E. 51640

Date: October 19, 2016

Report Printed: January 31, 2017 9:56:12

Special Emphasis Inspection

| Special Emphasis Detail | "Other" Special Emphasis Detail Description | Hands-On Insp Performed | Hands-On Inspection Note |
|---|---|-------------------------|---|
| AASHTO Category D, E, and E' welded details | Cat E' welds of cover plates, all girders in spans 2 | Yes | All special emphasis details were inspected 100% hands-on and no defects were observed. Mark E Fabend, PE 085884 9/6/2016 |
| Details vulnerable to cracking from out-of-plane distortion | Out-of-plan diaphragm connection in all spans at random locations | Yes | All special emphasis details were inspected 100% hands-on and no defects were observed. Mark E Fabend, PE 085884 9/6/2016 |
| Other (Unique & unusual features) | Field welded stiffeners, all girders both sides of both piers | Yes | All special emphasis details were inspected 100% hands-on and no defects were observed. Mark E Fabend, PE 085884 9/6/2016 |
| Steel Web Bearing Area | Heavy Web Section Loss At Ends of Girders Over Piers | Yes | Yellow Flag Issued For Heavy Deterioration, Mark E Fabend, PE 085884 9/6/2016 |

Additional Information

Overloads Observed

No overload vehicles observed during this inspection.

Notes to Next Inspector

The BIN plate is located on the end backwall, to the left of Girder G1. A scissors truck and lane closures (both provided by NYSTA) were utilized to inspect this bridge.

Improvements Observed

Plywood and lumber forms installed on Span 2 deck to prevent loose concrete from falling on traffic below.

Pedestrian Fence Height

None

Snow Fence

Yes

Element Quantities

Element Assessment Summary Table

| Element | Total Quantity | Unit | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|----------------|-----------------|------|-------|------|------|------|
| 12 - Reinforced Concrete Deck | 17262 | ft ² | 9465 | 3680 | 4117 | | 0 |
| 107 - Steel Open Girder/Beam | 2120 | ft | | 1896 | 216 | 8 | 0 |
| 205 - Reinforced Concrete Column | 16 | each | | 13 | 3 | | 0 |
| 215 - Reinforced Concrete Abutment | 222 | ft | | 170 | 39 | 13 | 0 |
| 220 - Reinforced Concrete Pile/Cap Footing | 524 | ft | | | | | 524 |
| 227 - Reinforced Concrete Pile | 160 | each | | | | | 160 |
| 234 - Reinforced Concrete Pier Cap | 224 | ft | | 180 | 44 | | 0 |
| 302 - Compression Joint Seal | 226 | ft | | | 226 | | 0 |
| 311 - Movable Bearing | 42 | each | | | 42 | | 0 |
| 313 - Fixed Bearing | 42 | each | | 42 | | | 0 |
| 330 - Metal Bridge Railing | 459 | ft | | 380 | 79 | | 0 |
| 510 - Wearing Surfaces | 15480 | ft ² | 9290 | 6190 | | | 0 |
| 515 - Steel Protective Coating | 30430 | ft ² | | 20765 | 5868 | 3797 | 0 |
| 800 - Scour | 740 | ft | | 740 | | | 0 |
| 811 - Curb | 306 | ft | 306 | | | | 0 |
| 830 - Secondary Members | 3 | each | | 3 | | | 0 |
| 831 - Steel Beam End | 56 | each | | | 54 | 2 | 0 |
| 850 - Backwall | 214 | ft | | 172 | 29 | 13 | 0 |
| 851 - Abutment Pedestal | 28 | each | | 26 | 2 | | 0 |
| 852 - Pier Pedestal | 28 | each | | 25 | 3 | | 0 |
| 853 - Wingwall | 62 | ft | | 62 | | | 0 |

Element Assessment by Span*

| Element** | Total Quantity | Unit | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|----------------|-----------------|------|------|------|------|------|
| <i>Span Number : 1</i> | | | | | | | |
| BA215 - Reinforced Concrete Abutment | 111 | ft | | 77 | 34 | | 0 |
| BA220 - Reinforced Concrete Pile/Cap Footing | 153 | ft | | | | | 153 |
| BA227 - Reinforced Concrete Pile | 36 | each | | | | | 36 |
| BA313 - Fixed Bearing | 14 | each | | 14 | | | 0 |
| 515 - Steel Protective Coating | 56 | ft ² | | 48 | | 8 | 0 |
| BA800 - Scour | 153 | ft | | 153 | | | 0 |
| BA850 - Backwall | 107 | ft | | 83 | 24 | | 0 |
| BA851 - Abutment Pedestal | 14 | each | | 12 | 2 | | 0 |

BIN: 5009929 Bridge Inspection Report
 Inspection Date: September 06, 2016

| Element** | Total Quantity | Unit | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|----------------|-----------------|------|------|------|------|------|
| BA853 - Wingwall | 31 | ft | | 31 | | | 0 |
| PR205 - Reinforced Concrete Column | 8 | each | | 6 | 2 | | 0 |
| PR220 - Reinforced Concrete Pile/Cap Footing | 109 | ft | | | | | 109 |
| PR227 - Reinforced Concrete Pile | 44 | each | | | | | 44 |
| PR234 - Reinforced Concrete Pier Cap | 112 | ft | | 94 | 18 | | 0 |
| PR302 - Compression Joint Seal | 113 | ft | | | 113 | | 0 |
| PR311 - Movable Bearing | 14 | each | | | 14 | | 0 |
| 515 - Steel Protective Coating | 56 | ft ² | | | 42 | 14 | 0 |
| PR800 - Scour | 217 | ft | | 217 | | | 0 |
| PR831 - Steel Beam End | 14 | each | | | 13 | 1 | 0 |
| PR852 - Pier Pedestal | 14 | each | | 12 | 2 | | 0 |
| 12 - Reinforced Concrete Deck | 3475 | ft ² | 3125 | 350 | | | 0 |
| 510 - Wearing Surfaces | 3116 | ft ² | 1870 | 1246 | | | 0 |
| 107 - Steel Open Girder/Beam | 435 | ft | | 379 | 52 | 4 | 0 |
| 515 - Steel Protective Coating | 3333 | ft ² | | 2165 | 1000 | 168 | 0 |
| 330 - Metal Bridge Railing | 92 | ft | | 89 | 3 | | 0 |
| 515 - Steel Protective Coating | 2243 | ft ² | | 1683 | | 560 | 0 |
| 811 - Curb | 62 | ft | 62 | | | | 0 |
| 830 - Secondary Members | 1 | each | | 1 | | | 0 |
| Span Number : 2 | | | | | | | |
| PR205 - Reinforced Concrete Column | 8 | each | | 7 | 1 | | 0 |
| PR220 - Reinforced Concrete Pile/Cap Footing | 109 | ft | | | | | 109 |
| PR227 - Reinforced Concrete Pile | 44 | each | | | | | 44 |
| PR234 - Reinforced Concrete Pier Cap | 112 | ft | | 86 | 26 | | 0 |
| PR302 - Compression Joint Seal | 113 | ft | | | 113 | | 0 |
| PR311 - Movable Bearing | 14 | each | | | 14 | | 0 |
| 515 - Steel Protective Coating | 56 | ft ² | | | 42 | 14 | 0 |
| PR313 - Fixed Bearing | 14 | each | | 14 | | | 0 |
| 515 - Steel Protective Coating | 56 | ft ² | | | 42 | 14 | 0 |
| PR800 - Scour | 217 | ft | | 217 | | | 0 |
| PR831 - Steel Beam End | 28 | each | | | 27 | 1 | 0 |
| PR852 - Pier Pedestal | 14 | each | | 13 | 1 | | 0 |
| 12 - Reinforced Concrete Deck | 9775 | ft ² | 2930 | 2930 | 3915 | | 0 |
| 510 - Wearing Surfaces | 8766 | ft ² | 5260 | 3506 | | | 0 |
| 107 - Steel Open Girder/Beam | 1211 | ft | | 1099 | 108 | 4 | 0 |
| 515 - Steel Protective Coating | 12046 | ft ² | | 7830 | 3615 | 601 | 0 |

| Element** | Total Quantity | Unit | CS-1 | CS-2 | CS-3 | CS-4 | CS-5 |
|--|----------------|-----------------|------|------|------|------|------|
| 330 - Metal Bridge Railing | 260 | ft | | 220 | 40 | | 0 |
| 515 - Steel Protective Coating | 6284 | ft ² | | 4714 | | 1570 | 0 |
| 811 - Curb | 173 | ft | 173 | | | | 0 |
| 830 - Secondary Members | 1 | each | | 1 | | | 0 |
| Span Number : 3 | | | | | | | |
| EA215 - Reinforced Concrete Abutment | 111 | ft | | 93 | 5 | 13 | 0 |
| EA220 - Reinforced Concrete Pile/Cap Footing | 153 | ft | | | | | 153 |
| EA227 - Reinforced Concrete Pile | 36 | each | | | | | 36 |
| EA313 - Fixed Bearing | 14 | each | | 14 | | | 0 |
| 515 - Steel Protective Coating | 56 | ft ² | | 48 | | 8 | 0 |
| EA800 - Scour | 153 | ft | | 153 | | | 0 |
| EA850 - Backwall | 107 | ft | | 89 | 5 | 13 | 0 |
| EA851 - Abutment Pedestal | 14 | each | | 14 | | | 0 |
| EA853 - Wingwall | 31 | ft | | 31 | | | 0 |
| PR311 - Movable Bearing | 14 | each | | | 14 | | 0 |
| 515 - Steel Protective Coating | 56 | ft ² | | | 42 | 14 | 0 |
| PR831 - Steel Beam End | 14 | each | | | 14 | | 0 |
| 12 - Reinforced Concrete Deck | 4012 | ft ² | 3410 | 400 | 202 | | 0 |
| 510 - Wearing Surfaces | 3598 | ft ² | 2160 | 1438 | | | 0 |
| 107 - Steel Open Girder/Beam | 474 | ft | | 418 | 56 | | 0 |
| 515 - Steel Protective Coating | 3611 | ft ² | | 2345 | 1085 | 181 | 0 |
| 330 - Metal Bridge Railing | 107 | ft | | 71 | 36 | | 0 |
| 515 - Steel Protective Coating | 2577 | ft ² | | 1932 | | 645 | 0 |
| 811 - Curb | 71 | ft | 71 | | | | 0 |
| 830 - Secondary Members | 1 | each | | 1 | | | 0 |

*For structures with 3 or less spans, all elements of all spans are shown.

For structures with 4 or more spans, elements (parent/child) with Condition State values of 3, 4, or 5 are shown.

** Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

Inspection Notes

General Comments

The bridge is located at MP 238.22 along the NYS Thruway (90IX) and is oriented Southwest. The abutments are of jointless construction with the bridge deck sliding on the backwall, as such there are no ratable joints or steel beam ends at the abutments.

Element Condition Notes

Span 1: 12 - Reinforced Concrete Deck
Span 2: 12 - Reinforced Concrete Deck
Span 3: 12 - Reinforced Concrete Deck
Condition State 3 Note
Referenced Photo(s): 21, 22
Referenced Sketch(es): None

Approx. 90% of the Span 1 deck is in good condition and rates CS-1, while approx. 10% of the Span 1 deck has light mapcracking and rates CS-2.

During the 2015 inspection, the deck in Span 2 was safety flagged (No. 15-084) for extensive, heavy spalling over the travel lanes. Plywood and lumber forms were installed to prevent the concrete from falling onto the travelled way below. Although this work was sufficient to remove the flag, the spalling still exists. Approx. 40% of the Span 2 deck is rated CS-3 due to this heavy spalling and due to light to moderate spalling adjacent to the forms. None of the exposed concrete in Span 2 was in danger of falling onto cars below. Approx. 30% of the deck in Span 2 has light mapcracking and Rates CS-2. The rest of the Span 2 deck is in good condition and rates CS-1.

Approx. 85% of the Span 3 deck is in good condition and rates CS-1 and approx. 10% has light mapcracking and rates CS-2. The rest of the Span 3 deck, approx. 5% of the total area, is moderately spalled with exposed rebars. The concrete within the spalls is solid and the rebars are bonded to the concrete. As such, this 5% of the deck rates CS-3.

Span 1: 107 - Steel Open Girder/Beam
Span 2: 107 - Steel Open Girder/Beam
Span 3: 107 - Steel Open Girder/Beam
Condition State 3 Note
Referenced Photo(s): 19, 20
Referenced Sketch(es): 2, 3, 4

The ends of the steel girders in all spans, over both piers and at the abutments have moderate to heavy section losses of the webs. The section loss is located within the critical bearing area. However, no buckling or localized distortion of the webs was observed. There are no bearing stiffeners at the supports, but there are partial height diaphragm connection plates on both sides of the interior girders and the interior side of the fascia girders.

Span 1 Girder G5 over Pier 1 – 51%

Span 2 Girder G1 over Pier 1 – 50%

Due to these conditions, Yellow Flag 2B16UMW005 is issued which supersedes Yellow Flag 15-067 issued during the 2015 inspection.

The following girders have section losses within the critical bearing area that are greater than 20%:

Span 1 Girder G1 at Begin Abutment – 32%

Span 1 Girder G6 at Pier 1 – 31%

Span 1 Girder G7 at Pier 1 – 36%

Span 1 Girder G13 at Pier 1 – 31%

Span 1 Girder G14 at Pier 1 – 28%

Span 2 Girder G2 at Pier 1 – 29%

Span 2 Girder G4 at Pier 1 – 21%

Span 3 Girder G1 at Pier 3 – 34%

The rest of the girders, at all locations have 10-20% section loss in the critical bearing area.

Also, the end diaphragms over the piers that support the deck are heavily corroded with up to 30% section loss of the bottom flanges.

The web section loss typically affects approx. 4 LF at each location. As such, Span 1 has 13 locations = 52 LF, Span 2 has 27 locations at 4 LF each = 108 LF of conditions rating CS-3, while Span 3 has 14 locations = 56 LF. The end diaphragm deterioration is included in these values. (Refer also to the CS-4 notes and Web Section Loss sketches.)

Span 1: 107 - Steel Open Girder/Beam
Span 2: 107 - Steel Open Girder/Beam
Condition State 4 Note
Referenced Photo(s): 17, 18
Referenced Sketch(es): 2, 3, 4

The ends of the steel girders in all spans, over both piers and at the abutments have moderate to heavy section losses of the webs. The section loss is located within the critical bearing area. However, no buckling or localized distortion of the webs

was observed. There are no bearing stiffeners at the supports, but there are partial height diaphragm connection plates on both sides of the interior girders and the interior side of the fascia girders.

Span 1 Girder G5 over Pier 1 – 51%

Span 2 Girder G1 over Pier 1 – 50%

Due to these conditions, Yellow Flag 2B16UMW005 is issued which supersedes Yellow Flag 15-067 issued during the 2015 inspection. These girders rate CS-4.

The web section loss typically affects approx. 4 LF at each location. As such, Spans 1 and 2 have 1 location at 4 LF each = 4 LF of conditions rating CS-4. (See also Web Section Loss sketches.)

Span 1: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating **Condition State 3 Note**
Span 2: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating
Span 3: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating

Referenced Photo(s): 7

Referenced Sketch(es): None

The paint on the webs of the girders has rust freckling with areas of chipped and peeled paint. This condition rates CS-3 and covers approx. 30% of the total surface area of the girders. The rest of the paint on the girders except for the girder ends, is slightly faded and chalky and rates CS-2. (See also Primary Member Paint CS-4 notes.)

Span 1: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating **Condition State 4 Note**
Span 2: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating
Span 3: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating

Referenced Photo(s): 8

Referenced Sketch(es): None

The end diaphragms, which support the deck, and the girders ends have 100% paint loss. This condition affects approx. 5% of the total primary member surface area and rates CS-4.

Span 1: PR205 - Reinforced Concrete Column **Condition State 3 Note**

Referenced Photo(s): 10

Referenced Sketch(es): None

Column 2 has a 2 sqft by up to 2" deep spall on the end right face. In addition, approx. 25% of the end left face has up to 1/8" wide vertical cracks with delaminated concrete. Column 6 has up to 1/8" wide vertical surface cracks with hollow and delaminated concrete on approx. 66% of its total area. These columns rate CS-3. The rest of the Pier 1 columns are in fair condition with minor deterioration and rate CS-2.

Span 1: BA215 - Reinforced Concrete Abutment **Condition State 3 Note**

Referenced Photo(s): 1, 2

Referenced Sketch(es): None

On the begin abutment backwall, there is a 3 sqft by up to 2" deep spall with exposed rebars behind Girder G4, a 2 sqft by up to 2" deep with exposed rebars behind Girder G11 and a 1 sqft shallow spall behind Girder G14. There are also several hollow areas as follows: 9 sqft in Bay 4, 12 sqft in Bay 11 and 6 sqft in Bay 13. These areas rate CS-3 and total 24 LF. The rest of the begin abutment backwall is in fair condition with minor deterioration and rates CS-2.

The pedestal supporting Girder G6 has a 1 sqft by up to 6" deep spall on the right face with exposed rebars and no undermining of the bearing. The pedestal supporting Girder G14 has a 2 sqft by up to 1-1/2" deep spall on the top of the pedestal to the right of G14. This spall undermines the bearing by approx. 2.5%. In addition, the top left corner of the pedestal is hollow sounding. These 2 pedestals rate CS-3. The rest of the begin abutment pedestals are in fair condition with minor deterioration and rate CS-2.

Span 1: BA220 - Reinforced Concrete Pile/Cap Footing **Condition State 5 Note**
Span 1: PR220 - Reinforced Concrete Pile/Cap Footing
Span 2: PR220 - Reinforced Concrete Pile/Cap Footing
Span 3: EA220 - Reinforced Concrete Pile/Cap Footing

Referenced Photo(s): None

Referenced Sketch(es): None

The substructure footings are not visible for inspection.

| | |
|---|-------------------------------|
| <p>Span 1: BA227 - Reinforced Concrete Pile Span 1: PR227 - Reinforced Concrete Pile Span 2: PR227 - Reinforced Concrete Pile Span 3: EA227 - Reinforced Concrete Pile</p> <p><i>Referenced Photo(s):</i> None <i>Referenced Sketch(es):</i> None</p> | Condition State 5 Note |
|---|-------------------------------|

The substructure piles are not visible for inspection.

| | |
|--|-------------------------------|
| <p>Span 1: PR234 - Reinforced Concrete Pier Cap</p> <p><i>Referenced Photo(s):</i> 12, 13 <i>Referenced Sketch(es):</i> None</p> | Condition State 3 Note |
|--|-------------------------------|

Pier 1 – There are several spalls on the end face of the Pier 1 cap as follows:
 -4 foot long by 12” high by up to 2” deep with an exposed rebar in Girder Bay 2
 -4 foot long by 9” high by up to 2” deep with an exposed rebar in Girder Bay 10
 -2 foot long by 12” high by up to 4” deep with an exposed rebar below Girder G12
 -2 sqft by up to 1” deep spall with a delaminated patch on the top of the cap to the right of Girder G12
 The exposed rebars have <15% section losses. The bottom corner at the begin face of the cap has a 2 sqft by up to 3” deep spall with exposed rebars to the left to Column 5. The rest of the Pier 1 cap is in fair condition with minor deterioration and rates CS-2.

In addition, there are 3 foot long horizontal cracks on the end faces of the pedestals supporting Girders G2 and G10. The area above these cracks is hollow and delaminated. These pedestals rate CS-3. The rest of the pedestals at Pier 1 are in fair condition with minor deterioration and rate CS-2.

| | |
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| <p>Span 1: PR302 - Compression Joint Seal Span 2: PR302 - Compression Joint Seal</p> <p><i>Referenced Photo(s):</i> 12, 25 <i>Referenced Sketch(es):</i> None</p> | Condition State 3 Note |
|---|-------------------------------|

Approx. 50% of the joints over the piers are debonded from the elastomeric concrete headers. The rest of the joints are slightly weathered. However, the joints appear to be actively and moderately leaking, over their full widths, onto the structure below as evidence by accelerated deterioration of the beam ends and end diaphragms at the piers.

| | |
|--|-------------------------------|
| <p>Span 1: PR311 - Movable Bearing-515 - Steel Protective Coating Span 2: PR311 - Movable Bearing-515 - Steel Protective Coating Span 2: PR313 - Fixed Bearing-515 - Steel Protective Coating Span 3: PR311 - Movable Bearing-515 - Steel Protective Coating</p> <p><i>Referenced Photo(s):</i> 5 <i>Referenced Sketch(es):</i> None</p> | Condition State 3 Note |
|--|-------------------------------|

Approx. 75% of the paint on the pier bearings is chipped and peeled, but appears to be somewhat effective at protecting the steel surfaces from corrosion. This condition primarily affects the rockers and lower portions of the bearings and rates CS-3. (See also Bearing Paint CS-4 notes.)

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|--|-------------------------------|
| <p>Span 1: PR311 - Movable Bearing Span 2: PR311 - Movable Bearing Span 3: PR311 - Movable Bearing</p> <p><i>Referenced Photo(s):</i> 15, 16 <i>Referenced Sketch(es):</i> 5, 6, 7</p> | Condition State 3 Note |
|--|-------------------------------|

All of the movable bearings are moderately corroded, which impacts their ability to freely rotate. In addition, several of the bearings are overextended for the temperature. The worst overextension are the Span 3 fascia bearings at Pier 2. These bearings are overextended by 10 degrees. (Refer to the Bearing Tilt Measurements contained in this report for specific measurements. The tilt measurements were taken at 74 degrees. The temperature when the inspectors arrived on site was 70 degrees.) All movable bearings rate CS-3.

Span 1: PR311 - Movable Bearing-515 - Steel Protective Coating **Condition State 4 Note**
Span 1: BA313 - Fixed Bearing-515 - Steel Protective Coating
Span 2: PR311 - Movable Bearing-515 - Steel Protective Coating
Span 2: PR313 - Fixed Bearing-515 - Steel Protective Coating
Span 3: PR311 - Movable Bearing-515 - Steel Protective Coating
Span 3: EA313 - Fixed Bearing-515 - Steel Protective Coating

Referenced Photo(s): 6

Referenced Sketch(es): None

The paint on the fascia bearings at both abutments is either completely missing or ineffective and rates CS-4. The paint on the interior bearings at both abutments is slightly faded and chalky and rates CS-2. Approx. 25% of the bearing paint at the piers, primarily on the masonry plates and lower portions of the bearings, is also either completely missing or ineffective. As a result, the bearing paint rates CS-4 at these locations.

Span 1: 330 - Metal Bridge Railing **Condition State 3 Note**
Span 2: 330 - Metal Bridge Railing
Span 3: 330 - Metal Bridge Railing

Referenced Photo(s): 23, 24

Referenced Sketch(es): None

On the right fascia railing at the end of Span 1 there is a 3 foot long section of the top rail of the original steel bridge rail that has heavy section loss and several perforations. This portion of the bridge rail rates CS-3. The rest of the original Span 1 right bridge rail, the Span 1 left bridge rail and all of the Span 2 and 3 bridge rail has light pitting of the steel and rates CS-2.

The left half of the corrugated median barrier has loose bolts and is wobbly for the end half of Span 2 and all of Span 3. The system as a whole is functional. In addition, the welds at the base of median rail Post 2 are broken. Due to these conditions, 50% of the Span 2 median barrier and all of the Span 3 median barrier rates CS-3. The Span 1 median barrier and the begin half of the Span 2 median barrier rate CS-2.

Span 1: 330 - Metal Bridge Railing-515 - Steel Protective Coating **Condition State 4 Note**
Span 2: 330 - Metal Bridge Railing-515 - Steel Protective Coating
Span 3: 330 - Metal Bridge Railing-515 - Steel Protective Coating

Referenced Photo(s): 9

Referenced Sketch(es): None

The galvanization on the thrie beam upgrade railing at each fascia and on the corrugated beam median barrier is slightly faded with light, sporadic rust freckling and rates CS-2. The paint on the original discontinuous steel bridge rail is missing or chipped and peeled badly enough to make it ineffective for its entire area and rate CS-4.

Span 1: PR831 - Steel Beam End **Condition State 3 Note**
Span 2: PR831 - Steel Beam End
Span 3: PR831 - Steel Beam End

Referenced Photo(s): 19, 20

Referenced Sketch(es): None

The ends of the steel girders in all spans, over both piers and at the abutments have moderate to heavy section losses of the webs. The section loss is located within the critical bearing area. However, no buckling or localized distortion of the webs was observed. There are no bearing stiffeners at the supports, but there are partial height diaphragm connection plates on both sides of the interior girders and the interior side of the fascia girders.

The following girders have section losses within the critical bearing area that are greater than 20%:

- Span 1 Girder G1 at Begin Abutment – 32%
- Span 1 Girder G6 at Pier 1 – 31%
- Span 1 Girder G7 at Pier 1 – 36%
- Span 1 Girder G13 at Pier 1 – 31%
- Span 1 Girder G14 at Pier 1 – 28%
- Span 2 Girder G2 at Pier 1 – 29%
- Span 2 Girder G4 at Pier 1 – 21%
- Span 3 Girder G1 at Pier 3 – 34%

The rest of the girders, at all locations have 10-20% section loss in the critical bearing area. As such, these girders rate CS-3. There are 13 locations in Span 1, 27 in Span 2 and 14 in Span 3. (Refer also to the CS-4 notes.)

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|---|--------------------------------------|
| <p>Span 1: PR831 - Steel Beam End Span 2: PR831 - Steel Beam End <i>Referenced Photo(s):</i> 17, 18 <i>Referenced Sketch(es):</i> None</p> | <p>Condition State 4 Note</p> |
| <p>The ends of the steel girders in all spans, over both piers and at the abutments have moderate to heavy section losses of the webs. The section loss is located within the critical bearing area. However, no buckling or localized distortion of the webs was observed. There are no bearing stiffeners at the supports, but there are partial height diaphragm connection plates on both sides of the interior girders and the interior side of the fascia girders.</p> <p>Span 1 Girder G5 over Pier 1 – 51% Span 2 Girder G1 over Pier 1 – 50% Due to these conditions, Yellow Flag 2B16UMW005 is issued which supersedes Yellow Flag 15-067 issued during the 2015 inspection. These girders rate CS-4.</p> | |
| <p>Span 1: BA850 - Backwall <i>Referenced Photo(s):</i> 1 <i>Referenced Sketch(es):</i> None</p> | <p>Condition State 3 Note</p> |
| <p>There is a 3 sqft by up to 2" deep spall with exposed rebars behind Girder G4, a 2 sqft by up to 2" deep with exposed rebars behind Girder G11 and a 1 sqft shallow spall behind Girder G14. There are also several hollow areas as follows: 9 sqft in Bay 4, 12 sqft in Bay 11 and 6 sqft in Bay 13. These areas rate CS-3 and total 24 LF. The rest of the begin abutment backwall is in fair condition with minor deterioration and rates CS-2.</p> | |
| <p>Span 1: BA851 - Abutment Pedestal <i>Referenced Photo(s):</i> 2 <i>Referenced Sketch(es):</i> None</p> | <p>Condition State 3 Note</p> |
| <p>The pedestal supporting Girder G6 has a 1 sqft by up to 6" deep spall on the right face with exposed rebars and no undermining of the bearing. The pedestal supporting Girder G14 has a 2 sqft by up to 1-1/2" deep spall on the top of the pedestal to the right of G14. This spall undermines the bearing by approx. 2.5%. In addition, the top left corner of the pedestal is hollow sounding. These 2 pedestals rate CS-3. The rest of the begin abutment pedestals are in fair condition with minor deterioration and rate CS-2.</p> | |
| <p>Span 1: PR852 - Pier Pedestal <i>Referenced Photo(s):</i> 13 <i>Referenced Sketch(es):</i> None</p> | <p>Condition State 3 Note</p> |
| <p>There are 3 foot long horizontal cracks on the end faces of the pedestals supporting Girders G2 and G10. The area above these cracks is hollow and delaminated. These pedestals rate CS-3. The rest of the pedestals at Pier 1 are in fair condition with minor deterioration and rate CS-2.</p> | |
| <p>Span 2: PR205 - Reinforced Concrete Column <i>Referenced Photo(s):</i> 11 <i>Referenced Sketch(es):</i> None</p> | <p>Condition State 3 Note</p> |
| <p>Column 1 has up to 1/8" wide vertical cracks with hollow and delaminated concrete on approx. 40% of its total area. This column rates CS-3. The rest of the Pier 2 columns are in fair condition with minor deterioration and rate CS-2.</p> | |
| <p>Span 2: PR234 - Reinforced Concrete Pier Cap <i>Referenced Photo(s):</i> 14 <i>Referenced Sketch(es):</i> None</p> | <p>Condition State 3 Note</p> |
| <p>There is a 10 foot long by up to 12" high by up to 4" deep spall with exposed rebars on the begin face below Girder G11. The spall extends up to 18" onto the top of the cap, which is also rated as a pedestal, but does not undermine the bearing. Also on the top of the cap is an 8 foot long crack with a 1 sqft by up to 2" deep spall below Girders G7 and G8. Girder Bays 3 and 4 have 2 sqft by up to 4" deep spalls with no exposed rebar on the begin face. The end vertical face of the Pier 2 cap is in fair condition with minor deterioration and rates CS-2.</p> | |

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| Span 2: PR852 - Pier Pedestal | Condition State 3 Note |
| <i>Referenced Photo(s):</i> 14 | |
| <i>Referenced Sketch(es):</i> None | |
| There is a 10 foot long by up to 12" high by up to 4" deep spall with exposed rebars on the begin face of the cap below Girder G11. The spall extends up to 18" onto the top of the cap, which is rated as a pedestal, but does not undermine the bearing. This condition rates CS-3. | |
| Span 3: EA215 - Reinforced Concrete Abutment | Condition State 3 Note |
| <i>Referenced Photo(s):</i> 3 | |
| <i>Referenced Sketch(es):</i> None | |
| On the end abutment backwall, there is a 2 foot high by 5 foot wide by up to 1-1/2" deep spall with exposed rebars behind Girder G11. The exposed rebars have approx. 20% section loss. This area rates CS-3. (See also End Abutment Stem CS-4 notes.) | |
| Span 3: EA215 - Reinforced Concrete Abutment | Condition State 4 Note |
| <i>Referenced Photo(s):</i> 4 | |
| <i>Referenced Sketch(es):</i> None | |
| On the end abutment backwall, there is a 10 foot wide by up to 4 foot high by up to 2" deep spall with exposed rebars in Girder Bays 3 and 4. One of the vertical rebars is debonded and the area adjacent to this spall is hollow sounding. There is a similar, 6 sqft by up to 3" deep, spall with 2 debonded vertical bars behind Girder G1. The exposed rebars have approx. 20% section loss. Due to the debonded vertical bars, these areas rate CS-4. | |
| Span 3: EA850 - Backwall | Condition State 3 Note |
| <i>Referenced Photo(s):</i> 3 | |
| <i>Referenced Sketch(es):</i> None | |
| There is a 2 foot high by 5 foot wide by up to 1-1/2" deep spall with exposed rebars behind Girder G11. The backwall in this area rates CS-3. The exposed rebars have approx. 20% section loss. (See also End Abutment Backwall CS-4 notes.) | |
| Span 3: EA850 - Backwall | Condition State 4 Note |
| <i>Referenced Photo(s):</i> 4 | |
| <i>Referenced Sketch(es):</i> None | |
| There is a 10 foot wide by up to 4 foot high by up to 2" deep spall with exposed rebars in Girder Bays 3 and 4. One of the vertical rebars is debonded and the area adjacent to this spall is hollow sounding. There is a similar, 6 sqft by up to 3" deep, spall with 2 debonded vertical bars behind Girder G1. The exposed rebars have approx. 20% section loss. Due to the debonded vertical bars, these areas rate CS-4. | |

Field Notes

| Staff Present During Inspection | | |
|--|-----------------|---------------------|
| Name | Title | Organization |
| Admir Domazet | ATL | WSA Group |
| Mark Fabend | TL | WSA Group |
| NYSTA Crew | WZTC and Access | NYSTA |

| General Equipment Required for Inspection* |
|---|
| Access Type |
| 13 - Walking |
| 15 - Extension Ladder |
| 19 - Up to 30 Foot Lift |
| 29 - Lane Closure With Shadow Vehicle |

* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

| Detailed Time & Weather Conditions | | | | |
|---|----------------|------------------|-----------------|---------------------------|
| Field Date | Arrival | Departure | Temp (F) | Weather Conditions |
| 08/09/2016 | 07:00 AM | 02:30 PM | 70 | Clear |
| 08/10/2016 | 08:00 AM | 01:30 PM | 70 | Light Rain, Humid |
| 09/06/2016 | 08:30 AM | 10:30 AM | 70 | Clear |

| Inspection Times (hours) | |
|---|----|
| Time required for travel, inspection and report preparation | 24 |
| Lane closure usage | 6 |
| Railroad flagging time | No |

Inspection Photographs

Photo Number: 1

Photo Filename: 238.22_5009929_PH01.JPG

Attachment Description:
Begin Abutment Backwall -
Looking Towards Begin
Right Behind G4



Photo Number: 2

Photo Filename: 238.22_5009929_PH02.JPG

Attachment Description:
Begin Abutment Pedestal -
Looking Towards Begin at
G14 Pedestal



Photo Number: 3

Photo Filename: 238.22_5009929_PH03.JPG

Attachment Description:
End Abutment Backwall -
Looking Towards End Right
Behind G11



Photo Number: 4

Photo Filename: 238.22_5009929_PH04.JPG

Attachment Description:
End Abutment Backwall -
Looking Towards End in
Bay 4



Photo Number: 5 Photo Filename: 238.22_5009929_PH05.JPG

Attachment Description:
Bearing Paint - Looking
Towards Begin Right at G9
Bearing Over Pier 1 (Typical
CS-3 Condition)



Photo Number: 6 Photo Filename: 238.22_5009929_PH06.JPG

Attachment Description:
Bearing Paint - Looking
Towards Begin Right at G14
Bearing Over Pier 1 (Typical
CS-4 Condition)



Photo Number: 7

Photo Filename: 238.22_5009929_PH07.JPG

Attachment Description:
Span 1 Primary Member
Paint - Looking Towards
End Right at Left Face of
G1 (Typical Condition)



Photo Number: 8

Photo Filename: 238.22_5009929_PH08.JPG

Attachment Description:
Span 3 Primary Member
Paint - Looking Towards
End Left at Bay 3 End
Diaphragm Over Pier 2
(Typical Condition)



Photo Number: 9

Photo Filename: 238.22_5009929_PH09.JPG

Attachment Description:
Span 1 Bridge Rail Paint -
Looking Towards End Along
Right Bridge Rail (Typical
Condition)



Photo Number: 10

Photo Filename: 238.22_5009929_PH10.JPG

Attachment Description:
Pier 1 Columns - Looking
Towards Begin at End Face
of Column C6



Photo Number: 11

Photo Filename: 238.22_5009929_PH11.JPG

Attachment Description:
Pier 2 Columns - Looking
Towards End at Begin Face
of Column C1



Photo Number: 12

Photo Filename: 238.22_5009929_PH12.JPG

Attachment Description:
Pier 1 Cap - Looking
Towards Begin Left at End
Face of Cap Below Bay 2



Photo Number: 13

Photo Filename: 238.22_5009929_PH13.JPG

Attachment Description:
Pier 1 Pedestals and Cap -
Looking Towards Begin at
End Face of Cap to the
Right of G10



Photo Number: 14

Photo Filename: 238.22_5009929_PH14.JPG

Attachment Description:
Pier 2 Cap and Pedestals -
Looking Towards End Left
at Begin Face of G11
Pedestal



Photo Number: 15 Photo Filename: 238.22_5009929_PH15.JPG

Attachment Description:
Span 1 Movable Bearings -
Looking Towards Right at
Left Face of G8 Bearing
Over Pier 1



Photo Number: 16 Photo Filename: 238.22_5009929_PH16.JPG

Attachment Description:
Span 3 Movable Bearings -
Looking Towards Right at
Left Face of G14 Bearing
Over Pier 2



Photo Number: 17 Photo Filename: 238.22_5009929_PH17.JPG

Attachment Description:
Span 2 Primary Members -
Looking Towards Left at
Right Face of G1 Over Pier
1 (CS-4)



Photo Number: 18 Photo Filename: 238.22_5009929_PH18.JPG

Attachment Description:
Span 1 Primary Members -
Looking Towards Right at
Left Face of G5 Over Pier 1
(CS-4)



Photo Number: 19

Photo Filename: 238.22_5009929_PH19.JPG

Attachment Description:
Span 1 Primary Members -
Looking Towards Right at
Left Face of G13 Over Pier
1 (CS-3)



Photo Number: 20

Photo Filename: 238.22_5009929_PH20.JPG

Attachment Description:
Span 2 Primary Members -
Looking Towards End Left
at End Diaphragm at Right
of G13 Over Pier 2 (CS-3)



Photo Number: 21 Photo Filename: 238.22_5009929_PH21.JPG

Attachment Description:
Span 2 Deck - Looking
Towards End in Bays 3 and
4 Near Pier 1



Photo Number: 22 Photo Filename: 238.22_5009929_PH22.JPG

Attachment Description:
Span 3 Deck - Looking Up
at Bay 1 Near Pier 2



Photo Number: 23

Photo Filename: 238.22_5009929_PH23.JPG

Attachment Description:
Span 3 Median Barrier -
Looking Right at Base of
Post 2



Photo Number: 24

Photo Filename: 238.22_5009929_PH24.JPG

Attachment Description:
Span 1 Bridge Rail -
Looking Towards Begin at
End of Span 1



Photo Number: 25

Photo Filename: 238.22_5009929_PH25.JPG

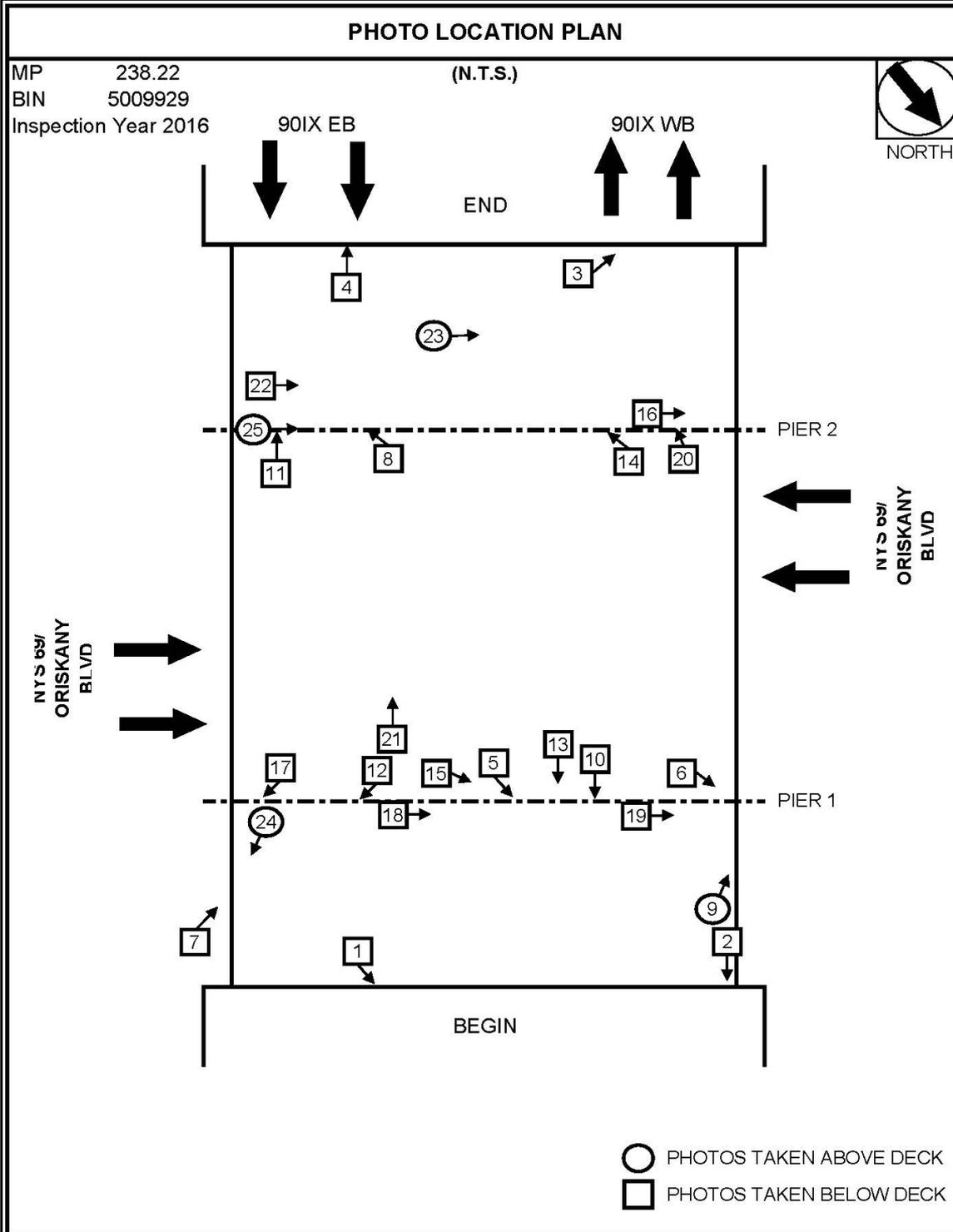


Attachment Description:
Pier 2 Joint - Looking
Towards Right Along Pier 2
Joint in EB Travel Lane
(Typical Condition)

Inspection Sketches

Sketch Number: 1

Sketch Filename: 238.22_5009929_2016_PLP.jpg



Sketch Description: Photo Location Plan

Sketch Number: 2

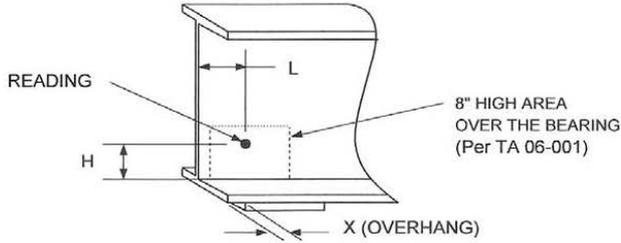
Sketch Filename: 238.22_5009929_2016_Brg_Area_Section_Loss_SP1.jpg

WEB SECTION LOSS AT BEARING AREA

MP 238.22
 BIN 5009929
 DATE: 9/6/16

Per NYSDOT BIM, App. C

| |
|--|
| 2016 NYSDOT BIM Guidelines |
| >25% = Special Emphasis |
| No Bearing Stiffeners |
| > 50% Loss = YSF |
| Web Perforation = RSF |
| With Bearing Stiffeners |
| > 50% Loss to Stiffener & Bearing Area = YSF |
| > 75% loss to stiffener & Web w/ Holes = RSF |



SPAN # 1

| GIRDER NO. | L _c = 18t _w | ORG. THIK. WEB (in) | AREA (in) | | | READING (in) | | % SECTION LOSS | | Comment |
|------------|-----------------------------------|---------------------|-----------|---|---|--------------|-----|----------------|--|---------|
| | | | L | H | X | WEB | WEB | AVERAGE | | |
| G1 | 11.25 | 0.625 | 2.0 | 2 | 1 | 0.421 | 33% | 32% | At Begin Abutment W36x150 | |
| | | | 5.0 | 2 | | 0.419 | 33% | | | |
| | | | 9.0 | 2 | | 0.429 | 31% | | | |
| G5 | 10.17 | 0.565 | 2.0 | 2 | 1 | 0.295 | 48% | 51% | At Pier 1 W30x116 (YELLOW FLAG) | |
| | | | 5.0 | 2 | | 0.307 | 46% | | | |
| | | | 9.0 | 2 | | 0.222 | 61% | | | |
| G6 | 10.17 | 0.565 | 2.0 | 2 | 1 | 0.448 | 21% | 31% | At Pier 1 W30x116 | |
| | | | 5.0 | 2 | | 0.390 | 31% | | | |
| | | | 9.0 | 2 | | 0.322 | 43% | | | |
| G7 | 9.81 | 0.545 | 2.0 | 2 | 1 | 0.365 | 33% | 36% | At Pier 1 W30x108 | |
| | | | 5.0 | 2 | | 0.252 | 54% | | | |
| | | | 9.0 | 2 | | 0.414 | 24% | | | |
| G13 | 10.17 | 0.565 | 2.0 | 2 | 1 | 0.376 | 33% | 31% | At Pier 1 W30x116 | |
| | | | 5.0 | 2 | | 0.402 | 29% | | | |
| | | | 9.0 | 2 | | 0.380 | 33% | | | |
| G14 | 11.25 | 0.625 | 2.0 | 2 | 1 | 0.440 | 30% | 28% | At Pier 1 W36x150 | |
| | | | 5.0 | 2 | | 0.444 | 29% | | | |
| | | | 9.0 | 2 | | 0.450 | 28% | | | |
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*Readings measured with D-meter or Calipers
 **Section Losses are based on an average of at least three D-meter readings
 L_c = Length of Critical Bearing Area

Sketch Description: Section Loss Documentation - Span 1

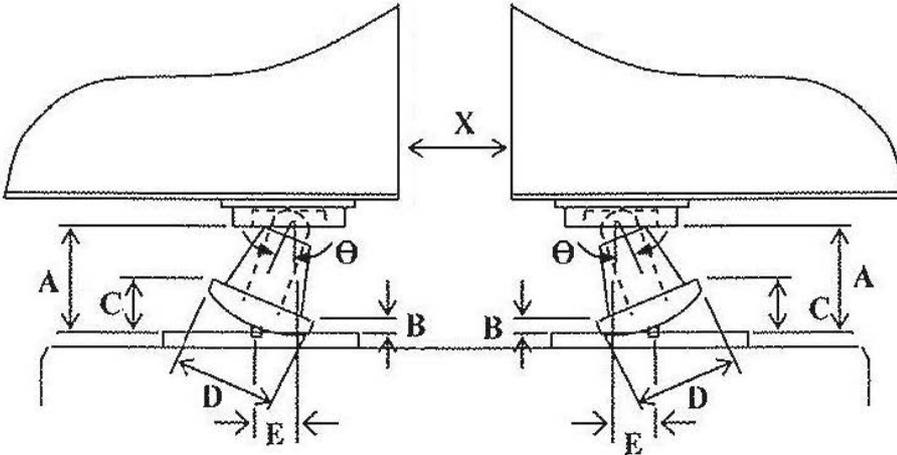
Sketch Number: 6

Sketch Filename: 238.22_5009929_2016_Rocker_Brg_SP2P2.jpg

HIGH ROCKER BEARING MEASUREMENTS at PIER

MP : 238.22
 BIN : 5009929

SSU : Pier 2
 Date : 9/6/2016



Reference Sketch (not to scale):

- A = Height of rocker
- B = High corner of rocker plate
- C = Low corner of rocker plate
- D = Width of rocker plate
- E = Eccentricity (Translation)
- theta = Angle of rotation (Tilt)
- X = Minimum clear distance between the girders of from girder to abutment backwall

| BEARING LOCATION | AMBIENT TEMP (deg F) | DIM A (in) | DIM B (in) | DIM C (in) | DIM D (in) | DIM E (in) | DIM X (in) | ANGLE OF ROTATION |
|------------------|----------------------|------------|------------|------------|------------|------------|------------|-------------------|
| Span 2 Girder G2 | 74 | 9 | 1/4 | 5/8 | 6 | 1/2 | 1 1/2 | 4 |
| Span 2 Girder G4 | 74 | 9 | 1/4 | 3/4 | 6 | 5/8 | 1 3/8 | 5 |
| Span 2 Girder G5 | 74 | 9 | 1/4 | 3/4 | 6 | 5/8 | 1 3/8 | 5 |
| | | | | | | | | |
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Notes:
 2016 - Girders G1, G3, G6-G14 are rotated <2 degrees from plumb. Therefore, measurements were not recorded in this table.

Sketch Description: Rocker Bearing Documentation - Span 2 Pier 2

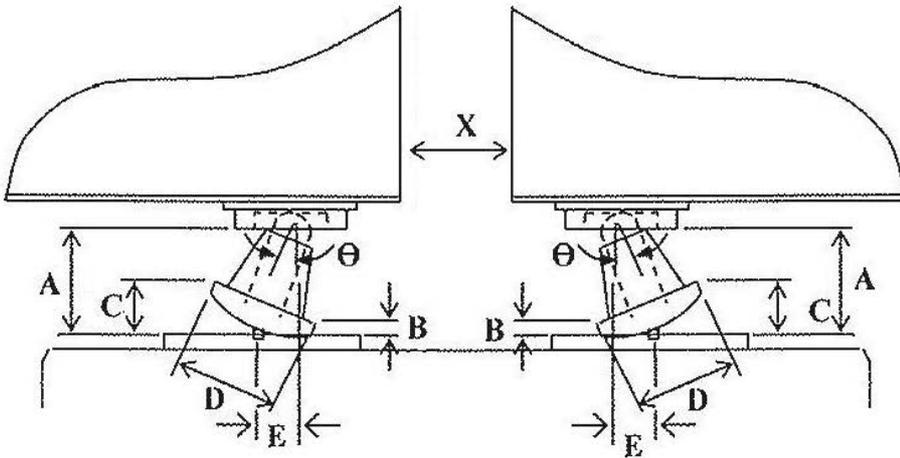
Sketch Number: 7

Sketch Filename: 238.22_5009929_2016_Rocker_Brg_SP3P2.jpg

HIGH ROCKER BEARING MEASUREMENTS at PIER

MP : 238.22
 BIN : 5009929

SSU : Pier 2
 Date : 9/6/2016



Reference Sketch (not to scale):

- A = Height of rocker
- B = High corner of rocker plate
- C = Low corner of rocker plate
- D = Width of rocker plate
- E = Eccentricity (Translation)
- O = Angle of rotation (Tilt)
- X = Minimum clear distance between the girders of from girder to abutment backwall

| BEARING LOCATION | AMBIENT TEMP (deg F) | DIM A (in) | DIM B (in) | DIM C (in) | DIM D (in) | DIM E (in) | DIM X (in) | ANGLE OF ROTATION |
|-------------------|----------------------|------------|------------|------------|------------|------------|------------|-------------------|
| Span 3 Girder G1 | 74 | 7 | 0 | 1 | 6 | 1 | 1 | 10 |
| Span 3 Girder G2 | 74 | 7 | 1/8 | 7/8 | 6 | 3/4 | 1 1/4 | 6 |
| Span 3 Girder G3 | 74 | 7 | 1/4 | 3/4 | 6 | 1/2 | 1 1/2 | 4 |
| Span 3 Girder G6 | 74 | 7 | 1/4 | 7/8 | 6 | 5/8 | 1 3/8 | 5 |
| Span 3 Girder G7 | 74 | 7 | 1/4 | 7/8 | 6 | 5/8 | 1 3/8 | 5 |
| Span 3 Girder G8 | 74 | 7 | 1/4 | 7/8 | 6 | 5/8 | 1 3/8 | 5 |
| Span 3 Girder G9 | 74 | 7 | 1/4 | 7/8 | 6 | 5/8 | 1 3/8 | 5 |
| Span 3 Girder G10 | 74 | 7 | 1/8 | 7/8 | 6 | 7/8 | 1 1/8 | 7 |
| Span 3 Girder G11 | 74 | 7 | 1/8 | 7/8 | 6 | 7/8 | 1 1/8 | 8 |
| Span 3 Girder G14 | 74 | 7 | 0 | 1 | 6 | 1 | 1 | 10 |
| | | | | | | | | |
| | | | | | | | | |

Notes:
 2016 - Girders G4-G5 and G12-G13 are rotated <2 degrees from plumb. Therefore, measurements were not recorded in this table.

Sketch Description: Rocker Bearing Documentation - Span 3 Pier 2

Sketch Number: 8

Sketch Filename: 238.22_5009929_2016_VertClear.jpg



**MINIMUM BRIDGE UNDERCLEARANCE
 MAINLINE BRIDGES
 BUFFALO DIVISION
 NEW YORK STATE THRUWAY AUTHORITY**

MP: 238.22 SHEET 1 OF 1
 BIN: 5009929 DATE: 9/6/2016

Bridge Orientation: East
 TWY Traffic Direction: EB/WB

Feature Crossed NYS 69 / Oriskany Blvd

| Date | A | B | C | D | E | F | G | H | A' | B' | C' | D' | E' | F' | G' | H' |
|------------|---|-------|---|-------|-------|---|---|---|----|----|----|----|----|----|----|----|
| 11/23/2009 | | 15.13 | | 14.02 | 14.34 | | | | | | | | | | | |
| 7/12/2011 | | 15.14 | | 14.09 | 14.34 | | | | | | | | | | | |
| 8/5/2013 | | 15.14 | | 14.07 | 14.34 | | | | | | | | | | | |
| 9/2/2015 | | 15.14 | | 14.07 | 14.34 | | | | | | | | | | | |
| 8/11/2016 | | 15.16 | | 14.06 | 14.36 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

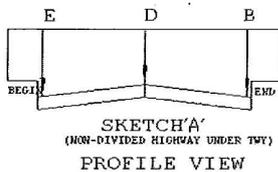
REMARKS:

Measurements taken along Left Fascia Girder.
 'B' is the End Edge of Travel Lane (White Line), 'D' is the approx. centerline of NYS 69, 'E' is at Begin Edge of Travel Lane (White Line)
 Thruway traffic is carried on the bridge.

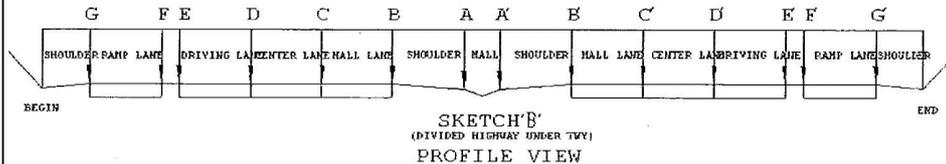
NOTES:

- 1) Use appropriate profile sketch 'A' or 'B'
- 2) When using sketch 'B' use points E,D & B and E', D' & B' to record measurements for 2 lane sections.
- 3) When using sketch 'B', use point F for detached ramps only
- 4) H and H' measurements taken at any other needed location or NA. Note location in remarks.
- 5) Only one row of measurements should be recorded(i.e. only the lowest measurements of each point should be recorded)
- 6) For thruway ramp over other roadway use this form and specify "ramp" under thruway traffic direction column.
 The measurement and recording should be done in the same manner as stated in '4' above.
- 7) For riveted construction stringers, Dimensions shall be taken to the bottom of the rivet heads.

THRUWAY MAINLINE BRIDGE



THRUWAY MAINLINE BRIDGE



Sketch Description: Vertical Clearance Measurements

Sketch Number: 9

Sketch Filename: 238.22_5009929_2016_LRFV.jpg

NEW YORK STATE THRUWAY AUTHORITY

BRIDGE INSPECTION FIELD VERIFICATION OF LOAD RATING DATA

Date: 09/06/16

MP/BIN: 238.22 / 5009929

Feature Carried / Crossed: 90IX Over NYS 69/Oriskany Blvd

Dead Load:

WS Thickness & Material Shown on Plans - 7.5" RC Deck with 4" Conc Overlay & 2.5" Asph Overlay

Changes Noted in Field: Thicknesses revised - previously incorrect.

Railing Type Shown on Plans - 4 Rail Discontinuous With Thrie Beam Upgrade at Fascias

Changes Noted in Field: None

Other DL Contributions (e.g. utilities) on Plans - Corrugated Median Barrier, 4 ft Snow Fence Both Fascias

Changes Noted in Field: None

Section Loss: Yes

Existing Documentation (sketches, etc.)? - Sketches

Location of Documentation (previous report, blue folder, etc.)? - BIN Folder/Previous Report

New Section Loss noted? - Yes

Brief Description (attach sketches if helpful) - Refer to attached

Additional Notes: For girder ends without section loss documentation, assume 20% web loss in the bearing area.

Attachments: yes no (please circle)

Team Leader: Mark E Fabend

Signature: 

Date: September 6, 2016

Sketch Description: Load Rating Field Verification

New York State Department of Transportation Yellow Flag 2B16UMW005

By: Mark E. Fabend
Flag Date: September 06, 2016

Superseding Information:
No Flags Superseded

Structure Information

BIN: 5009929

Feature Carried: 90IX

Feature Crossed: NYS Route 69, Ori

Orientation: 6 - SOUTHWEST

Region: 02 - UTICA

County: ONEIDA

Political Unit: Village of WHITESBORO

Approximate Year Built: 1954

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: 2L - NYS Thruway Authority

Primary Maintenance Responsibility: 2L - NYS Thruway Authority

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 3

Verbal Notification Information

Person Notified: Not Contacted

Date:

Of:

Signature Information

Signature: Mark E. Fabend, P.E. 085884-1

Date: September 07, 2016

Reviewed By: Amodh A. Nirala

Date: December 27, 2016

Attachments: 5

Yellow Flag 2B16UMW005

BIN 5009929

Flag Date: September 06, 2016

Flagged Elements

| Parent Element | Element | Total Quantity | Unit |
|-------------------------------|------------------------------|----------------|------|
| <i>Span Number : 1</i> | | | |
| | 107 - Steel Open Girder/Beam | 435 | ft |
| | PR831 - Steel Beam End | 14 | each |
| <i>Span Number : 2</i> | | | |
| | 107 - Steel Open Girder/Beam | 1211 | ft |
| | PR831 - Steel Beam End | 28 | each |

Flagged Condition Description

The ends of the steel girders in all spans, over both piers have section losses to the webs. The section loss is located within the critical bearing area. However, no buckling or localized distortion of the webs was observed. There are no bearing stiffeners at the supports, but there are partial height diaphragm connection plates on both sides of the interior girders and the interior side of the fascia girders.

The Span 1 Girder G5 over Pier 1 has an average 51% web section loss in the critical bearing area (55% in 2015). The critical bearing area is 8" high by 18 x thickness of original web (tw) = 18 X 0.565 = 10.17" long.

The Span 2 Girder G1 over Pier 1 has an average 50% web section loss in the critical bearing area (50% in 2015). The critical bearing area is 8" high by 18 x thickness of original web (tw) = 18 X 0.760 = 13.68" long.

Due to these conditions, Yellow Flag 2B16UMW005 is issued which supersedes Yellow Flag 15-067 issued during the 2015 inspection.

Flag Photographs

Photo Number: 1

Photo Filename: 238.22_5009929_2016_PH01.JPG



Attachment Description: Span 1 Primary Member - Looking Right at Left Face of Girder G5 Over Pier 1

Photo Number: 2

Photo Filename: 238.22_5009929_2016_PH02.JPG



Attachment Description: Span 2 Primary Member - Looking Left at Right Face of Girder G1 Over Pier 1

Yellow Flag 2B16UMW005

BIN 5009929

Flag Date: September 06, 2016

Photo Number: 3

Photo Filename: 238.22_5009929_2016_PH03.JPG



Attachment Description: Span 1 Primary Member - Looking Right at Left Face of Girder G6 Over Pier 1

Standard Photographs

238.22-STD-99-00-13rtelev.JPG



238.22-STD-99-01-13begapp.JPG



238.22-STD-99-02-13endapp.JPG



238.22-STD-99-03-13featlt.JPG



238.22-STD-99-04-13featrt.JPG



238.22-STD-99-05-13begabt.JPG



238.22-STD-99-06-13begrww.JPG



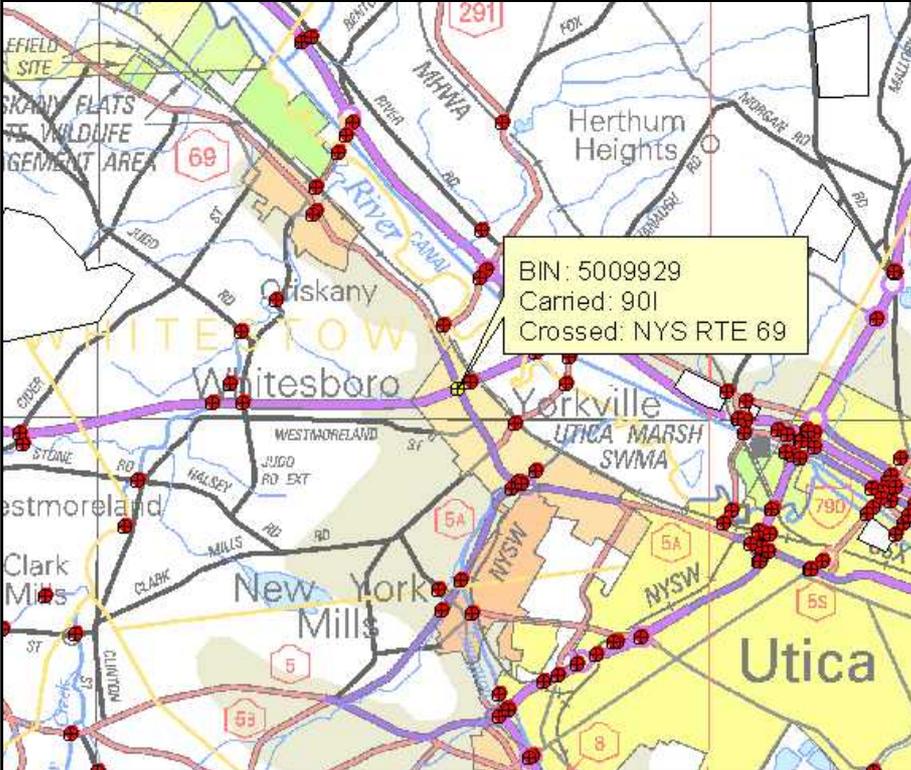
238.22-STD-99-07-13pier_2.JPG



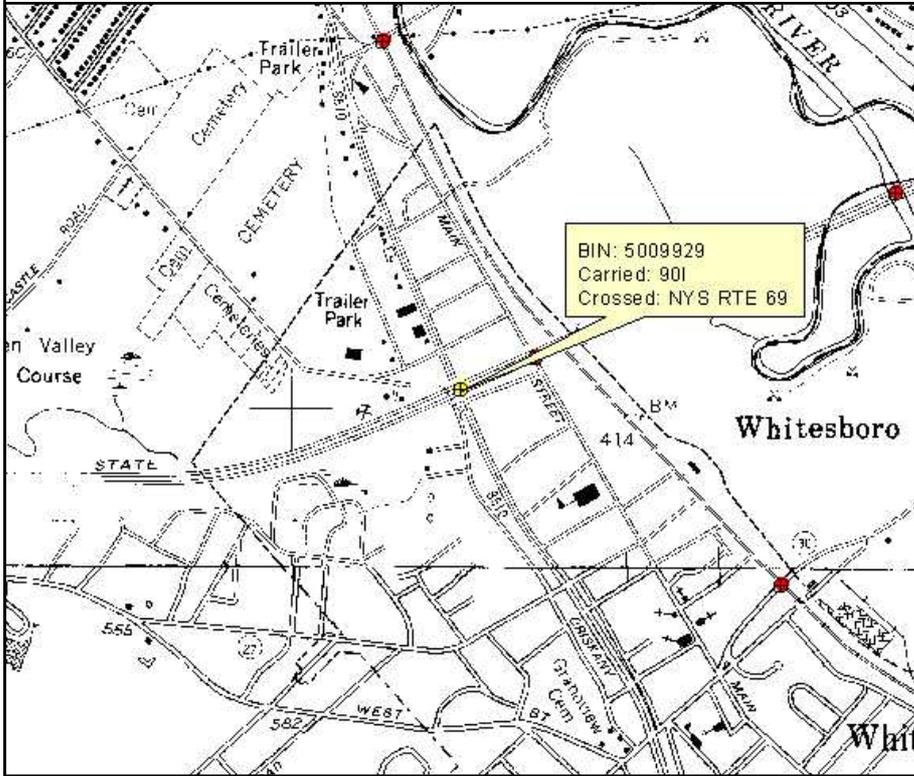
238.22-STD-99-08-13frmSP2.JPG



5009929_LOCATION_MAP.JPG



5009929_QUAD_MAP.JPG



Appendix F Non Standard Features

Appendix G Stakeholder/Public Input

Appendix H Cost Estimate

U.S. CUSTOMARY UNITS **PRELIMINARY COST ESTIMATE WORKSHEET (NEW AND REPLACEMENT BRIDGES)**

P.I.N. _____ B.I.N. 5009929 OVER PS&E 7/9/05 Anticipated Year of Construction 2018
 BRIDGE I-90 EB&WB Oriskany Blvd
 NUMBER OF SPANS: 1 SPAN ARRANGEMENT 175 WIDTH 114 ft
 ABUTMENT TYPE semi-integral SKEW 38.00 DEG CURVED GIRDERS no RADIUS 0.00 ft
 SUPERSTRUCTURE: steel straight
 Alternate Design: Timber Inverset Slab
 WZTC By: on existing bridge
 PREPARED BY: Fisher Associates DATE: 02/15/17

Shoulder Break Area Calculation Data * See Shoulder Break Area Diagram for dimensions.

| | <u>38</u> Average Skew (Degrees) | <u>14.5</u> * Over Roadway Height (ft) <small>(From Roadway to to bottom of culvert)</small> | <u>0</u> * Bottom Angle Length (ft) <small>(Length of barrel for culvert)</small> | <u>114</u> Bridge Width (ft) <small>(Width of opening for culvert)</small> | <u>8,391</u> * Shoulder Break Area (Square Feet) |
|---|--|--|--|---|--|
| 1A.) Base: (\$ / ft ² SB AREA) | <u>\$173</u> | DOT Regions 1 - 7 & 9 = \$115 steel, Multi-Span Add \$15; Regions 8 & 10 = \$173, Multi-Span Add \$27. DOT Regions 1 - 7 & 9 = \$129 adjacent concrete box, Multi-Span Add \$31; Regions 8 & 10 = \$149, Multi-Span Add \$43. DOT Regions 1 - 7 & 9 = \$165 next beam or spread box, Multi-Span Add \$31; Regions 8 & 10 = \$190, Multi-Span Add \$43. DOT Regions 1 - 7 & 9 = \$117 concrete I-beam or N.E. bulb-T, Multi-Span Add \$31; Regions 8 & 10 = \$135, Multi-Span Add \$43. RR Bridge = \$317. THIS IS NOT A BID PRICE PER SHOULDER BREAK AND SHOULD NOT BE THE SOLE FACTOR IN DETERMINING TYPE OF BRIDGE Notes: 1) Base costs are based on single span bridge designs with integral abutments with average pile lengths. 2) RR Bridge cost estimates based on a limited amount of in house data. | | | |
| 1B.) Culverts & three sided structures with horizontal openings | <u>\$0</u> | Culvert - DOT Regions 1 - 7 & 9 = \$166 Regions 8 & 10 = \$249; 3 Sided Frame - DOT Regions 1 - 7 & 9 = \$176 Regions 8 & 10 = \$264. NO "BASE BRIDGE" COST SHOULD BE ENTERED IN SECTION 1 IF USING THESE COSTS. | | | |
| 2.) Foundations: | <u>\$31</u> | Spread footing, add \$14. All abutment types footings on rock subtract \$0. 3 sided frame average pile length add \$3; Poor soil or pile length > 39 ft add \$17. Integral abutments average pile length add \$10; Poor soil or pile length > 39 ft add \$20. All other abutments & piers with average pile length add \$6; Poor soil or pile length > 39 ft add \$31. | | | |
| 3.) Abutments: | <u>\$0</u> | Abutments 20 to 30 ft add \$8. MSE Walls supporting CIP stub abutments are addressed as contingencies below. | | | |
| 4.) Cofferdams: Water depths based on bottom of footing to Divide cost on right by shoulder break ft ² & | <u>\$0</u> | Costs based on bridges up to 49 ft wide. Minor Water Diversion (Sand Bags) \$3500 per bridge. Abutments in 4 ft to 6 ft of water \$5,000 per unit. Substructure in 5 ft to 8 ft water \$15,000; 8 ft to 12 ft of water \$24,000 ; 12 ft to 14 ft of water \$26,000. Canal Pier Protection Cofferdam System \$145,000 per unit (Max Water Height Retained to 13 feet). Tremie Seals And Associated Forms \$200,000 per unit. | | | |
| 5.) Span Adjustment: | <u>\$50</u> | Each foot > average span length of 66 feet add - Concrete 0.31 or Steel 0.46 \$/ Ft (Ex. 138 ft Conc. -> 72Ft *0.31\$/Ft). Thru Truss add \$226. Use the span adjustment with trusses also | | | |
| 6.) Curved Girders: | <u>\$0</u> | 1601 ft radius or less add \$16; 1601 ft to 2499 ft add \$3; 2499 ft to 3001 ft add \$3. | | | |
| 7.) Long Wing Walls: | <u>\$159</u> | For total combined wingwall length > 60 ft calculate adjustment using the LongWingWallCosts worksheet. | | | |
| 8.) Stage Construct.: | <u>\$75</u> | Minor wingwall \$12; WZTC On superstructure staged with sheet piling or GRES add \$5. WZTC On superstructure staged with H-Pile wall lagging add \$5. Down state multiply factor by 1.5. | | | |
| 9.) Miscellaneous: | <u>\$45</u> | Bridge width less than 30 ft add \$50; Paint or galvanize steel girders add \$45; Paint steel trusses add \$50. Protection walls other than for staging. | | | |

TOTAL BRIDGE COST
\$ / ft² SB AREA = \$533

| | | | | | |
|--|--------------|--------------------------|--------------|--------------------|---------------------|
| Shoulder Break Area (ft ²) | <u>8,391</u> | X Cost / ft ² | <u>\$533</u> | = BRIDGE ONLY COST | <u>\$4,472,315</u> |
| Contingencies: | | | | | <u>\$300,000</u> |
| Remove existing bridge | | | | | <u>\$100,000</u> |
| Work Zone Traffic Control (WZTC) | | | | | <u>\$200,000</u> |
| Detour structure | | | | | <u>\$0</u> |
| Channel work | | | | | <u>\$0</u> |
| Slope protection, other than for channel work | | | | | <u>\$0</u> |
| Utilities | | | | | <u>\$0</u> |
| Aesthetics (e.g. Form liners, decorative railing, lights & stone facades) | | | | | <u>\$0</u> |
| MSE for abutments. Specified "Plain" \$53, "As Shown" \$102 per ft ² of MSE | | | | | <u>\$10,000</u> |
| Overhead (e.g. Construction office, computer software & hardware, office supplies) | | | | | <u>\$0</u> |
| Input as decimal for anticipated year of letting: | | | | | <u>0.030</u> |
| Simple Inflation Rate For SFY: | | | | | <u>0.030</u> |
| 13/14 to 14/15 - 3.0%; 14/15 to 15/16 - 3.0%; 15/16 to 16/17 - 3.0%; | | | | | <u>0.030</u> |
| TOTAL BRIDGE SHARE (Includes additional 4 % for mobilization | | | | | <u>\$ 5,444,175</u> |

rev. 12/2016
 (Project Data Up to 12/15/2016)