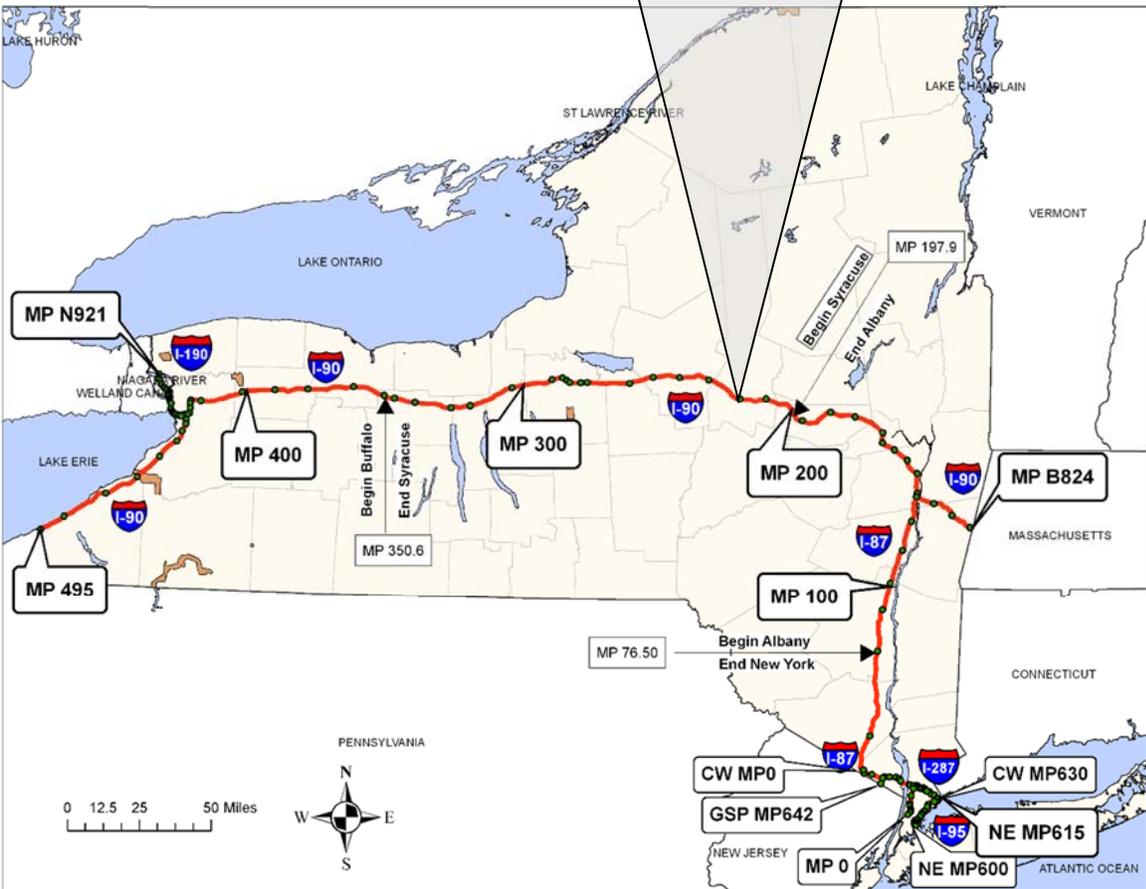


# TRANSPORTATION

## FINAL DESIGN REPORT

July 2017

Bridge Project  
PIN S52886 B742.1  
I-90 over Mohawk Street  
MP 219.91, BIN: 1020079  
Village of Herkimer  
Herkimer County



PROJECT REPORT



Thruway Authority



# 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.*

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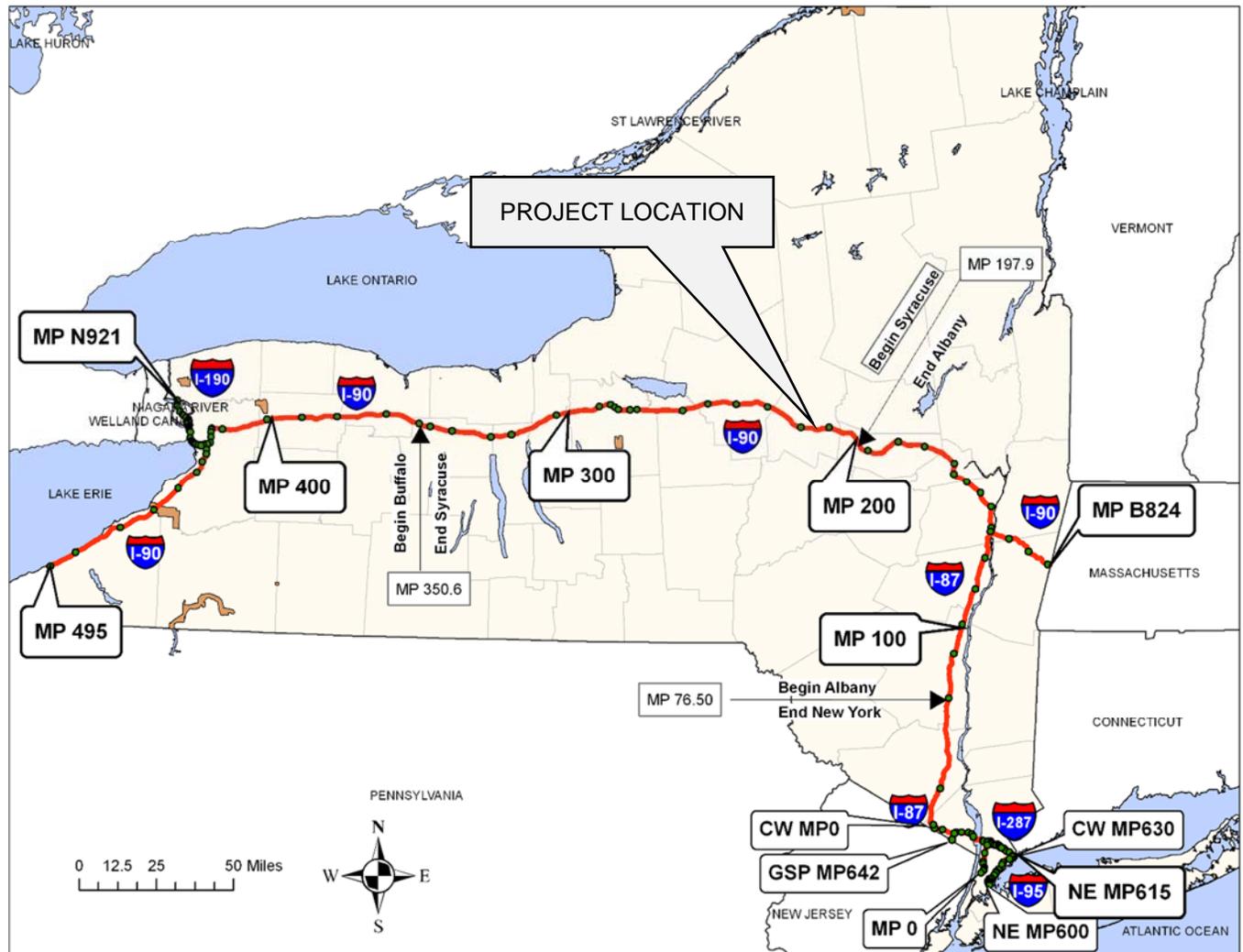
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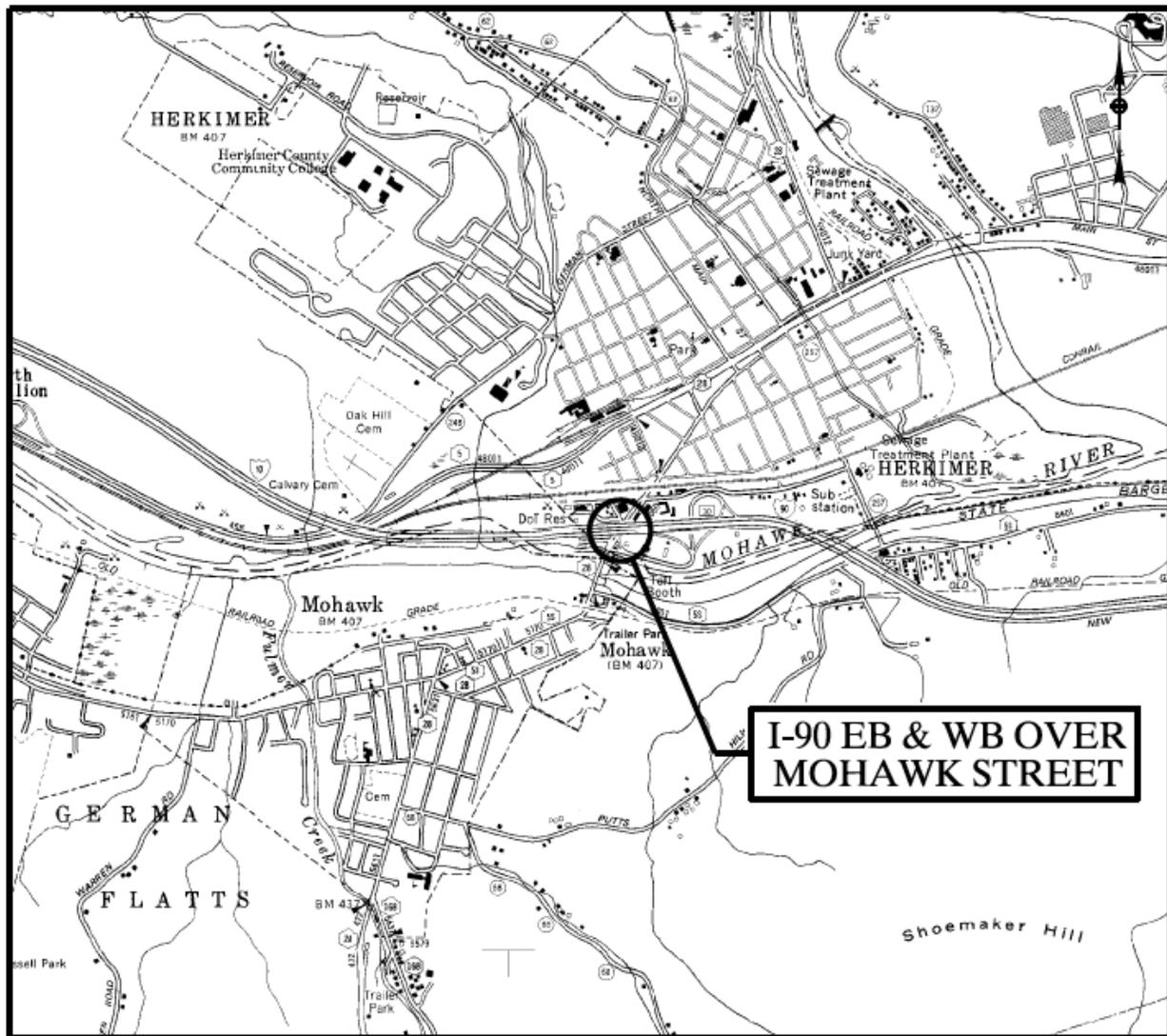
<b>Separate Reports</b>
Cultural Resource Survey Report (February 2017)
Hazardous Waste-Contaminated Materials Screening Report (February 2017)
Hazardous Waste-Contaminated Materials Technical Memorandum (Asbestos) (February 2017)
Wetland Delineation Letter Report (February 2017)





**FIGURE 1 - GENERAL LOCATION MAP**

NEW YORK STATE THRUWAY AUTHORITY  
I-90 EB&WB over Mohawk Street Bridge Replacement  
Village of Herkimer



**FIGURE 2 - PROJECT LOCATION MAP**

NEW YORK STATE THRUWAY AUTHORITY  
Interstate 90 over Mohawk Street Bridge Replacement  
Village of Herkimer

### 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. The existing bridge has a current NYS Condition Rating of 3.78. 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 Mohawk Street 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 structural steel repairs on girder webs, stiffeners and flanges due to corrosion section loss and impact damage as well as repair to paint damage. 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 all bearings and removal and replacement of all deteriorated concrete at all substructures, including wingwalls and pier. Life cycle cost estimates however, place the total cost for the rehabilitation option at \$8,320,000 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 bridge on the existing alignment. The replacement structure would accommodate a 136'-0" clear-roadway width, providing for two 12'-0" travel lanes, one 12'-0" acceleration/deceleration lane, a 12' right shoulder and a 40'-0" median shoulder on both the eastbound and westbound lanes of I-90. The proposed section allows for the provision of future 12'-0" third lanes in both directions and future 16'-0" combined left shoulder/median. 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?

<b>Exhibit 1.4-A Environmental Summary</b>			
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 Herkimer
- 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
- Herkimer 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 \$10.15 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

<b>Exhibit 1.5 Project Schedule</b>	
<b>Activity</b>	<b>Date Occurred/Tentative</b>
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.

<b>Exhibit 1.7 Schedule of Milestone Dates</b>	
<b>Activity</b>	<b>Date Occurred/Tentative</b>
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 28, Mohawk Street at milepost 219.91

### **2.1. Project History**

Interstate 90, in the vicinity of milepost 219.91, 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 219.91 over Mohawk Street 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.

Since 1962, the United States Army Corps of Engineers (USACE), the New York State Department of Environmental Conservation (NYSDEC), and the Village of Herkimer have implemented flood control measures in the area of the Mohawk River. The Village of Herkimer is protected from floodwaters of the nearby Mohawk River by a series of levees, ponding areas, two (2) pump stations, and two (2) closure structures. The I-90 EB&WB bridge is the location of one (1) of those closure structures. In the event of flooding, an eight-foot high wall is erected at the bridge and connected to the abutments by closure plates by the Village of Herkimer and the NYSDEC to keep flood waters from the Mohawk River from entering the Village.

The bridge project was initially conceived due to advancing deterioration to various bridge components observed in routine biennial inspections. 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. Mohawk Street/NY Route 28 connects US Route 20 with NY Route 5, running in a north/south direction, and provides access to several local rural roadways. Mohawk Street also serves as the connection between the Village of Herkimer and the Village of Mohawk by utilizing an adjacent bridge across Mohawk River. The toll plaza for the New York State Thruway Exit 30 is accessible on the south end of the bridge off of Mohawk Street.

#### **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 Mohawk Street 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 and an acceleration/deceleration lane in each direction for access to the Exit 30 ramps. The new bridge will maintain these lanes as well as the same general horizontal and vertical alignment as this project. 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 Mohawk Street highway section through the project limits is typical of an urban arterial. Two travel lanes exist in each direction with approximately 6' left and right shoulders. The northbound and southbound travel lanes are separated by a concrete pier and concrete island. The posted regulatory speed limit within the project area is 30 mph for Mohawk Street.

There are no current plans to reconstruct the adjacent sections of Mohawk Street or Interstate 90. There are plans to reconstruct Route 51 bridge over the Mohawk River and CSX in 2017 and 2018 under Contract D263410 (PIN 2004.11). This work will require partial closure of this bridge and at times a signed off-site detour. Coordination between projects is necessary during design and construction.

## 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)

<b>Exhibit - 2.3.1.1 Classification Data</b>		
<b>Route(s)</b>	<b>I-90</b>	<b>Mohawk Street</b>
Functional Classification	Interstate	Urban Principal Arterial Other
National Highway System (NHS)	Yes	Yes
Designated Truck Access Route	Yes	Yes
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 limited access via toll booths at interchanges. The Interchange 30 toll plaza is southwest of the bridge and the on and off ramps fall within the project area. Mohawk Street does not have controlled access.

#### 2.3.1.3. Traffic Control Devices

There are no traffic control devices on I-90. Mohawk Street is controlled by a stop light at the intersection with the I-90 on/off ramps and Canal Access Road, 200 feet south of the bridge. There are also traffic lights north on Mohawk Street in downtown Herkimer outside of the project area. 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 within the median area between the northbound and southbound west of the bridge it shifts to the south shoulder and runs parallel to the bridge.

### 2.3.1.5. Speeds and Delay

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

<b>Exhibit - 2.3.1.5</b>		
<b>Speed Data</b>		
Route	Interstate 90	Mohawk Street
Existing Speed Limit	65 MPH	30 MPH
Operating Speed and Method Used for Measurement	70 MPH <sup>1</sup> (Estimated)	35 MPH <sup>1</sup> (Estimated)
Travel Speed and Delay Runs for Existing Conditions	N/A <sup>1</sup>	N/A <sup>1</sup>
Travel Time and Delay Runs Estimates	N/A <sup>1</sup>	N/A <sup>1</sup>

<sup>1</sup> 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 NYS Thruway Authority. Traffic volume data for Mohawk Street was generated from the NYSDOT Traffic Data Viewer. The percent daily truck data and DDHV data for Mohawk Street was unavailable. The Mohawk Street traffic volumes are based on count data that was collected between April 28 and May 1, 2015. A nominal growth rate of 0.5% per year, which accounts for ambient traffic growth of the surrounding area, was applied to the 2015 traffic volumes to generate the 2016 existing traffic volumes on Mohawk Street.

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

<b>Exhibit - 2.3.1.6. Existing and Forecast Traffic Volumes</b>				
Route	Interstate 90			
Year	AADT	DHV	DDHV	% Trucks
Existing (2016)	12,108 EB 12,114 WB	1,514 EB 1,676 WB	1,514 EB 1,676 WB	24
ETC (2020)	12,851 EB 12,857 WB	1,607 EB 1,779 WB	1,607 EB 1,779 WB	24
ETC+10 (2030)	14,914 EB 14,921 WB	1,865 EB 2,064 WB	1,865 EB 2,064 WB	24
ETC+20 (2040)	17,308 EB 17,317 WB	2,164 EB 2,396 WB	2,164 EB 2,396 WB	24
ETC+30 (2050)	20,087 EB 20,097 WB	2,512 EB 2,780 WB	2,512 EB 2,780 WB	24
Route	Mohawk Street/Route 28			
Year	AADT	DHV	DDHV*	% Trucks*
Existing (2016)	13,176	1,153		
ETC (2020)	13,440	1,176		
ETC+10 (2030)	14,098	1,234		
ETC+20 (2040)	14,757	1,291		
ETC+30 (2050)	15,416	1,349		

\*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 available Mohawk Street traffic volumes and a nominal growth rate of 1.5% 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 Mohawk Street to address current deteriorated conditions. The existing I-90 bridge eastbound carries one 13 foot travel lane, one 12 foot travel lane and one 12 foot deceleration lane. The existing I-90 bridge westbound carries one 13 foot travel lane, one 12 foot travel lane and one 12 foot acceleration lane.

Mohawk Street is a four lane roadway with two 12 foot travel lanes northbound and one 12 foot travel lane and one 12 foot left-turn lane southbound.

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

Capacity analysis for I-90 over Mohawk Street was conducted by the NYSTA.

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

<b>Exhibit - 2.3.1.7</b>					
<b>Level of Service Summary</b>					
<b>Interstate 90</b>					
	<b>2016 Existing</b>	<b>2020 ETC</b>	<b>2030 ETC+10</b>	<b>2040 ETC+20</b>	<b>2050 ETC+30</b>
Level of Service	B	B	B	C	C

#### 2.3.1.7. (2) Future no-build design year level of service

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 12 accidents occurred on the mainline during this analysis period with no fatalities.

The three year calculated accident rate for the I-90 segment over Mohawk Street is 68.98 acc/MVM, which is significantly lower 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 (50%), fell asleep (8.3%) and reaction to other uninvolved vehicle (8.3%).

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 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 Herkimer Fire Department and Police department provides emergency fire and ambulance services within the project limits.

#### 2.3.1.10. Parking Regulations and Parking Related Conditions

Parking on Interstate highways is restricted by law. There are signs restricting parking on the both shoulders of Mohawk Road within the project area.

### **2.3.1.11. Lighting**

There is no street lighting on Interstate 90 however there is street lighting on existing utility poles along Mohawk Street within the project limits. These lights, though within the project area, should not 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 1020079) carrying Interstate 90 over Mohawk Street within the project limits. New York State owns and maintains the remaining portions of Mohawk Street within the project limits.

## **2.3.2. Multimodal**

### **2.3.2.1. Pedestrians**

Pedestrians are prohibited on Interstate Highways by state law. Pedestrians utilizing Mohawk Street within the project limits are required to use the sidewalk 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 Mohawk Street within the project limits are required to use the travel lane section under the bridge and the shoulders elsewhere.

### **2.3.2.3. Transit**

Northwest of the project area on Mohawk Street is the Herkimer ARC Transportation garage. Access to the garage is through Fifth Avenue, which connects to Mohawk Street just north of the bridge. Access to Fifth Avenue 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 the recreation areas within the project limits however southwest of the project area on Mohawk Street is the entrance to Canal Access Road which must remain open during the project.

## **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 Interstate 90 existing structure consists of a 133'-0" clear-roadway width, providing two 12'-0" travel lanes, one 12'-0" acceleration/deceleration lane and 10'-0" right shoulder and a 22'-6" median for both east and west bound lanes. 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 Mohawk Street section through the project limits is typical of an urban arterial. Two 12' wide travel lanes exist in each direction with a center median and sidewalks of varying width. The current asphalt

section is unknown and it is likely that portions of Mohawk Street will be reconstructed to accommodate a single span bridge structure.

### 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	Cross Slope	0.64%	2.0%
Mohawk St*	Stopping Site Distance	241 ft	377 ft

\*Mohawk Street is not part of the reconstruction and as such this nonconforming features will not be updated during the reconstruction process.

#### 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 within the project area is collected by inlets then conveyed through 24" CMP to outflow locations south of the bridge, eventually draining into the Mohawk River.

There is an existing closed drainage system along Mohawk Street that must be considered during the design and construction process.

### 2.3.3.5. Geotechnical

In total two borings were taken throughout the bridge site. Logs show in general brown silty-clay and no bedrock to a depth of at least 79 ft. Additional information can be found in the geotechnical reports 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 Mohawk Street.

- (a) BIN - 1020079
- (b) Feature carried and crossed – Interstate 90 over Mohawk Street.
- (c) Type of bridge, number and length of spans, etc. – The structure is a two span, steel multi-girder superstructure with both span lengths 59'-11" each.
- (d) Width of travel lanes and shoulders – The bridge has a curb-to-curb width of 133 feet. For both eastbound and westbound each there are two travel lanes that are 12'-0" and a 12'-0" acceleration/deacceleration lane, and 6'-0" wide left and right shoulders. There is a 41'-0" median deck area separating the eastbound and westbound lanes.
- (e) Sidewalks – There are no safety walks on the bridge. There are 2'-6" sidewalks on both sides of under this bridge along Mohawk Street.
- (f) Utilities carried – There are no utilities on this bridge.

- (g) Flood control attachment – There is an eight-foot high flood closure wall and closure plates that are attached to the entire length of the I-90 bridge over Mohawk Street

#### **2.3.3.6.(2) Clearances (Horizontal/Vertical)**

The minimum vertical clearance of 14'-6" for this structure shall be located near the center span on Mohawk Street. Minimum vertical clearance to Interstate 90 does not apply. Minimum horizontal clearances for both Mohawk Street 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 1953 under Contract MT 53-10 and ST 53-23.

A yellow structural flag (YF 15-078) was issued for Girder G5 during the October 2015 biennial bridge inspection. At the time G5 was not transmitting reaction force to its bearing, and said force is re-distributed to the adjacent bearings potentially overstressing them.

#### **2.3.3.6.(4) Inspection**

The bridge was last inspected on October 2, 2015. 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 Condition Rating – 3.78
- (c) Summary of Condition and Inspection Reports : The 2015 biennial inspection report assigns generally fair ratings at the abutments (5 out of 7). Joints, Bearings and Bridge Seats are rated low due to moderate deterioration. Wingwall stems exhibit spalling and are generally rated 4 out of 7.

Advanced deterioration is also noted at the structural deck with ratings of 4 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.

The pier is generally in fair to poor condition with ratings of 3 and 4 for most components. Pier bearings were rated as low as 3 due to G5 does not transfer load to bearing and other loose bearings. A flag was issued and bearing was repaired. Cap beams are also rated 4 for extensive cracking and spalling at Pier 1.

Other areas of moderate deterioration include the approach pavement, 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.

#### **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 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 which is non conforming. 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 not guiderail on Mohawk street below 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
G4S	Fiber optic
Herkimer City Sewer	Sanitary Sewer
National Grid Central Electric and Gas	Electric and Gas
NYS Thruway Authority/Syracuse	Traffic Signals, Fiber, Telephone, Electric, Culverts, Sewer, Water
NYS DOT Traffic, Utica, Region 2	Traffic Signals
Oneida County Rural Telephone	Fiber, Telephone
Sprint Nextel	Fiber
Time Warner Cable Ilion	Fiber, CATV
Verizon Syracuse A1	Fiber, Telephone
Village of Herkimer	Sewer, Water
Village of Mohawk	Storm, Sewer, Electric, Culverts, Drainage, Street Lighting, Sanitary Sewer, Water

### 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 bridge crossing over Mohawk Street approximately 530 feet north 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 the bridge along Mohawk Street can best be classified as urban developed, however on the south end the Mohawk River flows parallel to the bridge just outside of the project area. The river banks remain mostly undeveloped.

The I-90 approach areas within the Thruway right of way consists of a divided, limited access highway separated by a grassed median and roadside ditches on either side. There are exit and entrance ramps which fall within the project area.

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 structural steel repairs on girder webs, stiffeners and flanges due to corrosion section loss and impact damage as well as repair to paint damage. 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 all bearings and removal and replacement of all deteriorated concrete at all substructures, including wingwalls and pier. 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"> <li>• All existing horizontal geometric attributes will be maintained or modified to conform to standards under this alternative. The bridge centerline will essentially be maintained at the existing location and all roadway approaches will be modified to conform to current standards, including horizontal curvature. The vertical alignment will remain the same or similar on the existing approach grades. Any nonconforming features on Mohawk Street are considered outside of the project scope and will remain.</li> </ul> |
| Operational       | <ul style="list-style-type: none"> <li>• This alternative does not affect operations.</li> </ul>  |
| Control of Access | <ul style="list-style-type: none"> <li>• This alternative does not affect control of access.</li> </ul>   |
| Right of Way      | <ul style="list-style-type: none"> <li>• No acquisition of right of way will be required.</li> </ul>  |
| Environmental     | <ul style="list-style-type: none"> <li>• There are no significant environmental impacts from this project.</li> </ul>   |

- Project Costs
- Total estimated cost of this alternative is \$10.15M.
- 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.

<b>Exhibit 3.2.1 Activities</b>		
		<b>Reconstruction Alternative</b>
Construction	Bridge	\$4,116,000
	Highway	\$600,000
Subtotal (2017)		\$4,716,000
Incidentals (2017) 20%		\$940,000
Subtotal (2017)		\$5,656,000
Contingencies 15%		\$850,000
Subtotal (2017)		\$6,506,000
Potential Field Change Order 5%		\$320,000
Subtotal (2017)		\$6,826,000
Mobilization (4%)		\$270,000
Subtotal (2017 )		\$7,096,000
Expected Award Amount – Inflated @ 5%/yr to midpoint of Construction (2019)		\$7,806,000
Design and Construction Inspection (30%)		\$2,340,000
<b>Total Cost</b>		<b>\$10,146,000</b>

### 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 for I-90 and NYSDOT Highway Design Manual standards for urban principal arterial for Mohawk Street.

### 3.2.3.2. Critical Design Elements

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

<b>Exhibit 3.2.3.2.a Critical Design Elements for Interstate 90 – Mainline</b>				
PIN:	S52886	NHS (Y/N):	Yes	
Route No. & Name:	I-90, BIN 1020079	Functional Classification:	Urban Principal Arterial – Interstate (11)	
Project Type:	Bridge Replacement & New Construction	Design Classification:	Interstate – HDM 2.7.1.1	
% Trucks:	24%	Terrain:	Rolling	
ADT:	20,097	Truck Access/Qualifying Hwy.	Access-Yes; Qualifying-Yes	
Element		Standard	Existing Condition	Proposed Condition
1	Design Speed <sup>1</sup>	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 NYSDOT Bridge Manual, Section 2	EB 10' Rt/ 18'Lt WB 10' Rt/24.5' Lt	EB 12' Rt/ 16'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	0.5%	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 Table 2-2	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.

<b>Exhibit 3.2.3.2.b Critical Design Elements Mohawk Street</b>						
PIN:		S52886		NHS (Y/N):	Yes	
Route No. & Name:		Mohawk Street- NYS Rt 28	Functional Classification:		Urban Principal Arterial – Other Roadways,	
Project Type:		Bridge Replacement & New Construction	Design Classification:		Urban Principal Arterial -NHS HDM 2.7.2.4	
% Trucks:		Not Available		Terrain:		Rolling
ADT:		15,416	Truck Access/Qualifying Hwy.		Access-No; Qualifying-No	
Element		Standard		Existing Condition	Proposed Condition <sup>2</sup>	
1	Design Speed	35 mph Minimum, 45 mph Maximum HDM Section 2.7.2.4 A		35 mph	45 mph	
2	Lane Width	11 ft HDM Section 2.7.2.4.B, Exhibit 2-4a		12 ft.	12 ft	
3	Shoulder Width	2 ft Left, 5' Right Minimum HDM Section 2.7.2.4 C Exhibit 2-4a		Varies	Varies	
4	Horizontal Curve Radius	711 ft min. (at $e_{max}=4\%$ ) HDM Section 2.7.2.4 D, Exhibit 2-4a		1200 ft	1200 ft	
5	Superelevation	4% Maximum HDM Section 2.7.2.4 E		5.97%	5.97% Max <sup>1</sup>	
6	Stopping Sight Distance	360 ft Minimum (Crest) HDM Section 2.7.2.4 F Exhibit 2-4a		241 ft	241 ft	
7	Grade	7% Max HDM Section 2.7.2.4 G, Exhibit 2-4a		1.56%	2%	
8	Cross Slope	1.5% Min. to 2.5% Max. HDM Section 2.7.2.4 H		1.47%SB 2.27 NB	1.47%SB 2.27 NB	
9	Vertical Clearance	14'-0" rehabilitation; 14'-6" replacement (Minimum) NYSDOT Bridge Manual, Section 2		14'-7"	14'-6" min	
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 2.7.2.4 K		Sidewalks	Sidewalks	

**Notes:**

1. The structure replacement is the I-90 bridge over Mohawk Street. Non-standard features on Mohawk Street 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**

Current layout conditions under the existing bridge lead to poor visibility and reduced clearance on Mohawk Street. Future designs should consider eliminating center pier and constructing a single span bridge.

**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 roadways.

### **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 Mohawk Street to other local roads. 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 non-conforming 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**

Phased construction shall be used and minimal disturbances to emergency response time are anticipated.

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. Existing lights under the bridge shall be replaced in kind during final construction or an alternate design proposed during design/build.

**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 Mohawk Street on the roadway sidewalks which shall be retained. See Appendix D for the Pedestrian Generator Checklist. Pedestrians shall be accommodated during the construction phase of the project since there is not a suitable pedestrian detour.

**3.3.2.2. Bicyclists**

Bicyclists are prohibited on Interstate Highways by state law. Within the project limits bicyclists will be accommodated along Mohawk Road in the travel lane or along the shoulder by law. Bicyclists shall be accommodated during the construction phase of the project since there is not a suitable bicycle detour.

**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**

Mohawk Street within the project limits will be reconstructed to maintain the current standards for an Urban Principal Arterial Other. There will be 12 foot travel lanes 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 is proposed on Mohawk Street 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**

**Fifth Avenue to Mohawk Street:** Single lane access road on the western side of Mohawk Street, north of I-90. Currently controlled by stop sign shall be maintained.

**Canal Access Road:** Two lane entrance is currently controlled by traffic signal on the southwest side of the bridge intersecting with Mohawk Street. The roadway provides access to restaurant and recreational areas, turns into a gravel section, and eventually dead ends.

**Interstate 90 Toll Plaza #30:** Two lane roadway intersects with Mohawk Street and Canal Access Road at the traffic light which provides access to the interstate toll plaza in both directions.

### **3.3.3.1. (6) Roadside Elements**

(a) Snow Storage, Sidewalks, Utility Strips, Bikeways, Bus Stops – There are sidewalks under the bridge on Mohawk Street on both sides. Snow storage will be accommodated in the area outside of the roadway shoulder.

(b) Driveways – There are no driveways within the project area.

(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 and will instead be replaced with 12' wide right shoulders. 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 unless alterations are necessary due to pier or abutment demolition and reconstruction.

### **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 79 feet in which boring were taken. Additional soil borings at the proposed abutment locations may be required during final design.

### **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 increased so that the clearance to the Mohawk Street 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 and one 12 foot acceleration/deceleration lane east and westbound with 12 foot right shoulders and a 40 foot median with option for a third additional 12'-0" future lane in each direction. Refer to the typical section included in Appendix A.
- (c) There are no utilities carried by the bridge.
- (d) The bridge will need to be adapted to accept the 8 foot high flood control wall and connector plates as required by the NYSDEC, USACE, and the Village of Herkimer. Coordination with these agencies is imperative during design and construction.

#### **3.3.3.6. (2) Clearances**

Horizontal clearances will be equal to the new shoulder widths. A minimum of 14'-6" 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.

#### **3.3.3.6. (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.

The bridge will need to be adapted to accept the eight-foot high flood control wall and connector plates as required by the NYSDEC, USACE, and the Village of Herkimer. Coordination with these agencies is imperative during design and construction.

#### **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. However, since 1962, the United States Army Corps of Engineers (USACE), the New York State Department of Environmental Conservation (NYSDEC), and the Village of Herkimer have implemented flood control measures in the area of the Mohawk River. The Village of Herkimer is protected from floodwaters of the nearby Mohawk River by a series of levees, ponding areas, two (2) pump stations, and two (2) closure structures. The I-90 EB&WB bridge is the location of one (1) of those closure structures. In the event of flooding, an eight-foot high wall is erected at the bridge and connected to the abutments by closure plates by the Village of Herkimer and the NYSDEC to keep flood waters from the Mohawk River from entering the Village. The new bridge will need to conform with the requirements of the federal, state, and local agencies for flood control measures.

### **3.3.3.8. Guide Railing, Median Barriers and Impact Attenuators**

All guiderail within the project limits including bridge railing will be evaluated during final design for conformance to design standards and replaced or repaired, if necessary

### **3.3.3.9. Utilities**

The G4S fiber optic backbone is located within the median area of the eastbound and westbound travel lanes and will need to be considered during final design and construction.

Overhead utility lines are present along Mohawk Street on both the north and south sides of the bridge. There are also utilities which cross over the interstate west 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 (Route 90) bridge over Mohawk Street in Herkimer, 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 Mohawk Street. 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 Town of Herkimer in Herkimer County. The project vicinity is heavily developed; with commercial properties occupying most of the surrounding areas. The New York State Department of Transportation (NYSDOT) and the Thruway also operate maintenance facilities in the vicinity of the Study Area.

The 2010 US Census reports that the Town has a population of 10,175 persons. The median reported age was 40.8, with 20.0% of the population being reported at age 65 or older. 93.2% of the population was identified as white. Based on data collected from the US Census' American Community Survey, approximately 10.8% of the Town's population identified as disabled under age 65 (although specific disabilities were not listed). This percentage is lower than the percentage for Herkimer County, 12.7%, and higher than the percentage for New York State, 7.4%. The Town had 16.7% of its population reported to be below the poverty level, which was above that year's national average of 13.5%.

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. Phased construction will be utilized and may result in temporarily increased 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 would require no displacement of residences or businesses and there would 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 Herkimer Central School District and the Central Valley School District. There are no schools or school properties within or near the project corridor. . Phased construction will be utilized and may result in temporarily increased travel times. The NYS Thruway Authority will coordinate the construction schedule and construction phasing details with the Herkimer Central School District and the Central Valley School District.

#### **Recreational Areas**

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

#### **Places of Worship**

There are no places of worship within or near the project corridor. Thus, this project will have no impacts to 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. . Phased construction will be utilized and may result in temporarily increased 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. Phased construction will be utilized and may result in temporarily increased travel times to businesses along Mohawk Street.

## **4.4 Environmental**

### **4.4.1 Wetlands**

A site visit was conducted on November 2, 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 no NYSDEC regulated freshwater wetlands or regulated adjacent areas (100-feet) within the Study Area, as per the NYSDEC Environmental Resource Mapper. A site visit was performed to verify this. No further investigation is required and Environmental Conservation Law (ECL), Article 24 is satisfied.

### **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 mapped NWI wetlands are located to the southwest of the Study Area. Further, a portion of the Mohawk River is mapped to the south of the Study Area. The Mohawk River is a United States Army Corps of Engineers (USACE) Navigable Waterway, and a NYSDEC Class B protected stream.

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 emergent (PEM) wetland and one stream within the Study Area. The wetland was identified based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology and totals approximately 0.06-acre within the Study Area. Portions of the Mohawk River were also delineated as Stream 1, which is a NYSDEC Class B protected stream. The PEM wetland appears to have a surface water connection to the Mohawk River, and therefore is 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. Due to the distance from the nearest NYSDEC regulated wetland (approximately 0.5 mile) and lack of hydrologic or significant habitat connectivity, in EDR's opinion this wetland should not be regulated under Article 24 of the Environmental Conservation Law. Final determination of the jurisdictional status of all wetlands must be made by the USACE and NYSDEC.

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.

Note also that the Mohawk River is expected to be regulated by the USACE under Section 10 of the Rivers and Harbors Act, and also by the NYSDEC under Article 15 of the ECL (see Section 4.4.2 and 4.4.4).

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**

A portion of the Mohawk River is located at the southern boundary of the Study Area. This surface water body was identified as Stream 1 in the Wetland Delineation Letter Report (Appendix B). The Mohawk River is considered part of the Erie Canal Barge System and totals approximately 172 linear feet within the Study Area.

The Mohawk River is expected to be regulated by the USACE under Section 10 of the Rivers and Harbors Act, and also by the NYSDEC under Article 15 of the ECL.

If impacts to this protected river are planned, the necessary 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 for regulated streams, the Mohawk River is the only surface waterway within the Study Area. The Mohawk River is a USACE Navigable Waterway and a NYSDEC Class B protected stream.

The best usages for Class/Standard "B" waters are for primary and secondary contact recreation and fishing. The water quality is suitable for fish propagation and survival.

#### **Stream Bed and Bank Protection**

Based upon a review of the NYSDEC GIS database, and as verified by a site visit, there is one protected stream, the Mohawk River, within the Study Area. As noted previously, the Mohawk River is expected to be regulated under Section 10 of the Rivers and Harbors Act and under Article 15 of the ECL.

### **4.4.3 Wild, Scenic, and Recreational Rivers** This section shall contain the following subsections:

#### **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**

The Mohawk River, part of the New York State Barge Canal System is a state regulated navigable water, located at the southern edge of the Study Area. This waterway is used for both recreational and commercial traffic. As the Thruway Authority is exempt from ECL Article 15 Protection of Waters Permit permitting, coordination with NYSDEC for any Excavation or Placement of Fill in Navigable Waters will be required.

##### **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**

The Mohawk River, at the southern edge of the Study Area, is expected to be regulated by the USACE under Section 10 of the Rivers and Harbors Act. If the final project design will include dredging and/or the discharge of fill into the river, the project will require a USACE Section 10 Permit. A permit application will be submitted to the USACE once the extent of the impacts is fully ascertained, and the permit will be obtained prior to the commencement of work.

#### **4.4.5 Floodplains**

##### **State Flood Insurance Compliance Program**

The portion of the Study Area south of the Thruway is within the 100 year floodplain of the Mohawk River, as indicated by the FEMA Flood Insurance Rate Map. 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. In addition, since 1962, the United States Army Corps of Engineers (USACE), the New York State Department of Environmental Conservation (NYSDEC), and the Village of Herkimer have implemented flood control measures in the area of the Mohawk River. The Village of Herkimer is protected from floodwaters of the nearby Mohawk River by a series of levees, ponding areas, two (2) pump stations, and two (2) closure structures. The I-90 EB&WB bridge is the location of one (1) of those closure structures. In the event of flooding, an eight-foot high wall is erected at the bridge and connected to the abutments by closure plates by the Village of Herkimer and the NYSDEC to keep flood waters from the Mohawk River from entering the Village. The proposed bridge will need to be configured to accommodate the wall and closure plates.

## **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.

#### 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 the greater than one acre of 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 Mohawk Street in a highly disturbed, urban area. The Study Area includes primarily paved roadways and mowed lawn, 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 and 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 Mohawk Street, 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.). Japanese knotweed (*Reynoutria japonica*) was also noted just north of the Study Area along Mohawk Street.

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. 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).

The closest previously recorded significant cultural resource to the APE is the New York State (NYS) Barge Canal Historic District (14NR06559) located approximately 352 feet south of the existing New York State Thruway bridge. The limits of the historic district include the portion of the Barge Canal (also the Mohawk River in this location) that flows beneath the Mohawk Street (New York State Route 28) bridge to the south of the APE. The New York State Barge Canal Historic District was listed on the NRHP in 2014 and named a National Historic Landmark (NHL) in 2016.

## 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.

The Project occurs adjacent to the Mohawk River, which also contains the New York State Barge Canal. Areas along rivers and major waterways are often highly sensitive for historic-period and prehistoric archaeological resources for several reasons:

- Rivers and large streams served as prehistoric and historic-period transportation routes.
- River valleys were concentrated areas for floral and faunal resources valuable to prehistoric foragers and horticulturalists.
- Water power and the Erie Canal were important factors in settlement and development during the nineteenth century.

The APE for the current Project is limited to the existing ROWs for the Thruway and Mohawk Street. Although the APE is located in an area that is sensitive for archaeological resources, 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-period and prehistoric cultural 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 1020079 as eligible for listing on the NRHP

## Historic Parkways

This project does not have to potential to impact any 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 Herkimer 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 SEQRA 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 built” of the utilities and the bridge. Based on the materials revealed from the review of the plans, 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**

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**

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 2, 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 December 2016, 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:

The property occupied by Tractor Supply at the northwest intersection of Mohawk Street and Fifth Avenue (700-716 Mohawk Street), is listed on several environmental databases as a past user and generator of oil and/or hazardous materials (OHM), as well as the site of past releases of OHM. The property is also identified as a Brownfields site due to identified soil and groundwater contamination. Soil contamination at this parcel has reportedly been removed; however, groundwater contamination above applicable standards has been noted to remain. If excavation on or adjacent to this parcel is planned, further investigation such as soil and/or groundwater sampling is warranted.

The New York State Thruway Authority (NYSTA) Herkimer Section Maintenance facility at 799 Mohawk Street to the southeast of the Study Area is an identified petroleum bulk storage (PBS) facility with aboveground storage tanks (ASTs) and underground storage tanks (USTs), and is a registered large quantity generator of hazardous waste. The locations of ASTs and USTs on this property should be confirmed prior to excavation for the proposed project. If OHM storage and/or generation locations are in close proximity to areas to be impacted for the project, these areas should be screened for potential contamination to ensure that sampling and potential disposal be completed as necessary.

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 industrial in nature. Temporary noise impacts are not expected to impact residences, and are not expected to have a significant adverse impact on nearby businesses.

## **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**

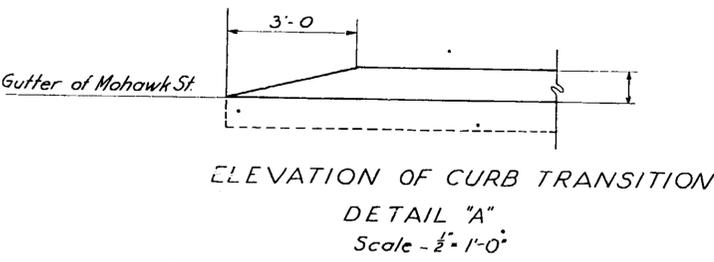
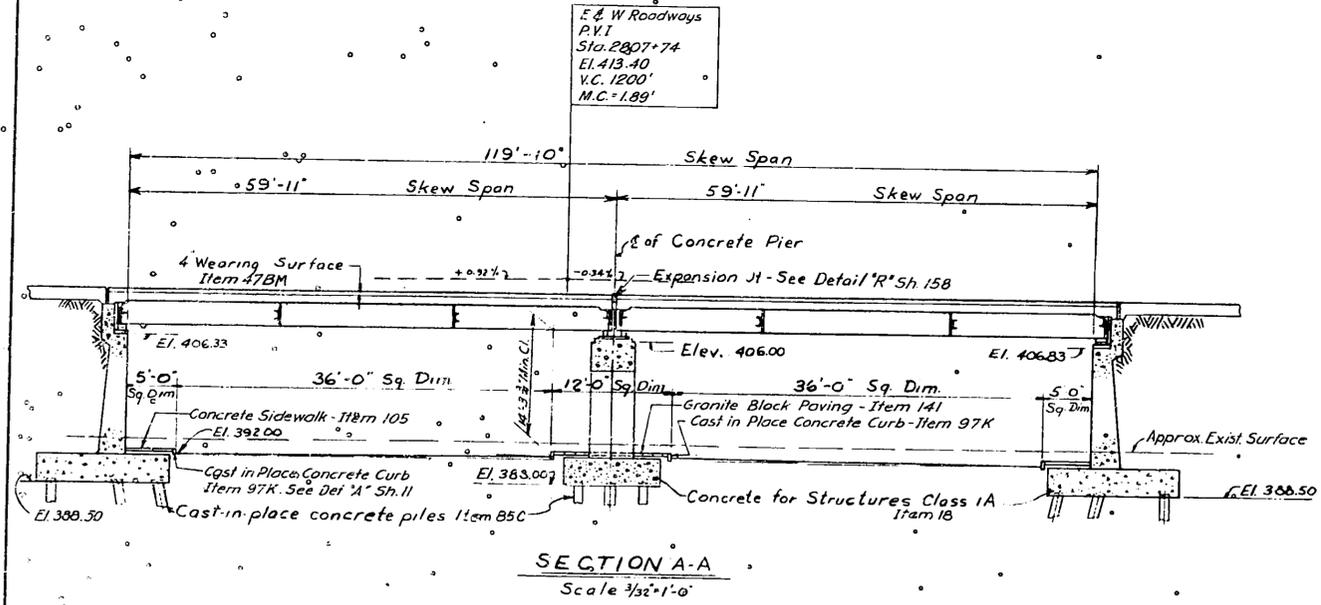
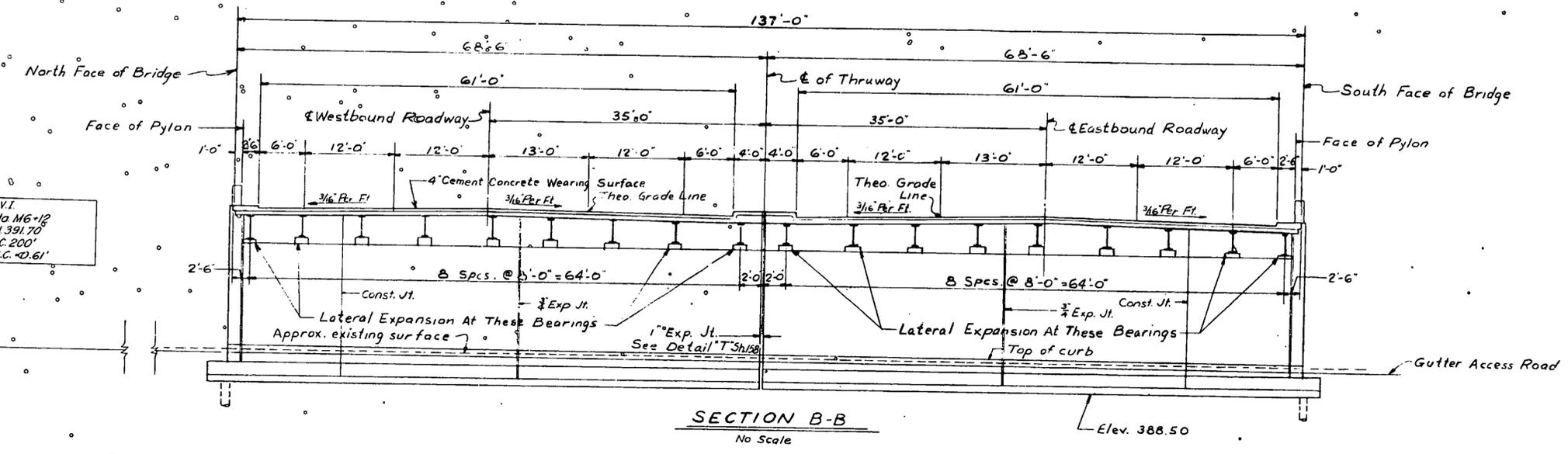
No adverse cumulative effects are anticipated to result from the proposed project.

## **Appendix A Concept Plans**



FED. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	N.Y.			84	199

R.Y. STATE THRUWAY MOHAWK SECT. SUBDIV. 10B  
HERKIMER COUNTY  
EAST SCHUYLER TO BORT HERKIMER



For Elevations @ Bottom of Flange of Stringer see Framing Plan Sh. 87

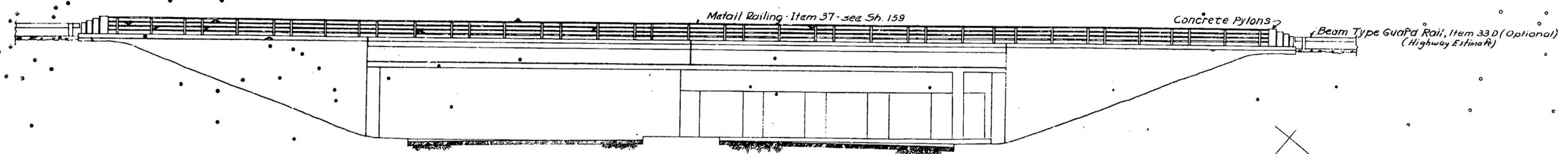
References:  
For General Notes see Sheet No. 4  
For General Plan see Sheet No. 83  
For Payment Limit Lines for Items 2B5, 5 & 119 See Sheet No. 78

In charge of J.M.D.  
Made by M.G.  
Traced by  
Checked by G.A.D.

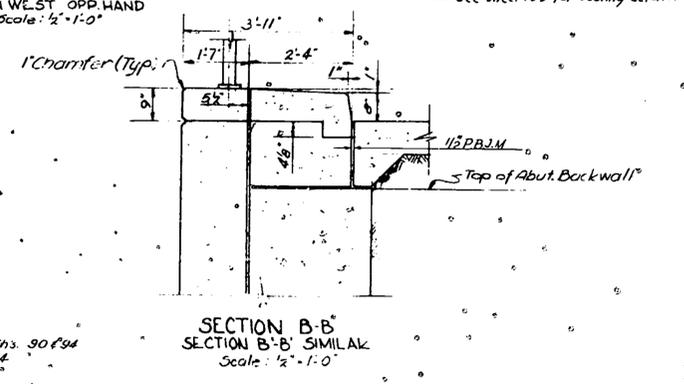
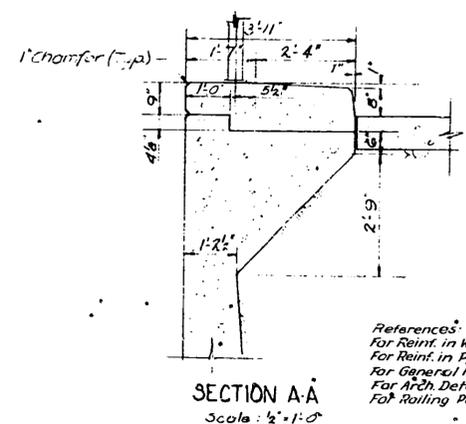
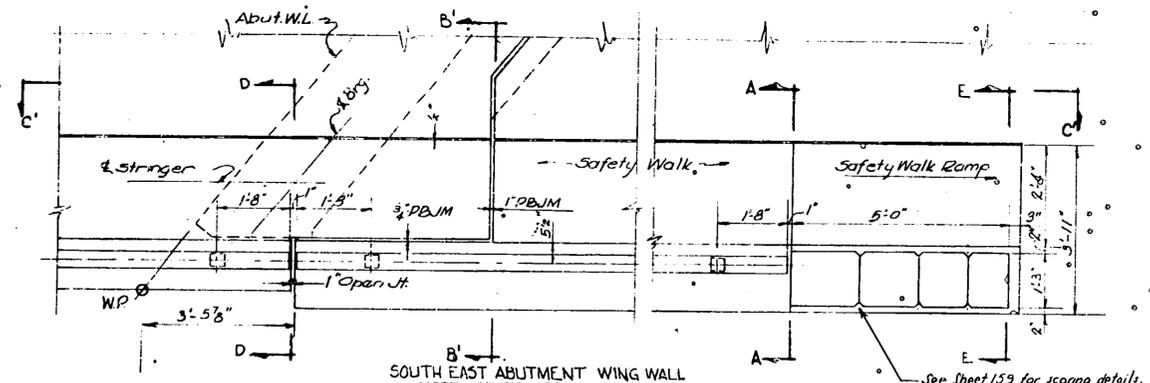
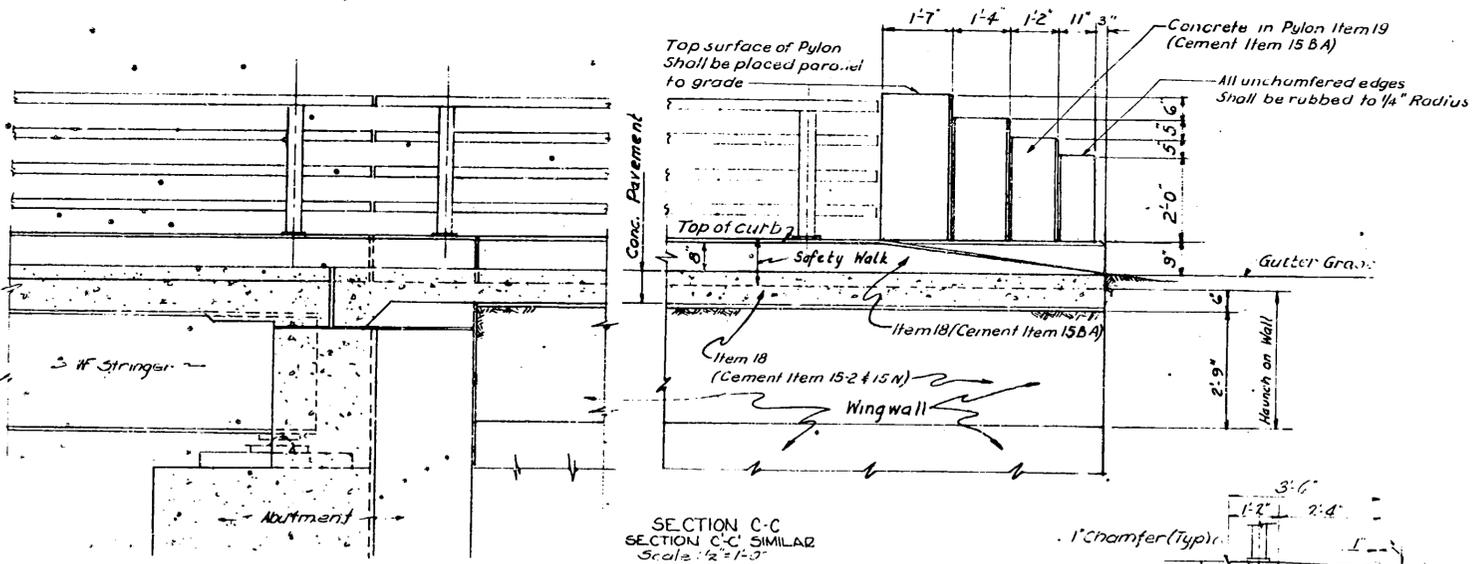
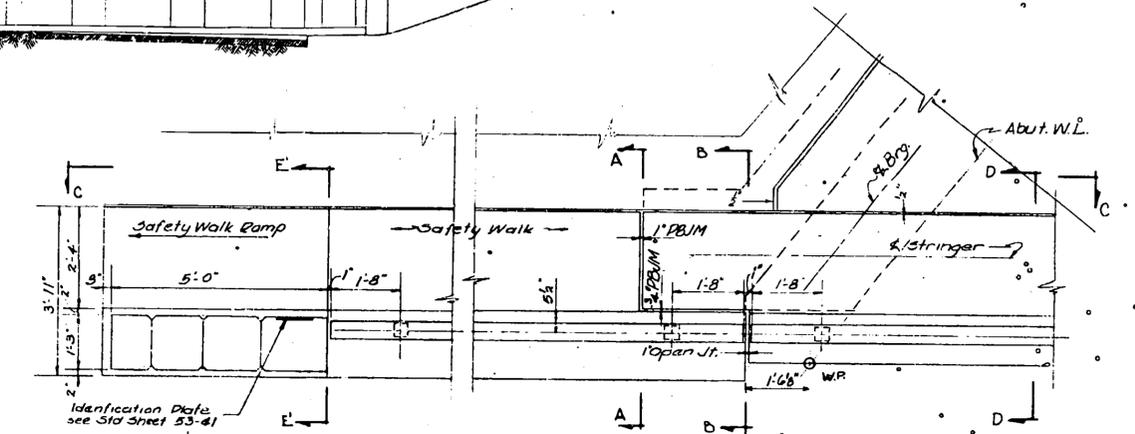
PREPARED AND RECOMMENDED  
Harold A. Blauvelt  
BROWN & BLAUVELT CONSULTING ENGINEERS N.Y.S.P.E. LIC. NO. 19032 DATE 6/30/38

THRUWAY OVER STATE TRAVELLED ROUTE 28 (MOHAWK ST.) STRUCTURE NO. 3 SECTIONS & DETAILS			
DWG. NO.	SCALE	DATE	BROWN & BLAUVELT CONSULTING ENGINEERS
40-B-1022	As Shown	3/6/53	

FED. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	N.Y.			85	199
N.Y. STATE THRUWAY MOHAWK SECT. SUBDIV. 10B					
HERKIMER COUNTY					
EAST SCHUYLER TO FORT HERKIMER					



ELEVATION  
Scale: 1/2" = 1'-0"



References:  
For Reinf. in Wing Walls see Shs. 90 & 94  
For Reinf. in Pylons see Sh. 94  
For General Notes see Sh. 4  
For Arch Details see Sh. 159  
For Railing Post Spacing see Sh. 83

In Charge Of: M.S.D.  
Made By: L.F.S.  
Traced By:  
Checked By:

PREPARED AND RECOMMENDED:  
Havel & Blauvelt  
BROWN & BLAUVELT CONSULTING ENGINEERS  
N.Y.S.P.E. LIC. NO. 19032 DATE 6/30/38

THRUWAY OVER STATE TRAVELLED ROUTE 28 (MOHAWK ST.)			
STRUCTURE NO 3			
ARCHITECTURAL DETAILS & ELEVATION			
DWG. NO.	SCALE	DATE	BROWN & BLAUVELT CONSULTING ENGINEERS
40-B-1073	3/8" = 1'-0"	3/6/53	



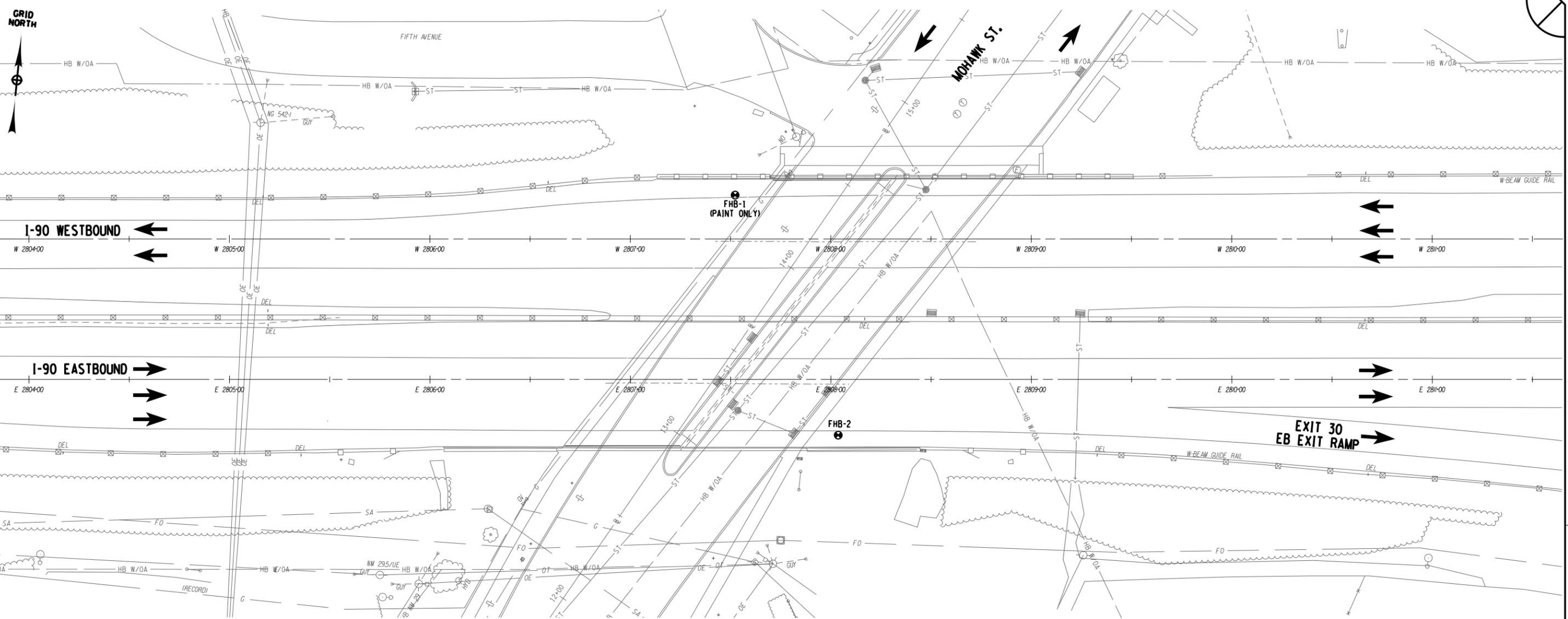
CHECKED BY:

DRAFTED BY:

CHECKED BY:

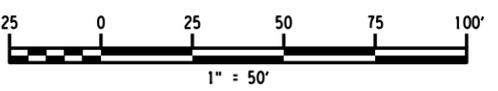
DESIGNED BY:

DESIGN SUPERVISOR:



**SOIL BORING LOCATION PLAN**  
SCALE: 1" = 50'

SOIL BORING LOCATION		
BORING	LATITUDE	LONGITUDE
FHB-1	43.0177805	-74.9935995
FHB-2	43.0174608	-74.9933833



REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL


**Thruway Authority**  


TITLE OF PROJECT I-90 EASTBOUND AND WESTBOUND OVER MOHAWK STREET (BIN 1020079)	CONTRACT NUMBER: TAB-17-XX
LOCATION OF PROJECT SYRACUSE DIVISION M.P. 219.91	DATE: 06/07/17
TITLE OF DRAWING BORING LOCATION PLAN	DRAWING NUMBER: BP-01

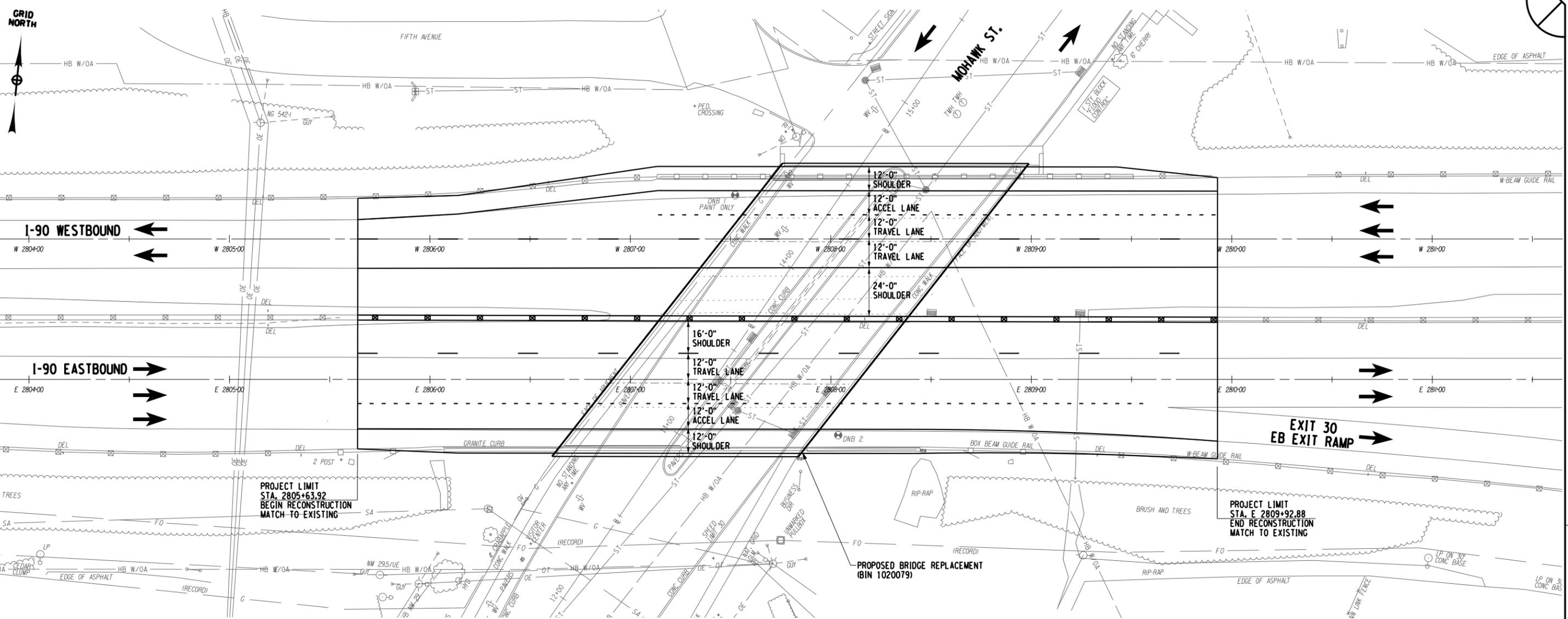
CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR:



**PROPOSED BRIDGE PLAN**  
SCALE: 1" = 50'



REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL


**Thruway Authority**  


TITLE OF PROJECT I-90 EASTBOUND AND WESTBOUND OVER MOHAWK STREET (BIN 1020079)	CONTRACT NUMBER: TAB-17-XX
LOCATION OF PROJECT SYRACUSE DIVISION M.P. 219.91	DATE: 06/07/17
TITLE OF DRAWING PROPOSED BRIDGE PLAN	DRAWING NUMBER: PL-01

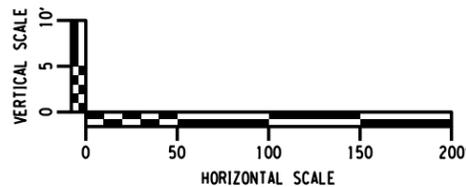
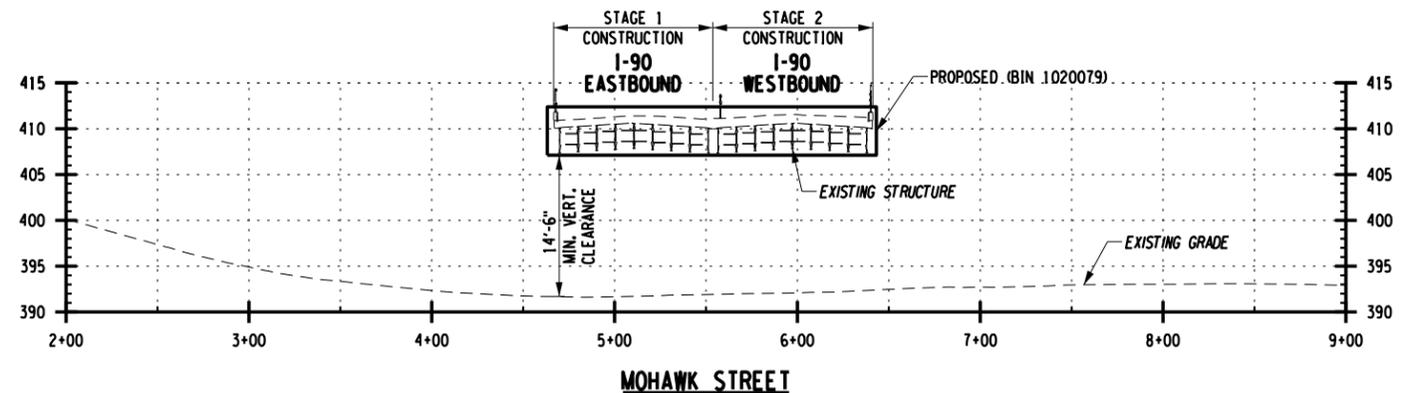
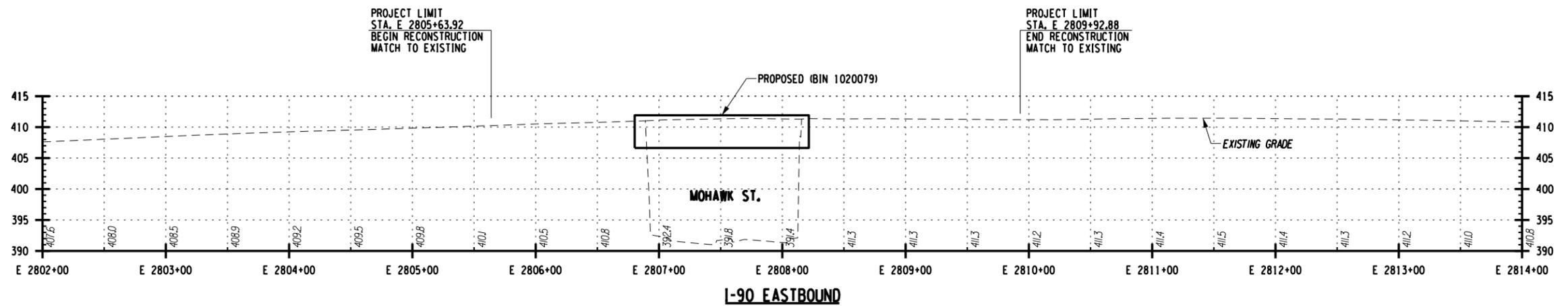
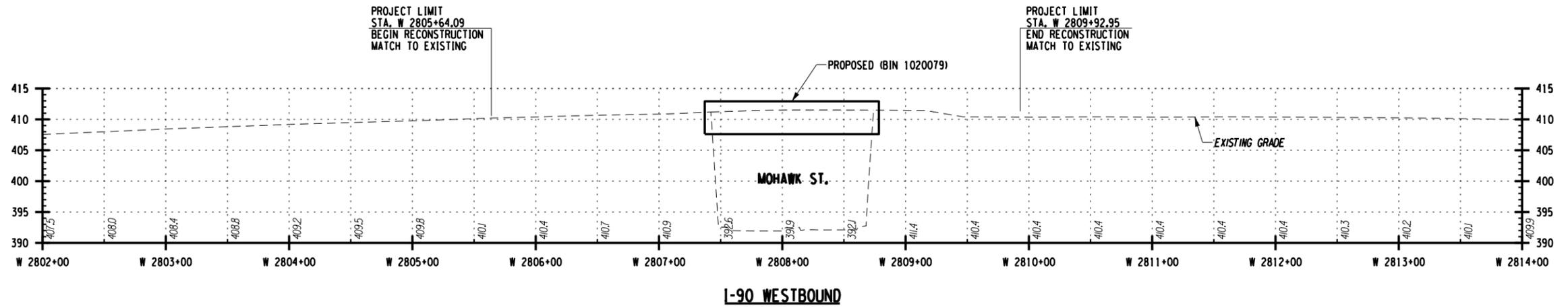
CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

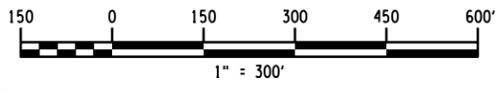
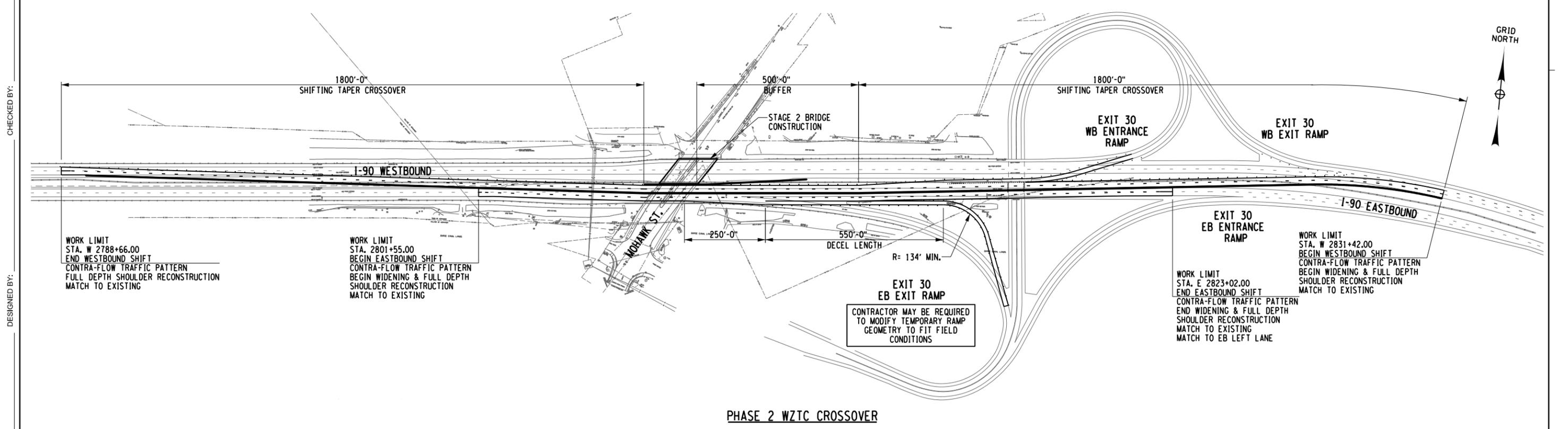
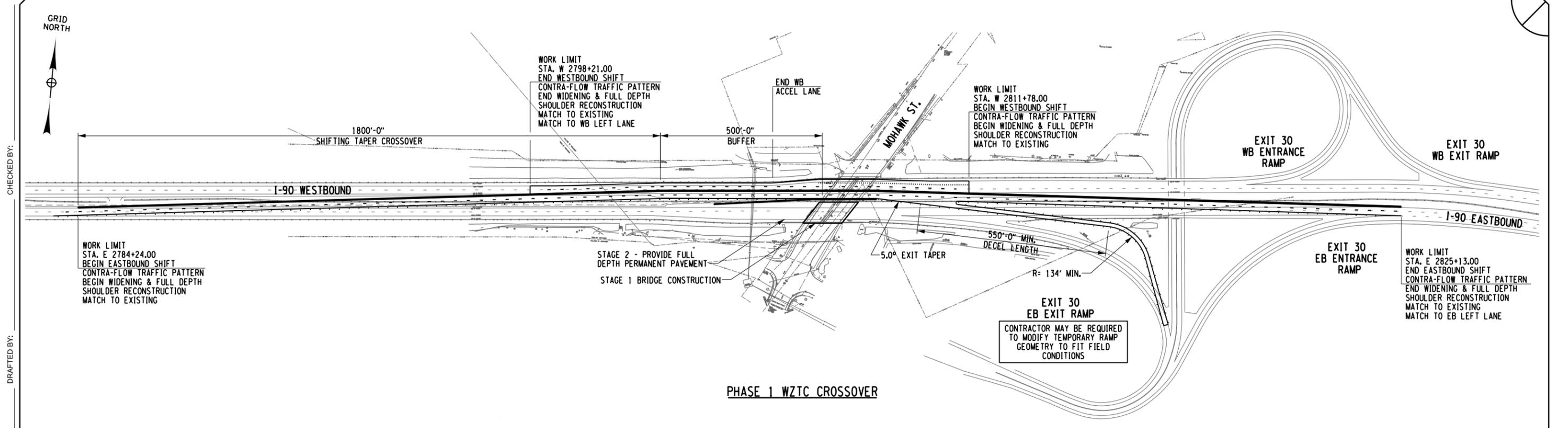
DESIGN SUPERVISOR:



REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL



TITLE OF PROJECT I-90 EASTBOUND AND WESTBOUND OVER MOHAWK STREET (BIN 1020079)	CONTRACT NUMBER: TAB-17-XX
LOCATION OF PROJECT SYRACUSE DIVISION M.P. 219.91	DATE: 06/07/17
TITLE OF DRAWING ROADWAY PROFILES	DRAWING NUMBER: PRO-01



REVISIONS			
DATE	DESCRIPTION	BY	SYM.



TITLE OF PROJECT I-90 EASTBOUND AND WESTBOUND OVER MOHAWK STREET (BIN 1020079)	CONTRACT NUMBER: TAB-17-XX
LOCATION OF PROJECT SYRACUSE DIVISION M.P. 219.91	DATE: 06/07/17
TITLE OF DRAWING WORKZONE TRAFFIC CONTROL PLANS	DRAWING NUMBER: WZP-01

CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR:

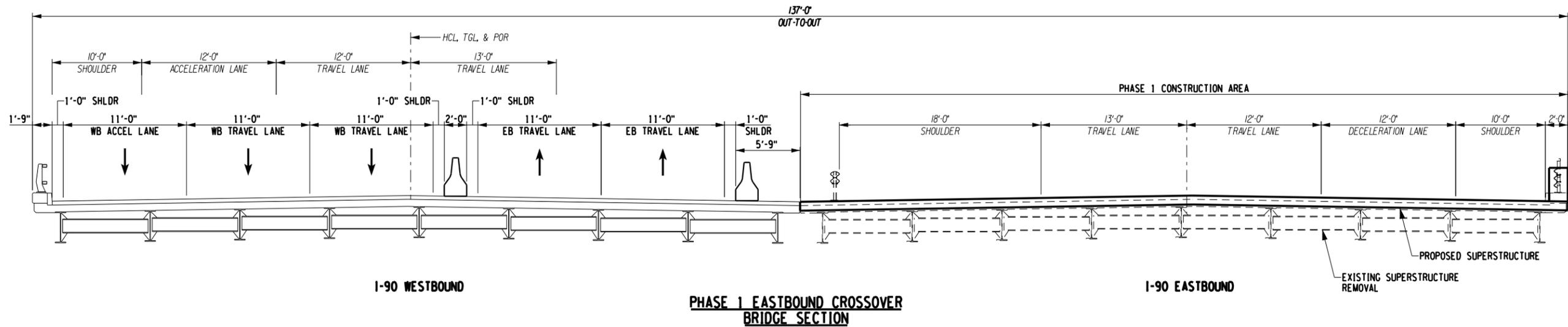
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DRAFTED BY:

CHECKED BY:

DESIGNED BY:

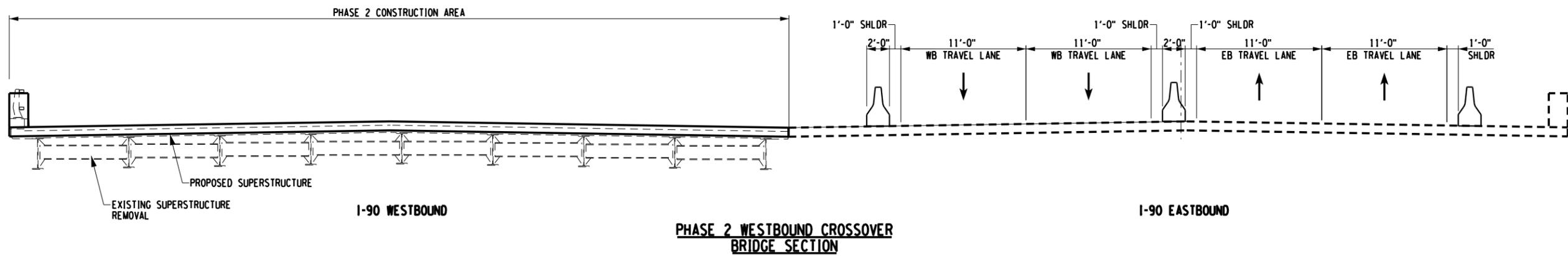
DESIGN SUPERVISOR:



I-90 WESTBOUND

**PHASE 1 EASTBOUND CROSSOVER BRIDGE SECTION**

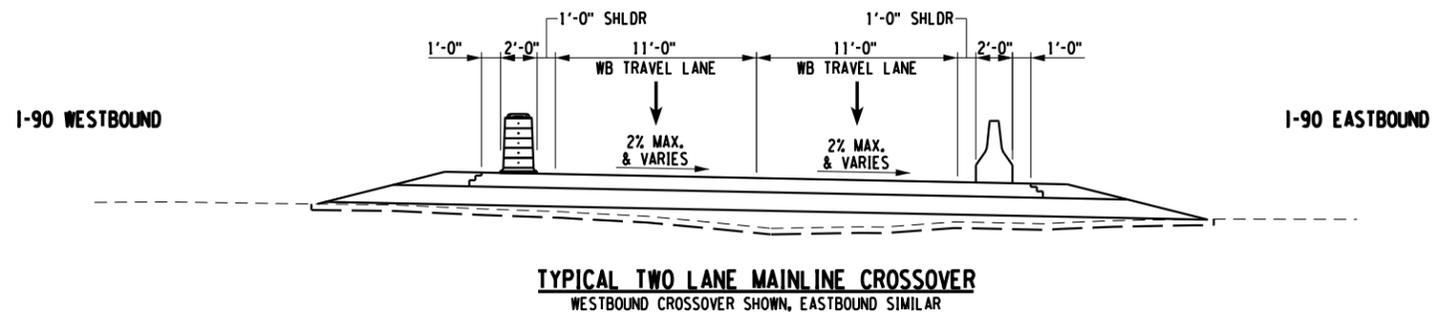
I-90 EASTBOUND



I-90 WESTBOUND

**PHASE 2 WESTBOUND CROSSOVER BRIDGE SECTION**

I-90 EASTBOUND



**TYPICAL TWO LANE MAINLINE CROSSOVER**  
WESTBOUND CROSSOVER SHOWN, EASTBOUND SIMILAR

REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL



TITLE OF PROJECT  
I-90 EASTBOUND AND WESTBOUND OVER  
MOHAWK STREET (BIN 1020079)

LOCATION OF PROJECT  
SYRACUSE DIVISION  
M.P. 219.91

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

## **Appendix B Environmental Agency Correspondence**

**HAZARDOUS WASTE-CONTAMINATED MATERIALS  
TECHNICAL MEMORANDUM**

**for**

**NEW YORK STATE THRUWAY AUTHORITY**

**D214385      BIN 1020079  
I-90 OVER NY ROUTE 28  
TOWN OF HERKIMER  
HERKIMER COUNTY**

**Prepared by:**



**February 2017**

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**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 Mohawk Street (NY Route 28) in the Town of Herkimer, Herkimer County, New York. The project area was investigated on December 2, 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 Record 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 NYS Route 28**

<b>Sample Identification</b>	<b>Material</b>	<b>Sample Location</b>	<b>Approx. Quantity</b>
8-A	Black Bituminous Material	Patches Around Bearings	275 SF
N/A	Lead Bearing Pad	Under Bearings	88 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 2, 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 NYS Route 28**

Sample Identification	Material	Sample Location	% Asbestos
1-A	Green Paint	Outside Bridge Girder	NAD
1-B	Green Paint	Outside Bridge Girder	NAD
2-A	Grey Paint	Underside of Bridge, Inside of Girder	NAD

Sample Identification	Material	Sample Location	% Asbestos
2-B	Grey Paint	Underside of Bridge, Inside of Girder	NAD
3-A	White Paint	Concrete Abutments	NAD
3-B	White Paint	Concrete Abutments	NAD
4-A	Green Paint	Guard Railings	NAD
4-B	Green Paint	Guard Railings	NAD
5-A	Black Packing Material	B/w Abutments	NAD
5-B	Black Packing Material	B/w Abutments	NAD
6-A	Black Tar	Base of Guard Railings	NAD
6-B	Black Tar	Base of Guard Railings	NAD
7-A	Black Bituminous Material	B/w Sidewalk and Abutments	NAD
7-B	Black Bituminous Material	B/w Sidewalk and Abutments	NAD
8-A	Black Bituminous Material	Patches Around Bearings	Chrysotile 2.9%
8-B	Black Bituminous Material	Patches Around Bearings	N/A

### 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. Additionally, a review of the as-built drawings indicated the presence of lead bearing pads.

**Table 3.2**  
**Summary of Lead Based Paint Samples Collected and Results**  
**I-90 Mainline over NYS Route 28**

Sample Identification	Material	Sample Location	Lead (% by weight)
LBP-1	Green Paint	Outside Bridge Girder	0.0243
LBP-2	Grey Paint	Underside of Bridge, Inside of Girder	0.0243
LBP-3	White Paint	Concrete Abutments	0.0527
LBP-4	Green Paint	Guard Railings	0.0937
N/A	Rocker Bearing Pad	Under Bearings	Assumed

### 3.3 Polychlorinated Biphenyls (PCBs)

There were no potential PCB containing material observed during the inspection therefore no PCB samples were collected.

#### 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

The materials listed in Table 4.1 were collected during the assessment conducted by Fisher Associates and identified via laboratory analysis as ACM.

**Table 4.1**  
**Summary Quantities of Asbestos-Containing Materials**  
**I-90 Mainline over NYS Route 28**

Sample Identification	Material	Location	Approximate Quantity
8-A	Black Bituminous Material	Patches Around Bearings	275 SF

##### 4.2 Lead

Samples were collected of potential lead-containing materials during the investigation conducted by Fisher Associates and tested via laboratory analysis. None of the paint samples analyzed are considered to be lead-based. However, a review of the as-built draws of the bridge indicated the presence of lead bearing pads under the expansion bearings and fixed bearings.

**Table 4.1**  
**Summary Quantities of Lead-Containing Materials**  
**I-90 Mainline over NYS Route 28**

Sample Identification	Material	Location	Approximate Quantity
N/A	Bearing Pad	Under Bearings	88 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) have been identified as part of this assessment. 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. 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.

### **5.2 Lead**

A review of the bridge drawings indicate the use of lead materials in the construction. 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.

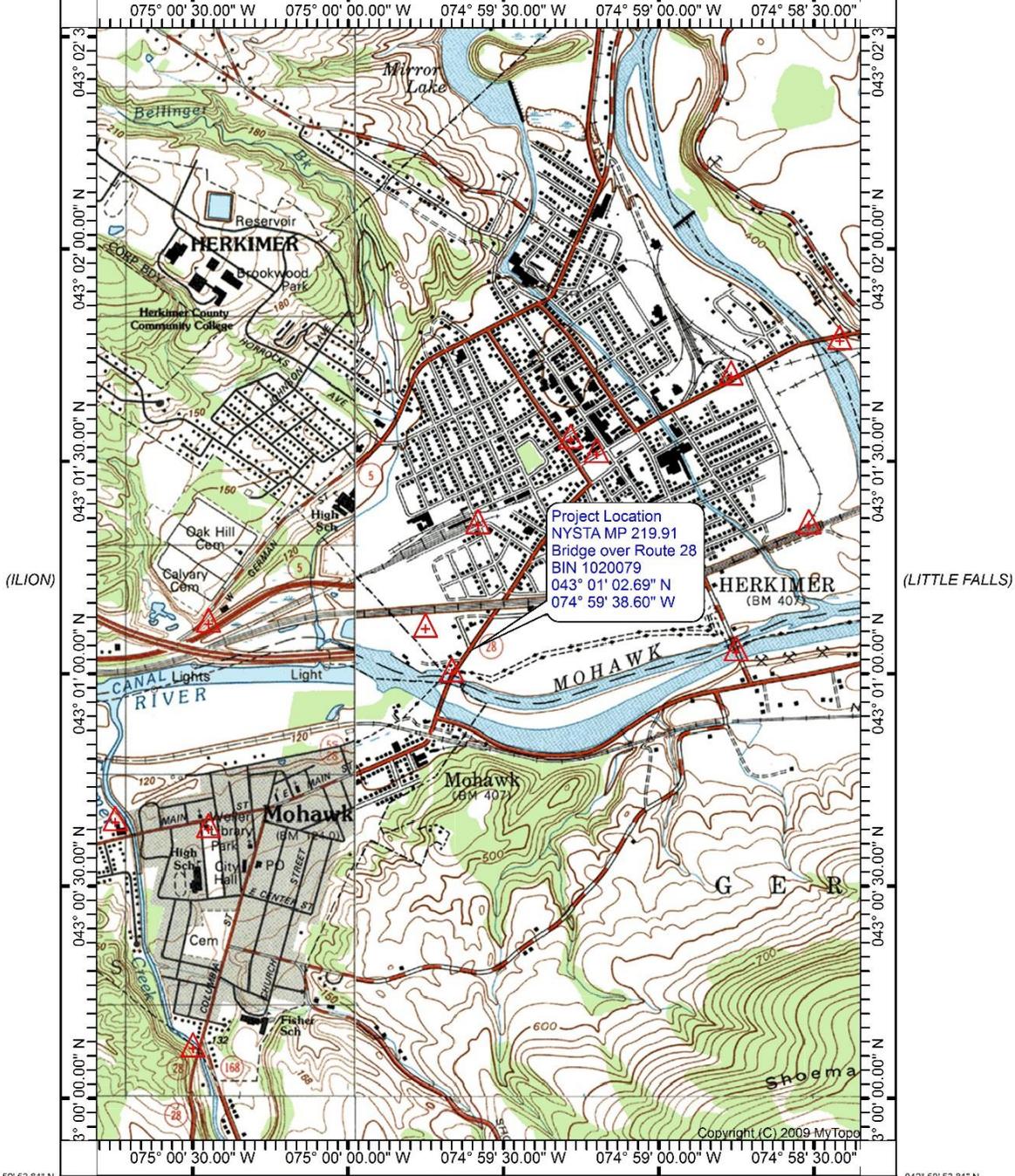
**APPENDIX A**  
**PROJECT LOCATION MAP**

(NEWPORT)



HERKIMER QUADRANGLE  
NEW YORK  
TOPOGRAPHIC SERIES (SALISBURY)

075° 00' 30.00" W 075° 00' 00.00" W 074° 59' 30.00" W 074° 59' 00.00" W 074° 58' 30.00" W  
043° 02' 31.53" N 043° 02' 00.00" N 043° 01' 30.00" N 043° 01' 00.00" N 043° 00' 30.00" N 043° 00' 00.00" N

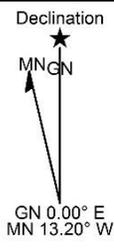


042° 59' 53.81" N 075° 00' 49.06" W 075° 00' 00.00" W 074° 59' 30.00" W 074° 59' 00.00" W 074° 58' 30.00" W 042° 59' 53.81" N 043° 02' 31.53" N

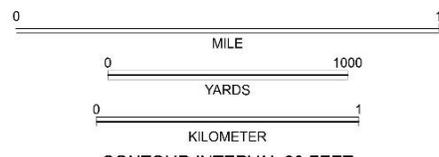
(MILLERS MILLS)

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  
33M E



(JORDANVILLE)  
SCALE 1:24000



CONTOUR INTERVAL 20 FEET  
MEAN SEA LEVEL

HERKIMER, NY  
1943

(VAN HORNESVILLE)

**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



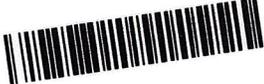
**MARK T STEIN**  
CLASS(EXPIRES)  
C ATEC(03/17) D INSP(03/17)  
H PM (03/17) I PD (03/17)



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

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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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**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**

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ENVIRONMENTAL ANALYSES NON POTABLE WATER  
All approved analytes are listed below:*

**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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<b>Metals I</b>		<b>Metals II</b>	
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	<b>Metals III</b>	
	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	<b>Mineral</b>	
<b>Metals II</b>		Hardness, Total	EPA 200.7 Rev. 4.4
Aluminum, Total	EPA 200.7 Rev. 4.4	<b>Miscellaneous</b>	
	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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All approved analytes are listed below:*

**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
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**Petroleum Hydrocarbons**

Diesel Range Organics	EPA 8015D
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**Phthalate Esters**

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

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**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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**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
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**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
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**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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All approved analytes are listed below:

**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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**ENVIRONMENTAL ANALYSES NON POTABLE WATER**  
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**Volatile 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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**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

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:

**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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**ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE**  
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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NEW YORK STATE DEPARTMENT OF HEALTH  
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National Environmental Laboratory Accreditation Conference Standards (2003) for the category  
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS  
All approved analytes are listed below:*

**Metals II**

Beryllium, Total NIOSH 7303

**Metals III**

Chromium, Total NIOSH 7303



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ROCHESTER, NY 14608

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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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

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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 1020079

**Job No:** 12197-16  
**Page:** 1 of 4

**Sample Date:** 12/2/2016

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	101820 B	Outside Girder	Green Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
1B	101821	Outside Girder	Green Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
2A	101822	Inside Girder	Gray Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
2B	101823	Inside Girder	Gray Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
3A	101824	Concrete Surface	White Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
3B	101825	Concrete Surface	White Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
4A	101826	Guard Railings	Green Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
4B	101827	Guard Railings	Green Paint	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
5A	101828	B/W Abutments	Black Packing Material	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
5B	101829	B/W Abutments	Black Packing Material	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  
**Microscope:** Olympus BH-2 #232953  
**Analyst:** T. Bush

**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 1020079

**Job No:** 12197-16  
**Page:** 2 of 4

**Sample Date:** 12/2/2016

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 %
6A	101830	Base of Guard Rail & Concrete	Black Tar	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
6B	101831	Base of Guard Rail & Concrete	Black Tar	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	None Detected	100%
7A	101832	B/W Sidewalk & Abutments	Black Bituminous Material	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	Fiberglass 1%	99%
7B	101833	B/W Sidewalk & Abutments	Black Bituminous Material	Inconclusive No Asbestos Detected	0%	√	None Detected	<1.0%	Fiberglass 2%	98%
8A	101834	Around Rocker Supports	Black Bituminous Material	Chrysotile 2.9%	2.9%	√	Not Required	N/A	None Detected	97.1%
8B	101835	Around Rocker Supports	Black Fibrous Bituminous Material	STOP	POSITIVE	X	SAMPLE	NOT	ANALYZED	N/A

**KEY TO NOB COLUMN SYMBOLS**

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 √ 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.  
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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

**ELAP ID No.: 10958**

**PLM Date Analyzed:** 12/12/2016

**TEM Date Analyzed:** 12/12/2016

**Microscope:** Olympus BH-2 #232953

**TEM Analyst:** F. Weinman

**Analyst:** T. Bush

**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 Office: 585-647-2530  
 1815 Love Road, Grand Island, New York 14072 Office: 716-775-5777

1041

<b>Client Mailing Address:</b> 135 Calkins Road Rochester, NY 14623		<b>Client:</b> Fisher Associates Phone Number: (585) 334-1310	<b>Contact:</b> Mark Stein Email Address for Data: mstein@fisherassoc.com	<b>OFFICE USE ONLY</b> Job #: 12197-110 Page _____ of _____ Date Logged In: 12-10-10 Logged In By: VK
<b>Results To:</b> Mark Stein		<b>Date Sampled:</b>	<b>Turn Around Time:</b> <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> Other	
<b>Project Location:</b> BIN 102007A		<b>Material Type/Quantity:</b> Friable NOB TEM		

Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	2A	1D1820B Outside Girder	Green	NOB	Paint
2	2B	" "	<del>Green</del> Green		
3	2A	Inside Girder	<del>White</del> Grey		
4	2B	" "	Grey		
5	3A	Concrete surface	White		
6	3B	" "	White		
7	4A	Guard railings	Green		
8	4B	" "	Green		
9	5A	R/w abutments	Black		Bedkins material
10	5B	" "	Black		

<b>Sampled By:</b> <i>[Signature]</i>	<b>Date:</b> 12/12/02/10
<b>Transported to Paradigm By:</b> <i>[Signature]</i>	<b>Date:</b> 12/05/10
<b>Received By:</b> <i>[Signature]</i>	<b>Date:</b> 12/5/10

VK 12-10-10

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



**CHAIN OF CUSTODY FOR BULK ASBESTOS ANALYSIS**

179 Lake Avenue, Rochester, New York 14608 Office: 585-647-2530  
 1815 Love Road, Grand Island, New York 14072 Office: 716-775-5777

20f2

Client Mailing Address: 135 Calkins Road Rochester, NY 14623	Client: Fisher Associates Phone Number: (585) 334-1310	Contact: Mark Stein Email Address for Data: mstein@fisherassoc.com	Office USE ONLY Job #: <u>12197-118</u> Page _____ of _____ Date Logged In: _____ Logged In By: _____
Date Sampled: Mark Stein	Results To Mark Stein	Turn Around Time: 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input checked="" type="checkbox"/> Other <input type="checkbox"/>	
Project Location: BIN 1020079		Material Type/Quantity: NOB TEM	

Client ID	Lab ID	Sampling Location	Color	Material Size	Type of Material
1	6A	101830 Base of guard rail & concrete	Black	NDB	Tar
2	6B	831 " "	"		Tar
3	7A	832 Blw sidewalk & abutments	Black		Biotuminous Mast
4	7B	833 " "	"		"
5	8A	834 Around necker supports	Black		"
6	8B	835 " "	"		"
7					
8					
9					
10					

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

VK 12.10.16

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: 6 NDB



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*  
**Fisher Associates**

*For Lab Project ID*

**165269**

*Referencing*

Bridge Haz Survey, 151021-09, BIN 1020079

*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.

A handwritten signature in black ink, appearing to read "D. G. D.", is written over a horizontal line.

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: 165269

**Client:** Fisher Associates

**Project Reference:** Bridge Haz Survey, 151021-09, BIN 1020079

---

**Sample Identifier:** LBP-1

**Lab Sample ID:** 165269-01

**Date Sampled:** 12/2/2016

**Matrix:** Paint

**Date Received:** 12/6/2016

---

**Lead**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Lead	<b>0.0243</b>	%		12/8/2016 11:59

**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 12/6/2016

**Data File:** 120816a



Lab Project ID: 165269

**Client:** Fisher Associates

**Project Reference:** Bridge Haz Survey, 151021-09, BIN 1020079

---

**Sample Identifier:** LBP-2

**Lab Sample ID:** 165269-02

**Date Sampled:** 12/2/2016

**Matrix:** Paint

**Date Received:** 12/6/2016

---

**Lead**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Lead	<b>0.0243</b>	%		12/8/2016 12:03

**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 12/6/2016

**Data File:** 120816a



Lab Project ID: 165269

**Client:** Fisher Associates

**Project Reference:** Bridge Haz Survey, 151021-09, BIN 1020079

---

**Sample Identifier:** LBP-3

**Lab Sample ID:** 165269-03

**Date Sampled:** 12/2/2016

**Matrix:** Paint

**Date Received:** 12/6/2016

---

**Lead**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Lead	<b>0.0527</b>	%		12/8/2016 12:07

**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 12/6/2016

**Data File:** 120816a



Lab Project ID: 165269

**Client:** Fisher Associates

**Project Reference:** Bridge Haz Survey, 151021-09, BIN 1020079

---

**Sample Identifier:** LBP-4

**Lab Sample ID:** 165269-04

**Date Sampled:** 12/2/2016

**Matrix:** Paint

**Date Received:** 12/6/2016

---

**Lead**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Lead	<b>0.0937</b>	%		12/8/2016 12:12

**Method Reference(s):** EPA 6010C

EPA 3050B

**Preparation Date:** 12/6/2016

**Data File:** 120816a



## 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:**

<b>COMPANY:</b> Fisher Associates	<b>COMPANY:</b> Same	<b>LAB PROJECT #:</b> 165269	<b>CLIENT PROJECT #:</b>
<b>ADDRESS:</b> 135 Calkins Road, Suite A	<b>ADDRESS:</b>	<b>TURNAROUND TIME: (WORKING DAYS)</b>	
<b>CITY:</b> Rochester	<b>STATE:</b> NY	<b>ZIP:</b> 14623	
<b>PHONE:</b> (585) 334-1310	<b>FAX:</b>	<b>STATE:</b>	<b>ZIP:</b>
<b>ATTN:</b> Mark Stein	<b>ATTN:</b>		
<b>COMMENTS:</b> BIN 1020079			

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

**REQUESTED ANALYSIS**

DATE	TIME	COMPOSITE	GRA B	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	LEAD	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 12/02/16	11:00			LBP-1	Paint	2	X		01
2				LBP-2			X		02
3				LBP-3			X		03
4				LBP-4			X		
5									
6									
7									
8									
9									
10									

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

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

Receipt Parameter: NELAC Compliance

Container Type: Y  N

Preservation: Y  N

Holding Time: Y  N

Comments: Temperature: 20°C 12/5/16 16:40 Y  N

Sampled By: [Signature] Date/Time: 12/02/16 11:00am Total Cost: [ ]

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

Received By: [Signature] Date/Time: 12/16/16 11:26 P.I.F. [ ]

Received @ Lab By: [Signature] Date/Time: [ ]

Quotation # [ ] 1  2  3  4  5  OTHER [ ]



### Chain of Custody Supplement

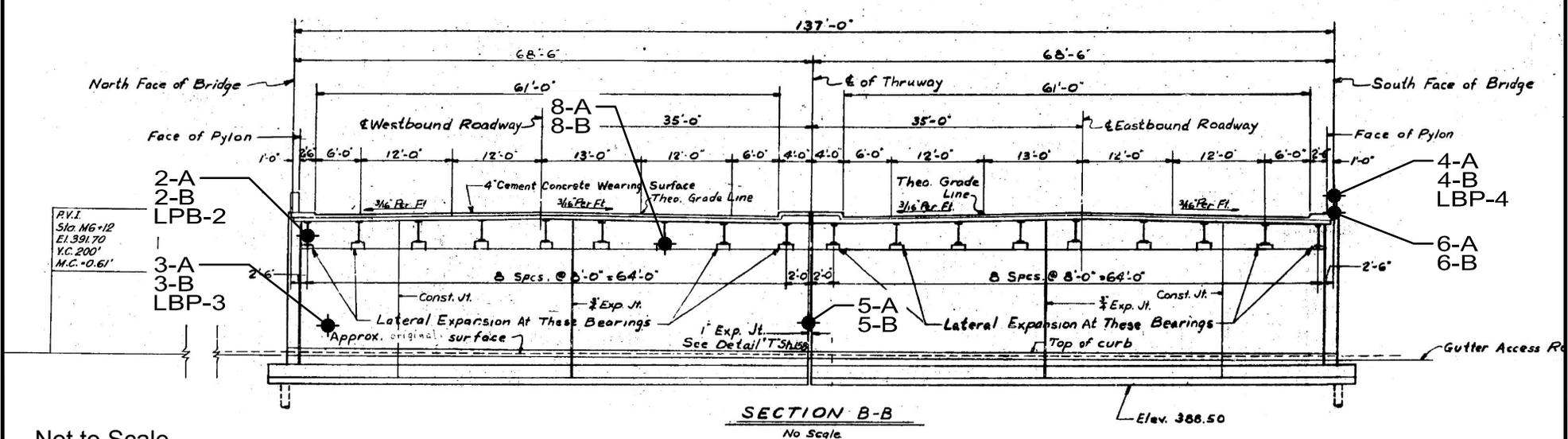
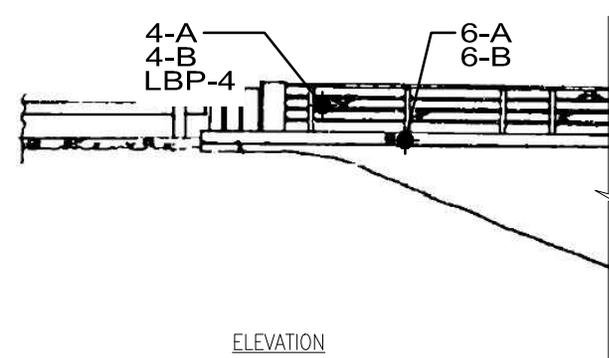
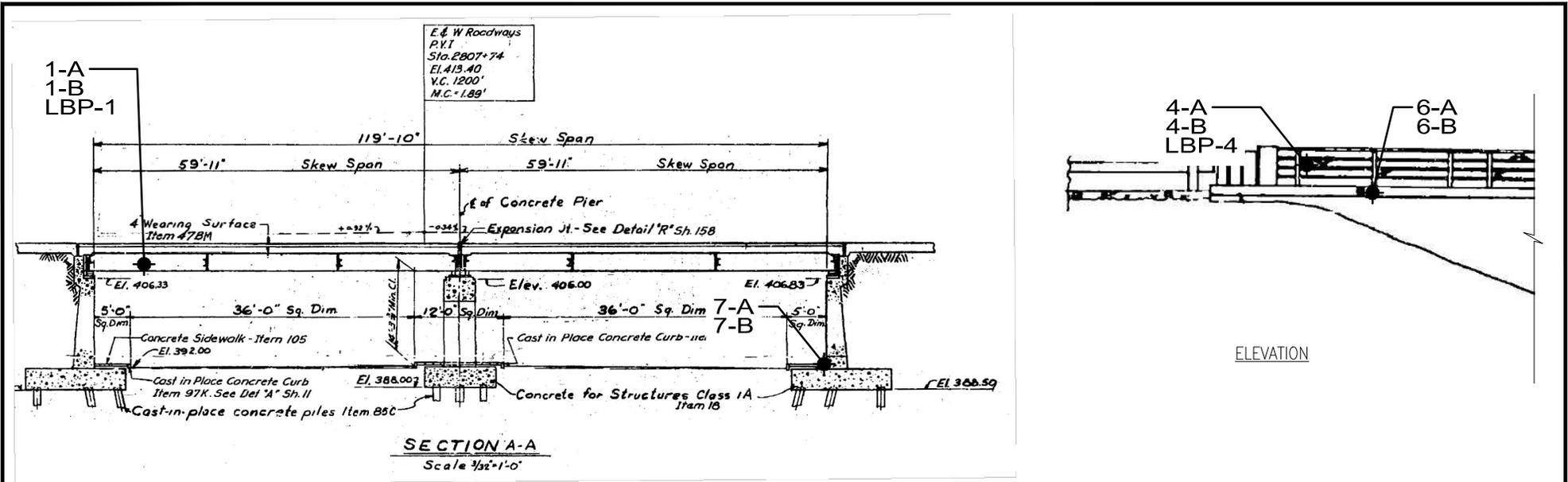
Client: Fisher Associates Completed by: Glenn Pezzulo  
Lab Project ID: 165269 Date: 12/6/16

#### 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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

**APPENDIX D**  
**SAMPLE LOCATION PLANS**



Not to Scale



WWW.FISHERASSOC.COM

**LEGEND:**

- 1-A SAMPLE LOCATION AND IDENTIFICATION

**Figure No. H1.01**

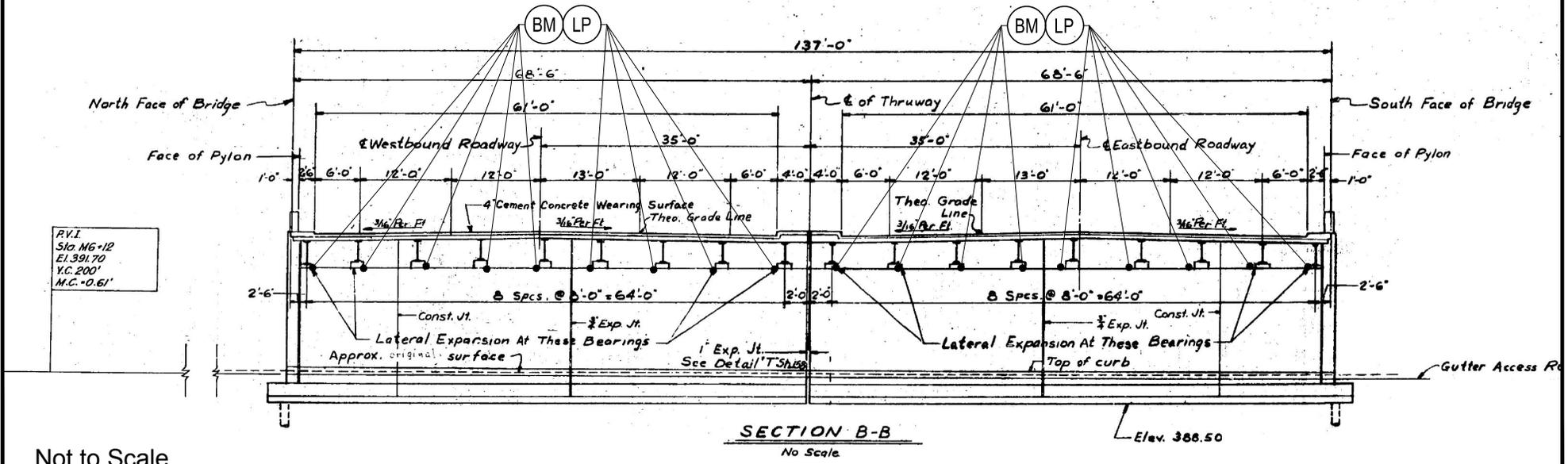
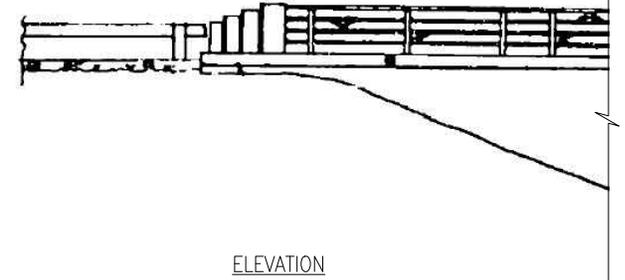
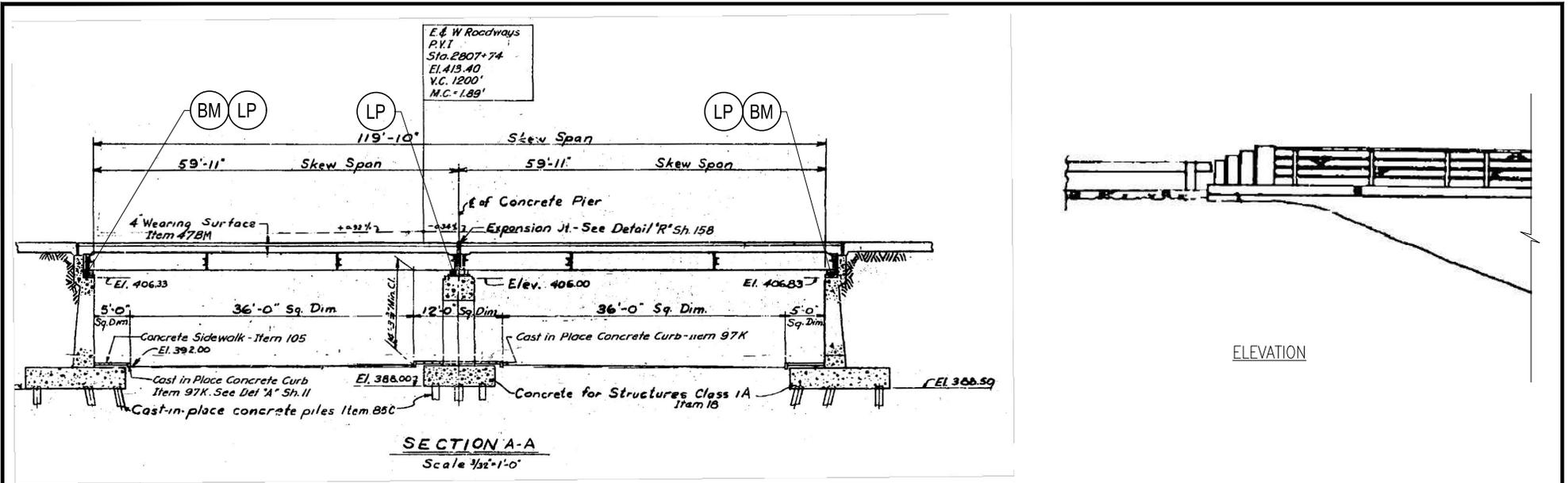
SAMPLE LOCATION PLAN  
 D214385 B.I.N. 1020079

I-90 MAINLINE BRIDGE OVER ROUTE 28  
 TOWN OF HERKIMER  
 HERKIMER COUNTY, NEW YORK

FA #151021.09

FEBRUARY 2017

**APPENDIX E**  
**HAZARDOUS MATERIAL LOCATION PLANS**



Not to Scale

**FISHER ASSOCIATES**  
WWW.FISHERASSOC.COM

**LEGEND**

- AC ASBESTOS-CONTAINING
- PCB POLYCHLORINATED BIPHENYLS
- LF LINEAR FEET
- SF SQUARE FEET
- BM AC BITUMINOUS MATERIAL
- LP LEAD BEARING PAD ON ABUTMENTS

**APPROXIMATE QUANTITIES (ENTIRE STRUCTURE)**

- BM 275 SF
- LP 88 LF

**Figure No. H2.01**  
HAZARDOUS MATERIALS LOCATION PLAN  
D214385 B.I.N. 1020079  
I-90 MAINLINE BRIDGE OVER ROUTE 28  
TOWN OF HERKIMER  
HERKIMER COUNTY, NEW YORK  
FA #151021.09 FEBRUARY 2017

# Section 106 Project Submittal Package

## Replacement of Syracuse Division Bridges

Milepost 219.91: Mohawk Street

**BIN 1020079**

Town of Herkimer, Herkimer County, New York

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](http://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](http://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 1020079

**IDENTIFICATION**

Project Name (if any) MP 219.91: Mohawk Street, Herkimer

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 Herkimer

Town/City Herkimer

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 Mohawk Street, at Milepoint (MP) 219.91 on the New York State Thruway, in the Town of Herkimer, Herkimer 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 Mohawk Street (New York State Route 28) in the Town of Herkimer, Herkimer County (see Attachment A). The existing bridge is a two-span steel multi-girder bridge that is oriented east/west and was constructed in 1954.

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

- **NYSTA MP 291.91 Bridge: Mohawk Street, Herkimer (BIN 1020079) (the Project):** The proposed Project consists of the replacement of the existing two-span steel multi-girder bridge. The existing bridge serves as the mainline of the New York State Thruway, carrying Interstate 90 over Mohawk Street (NYS Route 28). The existing bridge is approximately 124-feet in length, and was constructed in 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 existing bridge, as well as a 500-foot corridor in both the north and south directions along Mohawk Street (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 (Mohawk Street).

The closest previously recorded significant cultural resource to the APE is the New York State (NYS) Barge Canal Historic District (14NR06559) located approximately 352 feet south of the existing New York State Thruway bridge. The limits of the historic district include the portion of the Barge Canal (also the Mohawk River in this location) that flows beneath the Mohawk Street (New York State Route 28) bridge to the south of the APE. The New York State Barge Canal Historic District was listed on the NRHP in 2014 and named a National Historic Landmark (NHL) in 2016.

The proposed project will include superstructure replacement. This approach will not significantly alter the appearance of the existing Mohawk Street bridge; therefore, the Project has no potential to cause a significant visual impact the setting of any historic resources, including the NRHP-Listed/National Historic Landmark NYS Barge Canal Historic District. Although the limits of the APE overlap with the northern edge of the NYS Barge Canal Historic District, the Project is not anticipated to adversely impact any of the criteria that have qualified the historic district for listing in the NRHP.

The existing two-span steel multi-girder bridge was initially constructed as a part of the new Interstate 90 (New York State Thruway) circa 1954, as confirmed in the 2015 Inspection Report. 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 1020079 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) indicates that the land within and adjacent to the APE has largely industrial and commercial in nature since the early twentieth century, and was heavily disturbed prior to the construction of the New York State Thruway. The east-west length of the APE was initially disturbed by construction of the Thruway in the early-to-mid 1950s, and the entire APE has been significantly disturbed by road widening and maintenance throughout the late twentieth century.

The Project occurs adjacent to the Mohawk River, which also contains the New York State Barge Canal. Areas along rivers and major waterways are often highly sensitive for historic-period and prehistoric archaeological resources for several reasons:

- Rivers and large streams served as prehistoric and historic-period transportation routes.

- River valleys were concentrated areas for floral and faunal resources valuable to prehistoric foragers and horticulturalists.
- Water power and the Erie Canal were important factors in settlement and development during the nineteenth century.

The APE for the current Project is limited to the existing ROWs for the NYSTA ROW and Mohawk Street. Although the APE is located in an area that is sensitive for archaeological resources, 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-period 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.

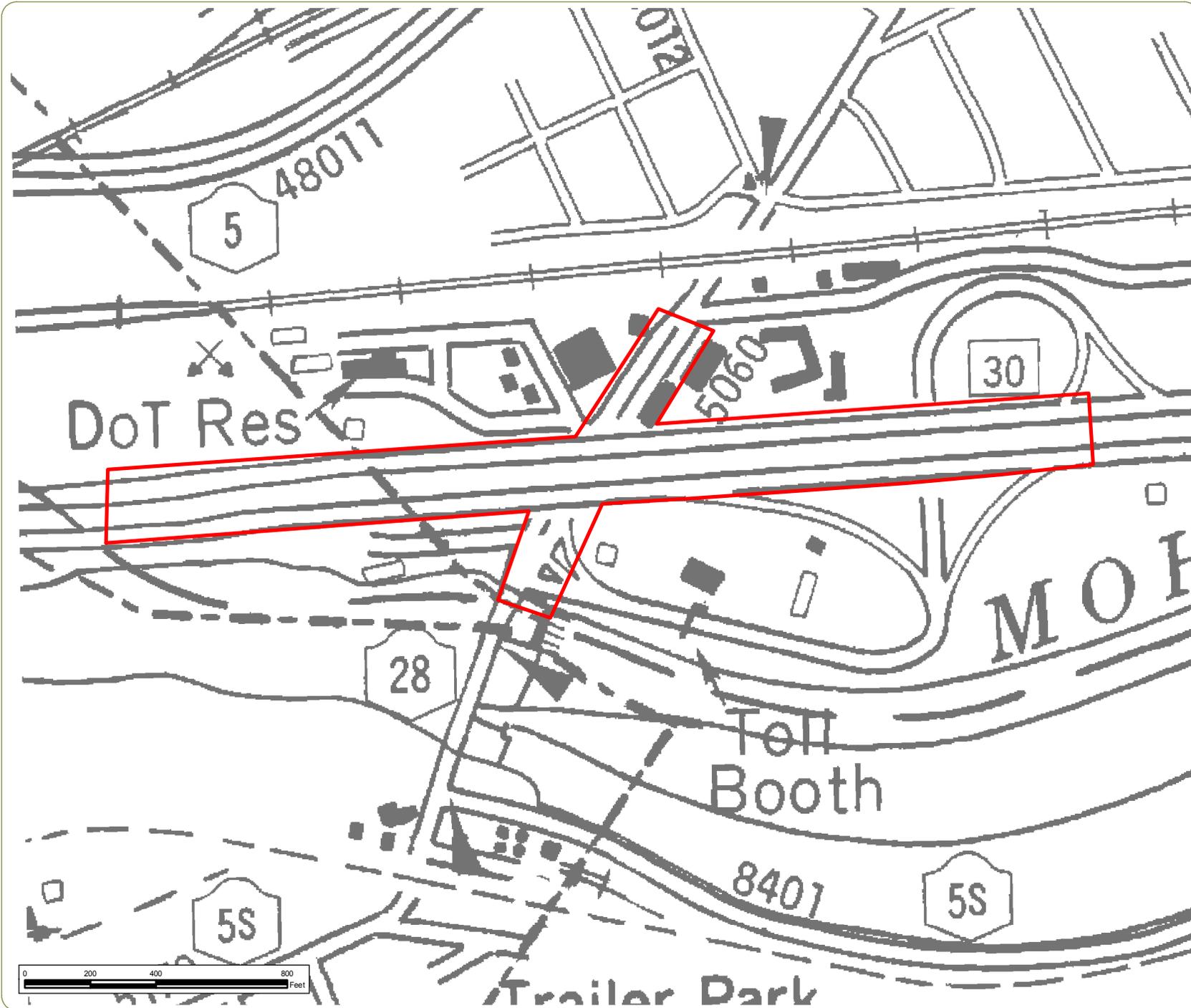
#### **1.5 Photographs**

A site visit was conducted by EDR staff on December 1<sup>st</sup>, 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 219.91: Mohawk Street  
(BIN 1020079)

Town of Herkimer, Herkimer County,  
New York

### Attachment A: Project Location

February 2017

 Area of Potential Effect

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



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**Attachment B:**  
**2015 Bridge Inspection Report (Excerpt)**

**BIN:** 1020079                      **MP:** 219.91  
**Region:** 2                                **County:** 3 HERKIMER  
**Feature Carried:** 90IX  
**Feature Crossed:** Mohawk St. (NYS Route 28)  
**General Recommendation:** 4  
**Condition Rating:** 3.78  
**Inspect Date:** 10/2/2015



**New York State Thruway Authority - Bridge Inspection Report**

# 2015 INSPECTION

<b>FLAGS</b>	<input type="checkbox"/> RED	<input checked="" type="checkbox"/> YELLOW	<input 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:

\_\_\_\_ RED FLAG   
GM YELLOW FLAG   
\_\_\_\_ SAFETY FLAG

FLAG NUMBER: 15-078  
SUPERSEDED FLAG(S): \_\_\_\_\_  
INSPECTOR: Glenford Mullings  
DATE OF INSPECTION: 10/15/2015

CURRENT FLAG INDICATOR: **ACTIVE**

PROMPT INTERIM ACTION RECOMMENDED: \_\_\_\_\_ YES X NO

BRIDGE DESCRIPTION:

MP: 219.91 BIN: 1020079  
REGION: 2 COUNTY: 3 (HERKIMER) TOWN: Herkimer  
FEATURES: CARRIED: 90IX CROSSED: Mohawk St. (NYS Route 28)  
NUMBER OF SPANS BY TYPE: 2 Spans - Steel Multi-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) :

All 36 Span 1 and Span 2 bearings at Pier 1 are high steel rockers.  
  
At the Span 2 bearing for girder G5, the rocker can be rocked slightly by hand, indicating that the girder does not transfer any load (reaction force) to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis by light hammer blows.  
  
No vertical movement of the girder end is noted to indicate that the bearing's sole plate engages the rocker (via the pin) and transfers any load during truck/live load passage.  
  
With girder G5 not transmitting its reaction force to its bearing, said force is re-distributed to the adjacent bearings via the adjacent girders. The additional load could result in the adjacent girders and bearings being overstressed, thus a YELLOW Structural Flag is issued.  
  
The Span 1 bearing for girder G8 exhibits a similar condition as its pin and rocker are also loose.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES \_\_\_\_\_ NO IF YES, NUMBER ATTACHED: 2

FLAGGED BRIDGE REPORT COMPLETED BY: Glenford Mullings DATE: 10/5/2015

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

TO: \_\_\_\_\_ of Headquarters on \_\_\_\_\_  
TO: \_\_\_\_\_ (Responsible Party) on \_\_\_\_\_  
BY: \_\_\_\_\_

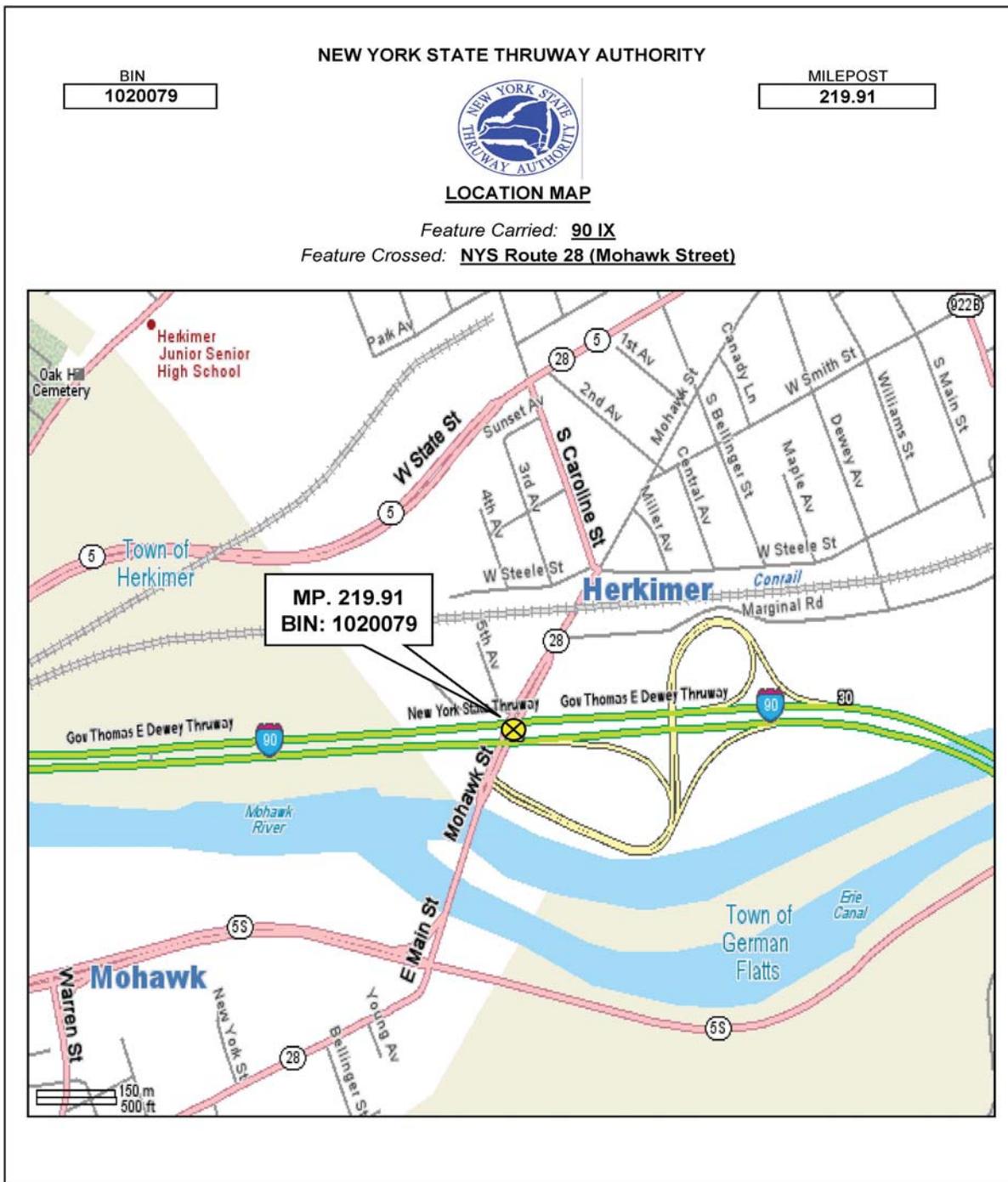
\* The appropriate caption in the upper left of this form shall be initialed by the individual who is the initialed

[Signature]  
Signature of Thruway Team Leader      10/05/2015  
Date:

<b>Location:</b>	219.91-350-33-00-15YSF.JPG	1
Pier 1 bearings at girder G5, Right side		
<b>Description:</b>		
Span 2 rocker can be rocked by hand, indicating that the girder does not transfer any reaction force to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis.		
<b>Reference:</b>		
FLAG #: 15-078		

<b>Location:</b>	219.91-350-33-01-15YSF.JPG	2
Pier 1 bearings at girder G8, Left side		
<b>Description:</b>		
Span 1 rocker can be rocked by hand, indicating that the girder does not transfer any reaction force to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis.		
<b>Reference:</b>		
FLAG #: 15-078		

Sketch Type: Location Map  
File Name: 219.91-10-00-15LOCMAP.jpg



**Attachment C:**  
**Historic Aerial Photographs**

Mohawk Street/ I-90

Mohawk Street/ I-90

Herkimer, NY 13350

Inquiry Number: 4816834.5

December 30, 2016

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

**Site Name:**

Mohawk Street/ I-90  
 Mohawk Street/ I-90  
 Herkimer, NY 13350  
 EDR Inquiry # 4816834.5

**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
1995	1"=750'	Flight Date: May 08, 1995	USGS
1986	1"=500'	Flight Date: May 12, 1986	USGS
1982	1"=500'	Flight Date: April 28, 1982	USGS
1974	1"=750'	Flight Date: April 27, 1974	USGS
1959	1"=1000'	Flight Date: October 21, 1959	USGS
1956	1"=500'	Flight Date: October 13, 1956	USGS
1942	1"=500'	Flight Date: January 01, 1942	FirstSearch

**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**

**Disclaimer - Copyright and Trademark Notice**

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INQUIRY #: 4816834.5

YEAR: 2011

— = 500'





INQUIRY #: 4816834.5

YEAR: 2009

— = 500'





INQUIRY #: 4816834.5

YEAR: 2008

— = 500'





INQUIRY #: 4816834.5

YEAR: 2006

— = 500'





INQUIRY #: 4816834.5

YEAR: 1995

— = 750'





INQUIRY #: 4816834.5

YEAR: 1995

— = 500'





INQUIRY #: 4816834.5

YEAR: 1986

— = 500'





INQUIRY #: 4816834.5

YEAR: 1982

— = 500'





INQUIRY #: 4816834.5

YEAR: 1974

— = 750'





INQUIRY #: 4816834.5

YEAR: 1959

— = 1000'





INQUIRY #: 4816834.5

YEAR: 1956

— = 500'





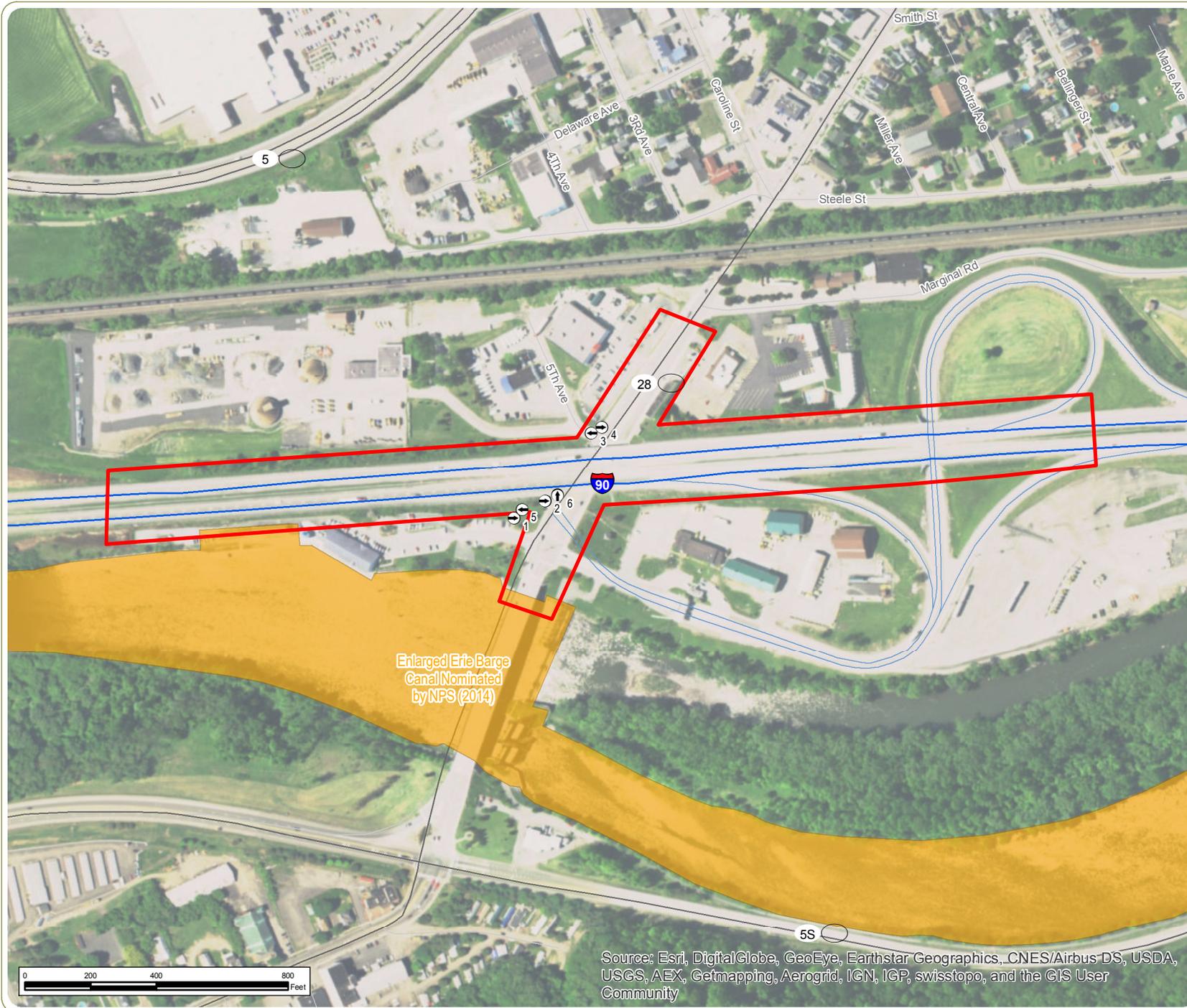
INQUIRY #: 4816834.5

YEAR: 1942

— = 500'



**Attachment D:  
Photograph Locations**



## Replacement of Syracuse Division Bridges

**MP 219.91: Mohawk Street (BIN 1020079)**

Town of Herkimer, Herkimer County, New York

### Attachment D: Photograph Locations

February 2017

-  Photograph Location
-  NRHP-Listed Site
-  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 and bridge over Mohawk Street, facing east. Thruway elevated on berms.



**Photo 2**

View of the south side of Thruway bridge over Mohawk Street, facing east. Thruway elevated on berms.

## **Replacement of Syracuse Division Bridges**

**MP 219.91: Mohawk Street (BIN 1020079)**

Town of Herkimer, Herkimer County, New York

**Attachment E: Photographs**

Sheet 1 of 3



**Photo 3**

View of berms elevating Thruway, facing west from Mohawk Street.



**Photo 4**

View of north side of Thruway bridge from Mohawk Street, facing east. Thruway elevated on berms.

**Replacement of Syracuse Division Bridges**

**MP 219.91: Mohawk Street (BIN 1020079)**

Town of Herkimer, Herkimer County, New York

**Attachment E: Photographs**

Sheet 2 of 3



**Photo 5**

View along southern edge of Study Area, facing west. Elevated Thruway at right side of photo.



**Photo 6**

View under Thruway bridge, facing north along Mohawk Street.

## **Replacement of Syracuse Division Bridges**

**MP 219.91: Mohawk Street (BIN 1020079)**

Town of Herkimer, Herkimer County, New York

**Attachment E: Photographs**

Sheet 3 of 3

# HAZARDOUS WASTE/ CONTAMINATED MATERIALS SCREENING (DRAFT)

## Replacement of Syracuse Division Bridges

Milepost 219.91: Mohawk Street

**BIN 1020079**

Town of Herkimer, Herkimer County, New York

### 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](http://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](http://www.edrdpc.com)

**February 2017**

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### 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 Mohawk Street, at Mile Point (MP) 219.91 on the New York State Thruway (Interstate 90), in the Town of Herkimer, Herkimer County, New York (BIN 1020079). 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 Mohawk Street. 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 2, 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:

- The property occupied by Tractor Supply at the northwest intersection of Mohawk Street and Fifth Avenue (700-716 Mohawk Street), is listed on several environmental databases as a past user and generator of oil and/or hazardous materials (OHM), as well as the site of past releases of OHM. The property is also identified as a Brownfields site due to identified soil and groundwater contamination. Soil contamination at this parcel has reportedly been removed; however, groundwater contamination above applicable standards has been noted to remain. If excavation on or adjacent to this parcel is planned, further investigation such as soil and/or groundwater sampling is warranted.
- The New York State Thruway Authority (NYSTA) Herkimer Section Maintenance facility at 799 Mohawk Street to the southeast of the Study Area is an identified petroleum bulk storage (PBS) facility with aboveground storage tanks (ASTs) and underground storage tanks (USTs), and is a registered large quantity generator of hazardous waste. The locations of ASTs and USTs on this property should be confirmed prior to excavation for the proposed project. If OHM storage and/or generation locations are in close proximity to areas to be impacted for the project, these areas should be screened for potential contamination to ensure that sampling and potential disposal be completed as necessary.

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 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 Mohawk Street, at MP 219.91 on the New York State Thruway, in the Town of Herkimer, Herkimer 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 Mohawk Street.

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 December 2016, 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 New York State Department of Environmental Conservation (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 2, 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: 1923, 1931, 1950, and 1961 (Appendix C).

Aerial Photographs - Aerial photographs taken in 1942, 1956, 1959, 1974, 1982, 1986, 1995, 2005, 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, and 2011, 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 Herkimer, Herkimer County, New York (Figure 2). The project includes the replacement of the existing New York State Thruway bridge (BIN 1020079) over Mohawk Street at MP 219.91. 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 Mohawk Street in the center of the Study Area. The north-south oriented portion of the Study Area is occupied by Mohawk Street (State Route 28). 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 during the site walkover.

The area is generally flat, with the Mohawk River located to the south of the Study Area. The Mohawk River flows to the east. Groundwater at the Study Area is expected to generally flow to the south/southeast toward the Mohawk River.

Solid waste dumpsters and grease dumpsters were noted at the boundaries of the Study Area adjacent to a Denny's Restaurant parking lot, and adjacent to the parking lot associated with the commercial plaza to the south west. Evidence of a release of OHM was not noted around these dumpsters at the time of the site reconnaissance. Limited solid waste debris was observed along the side of the Thruway and Mohawk Street within the Study Area; however, significant dumping was not noted.

Pad-mounted transformers were noted adjacent to the Study Area behind the Red Roof Inn (northern Study Area boundary) and next to the commercial plaza located southwest of the Study Area along the Mohawk River. Pole-mounted transformers were observed along the boundaries of the Study area in multiple locations. Evidence of leakage was not noted around the transformers observed within or adjacent to the Study Area at the time of the site reconnaissance.

Properties in the immediate vicinity of the Study Area include:

- A Tractor Supply Company retail store is located immediately northwest of the bridge intersection.
- The Herkimer County and State of New York Department of Transportation (DOT) Highway garages are located northwest of the Study Area along Fifth Avenue.
- Northeast of the Study Area commercial properties, including a Denny's Restaurant, the Budget Inn Herkimer, and the Red Roof Inn.
- A NYSTA maintenance and operations facility is located southeast of the Study Area.
- A commercial plaza including Erie Canal Cruises, Inc., Waterfront Grille (restaurant), and Gems Along the Mohawk (gift shop) are located to the southwest of the Study Area.

Further north of the Study Area are east-west oriented railroad tracks, and to the south of the Study Area is the Mohawk River.

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:

- In 1923, the Study Area was bisected by the New York State Electrical Railway Right of Way (ROW) along the route that is currently Mohawk Street. The New York State Electric Railway operated streetcars and trolley systems in central New York until the 1930s. A gasoline tank is identified in Mohawk Street in this Sanborn Map.
- In 1931, the railway ROW remained, and three properties of concern were identified: a potential garage property with two gasoline tanks at the center of the Study Area, a filling station just northwest of the center of the Study Area with two gasoline tanks, and an auto repair facility including body repair and spray painting operations to the northwest of the northern portion of the Study Area.
- In 1950, the railway ROW was re-labeled as Mohawk Street on the Sanborn Map. In addition, the three properties shown in 1931 remained, including the filling station and auto repair facility, with the garage re-labeled as Trucks and Farm Machinery Sales and Service.
- In the 1961 Sanborn Map, the New York State Thruway had been constructed, and the Trucks and Farm Machinery facility had been removed. The filling station was replaced with an auto sales and service property, and the second auto sales facility to the northwest remained present.

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**

<b>Standard Environmental Record Sources</b>	<b>Minimum Search Distance – ASTM Standard: miles (kilometers)</b>	<b>No. of Listed Properties<sup>1</sup></b>
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)	1
Federal CERCLIS NFRAP Site List (SEMS Archive)	0.5 (0.8)	1
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	3
Federal Institutional Control/ Engineering Control Registries	Property only	0
Federal ERNS List	Property only	0
State equivalent NPL	1.0 (1.6)	0
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)	29
State Registered Storage Tank Lists (UST/AST)	0.25 (0.4)	20
State Institutional Control/Engineering Control Registries	Property only	1
State Voluntary Cleanup Sites	0.5 (0.8)	1
State Brownfield Sites	0.5 (0.8)	1
<b>Additional Environmental Record Sources:</b>		
Federal FINDS	Property only	1
Local List of Registered Storage Tanks (NY HIST UST/AST)	0.25 (0.4)	7
State Leaking Storage Tank Lists (HIST LTANKS)	0.5 (0.8)	0
NY Spills	0.125 (0.2)	28
Federal RCRA – NonGen	0.25 (0.4)	5
State Manifest Records	0.25 (0.4)	6

<sup>1</sup>Sites 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:

#### 700-716 Mohawk Street

The property located at the northwest intersection of Mohawk Street and Fifth Avenue is currently occupied by a retail Tractor Supply Company store. This property is listed on several environmental databases as a past user and generator of OHM, as well as the site of past releases. The property is also identified as a Brownfields site due to confirmed soil and groundwater contamination.

This site encroaches on a portion of the Study Area, and is the location of a former automotive repair facility as well as a former filling station dating back to at least 1923. Several USTs and ASTs were previously located at this property. Soil and groundwater contamination attributable to these historic uses and releases of OHM have been identified. As stated in the database report, a site cover has been placed over the entire site, and a soil vapor mitigation system is in place to prevent contaminated vapor from impacting air quality in the existing commercial building.

This property is identified on the NYSDEC Spills databases for several reported releases. Spills reported at this property have been listed as closed on the NYSDEC Spills database.

#### 799 Mohawk Street (also identified as Thruway MP 219.7)

This property is located southeast of the intersection of the thruway and Mohawk Street, at the southeast corner of the Study Area. This property is mapped on the database report in multiple locations, both within and adjacent to the Study Area, and is identified as the NYSTA Herkimer Section Maintenance facility.

This facility is identified on the NYSDEC Petroleum Bulk Storage (PBS) database as having active ASTs and USTs, as well as having historic ASTs and USTs. This location is also identified as a RCRA large quantity generator of hazardous waste.

#### Fifth Avenue: Herkimer County and NYDOT Highway garages

The parcels located to the northwest of the Study Area are listed on the PBS database as having had several historical USTs that have been removed. In addition, several ASTs are present on these properties. These properties are also listed (with various street numbers) on the NYSDEC Spills database as having had multiple releases. All reported spills at these parcels have been closed by the NYSDEC.

#### NYSDEC Spills within the Study Area

Several spills were identified on the database report as occurring within the Study Area. These include a release associated with a UST removal at the toll plaza located south of the NYSTA Herkimer Section Maintenance facility. In addition, several spills involving vehicles including motor vehicle accidents and releases from commercial vehicles were identified along the Thruway and associated exits within and adjacent to the Study Area. All releases listed on the NYSDEC spills database within and adjacent to the Study Area are listed as having been closed by the NYSDEC.

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

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

- The property currently occupied by Tractor Supply Company at the northwest intersection of Mohawk Street and Fifth Avenue (700-716 Mohawk Street), is listed on several environmental databases as a past user and

generator of OHM, as well as the site of past releases. The property is also identified as a Brownfields site due to identified soil and groundwater contamination. As stated in the database report, remediation at the site is complete and soil contamination above the NYSDEC's Soil Cleanup Objectives (SCOs) is no longer known to be present at the site. However, groundwater contamination exceeding the applicable standards has been identified. If excavation on or adjacent to this parcel is planned, further investigation such as soil and/or groundwater sampling is warranted.

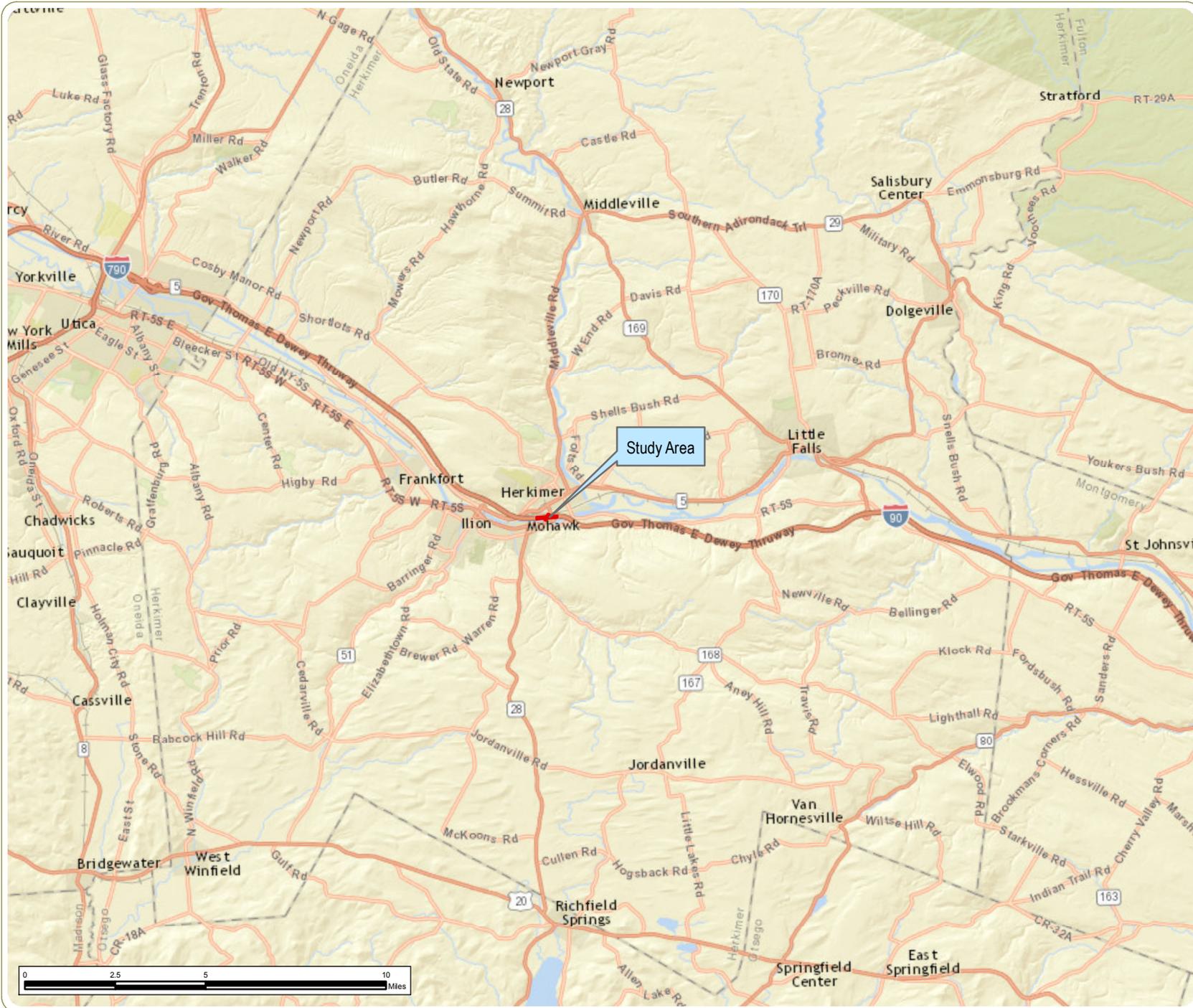
- The NYSTA Herkimer Section Maintenance facility at 799 Mohawk Street (MP 219.7) is an identified PBS facility with ASTs and USTS, and is a RCRA large quantity generator of hazardous waste. The locations of ASTs and USTS on this property should be confirmed prior to excavation for the proposed project. If OHM storage and/or generation locations are in close proximity to areas to be impacted for the project, these areas should be screened for potential contamination to ensure that adequate segregation, sampling, and potential disposal be completed.

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. 2016. *The EDR Radius Map Report with GeoCheck*. December 29, 2016.
- Environmental Data Resources, Inc. 2016. *Certified Sanborn Map Report*. December 30, 2016 (Appendix C).
- Environmental Data Resources, Inc. 2016. *The EDR Aerial Photo Decade Package*. December 30, 2016 (Appendix D).
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## Appendix A: Figures



## Replacement of Syracuse Division Bridges

Town of Herkimer, Herkimer County, New York

**Figure 1. Regional Project Location - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

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 Herkimer,  
Herkimer County, New York

**Figure 2. Study Area - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

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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## **Appendix B: Site Photographs**



Photo 1

View toward bridge from Tractor Supply Co., facing SE.



Photo 2

View toward bridge from the SE, facing NW.

## Replacement of Syracuse Division Bridges

Town of Herkimer, Herkimer County, New York

Appendix B: Site Photographs - Mohawk Street, Herkimer, NY MP 219.91 (BIN 1020079)

Sheet 1 of 4



Photo 3

View of underside of Thruway bridge, facing NE.



Photo 4

View from under the Thruway bridge, facing North along Mohawk Street.

## Replacement of Syracuse Division Bridges

Town of Herkimer, Herkimer County, New York

Appendix B: Site Photographs - Mohawk Street, Herkimer, NY MP 219.91 (BIN 1020079)

Sheet 2 of 4



Photo 5

View of the NYSTA maintenance facility SE of the Project Site, facing NW.



Photo 6

View of dumpsters located behind Denny's, north of the Project Site, facing West.

## Replacement of Syracuse Division Bridges

Town of Herkimer, Herkimer County, New York

Appendix B: Site Photographs - Mohawk Street, Herkimer, NY MP 219.91 (BIN 1020079)

Sheet 3 of 4



Photo 7

Transformer behind Red Roof Inn, adjacent to Project Site, facing East.



Photo 8

Transformer on property SW of the Project Site, facing South.

## Replacement of Syracuse Division Bridges

Town of Herkimer, Herkimer County, New York

Appendix B: Site Photographs - Mohawk Street, Herkimer, NY MP 219.91 (BIN 1020079)

Sheet 4 of 4

## **Appendix C: Sanborn Maps**

Mohawk Street/ I-90

Mohawk Street/ I-90

Herkimer, NY 13350

Inquiry Number: 4816834.3

December 30, 2016

## Certified Sanborn® Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

12/30/16

**Site Name:**

Mohawk Street/ I-90  
Mohawk Street/ I-90  
Herkimer, NY 13350  
EDR Inquiry # 4816834.3

**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](http://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 #** 904F-400F-A14C  
**PO #** 16134-1  
**Project** NYSTA MP 219.19 Mohawk Street

**Maps Provided:**

1961  
1950  
1931  
1923



Sanborn® Library search results

Certification #: 904F-400F-A14C

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

*The Sanborn Library LLC Since 1866™*

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## Sanborn Sheet Key

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

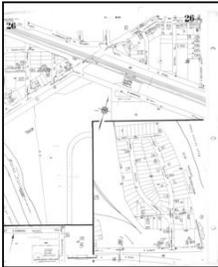


### 1961 Source Sheets



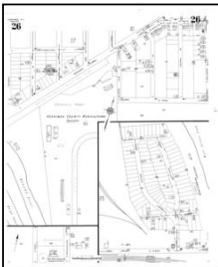
Volume 1, Sheet 26  
1961

### 1950 Source Sheets



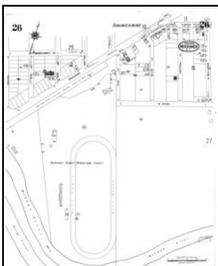
Volume 1, Sheet 26  
1950

### 1931 Source Sheets

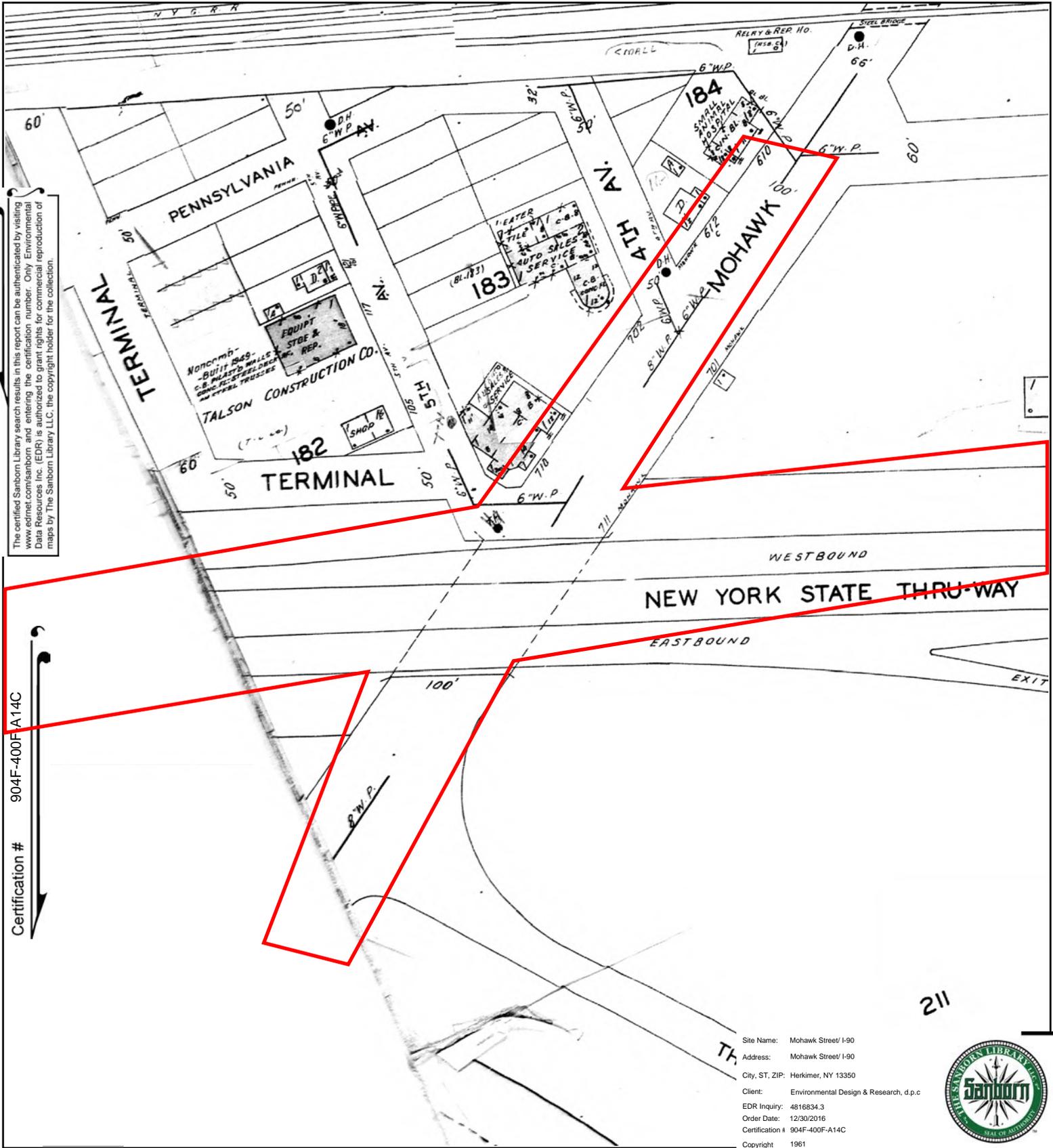


Volume 1, Sheet 26  
1931

### 1923 Source Sheets



Volume 1, Sheet 26  
1923



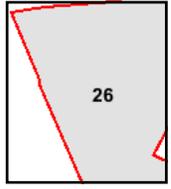
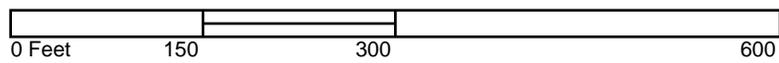
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Certification # 904F-400F-A14C

Site Name: Mohawk Street/ I-90  
 Address: Mohawk Street/ I-90  
 City, ST, ZIP: Herkimer, NY 13350  
 Client: Environmental Design & Research, d.p.c  
 EDR Inquiry: 4816834.3  
 Order Date: 12/30/2016  
 Certification # 904F-400F-A14C  
 Copyright 1961

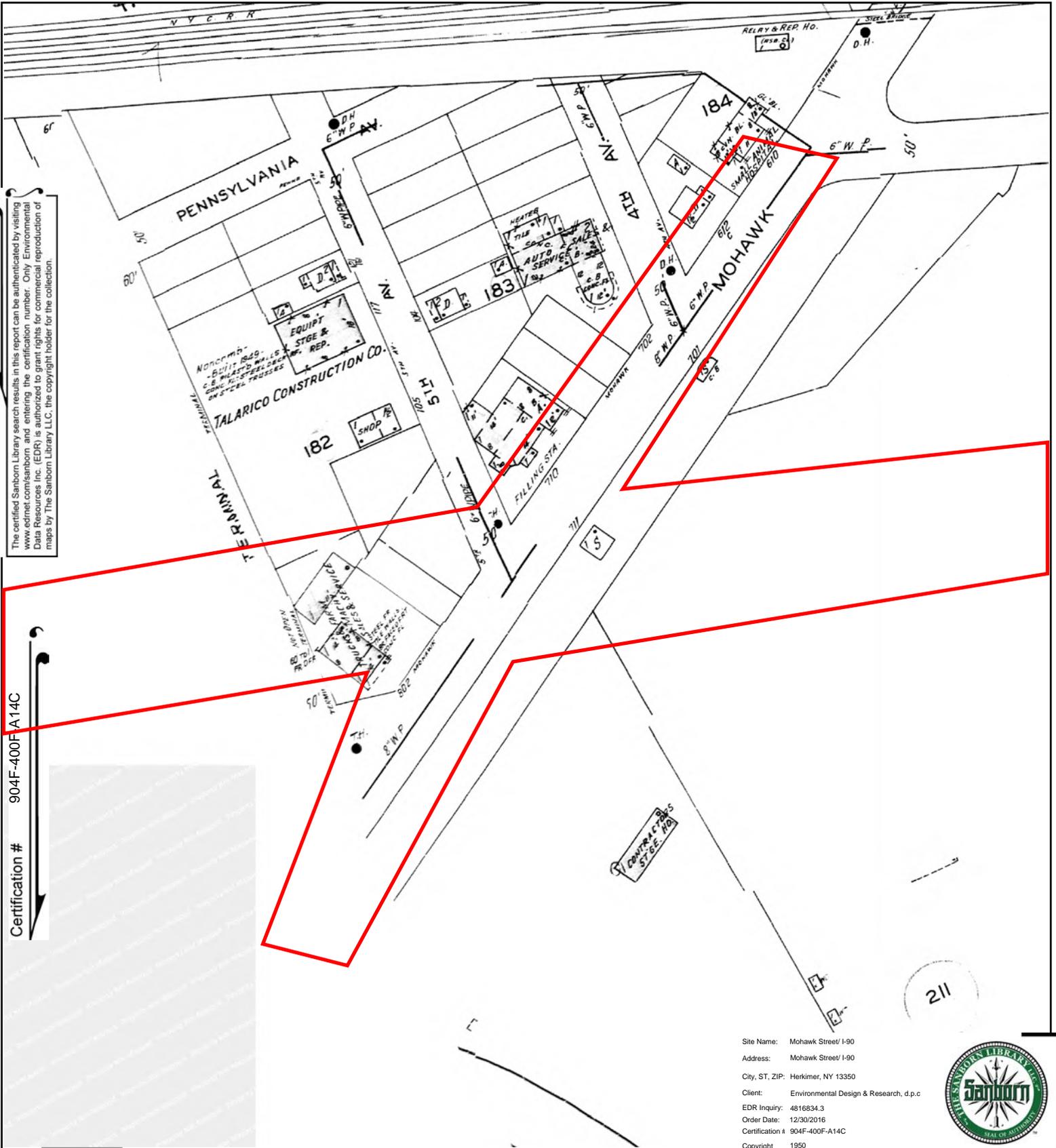


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Volume 1, Sheet 26





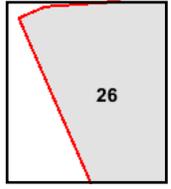
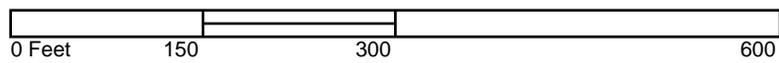
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 Address: Mohawk Street/ I-90  
 City, ST, ZIP: Herkimer, NY 13350  
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 EDR Inquiry: 4816834.3  
 Order Date: 12/30/2016  
 Certification # 904F-400F-A14C  
 Copyright 1950

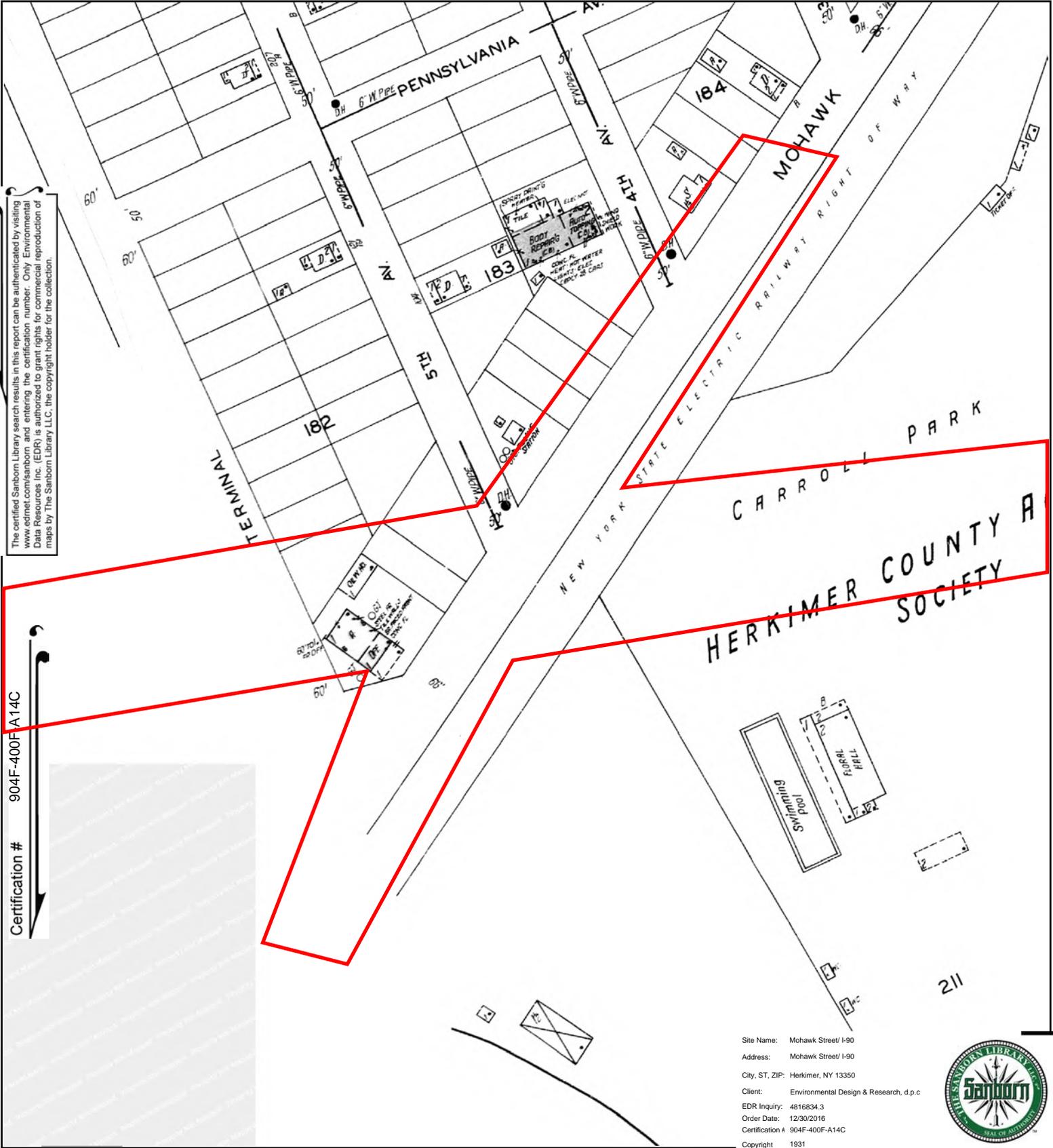


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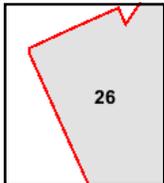
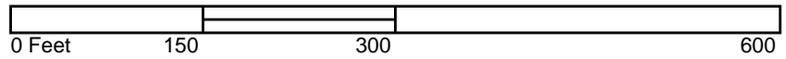


Volume 1, Sheet 26



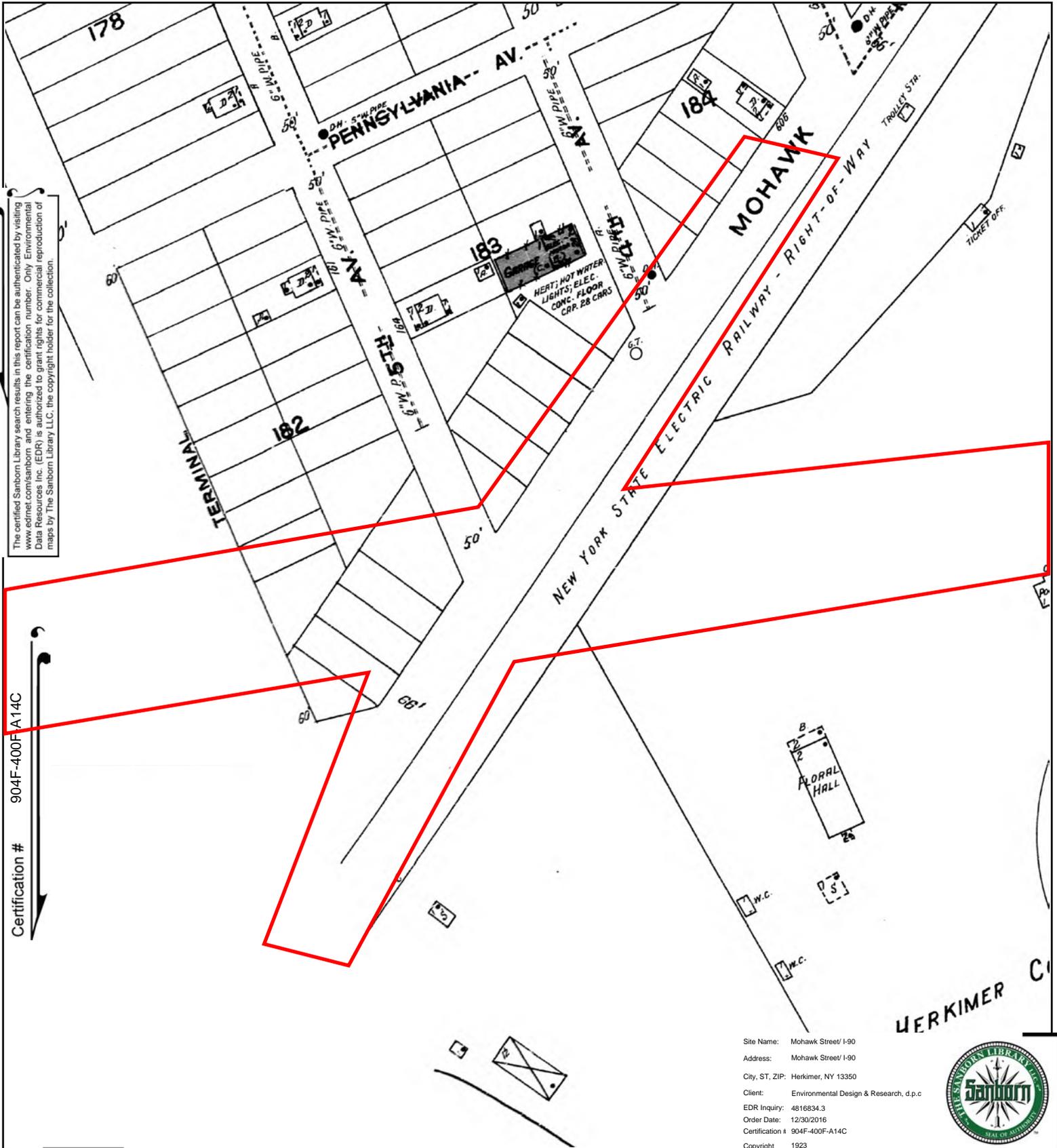


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Volume 1, Sheet 26





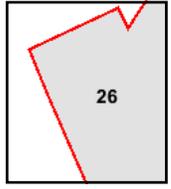
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Site Name: Mohawk Street/ I-90  
 Address: Mohawk Street/ I-90  
 City, ST, ZIP: Herkimer, NY 13350  
 Client: Environmental Design & Research, d.p.c  
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Volume 1, Sheet 26



## **Appendix D: Historic and Recent Aerial Photographs**

Mohawk Street/ I-90

Mohawk Street/ I-90

Herkimer, NY 13350

Inquiry Number: 4816834.5

December 30, 2016

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

**Site Name:**

Mohawk Street/ I-90  
 Mohawk Street/ I-90  
 Herkimer, NY 13350  
 EDR Inquiry # 4816834.5

**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
1995	1"=750'	Flight Date: May 08, 1995	USGS
1986	1"=500'	Flight Date: May 12, 1986	USGS
1982	1"=500'	Flight Date: April 28, 1982	USGS
1974	1"=750'	Flight Date: April 27, 1974	USGS
1959	1"=1000'	Flight Date: October 21, 1959	USGS
1956	1"=500'	Flight Date: October 13, 1956	USGS
1942	1"=500'	Flight Date: January 01, 1942	FirstSearch

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INQUIRY #: 4816834.5

YEAR: 2011

— = 500'





INQUIRY #: 4816834.5

YEAR: 2009

— = 500'





INQUIRY #: 4816834.5

YEAR: 2008

— = 500'





INQUIRY #: 4816834.5

YEAR: 2006

— = 500'





INQUIRY #: 4816834.5

YEAR: 1995

— = 750'





INQUIRY #: 4816834.5

YEAR: 1995

— = 500'





INQUIRY #: 4816834.5

YEAR: 1986

— = 500'





INQUIRY #: 4816834.5

YEAR: 1982

— = 500'





INQUIRY #: 4816834.5

YEAR: 1974

— = 750'





INQUIRY #: 4816834.5

YEAR: 1959

— = 1000'





INQUIRY #: 4816834.5

YEAR: 1956

— = 500'





INQUIRY #: 4816834.5

YEAR: 1942

— = 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](http://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](mailto:tim.bradley@stantec.com)

RE: Wetland Delineation Letter Report  
MP 219.91, Mohawk Street, Herkimer, Herkimer County, New York  
(BIN 1020079)  
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 overpass of the New York State Thruway (I-90) and Mohawk Street in the Town of Herkimer, Herkimer 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, one large NWI mapped wetland is mapped approximately 170 feet west of the Study Area. Similarly, a portion of the Mohawk River (a NYSDEC Class B protected stream) is mapped approximately 75 feet south of the Study Area (Figure 3).

#### Field Visit and Methodology

On November 2, 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 and other waters (i.e., a stream) are present within the Study Area. These include one perennial stream (R3), the Mohawk River (a NYSDEC Class B protected stream) located in the southern portion of the Study Area, and one palustrine emergent (PEM) wetland associated with the Mohawk River located in the western portion of the Study Area. The PEM wetland is characterized by soil saturation as well as hydrophytic vegetation including common reed (*Phragmites australis*) and canary reed grass (*Phalaris arundinacea*). Vegetation observations will need to be confirmed during the growing season if the wetlands may be disturbed. The wetlands and streams are listed below in Table 1 and locations of each wetland and stream 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 visit, 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, it is EDR’s opinion that the network of roadside ditches found throughout the Study Area are not jurisdictional (subject to USACE concurrence).

**Table 1. Delineated Wetlands and Streams**

Wetland/Stream ID	Community Type	Area <sup>1</sup>	Federal Jurisdiction <sup>2</sup>	State Jurisdiction <sup>2</sup>
Wetland A	PEM	0.06	Yes	No
Stream 1	R3	172	Yes	Yes – Article 15

<sup>1</sup> Area is expressed in acres, streams are expressed in feet, and both are specific to the Study Area only.

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

Conclusion

EDR delineated one PEM wetland and one perennial stream within the Study Area. The PEM wetland was identified based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology and totals approximately 0.06 acre within the Study Area. Portions of the Mohawk River were also delineated as Stream 1, which is a NYSDEC Class B protected stream. The Mohawk River totals approximately 172 linear feet within the Study Area.

The PEM wetland appears to have surface water connection to the adjacent Mohawk River, and therefore is likely to be considered jurisdictional by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Due to the distance from the nearest NYSDEC regulated wetland (approximately 1-mile) and lack of hydrologic or significant habitat connectivity, in EDR's opinion this wetland should not be regulated under Article 24 of the Environmental Conservation Law. Additionally, the Mohawk River is expected to be regulated by the NYSDEC under Article 15 of the Environmental Conservation Law. However, final determination of the jurisdictional status of all wetlands must be made by the USACE and NYSDEC.

If wetlands may be impacted by proposed Project construction, EDR will confirm wetland boundaries and collect wetland data in the spring of 2017 prior to mowing and maintenance activities when vegetation can be identified.

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](mailto: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. Project Site
- Figure 3. Mapped Wetlands and Streams
- Figure 4. Delineated Wetlands
- Photos of Representative Wetland and Stream 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 Herkimer, Herkimer County, New York

**Figure 1. Regional Project Location - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

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.



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## Replacement of Syracuse Division Bridges

Town of Herkimer,  
Herkimer County, New York

**Figure 2. Study Area - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

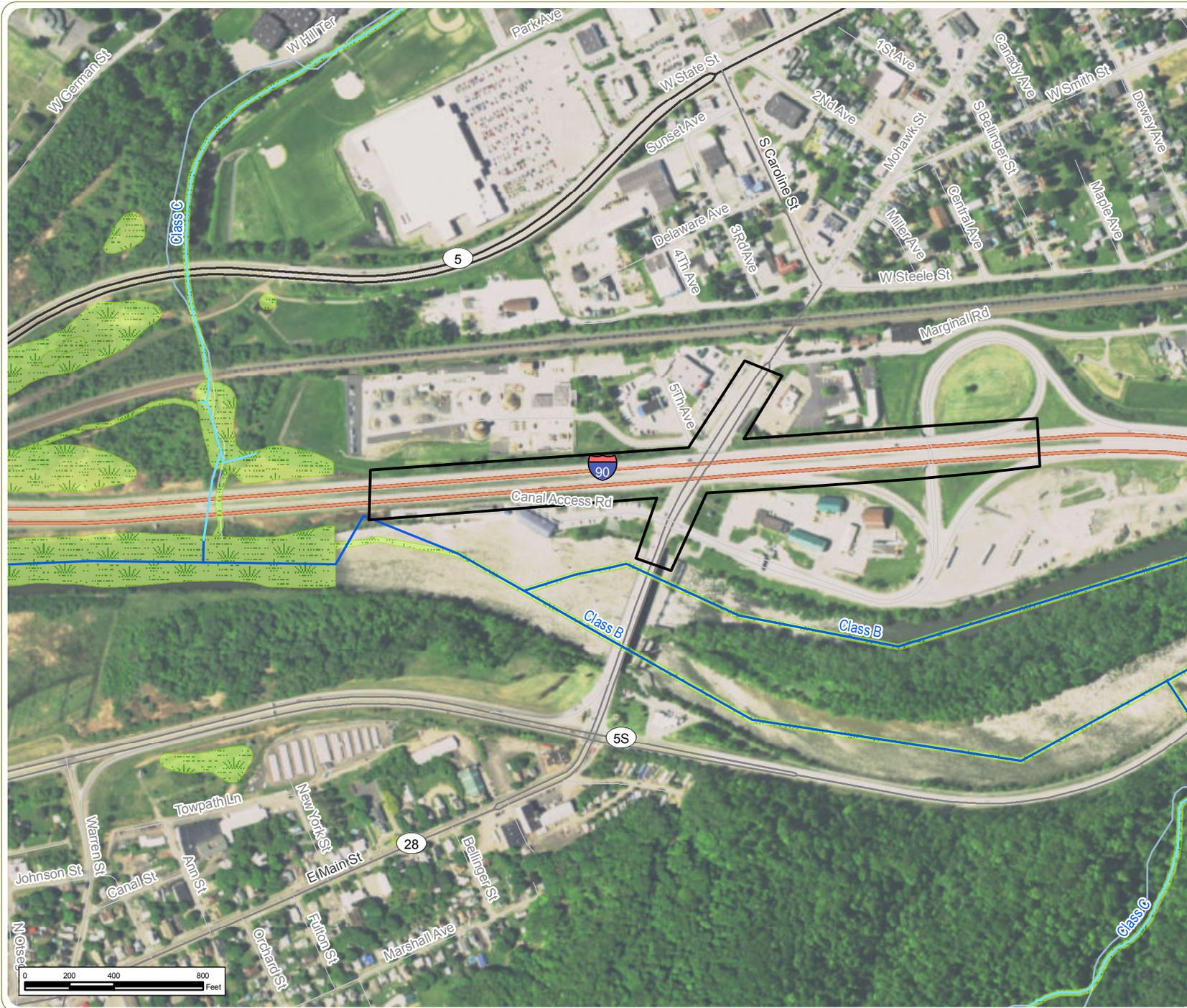
February 2017

 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 Herkimer,  
Herkimer County, New York

**Figure 3. Mapped Wetlands and Streams - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

February 2017

- Study Area
- NWSI Wetland
- NYSDEC Stream Classification**
- NYS Protected Stream
- Unprotected Stream

**Notes:**  
 1. Basemap: ESRI ArcGIS 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 Herkimer,  
Herkimer County, New York

**Figure 4. Delineated Wetland and Streams - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

February 2017

-  Study Area
-  Delineated Wetland
-  Delineated Stream
-  Wetland Continues

**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 Herkimer,  
Herkimer County, New York

**Site Photograph Locations - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

February 2017

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

**Notes:**  
 1. Basemap: USDA National Agriculture Imagery Program "New York 2015" Map Service.  
 2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





Photo 1

Wetland A, view to the east.



Photo 2

Wetland A, view to the southwest.

## Replacement of Syracuse Division Bridges

Town of Herkimer, Herkimer County, New York

Site Photographs - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)

Sheet 1 of 2



**Photo 2**

Stream 1, Mohawk River,  
view to the south.

**Replacement of Syracuse Division Bridges**

Town of Herkimer, Herkimer County, New York

**Site Photographs - Mohawk Street, Herkimer NY, MP 219.91 (BIN 1020079)**

Sheet 2 of 2



# 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](http://www.fws.gov/northeast/nyfo/es/section7.htm)

Consultation Code: 05E1NY00-2017-SLI-0229

November 07, 2016

Event Code: 05E1NY00-2017-E-00599

Project Name: NYSTA MP 219.19 Mohawk Street

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](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 MP 219.19 Mohawk Street

## 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-0229

**Event Code:** 05E1NY00-2017-E-00599

**Project Type:** BRIDGE CONSTRUCTION / MAINTENANCE

**Project Name:** NYSTA MP 219.19 Mohawk Street

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

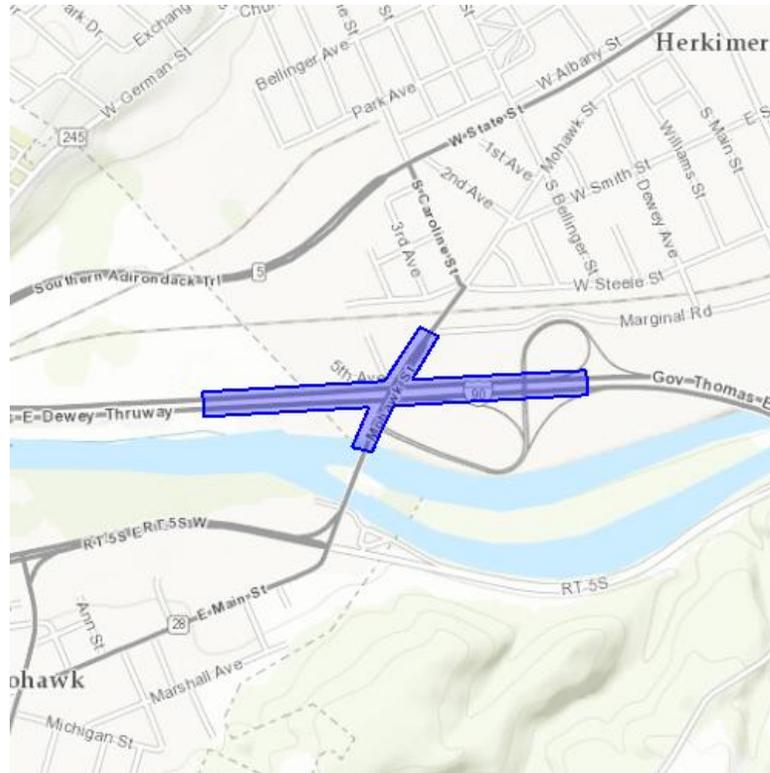
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior  
Fish and Wildlife Service

Project name: NYSTA MP 219.19 Mohawk Street

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-74.99894142150879 43.01768576334188, -74.99366283416748 43.017905403769184, -74.99261140823364 43.01905065898274, -74.99208569526672 43.01886239931882, -74.99284744262694 43.01793678090892, -74.9877941608429 43.01814073192659, -74.98776197433472 43.01761516446626, -74.99340534210205 43.017371989940045, -74.99370574951172 43.01694054889454, -74.99401688575745 43.01639143772513, -74.99459624290466 43.016493415885, -74.9940812587738 43.01736414558445, -74.99888777732849 43.0171601919874, -74.99894142150879 43.01768576334188)))

**Project Counties:** Herkimer, NY



United States Department of Interior  
Fish and Wildlife Service

Project name: NYSTA MP 219.19 Mohawk Street

## 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 MP 219.19 Mohawk Street

## **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, 5<sup>th</sup> Floor, Albany, New York 12233-4757  
**Phone:** (518) 402-8935 • **Fax:** (518) 402-8925  
**Website:** [www.dec.ny.gov](http://www.dec.ny.gov)



December 14, 2016

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

Re: NYSTA MP 219.91, New York State Thruway Bridge over Mohawk Street, BIN 1020079,  
EDR No. 16134-1

Town/City: Herkimer. County: Herkimer.

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.

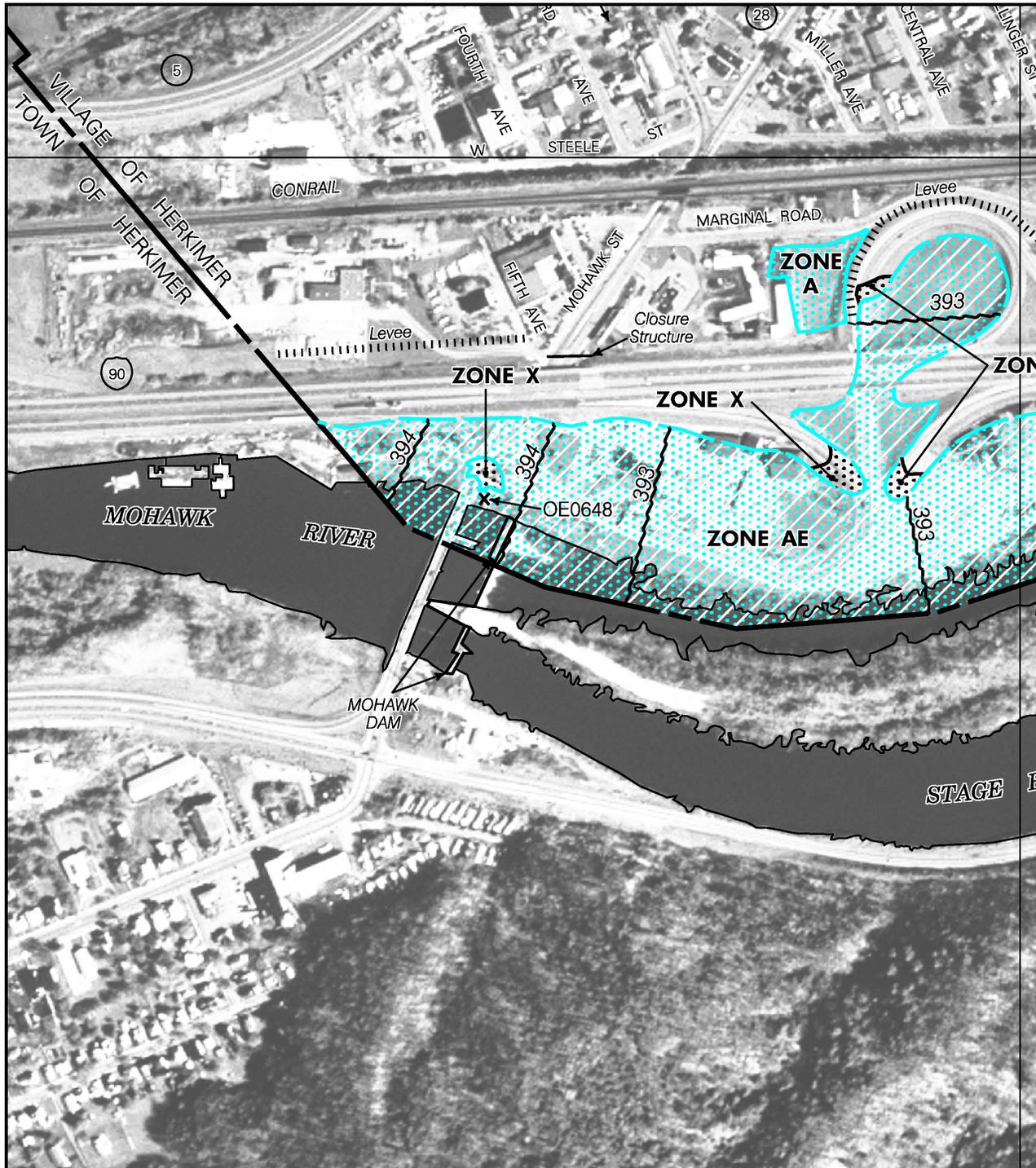
The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive 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](http://www.dec.ny.gov/about/39381.html).

Sincerely,

A handwritten signature in black ink that reads "Nick Conrad". The signature is written in a cursive, slightly slanted style.

Nicholas Conrad  
Information Resources Coordinator  
New York Natural Heritage Program



onal Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

NFP  
 NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0004 C

**FIRM**  
**FLOOD INSURANCE RATE MAP**

VILLAGE OF  
 HERKIMER,  
 NEW YORK  
 HERKIMER COUNTY

**PANEL 4 OF 5**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
HERKIMER, VILLAGE OF	360307	0004	C

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**  
 3603070004 C

**MAP REVISED**  
 JUNE 17, 2002

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](http://www.msc.fema.gov)

## **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: I-90 over Mohawk Street

Location of Project: Villiage of Herkimer

Brief Description: The replacement of the I-90 bridge over Mohawk Street.

### 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 Mohawk Street

#### 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](http://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 Herkimer.

## 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:

NYSDOT 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: 1020079**  
**DESCRIPTION: I-90 EB&WB Over Mohawk Street**  
**MUNICIPALITY/COUNTY: Herkimer**  
**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.*

<b>1.</b>	Is there an existing or planned sidewalk, trail, or pedestrian crossing facility? <b>Comments: There are no pedestrians permitted on I-90 EB&amp;WB however there are existing sidewalks on both sides of Mohawk Street below the bridge.</b>	<b>YES</b> <input checked="" type="checkbox"/> <b>NO</b> <input type="checkbox"/>
<b>2.</b>	Are there bus stops, transit stations or depots/terminals located in or within 800m of the project area? <b>Comments: The Herkimer ARC Transportation depot is off of Fifth Avenue which meet Mohawk Street adjacent to the bridge.</b>	<b>YES</b> <input checked="" type="checkbox"/> <b>NO</b> <input type="checkbox"/>
<b>3.</b>	Is there more than occasional pedestrian activity? Evidence of pedestrian activity may include a worn path. <b>Comments:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/>
<b>4.</b>	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? <b>Comments: There are restaurants on Mohawk Street both north and south of the bridge. There is a canal access location off of Mohawk Street south of the bridge.</b>	<b>YES</b> <input checked="" type="checkbox"/> <b>NO</b> <input type="checkbox"/>
<b>5.</b>	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? <b>Comments:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input checked="" type="checkbox"/>
<b>6.</b>	Is the project located in a residential area within 800m of existing or planned pedestrian generators such as those listed in #4? <b>Comments:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input checked="" type="checkbox"/>
<b>7.</b>	From record plans, were pedestrian facilities removed during a previous highway reconstruction project? <b>Comments:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input checked="" type="checkbox"/>
<b>8.</b>	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? <b>Comments: N/A</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/>
<b>9.</b>	Does the community=s comprehensive plan call for development of pedestrian facilities in the area? <b>Comments:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input checked="" type="checkbox"/>
<b>10.</b>	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. <b>Comments:</b>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <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**

**BIN:** 1020079                      **MP:** 219.91  
**Region:** 2                                **County:** 3 HERKIMER  
**Feature Carried:** 90IX  
**Feature Crossed:** Mohawk St. (NYS Route 28)  
**General Recommendation:** 4  
**Condition Rating:** 3.78  
**Inspect Date:** 10/2/2015



**New York State Thruway Authority - Bridge Inspection Report**

# 2015 INSPECTION

<b>FLAGS</b>	<input type="checkbox"/> RED	<input checked="" type="checkbox"/> YELLOW	<input 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:

\_\_\_\_ RED FLAG   
GM YELLOW FLAG   
\_\_\_\_ SAFETY FLAG

FLAG NUMBER: 15-078  
SUPERSEDED FLAG(S): \_\_\_\_\_  
INSPECTOR: Glenford Mullings  
DATE OF INSPECTION: 10/15/2015

CURRENT FLAG INDICATOR: **ACTIVE**

PROMPT INTERIM ACTION RECOMMENDED: \_\_\_\_\_ YES X NO

BRIDGE DESCRIPTION:

MP: 219.91 BIN: 1020079  
REGION: 2 COUNTY: 3 (HERKIMER) TOWN: Herkimer  
FEATURES: CARRIED: 90IX CROSSED: Mohawk St. (NYS Route 28)  
NUMBER OF SPANS BY TYPE: 2 Spans - Steel Multi-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) :

All 36 Span 1 and Span 2 bearings at Pier 1 are high steel rockers.  
  
At the Span 2 bearing for girder G5, the rocker can be rocked slightly by hand, indicating that the girder does not transfer any load (reaction force) to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis by light hammer blows.  
  
No vertical movement of the girder end is noted to indicate that the bearing's sole plate engages the rocker (via the pin) and transfers any load during truck/live load passage.  
  
With girder G5 not transmitting its reaction force to its bearing, said force is re-distributed to the adjacent bearings via the adjacent girders. The additional load could result in the adjacent girders and bearings being overstressed, thus a YELLOW Structural Flag is issued.  
  
The Span 1 bearing for girder G8 exhibits a similar condition as its pin and rocker are also loose.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES \_\_\_\_\_ NO IF YES, NUMBER ATTACHED: 2

FLAGGED BRIDGE REPORT COMPLETED BY: Glenford Mullings DATE: 10/5/2015

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

TO: \_\_\_\_\_ of Headquarters on \_\_\_\_\_  
TO: \_\_\_\_\_ (Responsible Party) on \_\_\_\_\_  
BY: \_\_\_\_\_

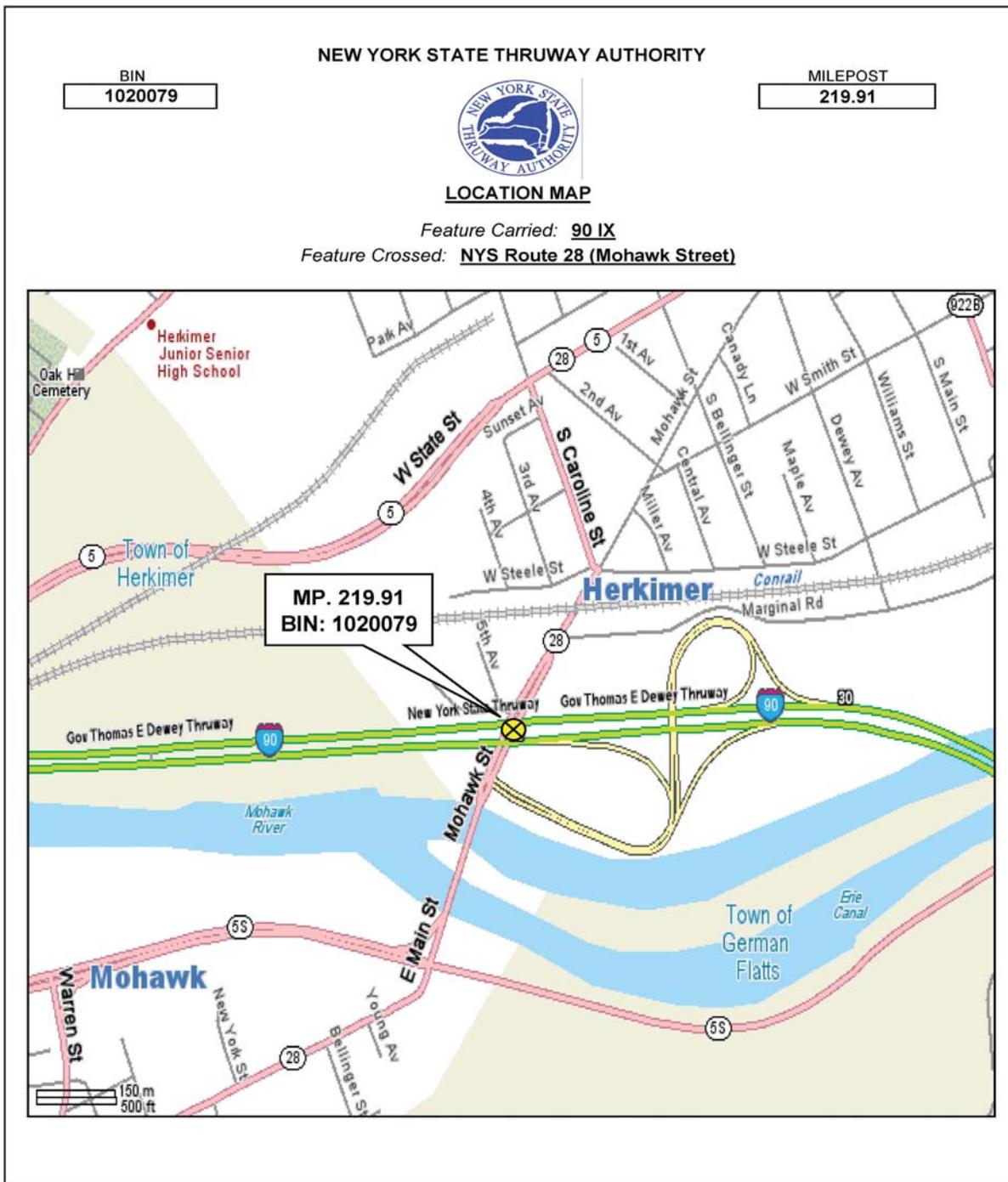
\* The appropriate caption in the upper left of this form shall be initialed by the individual who is the initialed

[Signature]  
Signature of Thruway Team Leader      10/05/2015  
Date:

<b>Location:</b>	219.91-350-33-00-15YSF.JPG	1
Pier 1 bearings at girder G5, Right side		
<b>Description:</b>		
Span 2 rocker can be rocked by hand, indicating that the girder does not transfer any reaction force to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis.		
<b>Reference:</b>		
FLAG #: 15-078		

<b>Location:</b>	219.91-350-33-01-15YSF.JPG	2
Pier 1 bearings at girder G8, Left side		
<b>Description:</b>		
Span 1 rocker can be rocked by hand, indicating that the girder does not transfer any reaction force to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis.		
<b>Reference:</b>		
FLAG #: 15-078		

**Sketch Type:** Location Map  
**File Name:** 219.91-10-00-15LOCMAP.jpg



# **INSPECTION**

NYS DEPT OF TRANSPORTATION  
BRIDGE INSPECTION REPORT

SHEET 1 OF 34

DATE: 

MO	DAY	YEAR
10	02	15
13	14	15
16	17	18

RC - BIN: 

1	2	3	4	5	6	7	8	9	
2	3	-	1	0	2	0	0	7	9

 MP: 219.91

TEAM LEADER: Glenford Mullings

Signature: 

P.E. NUMBER: 087786 STATE: NY

ASST. TEAM LEADER: Fady Gerges

RAMP BRIDGE ATTACHED TO SPAN: \_\_\_\_\_ BIN: \_\_\_\_\_

INSPECTION AGENCY: 

13	
19	20

 TYPE OF INSPECTION: 

1
21

 1-BIENNIAL 3- IN DEPTH 5- SPECIAL  
2- INTERIM 4- NONE (UNDER CONTRACT)

STATE HWY. NO: \_\_\_\_\_ MILEPOINT: \_\_\_\_\_ POLIT. UNIT: Herkimer

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: Mohawk St. (NYS Route 28)

TOTAL SPANS: 2 BRIDGE ORIENTED: West YEAR BUILT: 1954

BRIDGE TYPE: Steel Stringer/Multi-Beam or Girder AADT/YEAR 21708/2011

VERTICAL CLEARANCE AND LOAD POSTINGS	ON: <u>NOT POSTED</u>	Under: <u>NOT POSTED</u>	Loading: <u>NONE</u>	<table border="1"><tr><td>06</td><td>2</td></tr><tr><td>118</td><td>120</td></tr></table>	06	2	118	120															
	06	2																					
118	120																						
<table border="1"><tr><td>0</td><td>Ft</td><td>0</td><td>In</td></tr><tr><td>19</td><td>20</td><td>21</td><td>22</td></tr></table>	0	Ft	0	In	19	20	21	22	<table border="1"><tr><td></td><td>Ft</td><td></td><td>In</td></tr><tr><td>23</td><td>24</td><td>25</td><td>26</td></tr></table>		Ft		In	23	24	25	26	<table border="1"><tr><td></td><td>TONS</td></tr><tr><td>27</td><td>28</td></tr></table>		TONS	27	28	
0	Ft	0	In																				
19	20	21	22																				
	Ft		In																				
23	24	25	26																				
	TONS																						
27	28																						

ABUTMENTS:	Begin	End	WINGWALLS:	Begin	End	APPROACHES:								
Joint with deck	<table border="1"><tr><td>3</td></tr><tr><td>22</td></tr></table>	3	22	<table border="1"><tr><td>3</td></tr><tr><td>23</td></tr></table>	3	23	Walls	<table border="1"><tr><td>4</td></tr><tr><td>40</td></tr></table>	4	40	<table border="1"><tr><td>4</td></tr><tr><td>41</td></tr></table>	4	41	Drainage
3														
22														
3														
23														
4														
40														
4														
41														
Bearings, anchors bolts, pad	<table border="1"><tr><td>3</td></tr><tr><td>24</td></tr></table>	3	24	<table border="1"><tr><td>3</td></tr><tr><td>25</td></tr></table>	3	25	Footings	<table border="1"><tr><td>9</td></tr><tr><td>42</td></tr></table>	9	42	<table border="1"><tr><td>9</td></tr><tr><td>43</td></tr></table>	9	43	Embankment
3														
24														
3														
25														
9														
42														
9														
43														
Bridge seat and pedestals	<table border="1"><tr><td>5</td></tr><tr><td>26</td></tr></table>	5	26	<table border="1"><tr><td>3</td></tr><tr><td>27</td></tr></table>	3	27	Erosion or scour	<table border="1"><tr><td>6</td></tr><tr><td>44</td></tr></table>	6	44	<table border="1"><tr><td>6</td></tr><tr><td>45</td></tr></table>	6	45	Settlement
5														
26														
3														
27														
6														
44														
6														
45														
Backwall	<table border="1"><tr><td>4</td></tr><tr><td>28</td></tr></table>	4	28	<table border="1"><tr><td>4</td></tr><tr><td>29</td></tr></table>	4	29	Piles	<table border="1"><tr><td>9</td></tr><tr><td>46</td></tr></table>	9	46	<table border="1"><tr><td>9</td></tr><tr><td>47</td></tr></table>	9	47	Erosion
4														
28														
4														
29														
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46														
9														
47														
Stem (breastwall)	<table border="1"><tr><td>5</td></tr><tr><td>30</td></tr></table>	5	30	<table border="1"><tr><td>4</td></tr><tr><td>31</td></tr></table>	4	31	<b>STREAM CHANNEL:</b> Stream Alignment <table border="1"><tr><td>8</td></tr><tr><td>48</td></tr></table>		8	48	Pavement			
5														
30														
4														
31														
8														
48														
Erosion or scour	<table border="1"><tr><td>7</td></tr><tr><td>32</td></tr></table>	7	32	<table border="1"><tr><td>7</td></tr><tr><td>33</td></tr></table>	7	33	Erosion And Scour	<table border="1"><tr><td>8</td></tr><tr><td>49</td></tr></table>	8	49	Guide Railing			
7														
32														
7														
33														
8														
49														
Footings	<table border="1"><tr><td>9</td></tr><tr><td>34</td></tr></table>	9	34	<table border="1"><tr><td>9</td></tr><tr><td>35</td></tr></table>	9	35	Waterway Opening	<table border="1"><tr><td>8</td></tr><tr><td>50</td></tr></table>	8	50	GENERAL RECOMMEND <table border="1"><tr><td>4</td></tr><tr><td>60</td></tr></table>	4	60	
9														
34														
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35														
8														
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Piles	<table border="1"><tr><td>9</td></tr><tr><td>36</td></tr></table>	9	36	<table border="1"><tr><td>9</td></tr><tr><td>37</td></tr></table>	9	37	Bank Protection	<table border="1"><tr><td>8</td></tr><tr><td>51</td></tr></table>	8	51				
9														
36														
9														
37														
8														
51														
Recommendation	<table border="1"><tr><td>5</td></tr><tr><td>38</td></tr></table>	5	38	<table border="1"><tr><td>4</td></tr><tr><td>39</td></tr></table>	4	39								
5														
38														
4														
39														

**ACCESS CATEGORY:**

- Walk-Up
- Lane Close Shad
- Step Ladder
- Extension Ladder
- Lift Small (<= 30 ft.)

**FLAG ISSUED?**

- NONE:
- YELLOW:
- RED:
- SAFETY:

**BRIEF REASON**

\_\_\_\_\_

\_\_\_\_\_ No contact between girder and bearing at Pier.

\_\_\_\_\_

\_\_\_\_\_

**Vulnerability Reassessment Review Recommended?**

HYD	OVL	STL	COL	CON	SMC	1 = YES 2 = NO 3 = NA X = NOT USED THIS CYCLE						
<table border="1"><tr><td>3</td></tr></table>	3	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>1</td></tr></table>	1	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>X</td></tr></table>	X	<table border="1"><tr><td>X</td></tr></table>	X	
3												
X												
1												
X												
X												
X												
65					70							

REVIEWED BY:	
	Garret Hoffmann
P.E. NUMBER:	<u>70686</u>
DATE:	<u>11/16/2015</u>

RC - BIN: 

2	3	-	1	0	2	0	0	7	9
1	2		3	4	5	6	7	8	9

NYS DEPT OF TRANSPORTATION  
BRIDGE INSPECTION REPORT

SHEET 2 OF 34

TEAM LEADER: Glenford Mullings

ASST. TEAM LEADER: Fady Gerges

DATE: 

MO	DAY	YEAR
10	02	15
13	14	15
16	17	18

OTHERS: NYSTA Maintenance - WZTC

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: Mohawk St. (NYS Route 28)

SPAN NO.	DECK ELEMENTS						SUPERSTRUCTURE						PIER						UTILITIES										
	Wearing surface	Curbs	Sidewalk & Fascias	Railings & Parapets	Scuppers	Gratings	Median	MONO Deck Surface	Deck Structural	Primary Members	Secondary Members	Paint	Joints	Recommendation	Bigs. Anchor Bolts, Pads	Pedestals	Top of Pier CapBeam	Stem Solid Pier	Capbeam	Pier Columns	Footings	Erosion or Scour	Piles	Recommendation	Lighting Standards and Fixtures	Sign Structures	Utilities and Utilities Supports		
10	11	12	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
0	0	1	5	4	4	4	8	8	5	8	4	4	5	4	3	4	3	5	4	8	3	3	9	7	9	3	8	8	8
0	0	2	5	3	4	4	8	8	5	8	4	4	5	4	8	4	8	8	8	8	8	8	8	8	8	8	8	5	8

DIVING INSPECTION REQUIRED?  Yes  No If yes, indicate year of last diving inspection.

SPECIAL EMPHASIS INSPECTION REQUIRED:  Yes  No If yes, indicate type below

- NON-REDUNDANT/FRACTURE CRITICAL
- PIN AND HANGERS
- FATIGUE-PRONE WELDS (AASHTO D, E, OR E')  Spans 1 & 2: Partial length cover plates
- NON-CATEGORIZED FATIGUE-PRONE DETAILS  Spans 1 & 2: Out-of-plane bending and jacking stiffener welds
- OTHERS (SPECIFY) Web Loss; Impact Damage  Sp. 1 & 2: G1, G18 web sect. loss at Pier; Sp. 1: Imp. damage G1, G2

RECOMMEND FURTHER INVESTIGATION  1 = NO  2 = YES REMARKS

DATE	TIME OF ARRIVAL	TIME OF DEPARTURE	TEMP (F/C)	WEATHER CONDITIONS / ACCESS EQUIPMENT	Field Notes
09/30/2015	2:00:00 pm	5:00:00 pm	63/17	Cloudy	Walking
10/01/2015	6:45:00 am	5:30:00 pm	55/13	Cloudy	Walking, Scissor Lift Truck, Lane Closure, Shadow Vehicle w/Impact Attenuator
10/02/2015	6:45:00 am	2:30:00 pm	48/9	Cloudy	Walking, Scissor Lift Truck, Lane Closure, Shadow Vehicle w/Impact Attenuator

# FEDERAL RATING FORM

NYS DEPT OF TRANSPORTATION  
BRIDGE INSPECTION REPORT

MP: 219.91

RC - BIN: 

1	2	3	4	5	6	7	8	9	
2	3	-	1	0	2	0	0	7	9

SHEET 3 OF 34

TEAM LEADER: Glenford Mullings

DATE: 

MO	DAY	YEAR
10	02	15
13 14	15 16	17 18

ASST. TEAM LEADER: Fady Gerges

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: Mohawk St. (NYS Route 28)

Description	Deck	Superstructure	Substructure	Channel	Culvert
Fed. Item #	58	59	60	61	62
RATING	5	4	4	N	N
	19	20	21	22	23

Notes:

- 1) See attached explanations for Federal Item Nos. a) 58- Deck, 59- Superstructure, 60- Substructure; b) 61- Channel and Channel Protection; c) 62- Culverts.
  
- 2) Item Nos. 58, 59, and 60 shall be coded N for all culverts.
  
- 3) A rating or an N must be entered for all Federal Items. Blanks are not acceptable.

INSPECTED BY: Glenford Mullings TITLE: Prudent Engineering, Team Leader

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: Mohawk St. (NYS Route 28)

**BRIDGE INSPECTION AND CONDITION REPORT**  
**SUPPLEMENTARY INSPECTION ACTIVITIES**

<b>BIN PLATE LOCATION/ CONDITION</b>	<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input type="checkbox"/> Damaged/Defaced <input type="checkbox"/> End Abutment <input checked="" type="checkbox"/> Begin Abutment
	Face of stem in Bay 17.
<b>FLOOD ELEVATION MARKINGS</b>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input type="checkbox"/> Damaged/Illegible (decribed below)
<b>ELECTRICAL</b>	<input checked="" type="checkbox"/> Class A (Caution) <input type="checkbox"/> Class B (Warning) <input type="checkbox"/> Class C (Danger)
<b>SPECIAL EMPHASIS</b>	<input type="checkbox"/> Not Required <input checked="" type="checkbox"/> A 100% Hands-On Inspection                    Given To: See below
	<input checked="" type="checkbox"/> No Defects Found <input type="checkbox"/> Defects Described Below
<b>UPGRADES REPORT</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Minor (see below) <input type="checkbox"/> Major Rehab (see below)                    (Contract #:                      )

The following work was completed (explain to the right of any item checked: repaired, replaced, begin, end, left, right, etc.

- |  |   |
|--|---|
| <input type="checkbox"/> Superstructure  | <input type="checkbox"/> Curb, Sidewalk, Fascia |
| <input type="checkbox"/> Deck            | <input type="checkbox"/> Bridge Rail            |
| <input type="checkbox"/> Wearing Surface | <input type="checkbox"/> Approach Rail          |
| <input type="checkbox"/> Appr. Pavement  | <input type="checkbox"/> Signage                |
| <input type="checkbox"/> Substructure    | <input type="checkbox"/> Other (explain below)  |

**GENERAL COMMENTS/UNUSUAL CONDITIONS:**     Unusual Conditions (explain below)

**SPECIAL EMPHASIS:**

- Welds at ends of partial length cover plates in Spans 1 and 2.
- Girders are susceptible to out-of-plane bending at diaphragm connections to girder webs, skew angle is 38 degrees, staggered diaphragms, web gaps < 4Tw, web thickness = 0.580", AADT= 21,708
- Field welded jacking stiffeners in tension zones of Spans 1 and 2.
- Per NYSDOT BIM, Appendix C, web loss greater than 25% on G1 & G18, in Spans 1 & 2, over the pier.
- Impact damage to bottom flanges of girders G1 & G2 in Span 1.

INSPECTED BY: Glenford Mullings TITLE: Prudent Engineering, Team Leader

FEATURE(S) CARRIED: 90IX

FEATURE(S) CROSSED: Mohawk St. (NYS Route 28)

BRIDGE INSPECTION MPT REQUIREMENTS

Instructions: Circle Thruway direction, then check yes or no for each lane/shoulder closure.  
Comment on reason for each closure. Examples: cover plates, impact damage, etc.

EAST BOUND	LANE CLOSURE			
Driving lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Driving lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Center lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:
Mall lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Mall lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Ramp lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:

WEST BOUND	LANE CLOSURE			
Driving lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Driving lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Center lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:
Mall lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Mall lane shoulder	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
Ramp lane	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:

**NOTES:**

No lane closures are needed on the Thruway.

WZTC on Mohawk Street provided by NYSTA. Lanes were taken for Special Emphasis and pier inspection.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

**22 Joint With Deck (Begin)**

The Begin joint is paved over with asphalt. 3      4      1, 2, 3, 4

On the Eastbound side, the asphalt has a reflective transverse crack, up to ¼ in. wide, across the travel lanes and the shoulders.

Similarly, the asphalt over the joint on the Westbound side has transverse cracking, up to ½ in. wide, across the travel lanes and shoulders. The cracks are tar-sealed across the travel lanes.

Below deck, active moderate joint leakage is noted on the backwall and bridge seat, in Bays 8 through 16.

Rating reduced from '4' to '3' due to the leakage noted below deck.

**23 Joint With Deck (End)**

The End joint is paved over with asphalt, which is also sawcut and tar-sealed along the joint. 3      4      5, 6, 7, 8

On the Eastbound side, there is an 18 in. wide band of transverse cracking, up to ¼ in. wide, across the Ramp and Passing lanes. Some of the cracks are tar-sealed.

Similarly, the asphalt over the joint on the Westbound side has a 12 in. wide band of transverse cracking, up to ¼ in. wide, across the Ramp and Passing lanes.

Below deck, active moderate joint leakage is noted on the backwall and bridge seat, in Bays 1 through 15.

In the Left fascia overhang, the concrete joint header/deck is severely spalled with exposed and debonded severely corroded reinforcing bars. The spall measures 1 ft. L x 1½ ft. W x 6 in. deep and the concrete within is damp and crumbly with heavy efflorescence stains.

Rating reduced from '4' to '3' due to the leakage noted below deck.

**24 Bearings, Anchor Bolts, Pads (Begin)**

The fixed Begin abutment bearings are comprised of steel sole plates with concave bearing area to allow rotation. 3      3      9, 10, 11

All 18 bearings exhibit varying degrees of corrosion on the sole and masonry plates, as well as the anchor nuts/bolts. The worst corroded bearings are at girders G1, G2, and G3.

The heavy corrosion on the worst bearings may inhibit normal girder end rotation.

Rating remains '3'.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

**25 Bearings, Anchor Bolts, Pads (End)**

The fixed End abutment bearings are comprised of steel sole plates with concave bearing area to allow rotation. 3      3      12, 13, 14

All 18 bearings exhibit varying degrees of corrosion on the sole and masonry plates, as well as the anchor nuts/bolts.

The heavy corrosion on the worst bearings may inhibit normal girder end rotation.

In addition to being heavily corroded, the 2' x 10" x 1¾" masonry plate of the bearing for the Left fascia girder G1 is undermined up to 1¾ in. (avg.) deep along its entire Left edge due to spalling of the concrete pedestal. As a result, the bearing has lost approximately 7% of its bearing area and the anchor bolt is exposed, exhibiting moderate corrosion.

At the bearing for girder G17, the sole plate is not fully seated on the curved bearing surface. The girder appears to be rotated counterclockwise, creating a ¾ in. gap between the sole plate and the bearing surface at the Right side. The sole plate is still in contact with the bearing surface at the Left side. This condition is unchanged since 2009 and no signs of distress or excessive movement are noted.

Rating remains '3'.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

**27 Bridge Seat and Pedestals (End)**

PEDESTALS: 3      3      12, 15, 16,  
17, 18, 19  
The raised pedestals exhibit the following deterioration:

At the Left fascia girder G1, the Left side of the pedestal is spalled, 2 ft. L x 1 ft. H x 4 in. D, exposing the bearing's moderately corroded anchor bolt and undermining the bearing's masonry plate by 1¾ in. The bearing has lost 7% of its bearing area as a result.

At G2, there is a 1/8 in. wide crack that runs along the full height of the Begin-Left corner and extends to the Left anchor bolt. The Begin face of said pedestal has a 1 ft. L x 6 in. H x 1½ in. D spall along the top edge, but no reinforcement is exposed. The remainder of the Begin face is 100% delaminated.

**SEAT:**

The bridge seat (between the pedestals) has been sealed/coated in the past. The seal has now dried out, cracked and debonded from the concrete surface, but remain in place. Joint leakage seeps between the cracks and remains trapped between the flat horizontal concrete surface of the seat and coating.

The constant moisture exacerbates the deterioration of the bridge seat as follows:

Bay 1 has a 4½ ft. L x 6 in. W x 3 in. D spall along the front edge, adjacent to the pedestal for girder G2. This spall is an extension of the large spall on the front face of the stem.

Bay 2 has a 2½ ft. L x 6 in. W x 3 in. D spall along the front edge, near mid-bay. The spall extends down the face of the stem 6 in. The remainder of the seat exhibits heavy scaling and debris accumulation in the areas where the seal material is missing.

Bay 3 has a 4 ft. L x 6 in. H delamination along the front edge of the vertical face. The remainder of the seat exhibits widespread heavy scaling.

Bays 4 and 5 each has a crack, up to ¼ in. wide, along the full length (7½ ft.) of the front edge. The adjacent area on the front face of the stem is delaminated 2½ ft. high.

Bay 7 has a 2 ft. L x 1 ft. W x 2 in. D spall along the front edge, adjacent to the pedestal for girder G8. The spall extends down the face of the stem 1 ft. The debonded seal material is entirely removed from Bay 7 to reveal heavy scaling on the remainder of the seat surface.

Bay 9 has moderate debris accumulation which further contributes to moisture retention.

Bay 12 has a 4 ft. L x 6 in. W area of cracked and delaminated concrete along the front edge, near mid-bay. The delamination extends down the face of the stem 1 ft.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

**27 Bridge Seat and Pedestals (End)**

Bay 17 has a 4½ ft. L x 6 in. W delamination along the front edge, adjacent to the pedestal for girder G17. The delamination extends down the face of the stem 2 ft.

Rating remains '3'.

**28 Backwall (Begin)**

The Begin backwall exhibits the following deterioration: 4      4      20

In Bay 14, there is a 2½ ft. H x 1 ft. W area of cracked and delaminated concrete with dampness and efflorescence stains behind girder G15.

In Bay 16, the backwall has a 2 ½ ft. H x 8 ft. W area of cracked and delaminated concrete, including some shallow spalling along the edges. The spalled areas exhibit moderate efflorescence and rust stains.

The remaining 15 bays are in better condition and would rate '5'.

Rating remains '4'.

**29 Backwall (End)**

The End backwall exhibits the following deterioration: 4      4      7, 21, 22

In the Left fascia bay, there is a 1½ ft. H x 3½ ft. W x 6 in. D spall with 4 exposed, moderately corroded reinforcing bars along the top. The concrete within the spall is damp and crumbly, and has moderate efflorescence stains.

In Bay 1, there is widespread moderate scaling, up to ½ in. deep, due to joint leakage. The top of the backwall exhibits moderate edge spalling.

In Bay 9, there is an 8 in. H x 1½ ft. W x 9 in. D spall along the top edge, to the Left of the median joint. Heavy joint leakage is noted at this spall.

The remaining 15 bays are in better condition and would rate '5'.

Rating remains '4'.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

**31 Stem (Breastwall) (End)**

The End stem exhibits numerous large (5 SF to 25 SF) delaminations and small to medium spalls scattered throughout. 4      4      17, 23, 24, 25

The most severe spall is located at the top of Bay 1 and measures 6 ft. H x 4½ ft. W x 3 in. D with 7 exposed, partially debonded reinforcing bars (4 vertical, 3 horizontal). Below the spall, there is a 4½ ft. H x 2 ft. W delamination.

At Bay 4, there is a 2½ ft. H x 7½ ft. W delamination at the top, but no spalling.

At the Right side of Bay 17, there is a 19 SF area of delaminated cover concrete that has several small spalls.

The spalls and delaminations represent approximately 15% of the total stem area.

Rating remains '4'.

**40 Walls (Begin)**

The Begin wingwalls are the U-wall type with bridge railing posts anchored into their top faces. 4      4      26

The Begin-Left U-wall has an 18 ft. long spall, up to 10 in. wide x 3 in. deep, along the top, adjacent to the granite curb. The spall is between the 1st 3 "bridge" railing posts, past the Begin joint. The majority of the spall is filled in with roadway debris/sand.

At the 2nd post (from the Begin joint), the spalling extends across the entire 21 in. wingwall thickness for a 4½ ft. length. The spall depth increases to 4 in. and undermines the post's base plate, exposing all 3 anchor bolts.

Near the end of the wall, there is a 2 SF x 1 in. deep spall on the top face.

The Begin-Right U-wall has a 10 ft. long section of spalling, up to 10 in. wide x 2 in. deep, along the top, adjacent to the granite curb. The spalling is between the 1st 2 "bridge" railing posts, past the Begin joint. The majority of the spall is filled in with roadway debris/sand.

Near the Begin joint, there is a 5 SF x 1 in. deep spall on the top outer edge.

At the end of the wall, there is a 1½ ft. L x 8 in. H x 3 in. D spall that undermines the base plate of the last railing post.

Rating remains '4'.

RATING FORM: TP349				
ITEM:	TITLE:	RATINGS		
	REMARKS:	NEW:	PRE:	PHOTO #:

**41 Walls (End)**

The End wingwalls are the U-wall type with bridge railing posts anchored into their top faces. 4      4      27, 28

The End-Left U-wall has a 2½ ft. H x 5 in. W x 9 in. D spall with 1 exposed vertical reinforcing bar along the Right vertical edge of the Begin face, adjacent to the backwall.

At the 2nd railing post (from the End joint), there is a 4½ ft. L x 10 in. W x 2 in. D spall along the top, adjacent to the granite curb. This spall undermines the post's base plate and exposes 2 of the 3 anchor bolts.

The End-Right U-wall has intermittent spalling, up to 10 in. wide x 2 in. deep, along the top surface, adjacent to the granite curb for the entire length of the wall.

At the 3rd and 4th railing posts there is approximately 8 ft. of spalling, up to 2 in. deep, along the top outer edge. The spall extends across the top surface by 8 in and down the vertical face by 10½ in. Similar spalling, 9½ ft. L x 10½ in. H x 5 in. D, with 1 exposed, moderately corroded horizontal reinforcing bar exists at the end of the steel panel railing

Rating remains '4'.

**53 Drainage**

The Begin approach pavement, within the median, is settled up to 2½ in. with respect to the adjacent wearing surface, resulting in ponding of run-off on the EB side. A similar condition exists at the End approach, WB side, but not as severe. 4      4      29, 30

On the WB side of the Begin median, there is a drainage inlet that is open and free of debris. However, the asphalt median adjacent to (to the End side of) the inlet is severely raveled and depressed up to 4 in., prohibiting run-off from effectively getting to the inlet.

Rating remains '4'.

**55 Settlement**

The asphalt pavement in the Begin approach is settled, up to 2½ in., within the median. Snow plow scrape marks are noted on the pavement. The End approach is similar but not as severe. 4      5      31

Rating reduced from '5' to '4'.

RATING FORM: TP349					
ITEM:	TITLE:	RATINGS			
	REMARKS:	NEW:	PRE:	PHOTO #:	

**56 Erosion**

Previous erosion at the Begin-Left quadrant has been arrested by the placement of asphalt along the embankment. However, the soil plates of the first 3 guide railing posts are still partially exposed. 4      4      32, 33, 34

The asphalt that was placed along the Begin-Right embankment to address previous erosion is now sloughing and cracking up. The soil plates of the first 5 guide railing posts are exposed, up to 8 in., as a result. There is a void under said asphalt, up to 1 ft. H x 15 in. D (laterally), at the end of the U-wall due to erosion of the underlying earth material.

At the End-Left and End-Right quadrants, embankment erosion has partially exposed the soil plates of the first 3 to 4 guide railing posts. Also at the End-Right, near the end of the U-wall, there is a 2 ft. wide x 6 in. deep erosion trough that runs transversely down the embankment. The trough extends to the edge of the asphalt pavement, but no undermining of said pavement is noted at this time.

Rating remains '4'.

**58 Guide Railing**

The Begin-Left and End-Left guide railings are comprised of steel 2 rail box beams mounted to steel posts, that transitions to a single W-beam rail mounted to weak steel posts, including (3) back-up cable ties. 4      4      32, 33, 34, 35, 36

At the Begin-Left, the first 3 guide railing posts have their soil plates partially exposed due to embankment erosion. Also, the top rail is disconnected from the 6th through 8th posts, with the 6th and 7th exhibiting impact damage. At the transition, 1 of the 3 back up cables is disconnected from the rail and laying on the ground.

The guide railings at the other 3 quadrants exhibit partially exposed soil plates on the first 3 or 4 posts due to embankment erosion, but the railings still feel securely anchored nonetheless.

Also at the Begin-Right, the W-beam rail is disconnected from the 7th and 10th posts, leaving a 15½ ft. length unsupported.

The guide railings at the median exhibit no significant defects are would rate '5'.

Rating remains '4'.

RATING FORM: TP350			
ITEM:	TITLE:	RATINGS	
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**19 Wearing Surface**

SPAN 1: 1      5      5      37, 38, 39

The asphalt wearing surface in Span 1 is generally in good to fair condition with no significant defects that adversely affect ride quality. However, there are a few defects noted within the median, away from the normal traffic paths.

On the EB side, within the End half of the span, the wearing surface ponds run-off, up to 15 ft. L x 5 ft. W, beneath the median barrier.

On the WB side (of the median barrier), the longitudinal joint between the EB and WB bridge decks has been previously paved over with asphalt over the entire length of the span. The asphalt has since developed a reflective longitudinal crack, up to 1/2 in. wide, along almost the full length of the joint, allowing run-off to infiltrate and leak below deck.

Also on the WB side, the asphalt wearing surface in the median has a pothole, up to 2 1/2 ft. L x 5 1/2 ft. W x 2 in. D, at the Begin joint. The pothole exposes the waterproof membrane which is torn and has a large section missing. The pothole ponds run-off and the torn membrane allows infiltration of said run-off between the different layers of asphalt.

Rating remains '5' since the defects are so isolated and localized.

SPAN 2: 2      5      6      40

Similar to Span 1, the asphalt wearing surface in Span 2 is generally in good condition with no significant defects that adversely affect ride quality.

There are a few small isolated areas of raveling in the median and the asphalt along the longitudinal joint between the EB and WB bridge decks has a reflective longitudinal crack, up to 1/2 in. wide, in the End half. The crack allows run-off to infiltrate and leak below deck.

Rating reduced from '6' to '5'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**20 Curbs**

SPAN 1: 1      4      5      41, 42, 43  
As per Section 6.2 of the current (2014) NYSDOT Bridge Inspection Manual (BIM), the approach curbs are now included in the curb rating for the span nearest the approach.

The granite curb at the Begin-Left approach quadrant exhibits moderate mortar loss between the segments and reduced anchorage to the U-wall due to heavy spalling of said wall. The spalling is mostly filled in with sand/roadway debris that traps moisture, accelerating the corrosion of the curbs anchor bars.

The 1st segment (at the Begin joint) is rotated toward traffic with the top edge off alignment by up to 3 in.

At the Begin-Right approach quadrant, the granite curb is rotated toward traffic with the top edge off alignment by up to 1½ in.

The Left granite curb on Span 1 is in better condition and would rate '5' except at the Pier 1 joint where a 1½ ft. long section is completely detached from the concrete safety walk and can be displaced easily by hand. No safety flag is issued since the shoulder is up to 8½ ft. wide and the loose curb section poses no immediate threat to traffic. However, the section can easily be moved during snow removal operations.

The Right granite curb is also in fair condition with no significant defects, and would rate '5'.

Rating reduced from '5' to '4'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**20 Curbs**  
SPAN 2: 2 3 5 44, 45, 46, 47, 48

As per Section 6.2 of the current (2014) NYSDOT Bridge Inspection Manual (BIM), the approach curbs are now included in the curb rating for the span nearest the approach.

The granite curb at the End-Left approach quadrant is rotated toward traffic with the top edge off alignment by up to 3 in. The gap between the curb and the U-wall ranges from 2 in. to 5 in., allowing debris/sand to accumulate and trap moisture.

The End 10½ ft. of the End-Left curb is completely detached from the U-wall and can easily be displaced by hand. No safety flag is issued since the shoulder is up to 8½ ft. wide and the loose curb section poses no immediate threat to traffic. However, the section can easily be moved during snow removal operations.

At the End-Right quadrant, the End 10 ft. of the granite curb is slightly misaligned and rotated toward traffic. The gap (due to spalling of the concrete safety walk + rotation of the curb) between the concrete safety walk and the curb is up to 7 in., exposing 1 of the curb's anchor bar.

The Left granite curb on Span 2 is in better condition and would rate '5' except at the Pier 1 joint where a 1 ft. long section is completely detached from the concrete safety walk and can be displaced easily by hand. No safety flag is issued since the shoulder is up to 8½ ft. wide and the loose curb section poses no immediate threat to traffic. However, the section can easily be moved during snow removal operations.

Also, at the End, the last curb segment is broken in 2 with the End 3 ft. long piece being slightly misaligned and separated from the safety walk by 2 in. The misalignment is due to spalling of said safety walk where debris fills in and traps moisture, accelerating corrosion of the exposed anchor bars.

The Right granite curb is also in fair condition with no significant defects, and would rate '5'.

Rating reduced from '5' to '3' due to the loose/detached section at the End-Left quadrant.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**21 Sidewalks & Fascias**

SPAN 1: 1 4 4 49, 50, 51

**FASCIAS**

The Left fascia exhibits fine longitudinal cracking throughout, moderate efflorescence stains emanating from the longitudinal interface between the deck and the safety walk coping, and a few areas of shallow spalling along the bottom edge.

Near the End, there is a 4 ft. L x 1¾ ft. W x 2 in. D spall with 3 exposed, moderately corroded transverse reinforcing bars in the deck overhang. The spall extends up the vertical face by 3 in. There are 4 other smaller, shallow spalls in the Begin half, but no reinforcing is exposed.

The Right fascia is in better condition with fine longitudinal cracking throughout, light efflorescence stains emanating from the longitudinal interface between the deck and the safety walk coping, and a few areas of concrete repairs.

**SIDEWALKS**

The concrete safety walk (brush curb) on the Left side exhibits widespread fine cracking and intermittent spalling, up to 4 in. wide x 1 in. deep, along the granite curb on 80% of the Begin half of the span.

Near 2/3 span (at the 5th bridge railing post), there is a 4 ft. L x 10 in. W x 2 in. D debris-filled spall that undermines the post's base plate and partially exposes the End-Right anchor bolt. Similarly, at the End (7th post), there is a 2 ½ ft. L x 5 in. W x 2 in. D spall that undermines the post's base plate and partially exposes the Begin-Right and End-Right anchor bolts.

The Right safety walk (brush curb) is in better condition and would rate '5'.

Rating remains '4' due to the spalling in the Left safety walk and Left fascia.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**21 Sidewalks & Fascias**

SPAN 2: 2 4 4 44, 52, 53, 54  
FASCIAS

The Left fascia exhibits, scattered fine longitudinal cracks and light efflorescence stains emanating from the longitudinal interface between the deck and the safety walk coping.

At the End, the deck overhang spall extends up the full height of the fascia, exposing several, heavily corroded reinforcing bars.

The Right fascia exhibits fine longitudinal cracking throughout, light efflorescence stains emanating from the longitudinal interface between the deck and the safety walk coping, and a few areas of small, shallow spalls.

**SIDEWALKS**

The concrete safety walk (brush curb) on the Left side exhibits widespread fine cracking throughout and intermittent small, shallow spalling along the edge with the granite curb.

Near the Begin (at the 1st bridge railing post), there is a 5 ft. L x 4 in. W x 1 in. D debris-filled spall that slightly undermines the Right edge of the post's base plate.

At the End, there is spalling on the vertical face of the End 3½ ft. length, contributing to a 2 in. wide gap between the safety walk and the curb. One of the curb's anchor bars is exposed as a result.

The Right safety walk (brush curb) exhibits similar widespread fine cracking and intermittent shallow spalling along the edge with the granite curb, but not as severe.

Rating remains '4'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**22 Railings & Parapets**

SPAN 1: 1      4      4      51, 55

The railing on the Left side of the bridge is comprised of 2 steel box beam rails mounted to open web posts, anchored to the concrete safety walk. The railing is extended onto the approaches with the posts (7 at each end) anchored to the top of the Begin-Left and End-Left U-wall wingwalls.

At the 2nd post (from the Begin joint), the top of the Begin-Left wingwall is spalled across its entire thickness for a 4½ ft. length. The spall depth is up to 4 in. and undermines the post's base plate, exposing all 3 anchor bolts. The base plates of the 1st and 3rd posts are also slightly undermined along the inboard edges due to said wingwall spalling. The undermining reduces the posts' anchorages and their resistance to lateral (impact) loads. The other 4 posts exhibit no significant defects.

On Span 1, the 1st, 5th and 7th (last) posts have base plates that are undermined with 1 or more anchor bolts exposed due to spalling of the concrete safety walk. Though the posts have lost some anchorage strength, the railing still feels secure.

Overall, the Left railing is materially sound except at the splices (Begin, Pier and End joints) where the rails exhibit localized heavy corrosion on their undersides.

The steel 4 rail panelized railing on the Right side of the bridge has been retrofitted with the addition of a thrie beam that is attached to each post with U bolts.

The original steel railing exhibits moderate corrosion throughout except at the splice locations (Begin, Pier and End joints) where severe corrosion exists on the rails, including large perforations.

Overall, the Right railing is still very rigid and functions as designed.

Rating remains '4'.

RATING FORM: TP350					
ITEM:	TITLE:		RATINGS		
	REMARKS:	SPAN:	NEW:	PRE:	PHOTO #:

**22 Railings & Parapets**

SPAN 2: 2      4      4      54, 56, 57, 58  
 On Span 2, at the 1st post of the Left bridge railing, there is a 5 ft. L x 4 in. W x 1 in. D debris-filled spall in the concrete safety walk that slightly undermines the Right edge of the post's base plate.

At the End-Left, the 2nd post (from the End joint) has its base plate undermined along its Right edge and 2 of the three anchor bolts exposed due to spalling of the top of the U-wall wingwall. At said base plate, the nuts on 2 of the three anchor bolts are unfastened and remain frozen in a "raised" position. The base plate is, effectively anchored by 1 of the 3 bolts.

Despite the minimal loss of anchorage, the Left railing still feels secure.

The original steel railing on the Right side of the bridge exhibits moderate corrosion throughout except at the splice locations (Begin, Pier and End joints) where severe corrosion exists on the rails, including large perforations.

Overall, the Right railing is still very rigid and functions as designed.

Rating remains '4'.

**23 Scuppers**

SPANS 1 & 2: 1      8      6      59  
 There are no scuppers noted on this bridge. Therefore, the ratings are changed from '6' to '8'.

At the End-Right corner of Span 1, the weep tube has a break right above the top attachment bracket on the Begin side of the Pier.

2      8      6

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**27 Deck Structural**

SPAN 1: 1      4      4      60, 61  
The deck underside in Span 1 exhibits areas of spalling, dampness and discoloration.

The spalling is up to 3 in. deep and mostly within Bays 1, 2, 8, 9 (median) and 11. Bay 2 is the worst with up to 33 SF of spalling, while Bay 9 is similar with up to 29 SF. All spalls have exposed reinforcing bars that are moderately corroded.

The dampness and discoloration are noted in Bays 5 thru 9, on the End 2/3 of the span. Bay 9 (median) also exhibits minor active leakage along the longitudinal joint between the EB and WB decks.

The spalling and dampness/discoloration occurs on approximately 35% of the total Span 1 deck area.

See "Deck Deterioration Sketch".

Rating remains '4'.

SPAN 2: 2      4      4      62, 63  
The deck underside in Span 2 exhibits more isolated areas of spalling, dampness and discoloration.

The spalling is up to 3 in. deep and mostly within Bays 6, 7, 9 (median), 10 and 16. Median Bay 9 is the worst with approximately 45 SF of spalling affecting the End 20 ft. (+/-) of the WB deck overhang, while Bay 7 has a single 6 ft. L x 5½ ft. W x 2 in. D spall near the Pier. All spalls have exposed reinforcing bars that are moderately corroded.

Any significant dampness and discoloration is isolated to Bay 9 where minor active leakage is also noted along the longitudinal joint between the EB and WB decks.

Overall, spalling and dampness/discoloration affects less than 5% of the total Span 2 deck area.

See "Deck Deterioration Sketch".

Rating remains '4'.

RATING FORM: TP350			
ITEM:	TITLE:	RATINGS	
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**28 Primary Members**

SPAN 1: 1 4 4 64, 65, 66, 67, 68, 69, 70

The 18 rolled steel girders are generally in fair condition except at the End (Pier 1) where moderate to heavy joint leakage has accelerated the deterioration of the steel, leading to corrosion of the girder ends, end diaphragms (rated as Primary Members since they support the deck) and end diaphragm connection plates.

At the pier, the fascia girders G1 and G18 exhibit heavy corrosion with notable section losses, including perforations on the bottom 6 in. to 8 in. of the girder webs and End diaphragm connection plates.

At girder G1, the connection plate has a 2 in. high x full-width corrosion perforation at the bottom, while at girder G18, the plate has a 5 in. high x full-width perforation at the bottom. D-meter measurements taken on G18, in the adjacent bearing area of the web range from 0.226 in. (61% loss) to 0.570 in. (2% loss), with a maximum 49% average web loss directly over the bearing. No flag is warranted since the loss is still less than 50%.

See "Girder End Section Loss Documentation".

Also at the pier, girder G8 has a similar perforation, up to 1/2 in. high x 2 in. wide, near the bottom of its left connection plate. The plate exhibits minor localized buckling in the vicinity of the perforation. Girders G13 and G16, exhibit similar localized buckling of the End diaphragm connection plates.

The Left fascia girder G1 and adjacent interior girder G2 exhibit recent impact damage to the bottom flange (and cover plate) over the Passing Lane of Mohawk Street NB, despite the 14.58 ft. minimum vertical clearance. The Left sides of both G1 and G2 bottom flanges are bent upward 1 in. over a 2 ft. length.

Rating remains '4'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**28 Primary Members**

SPAN 2: 2      4      5      65, 71, 72,  
73, 74

The 18 rolled steel girders are generally in fair condition except at the Begin (Pier 1) where moderate to heavy joint leakage has accelerated the deterioration of the steel, leading to corrosion of the girder ends, end diaphragms (rated as Primary Members since they support the deck) and end diaphragm connection plates.

At the pier, the fascia girders G1 and G18 exhibit heavy corrosion with notable section losses, including perforations on the bottom 6 in. to 8 in. of the girder webs and End diaphragm connection plates.

At girder G1, the bottom flange has an estimated 80% section loss such that it is very malleable by hammer and the web has an estimated 30% loss. The Begin diaphragm connection plate has a 6 in. high x 1 in. wide perforation at the top, along the edge of the Begin diaphragm and a 3 in. high x full-width perforation at the bottom.

The Right fascia girder G18 exhibits similar heavy corrosion with up to 50% localized section loss on the top and bottom 8 in. of the web, but no perforations are noted at this time.

Also at the pier, girder G2 has 2 in. high x 1 in. wide perforation at the top, along the edge of diaphragm and a 2 in. high x full-width perforation at the bottom.

All 18 girders exhibit minor scrape marks on their bottom flanges, over the Driving Lane of Mohawk Street SB, but no significant dents, gouges or displacements are noted.

Rating reduced from '5' to '4'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**30 Paint**

SPANS 1 & 2: 1      4      4      65, 70, 75

The paint in Spans 1 and 2 has failed at the pier due to active joint leakage, resulting in minor to heavy corrosion with moderate section losses, including perforations in the end diaphragm connection plates.

Away from the pier, the paint on all 18 girders is peeling, but with active corrosion primarily to the tips of the top and bottom flanges.

Paint loss is estimated as follows:

- Fascia girders at supports - 80%
- Fascia girders - 20%
- Interior girders at supports - 30%
- Interior girders - 10%
- Median fascia girders G8 & G9 - 15%

Ratings remain '4'.

2      4      4      65, 71, 73, 76

**31 Joints**

The joint at the pier is comprised of a neoprene seal with steel armor angles anchored into concrete headers. 1      3      3      77

The concrete headers exhibit a few small, shallow spalls throughout, with the worst two located on the Span 2 side of the EB Passing Lane.

The steel armors exhibit surface corrosion within the travel lanes, but more significant corrosion within the shoulders and median where drainage ponds.

The previously reported damaged steel armor (and resulting hole) in the EB Driving Lane have been addressed since the previous (2013) inspection. The armor has been straightened and the hole has been filled in with asphalt as part of repaving of the entire Driving Lane.

Below deck, minor active leakage is noted, particularly in the fascia and median bays (Bays 1, 9 and 17).

Rating remains '3' due to active leakage.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**33 Bearings, Anchor Bolts, Pads**

All 36 Span 1 and Span 2 bearings at Pier 1 are high steel rockers. 1      3      3      78, 79, 80, 81

At the Span 2 bearing for girder G5, the rocker can be rocked slightly by hand, indicating that the girder does not transfer any load (reaction force) to the bearing. Also, the pin between the sole plate and the rocker can be slid along its longitudinal axis by light hammer blows.

The Span 1 bearing for girder G8 exhibits a similar condition as its pin and rocker are also loose.

No vertical movement of either girder end is noted to indicate that the bearing's sole plate engages the rocker (via the pin) and transfers any load during truck/live load passage.

With girders G5 and G8 not transmitting any reaction force to their bearings, said force is re-distributed to the adjacent bearings via the adjacent girders. The additional load could result in the adjacent girders and bearings being overstressed, thus a YELLOW Structural Flag (#15-078) is issued.

The Span 1 and Span 2 bearings at the fascia girders G1 & G18 and at the median girders G9 & G10 exhibit advanced corrosion, a result of active joint leakage. Rust debris has accumulated between the rockers and their respective masonry plates, hindering thermal movement.

At the Span 1 rocker for girder G17, pack rust has accumulated between the rocker and the masonry plate, lifting the rocker off the plate by up to 1/2 in., exposing the 2 pintels/dowels. The bearing appears to still transmit loads nonetheless.

Rating remains '3'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**35 Top of Pier Cap or Beam**

The top of the pier capbeam exhibits the following deterioration: 1      4      4      82, 83, 84

Bay 1

3 ½ ft. L x 3 ft. W delamination near girder G1

Bay 6

1 ft. L x 2 ft. W x 2 in. D spall at the End-Left corner of the masonry plate for girder G7. Adjacent 1 ft. L x 1 ft. W area is delaminated.

Bay 8

2½ ft. L x 2 ft. W delamination near girder G8

The deterioration represents approximately 5% of the total top of capbeam area.

See "Pier Deterioration Sketch".

Rating remains '4'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**37 Cap Beam**

The capbeam is severely deteriorated with numerous large areas of delamination and several areas of spalling with exposed reinforcing bars on the Begin and End faces as well as the underside. The most severe deterioration is as follows:

1	3	3	85, 86, 87, 88, 89, 90, 91
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**BEGIN FACE:**

- 40 SF delamination along the top, from columns C4 to C5
- 5 SF x 2 in. deep spall along the bottom edge, at column C7; Surrounding 25 SF area is delaminated
- 11½ ft. x full-height (3½ ft.) delamination with several 2 in. to 3 in. deep spalls at column C9

The deterioration represents approximately 39% (12% spalls; 27% delaminations) of the total Begin face area.

**END FACE:**

- 13 SF delamination full-height, on the Left nose
- 15 SF delamination along the top, in column Bay 2
- Total of 40 SF delamination in column Bay 3
- 18 SF delamination near mid-height and 3 ft. x 3 ft. 2 in. D spall, in column Bay 4
- 40 SF delamination along the top, at column C9 and column Bay 9.
- 10 SF x 3 in. deep spall along the bottom edge, at the middle of column Bay 9

The deterioration represents approximately 47% (9% spalls; 38% delaminations) of the total End face area.

**UNDERSIDE:**

- 40 SF x 3 in. deep spall with exposed and debonded reinforcing bars along the Begin edge of column Bay 1. This 2½ ft. wide spall exposes 2 main longitudinal bars and over 10 shear stirrups, all of which have heavy corrosion.
- 84 SF delamination along the Begin edge of column Bay 6
- 16 SF x 3½ in. deep spall with exposed and debonded reinforcing bars along the End edge of column Bay 7
- 7 ft. L x 1½ ft. W x 4 in. D spall adjacent to column C9 exposes 6 longitudinal main bars and 3 shear stirrups all of which are heavily corroded

The deterioration represents approximately 51% (22% spalls; 29% delaminations) of the total underside area.

See "Pier Deterioration Sketch".

Rating remains '3'.

RATING FORM: TP350			
ITEM:	TITLE:		RATINGS
	REMARKS:	SPAN:	NEW: PRE: PHOTO #:

**38 Pier Columns**

PIER 1: 1      3      3      88, 89, 92,  
93, 94, 95,  
96, 97  
The columns are severely deteriorated with numerous large areas of delamination and several areas of spalling with exposed reinforcing bars. The most severe deterioration is as follows:

C1 - 9½ ft. H x 1¾ ft. W x 4 in. D spall with 7 of the 8 exposed ties broken/corroded through on the Begin face. Two vertical rebars are also exposed and exhibit heavy corrosion. Area to the Left of the spall (2½ ft. wide) and Right of the spall (1½ ft. wide) is delaminated.

C2 - No significant defects.

C3 - 6 ft. H x 2½ ft. W x 2½ in. D spall with 5 ties and 2 vertical reinforcing bars exposed on the Begin face. Surrounding area is delaminated up to 3 ft. wide.

C4 - 5 ft. H x 3 ft. W delamination at the top of End-Left face.

C5 - 6 ft. H x 3 ft. W delamination at the top of the Begin-Right face. Area extends to the middle of the Right face. The adjacent 3 ft. W x full-height area on the End-Right face is also delaminated.

C6 - 4 ft. H x 1½ ft. W delamination at the top of the Begin-Right face.

C7 - 7½ ft. H x 2 ft. W x 2½ in. D spall with the top 3 of 7 exposed ties broken and 5 exposed vertical bars on the Begin face.

- To the Right of the spall, there is a 6 ft. H x 2 ft. W delamination at the top of the Begin-Right face.

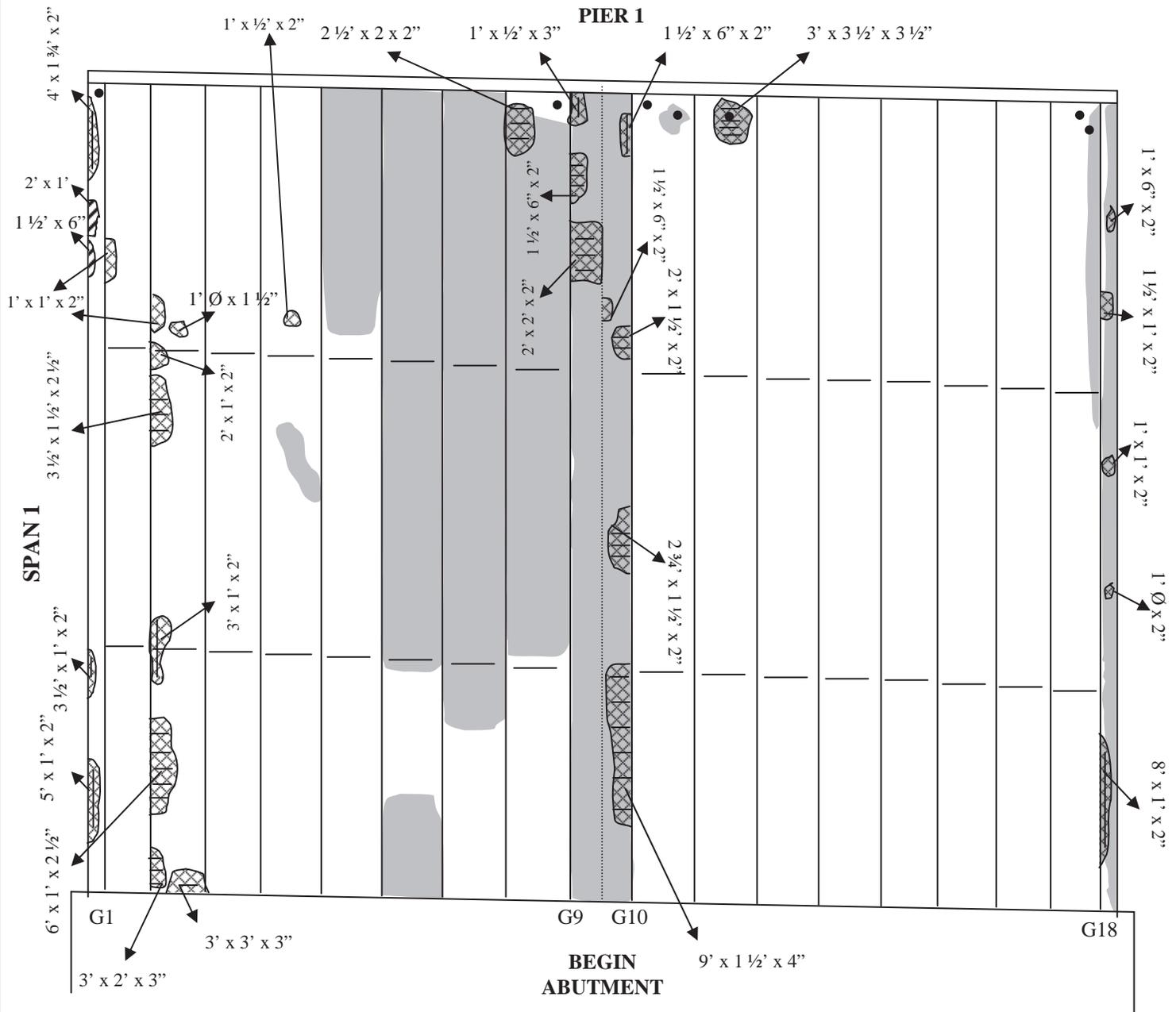
- 8 ft. H x 3 ft. W delamination at the top of the End-Left face.

C8 - 3 ft. H x 4 ft. W delamination at the base of the Begin-Left face.

C9 - Full-height x 5 ft. W delamination on the Begin face.  
- 6 ft. H x 4 ft. W delamination at the base of the End face.

C10 - 4 in. H x 2½ in. D spall along the full circumference of the column at the base.

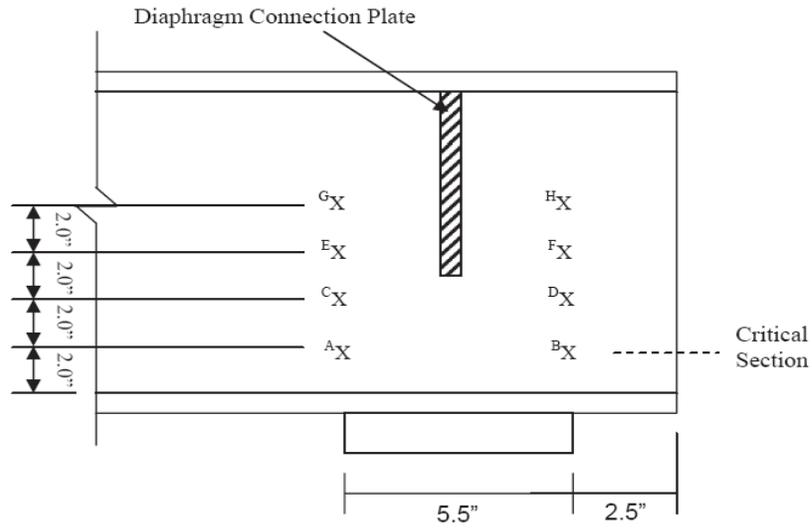
Rating remains '3'.



- |  |   |  |
|--|---|--|
|  Hollow / Delaminated    |  Spall             |  Spall w/ exposed rebar |
|  Cracks w/ Efflorescence |  Damp / Discolored |  Scupper                |

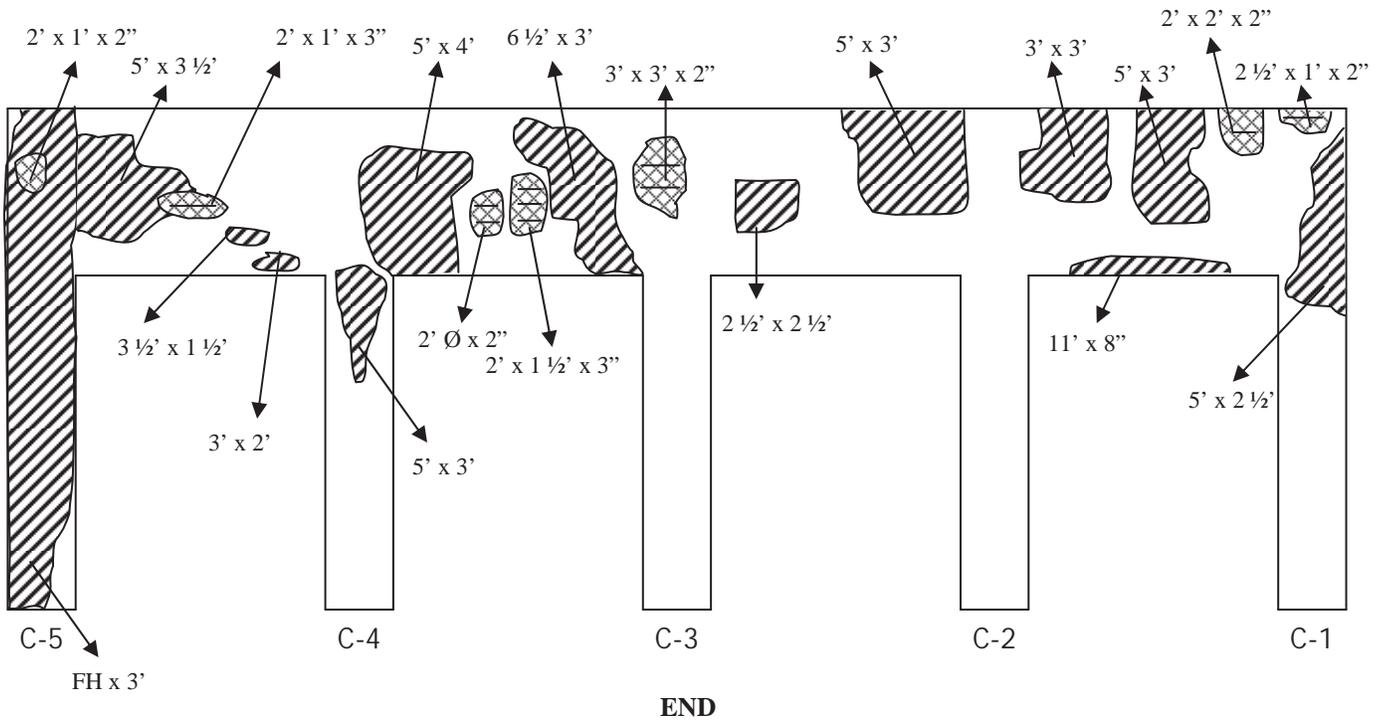
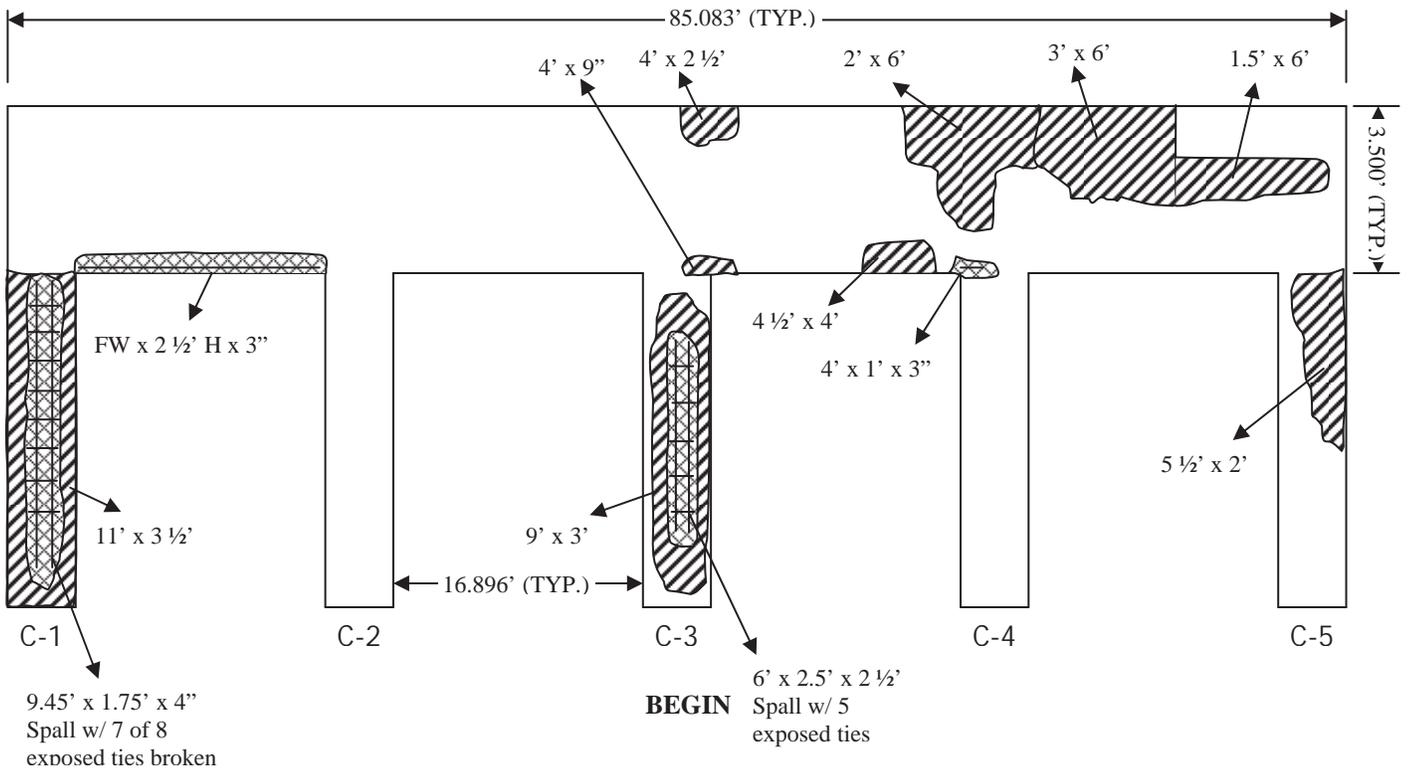


(N.T.S.)



	ROW 1		ROW 2		Row 3		Row 4	
Location	A	B	C	D	E	F	G	H
Reading	0.361	0.226	0.397	0.295	0.503	0.232	0.570	0.302
Average	0.294		0.346		0.368		0.436	

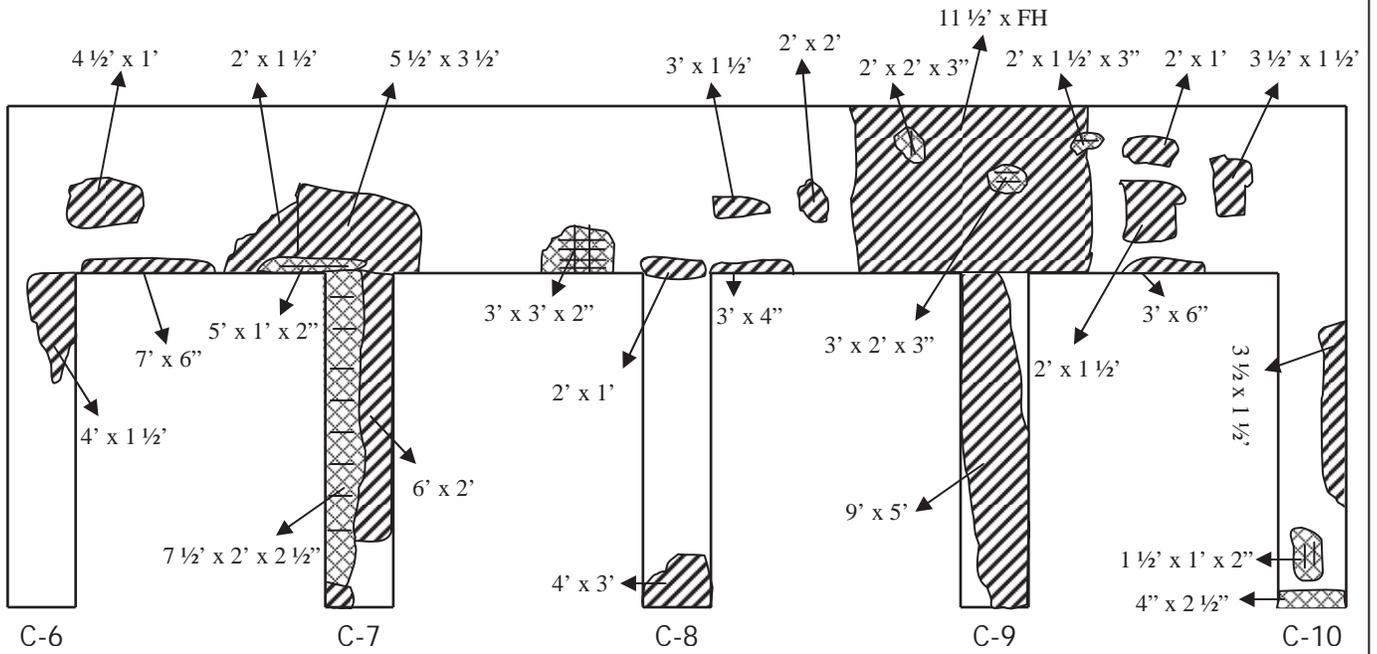
Span 1, G18 @ Pier 1	Percent Section Loss			
	Identification: Fascia Girder Design Section Per Plan: 33 WF 130; Web: 0.580", Bearing Stiffener: None*	2015		
Computed Avg. SL.	38%			
Computed Avg. SL. for Critical Section (Row 1)	49%			
Notes:				
2015: Web Section Loss monitoring continued.				



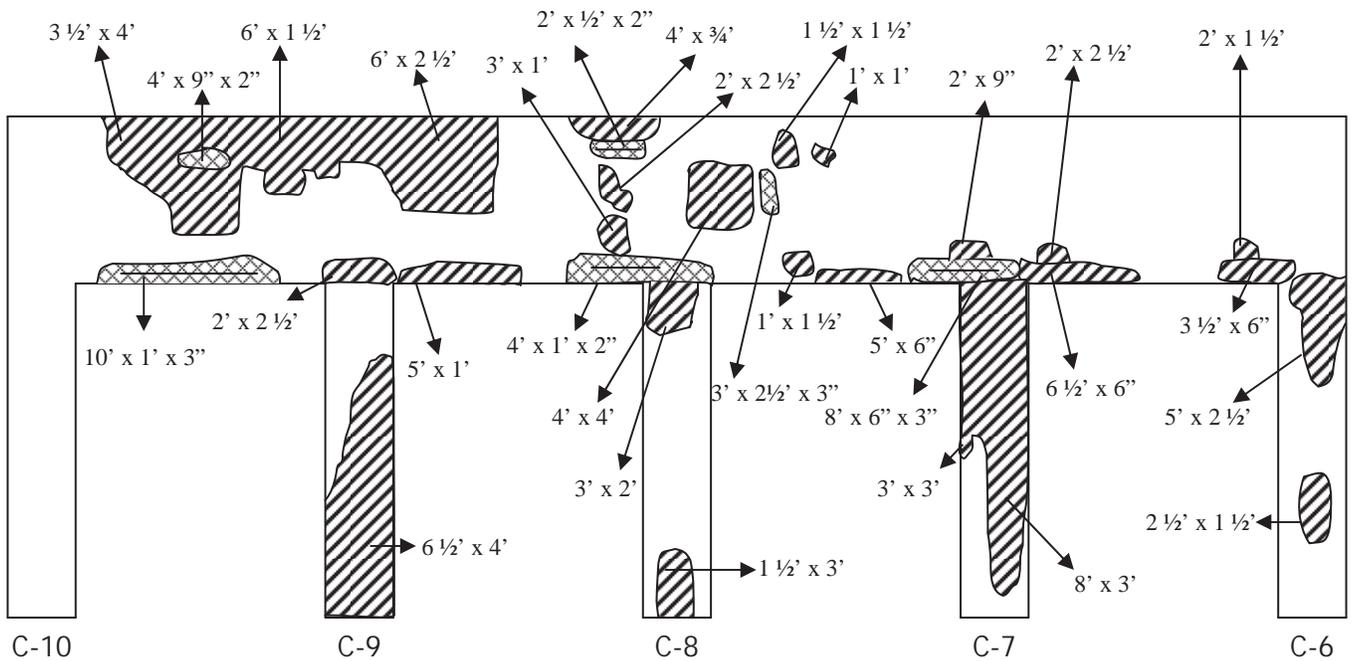
Hollow / Delaminated



Spall w/ exposed rebar



BEGIN



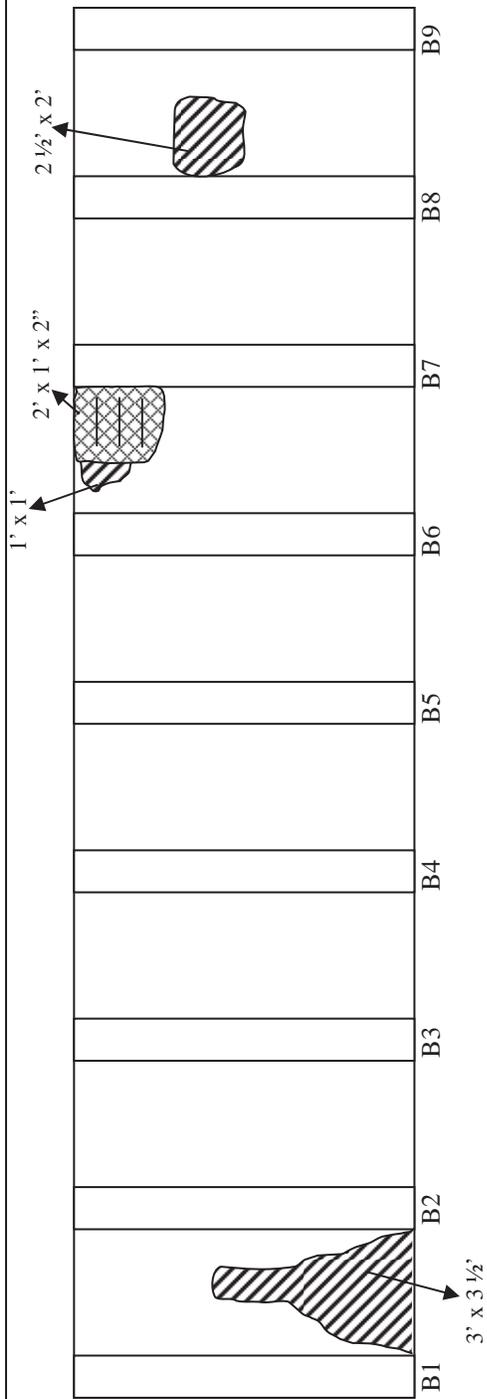
END



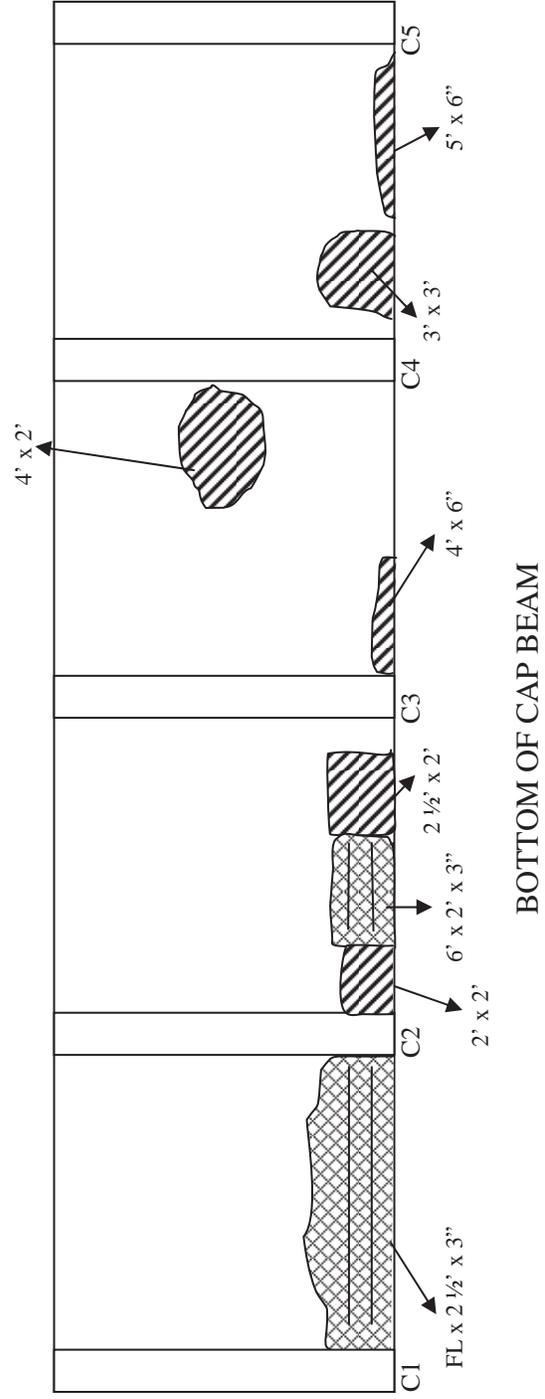
Hollow / Delaminated



Spall / w exposed rebar



TOP OF CAP BEAM



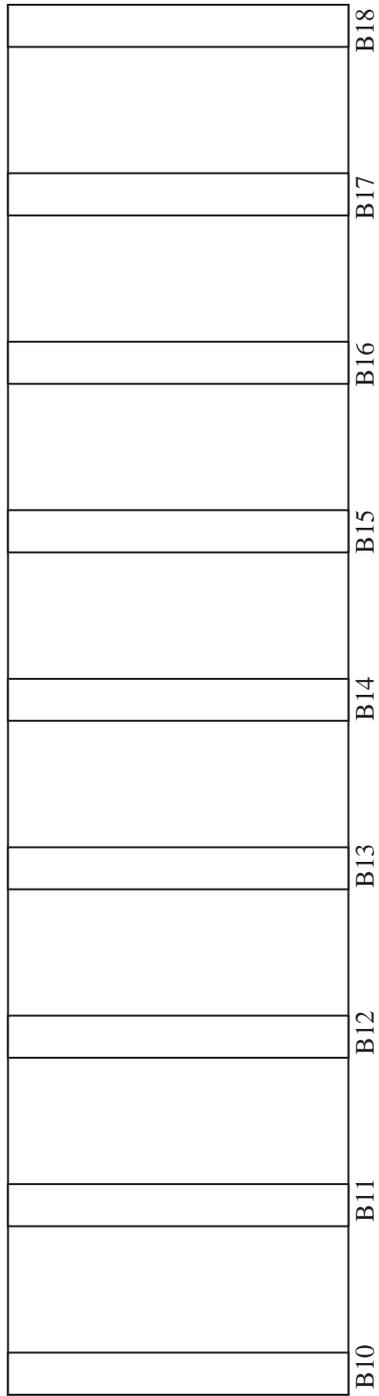
BOTTOM OF CAP BEAM



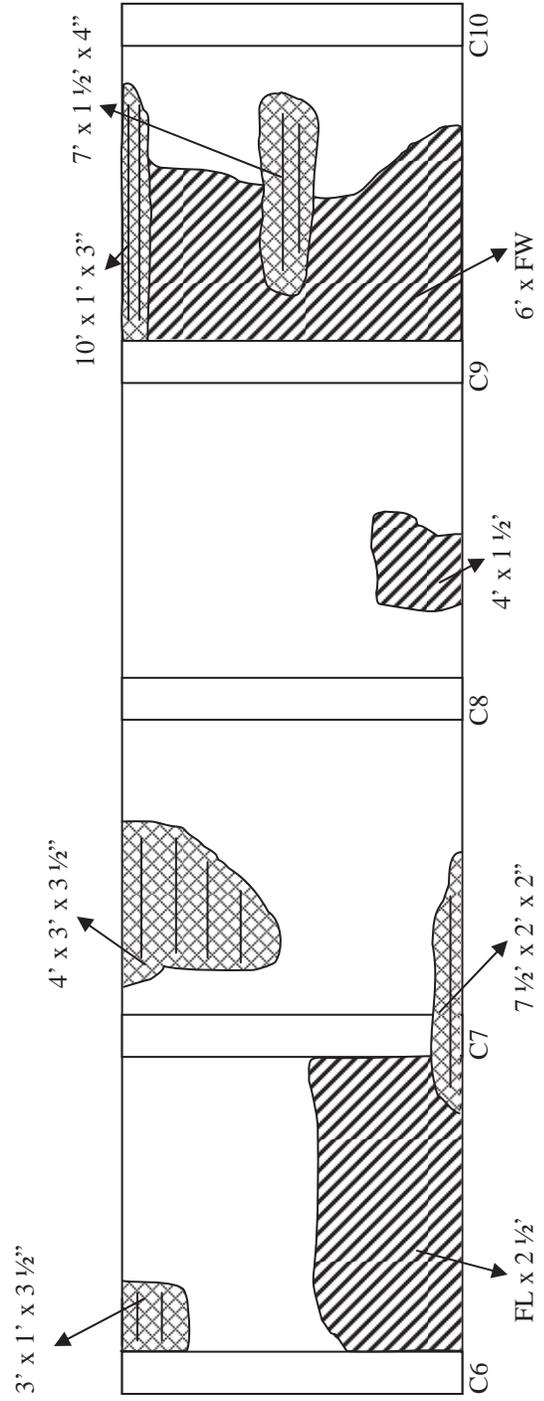
Hollow / Delaminated



Spall w/ exposed rebar



TOP OF CAP BEAM



Hollow / Delaminated



Spall w/ exposed rebar

# PHOTOGRAPHS

PHOTO ABOVE DECK

PHOTO BELOW DECK

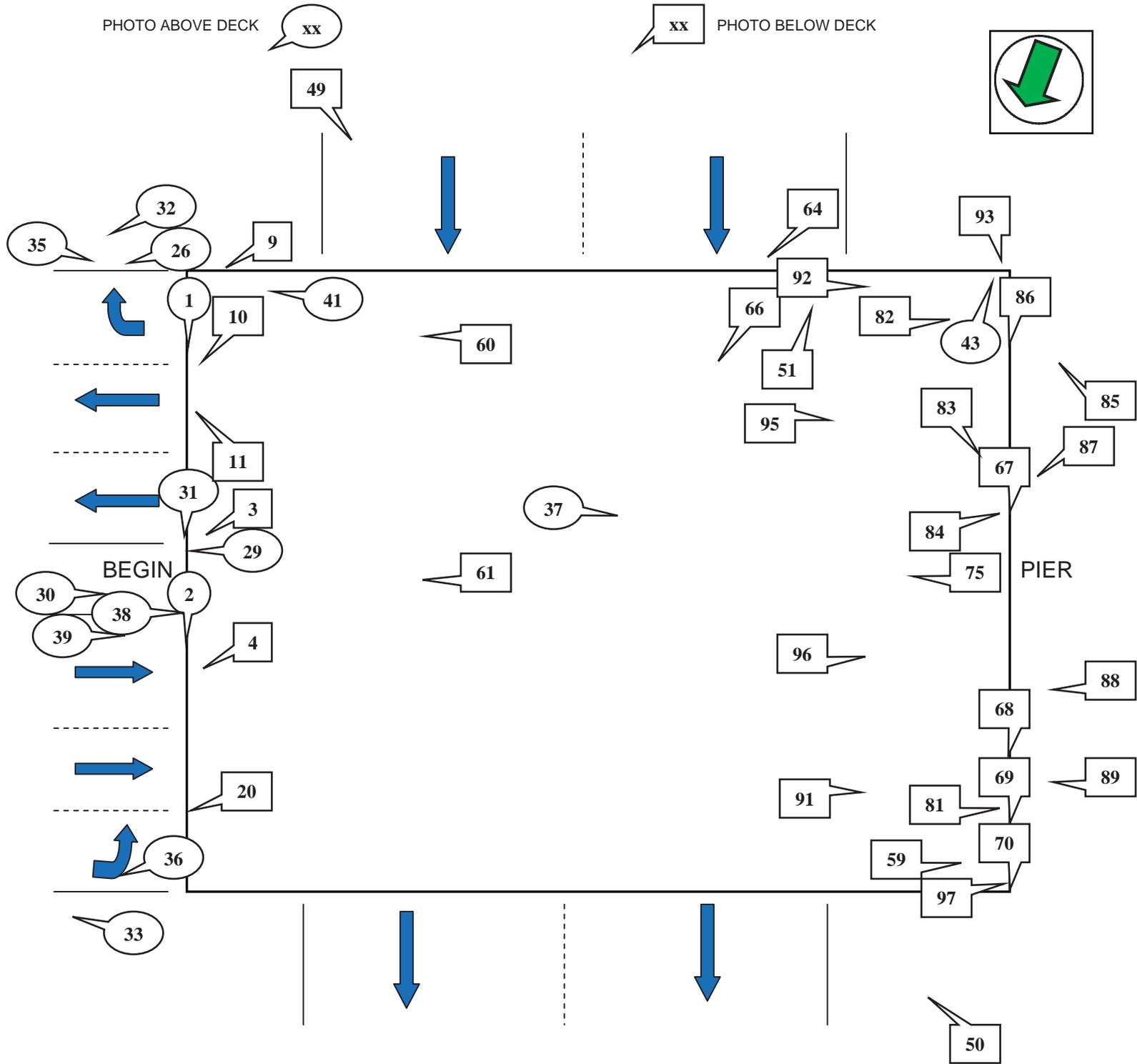


Photo 94 is close-up of Photo 93.

PHOTO ABOVE DECK

PHOTO BELOW DECK

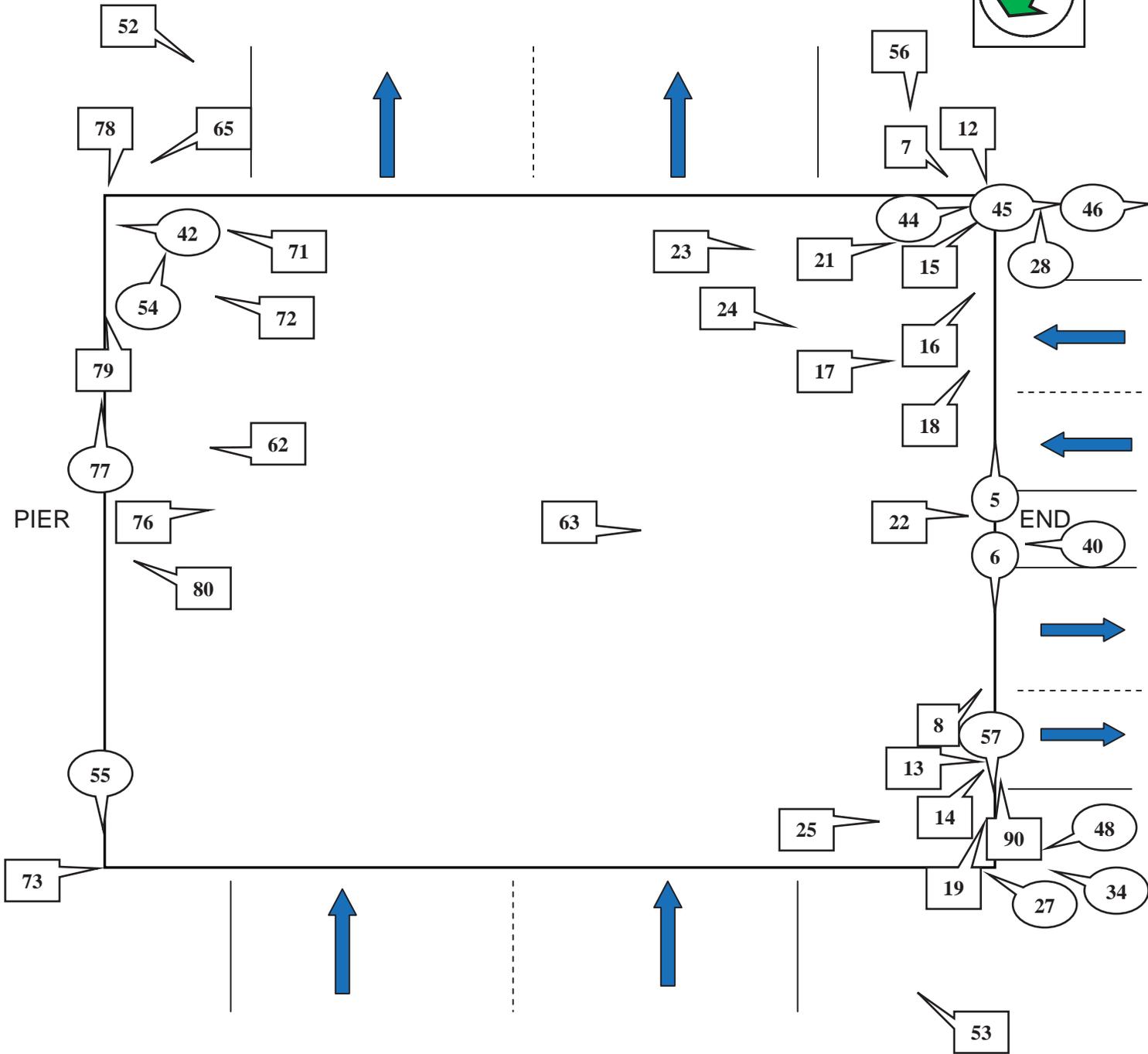
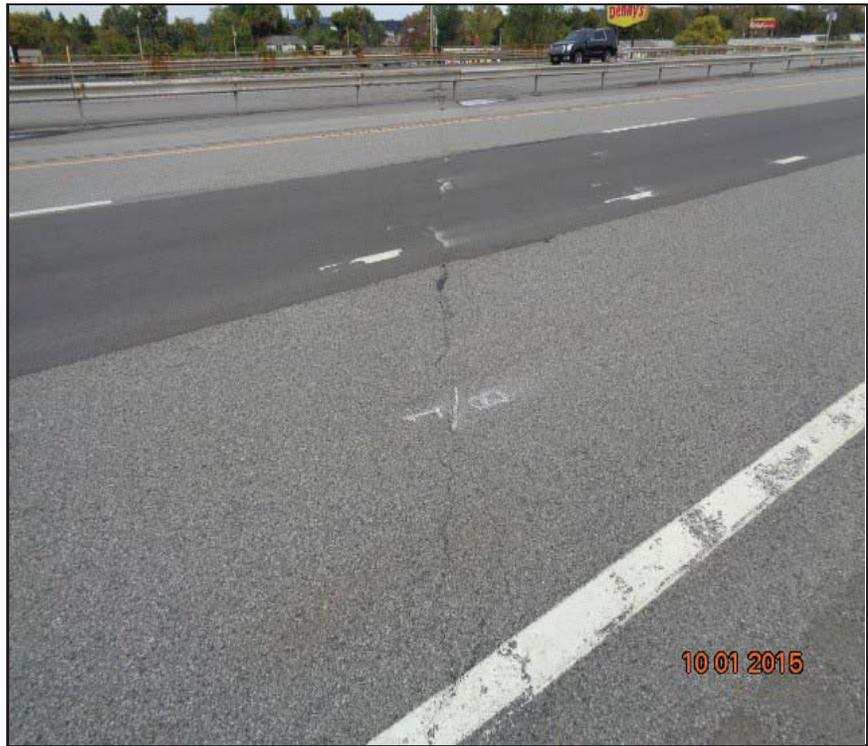


Photo 47 in same location as Photo 46.  
Photo 58 in same location as Photo 28.  
Photo 74 is a close-up of Photo 73.

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Joint from Left (EB) shoulder	219.91-349-22-00-15BegEB.JPG	1

**Description(s):**  
- Up to 1/4" transverse cracks across the travel lanes



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	22	Joint With Deck (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Joint from Right (WB) Median Shoulder	219.91-349-22-01-15BegWB.JPG	2

**Description(s):**  
- Up to 1/2" transverse cracks across the travel lanes.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	22	Joint With Deck (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment underneath Bay 8	219.91-349-22-02-15BAB8.JPG	3

**Description(s):**  
- Evidence of active joint leakage.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	22	Joint With Deck (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment underneath Bay 11	219.91-349-22-03-15BAB11.JPG	4

**Description(s):**  
- Evidence of active leakage.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	22	Joint With Deck (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Joint from Left (EB) Mall Shoulder	219.91-349-23-00-15EndEB.JPG	5

**Description(s):**  
 - 18" Wide area of transverse cracks (up to 1/4" wide) across all travel lanes.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	23	Joint With Deck (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Joint from Right (WB) Mall Shoulder	219.91-349-23-01-15EndWB.JPG	6

**Description(s):**  
 - 12" Wide area of transverse cracks (up to 1/4" wide) along all travel lanes.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	23	Joint With Deck (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment backwall and joint header at Left	219.91-349-23-02-15EALt.JPG	7

**Description(s):**

- 1' Long x 1 1/2' Wide x 6" deep spall with exposed and debonded reinforcing bars.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	23	Joint With Deck (End)	3
349	29	Backwall (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment backwall & bridge seat Bay 14	219.91-349-23-03-15EAB14.JPG	8

**Description(s):**

- Active moderate joint leakage causing dampness on bridge seat and backwall.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	23	Joint With Deck (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment Bearing at Girder G1 from Left	219.91-349-24-00-15BAG1.JPG	9

**Description(s):**

- Corrosion of the sole plate and the bearing area may prevent proper movement of girder end.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	24	Bearings, Anchor Bolts, Pads (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment Bearing at Girder G2 from Left	219.91-349-24-01-15BAG2.JPG	10

**Description(s):**

- Active corrosion of the sole plate and the bearing area may prevent proper movement of the girder end.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	24	Bearings, Anchor Bolts, Pads (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment Bearing at Girder G3 from Right	219.91-349-24-02-15BAG3.JPG	11

**Description(s):**

- Active corrosion of the sole plate and the bearing area may prevent proper girder end movement.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	24	Bearings, Anchor Bolts, Pads (Begin)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bearing at Girder G1 from Left	219.91-349-25-00-15EAG1.JPG	12

**Description(s):**

- 2' Long x 1' High x 4" Deep spall at the left face of the pedestal undermining the masonry plate up to 1 3/4".



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	25	Bearings, Anchor Bolts, Pads (End)	3
349	27	Bridge Seat and Pedestals (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bearing at Girder G17	219.91-349-25-01-15EAG17.JPG	13

**Description(s):**  
 - Up to 3/4" gap between the sole plate and the bearing surface at the right side



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	25	Bearings, Anchor Bolts, Pads (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment Bearing at Girder G17 from Right	219.91-349-25-02-15EAG17.JPG	14

**Description(s):**  
 - 3/4" gap between the bearing surface and the sole plate.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	25	Bearings, Anchor Bolts, Pads (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bridge Seat Bay 1 from Right	219.91-349-27-00-15EAB1.JPG	15

**Description(s):**  
 - 4 1/2' Long x 6" Wide x 3" Deep spall at the begin edge of the seat



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	27	Bridge Seat and Pedestals (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bridge Seat in Bay 2	219.91-349-27-01-15EAB2.JPG	16

**Description(s):**  
 - 2' Long x 2 1/2" Wide x 3" Deep spall almost at Mid Bay along the begin face.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	27	Bridge Seat and Pedestals (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bridge Seat at Bay 4	219.91-349-27-02-15EAB4.JPG	17

**Description(s):**  
- 1/4" crack along the entire length of the bay surrounded by a 2 1/2' Wide delaminated area.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	27	Bridge Seat and Pedestals (End)	3
349	31	Stem (Breastwall) (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bridge Seat at Bay 5	219.91-349-27-03-15EAB5.JPG	18

**Description(s):**  
- 1/4" crack along the entire length of the bay.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	27	Bridge Seat and Pedestals (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Bridge Seat at Bay 17	219.91-349-27-04-15EAB17.JPG	19

**Description(s):**  
- 4 1/2' Long x 6" Wide delaminated area across the front edge of the seat.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	27	Bridge Seat and Pedestals (End)	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Abutment Backwall in Bay 16	219.91-349-28-00-15BAB16.JPG	20

**Description(s):**  
- 2 1/2' High x 8' Wide delaminated concrete area with shallow edge spalls.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	28	Backwall (Begin)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Backwall at Bay 1	219.91-349-29-00-15EAB1.JPG	21

**Description(s):**  
- Shallow scaling (up to 1/2 in. deep) along the entire length of the bay



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	29	Backwall (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Backwall in Bay 9	219.91-349-29-01-15EAB9.JPG	22

**Description(s):**  
- 8" High x 1 1/2" Wide x 9" Deep spall along the top edge of the backwall.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	29	Backwall (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Stem under Bay 1 and 2	219.91-349-31-00-15EAB1.JPG	23

**Description(s):**  
 - 6' High x 4 1/2' Wide x 3" Deep spall at the top of the stem in bay 1



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	31	Stem (Breastwall) (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Stem under Bay 4	219.91-349-31-01-15EAB4.JPG	24

**Description(s):**  
 - Stem has a 2 1/2 ft. H x 7 1/2 ft. W delamination at the top.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	31	Stem (Breastwall) (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Abutment Stem under Bay 17	219.91-349-31-02-15EAB17.JPG	25

**Description(s):**  
- 19 SF of delaminated concrete



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	31	Stem (Breastwall) (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Left Wingwall at Post #6	219.91-349-40-00-15BegLt.JPG	26

**Description(s):**  
- 4 1/2' Long x 1 3/4' Wide x 4" Deep spall along the top face of the wingwall



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	40	Walls (Begin)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Right Wingwall	219.91-349-41-00-15EndRt.JPG	27

**Description(s):**  
- 9 1/2' Long x 10 1/2" High x 5" Deep spall along the top of the wingwall.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	41	Walls (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Left Wingwall at Post #2	219.91-349-41-01-15EndLt2.JPG	28

**Description(s):**  
- 10" Wide x 2" Deep spall across the entire length of the wall.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	41	Walls (End)	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Approach Left (EB) Median Shoulder	219.91-349-53-00-15BegEB.JPG	29

**Description(s):**  
- water ponding due to 2 1/2" settlement of the pavement.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	53	Drainage	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Approach Right (WB) Median Shoulder	219.91-349-53-01-15BegWB.JPG	30

**Description(s):**  
- Asphalt adjacent to the inlet is raveled and 4" lower than the inlet level.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	53	Drainage	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Approach Left (WB) Median Shoulder	219.91-349-55-00-15BegEB.JPG	31

**Description(s):**  
- Up to 2 1/2" settlement of the asphalt pavement.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	55	Settlement	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Left Approach	219.91-349-56-00-15BegLt.JPG	32

**Description(s):**  
- Asphalt placed along the embankment to arrest previous erosion. The soil plates for the first 3 posts are exposed due to erosion.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	56	Erosion	4
349	58	Guide Railing	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin-Right approach guide railing	219.91-349-56-01-15BegRt.JPG	33

**Description(s):**

- Previously placed asphalt is cracked up and sloughing down the embankment. The soil plates of the first 5 guide railing posts are exposed up to 8"



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	56	Erosion	4
349	58	Guide Railing	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End-Right approach embankment and guide railing	219.91-349-56-02-15EndRt.JPG	34

**Description(s):**

- 2' Wide x 6" Deep trough that extends down the embankment. The soil plates of the first 4 guide railing posts are exposed.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	56	Erosion	4
349	58	Guide Railing	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin-Left approach guide railing	219.91-349-58-00-15BegLt.JPG	35

**Description(s):**

- One disconnected cable and the other two are loose.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	58	Guide Railing	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin-Right approach guide railing	219.91-349-58-02-15BegRt.JPG	36

**Description(s):**

- W-beam rail disconnected between the 7th and the 10th post.



**Reference:**

Form:	Item:	Item Desc:	Rate:
349	58	Guide Railing	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Left (EB) Median Shoulder near mid span	219.91-350-19-00-15Sp1EB.JPG	<b>37</b>

**Description(s):**

- 15' Long x 5' Wide ponding water underneath the median barrier.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	1	5

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Approach Right (WB) Median Shoulder	219.91-350-19-01-15Sp1Med.JPG	<b>38</b>

**Description(s):**

- Longitudinal crack along the entire length of the joint between EB and WB bridges.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	1	5

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Begin Approach Right (WB) Median Shoulder	219.91-350-19-02-15Sp1WB.JPG	<b>39</b>

**Description(s):**

- 2½' Long x 5½' Wide x 2" Deep pothole exposing the torn waterproof membrane allowing ponding and infiltration of run-off water.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	1	5



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End Approach Right (WB) Median Shoulder, Picture Taken from End.	219.91-350-19-03-15Sp2Med.JPG	<b>40</b>

**Description(s):**

- Up to ½" wide crack along the joint of the EB and WB bridges.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	2	5



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Curb on the Left	219.91-350-20-00-15BegLt.JPG	<b>41</b>

**Description(s):**

- The granite curb is rotated toward traffic such that the top is 3" off alignment.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Left Curb at Pier 1	219.91-350-20-01-15S1S2Lt.JPG	<b>42</b>

**Description(s):**

- Granite curbs are missing mortar which reduces anchorage to the concrete safety walk (brush curb).



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Left Curb at Pier 1	219.91-350-20-02-15S1S2Lt.JPG	<b>43</b>

**Description(s):**

- 1½ ft. long section of granite curb is completely detached from the concrete safety walk (brush curb) and can be displaced easily by hand.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Left Curb at End	219.91-350-20-03-15Sp2End.JPG	<b>44</b>

**Description(s):**

- End curb segment broken in 2 with End 3 ft. being slightly misaligned and separated from the safety walk by 2 in. Misalignment is due to spalling of said safety walk where debris fills in and traps moisture, accelerating corrosion of exposed anchor bars.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	2	3
350	21	Sidewalks & Fascias	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End-Left approach curb	219.91-350-20-04-15EndLt.JPG	45

**Description(s):**

- 2" - 5" gap between the granite curb and the U-wall.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	2	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End-Left approach curb	219.91-350-20-05-15EndLt.JPG	46

**Description(s):**

- End 10½ ft. of the curb is completely detached from the U-wall and can easily be displaced by hand.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	2	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End-Left approach curb	219.91-350-20-06-15EndLt.JPG	<b>47</b>

**Description(s):**

- End 10½ ft. of the curb is completely detached from the U-wall and can easily be displaced by hand.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	2	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
End-Right approach curb	219.91-350-20-07-15EndRt9.JPG	<b>48</b>

**Description(s):**

- Up to 7" wide spall along the side walk with one exposed anchor bar.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	20	Curbs	2	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Left Fascia	219.91-350-21-00-15Sp1Lt.JPG	49

**Description(s):**

- Moderate efflorescence seeping from the interface between the deck fascia and the safety walk coping.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Right Fascia	219.91-350-21-01-15Sp1Rt.JPG	50

**Description(s):**

- Minor cracks with light efflorescence along the interface between the deck fascia and the safety walk coping.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1, Left safety walk (brush curb) at 5th bridge railing post	219.91-350-21-02-15Sp1L5.JPG	<b>51</b>

**Description(s):**

- 4' L x 11" W x 2" D spall undermining the base plate and exposing the end right anchor bolt.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	1	4
350	22	Railings & Parapets	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Left Fascia	219.91-350-21-03-15Sp2Lt.JPG	<b>52</b>

**Description(s):**

- Fine cracks with efflorescence along the interface between the deck fascia and the safety walk coping.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Right Fascia	219.91-350-21-04-15Sp2Rt.JPG	<b>53</b>

**Description(s):**

- Fine cracks with efflorescence along the interface between the deck fascia and the safety walk coping.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2, Left safety walk (brush curb) at the 11th bridge railing post	219.91-350-21-05-15Sp2L1.JPG	<b>54</b>

**Description(s):**

- 5' L x 4" W x 1" D spall slightly undermining the base plate of the post.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	2	4
350	22	Railings & Parapets	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 Railing at Right	219.91-350-22-00-15S1S2Rt.JPG	<b>55</b>

**Description(s):**

- Severe corrosion of the original steel railing.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	22	Railings & Parapets	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Last Post from Left	219.91-350-22-01-15Sp2Lt.JPG	<b>56</b>

**Description(s):**

- Corrosion of the lower steel box beam near the last post on the bridge.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	22	Railings & Parapets	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2, Right bridge railing at End	219.91-350-22-02-15Sp2Rt.JPG	<b>57</b>

**Description(s):**

- Severe corrosion at the splice of the original railing.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	22	Railings & Parapets	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2, Left bridge railing at the 2nd post	219.91-350-22-03-15EndLt2.JPG	<b>58</b>

**Description(s):**

- Undermining of the right edge of the 2nd post from the end joint with two out of 3 nuts unfastened.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	22	Railings & Parapets	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 End Right	219.91-350-23-00-15Sp1Rt.JPG	<b>59</b>

**Description(s):**

- Broken weep tube.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	23	Scuppers	1	8

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Deck Under Bay 2	219.91-350-27-00-15Sp1B2.JPG	<b>60</b>

**Description(s):**

- 33 SF of spalled areas with exposed, moderately corroded rebars.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Deck Under Bay 9	219.91-350-27-01-15Sp1B9.JPG	<b>61</b>

**Description(s):**

- 29 SF of spalled areas with exposed, moderately corroded rebars.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 deck underside, Bay 7 near the pier	219.91-350-27-02-15Sp2B7.JPG	<b>62</b>

**Description(s):**

- Deck has a 6' L x 5½' W x 2" D spall with exposed rebars.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 deck underside, median Bay 9, looking toward the End	219.91-350-27-03-15Sp2B9.JPG	<b>63</b>

**Description(s):**

- Deck has a 45 SF Spall with exposed rebar.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Girder G1 at Mid-Span	219.91-350-28-00-15Sp1G1.JPG	<b>64</b>

**Description(s):**

- Bottom flange is bent up to 1" due to a recent impact.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Left Fascia Girder G1 at Pier 1	219.91-350-28-01-15G1atP1.JPG	<b>65</b>

**Description(s):**

- Heavy corrosion of the girder end at Pier 1.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1-2	4
350	30	Paint	1-2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Girder G2 at Mid-Span from Left.	219.91-350-28-02-15Sp1G2.JPG	<b>66</b>

**Description(s):**

- Bottom flange is bent up to 1" from recent impact.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Girder G8 at Pier 1 Photo Taken from Left	219.91-350-28-03-15P1S1G8.JPG	<b>67</b>

**Description(s):**

- Localized buckling of the diaphragm connection plate due to 1/2" High x 2" wide perforation of the connection plate.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Girder G13 at Pier 1 Photo Taken from Left	219.91-350-28-04-15Sp1G13.JPG	<b>68</b>

**Description(s):**

- Localized buckling due to heavy corrosion of the diaphragm connection plate



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1, Girder G16 at Pier 1 Photo Taken from Left.	219.91-350-28-05-15Sp1G16.JPG	<b>69</b>

**Description(s):**

- Localized buckling of the diaphragm connection plate due to heavy corrosion.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Girder G18 at Pier 1 Photo Taken from Left.	219.91-350-28-06-15Sp1G18.JPG	<b>70</b>

**Description(s):**

- Perforation of the bottom 6"-8" of the diaphragm connection plate.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	4
350	30	Paint	1	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Girder G1 at Pier 1 Photo Taken from Right	219.91-350-28-07-15Sp2G1B.JPG	71

**Description(s):**

- Perforation for the girder web and the diaphragm connection plate up to 8" from the bottom.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	4
350	30	Paint	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Girder G2 at Pier 1 Photo Taken from Right.	219.91-350-28-08-15Sp2G2B.JPG	72

**Description(s):**

- 2" High x 1" Wide perforation at the top and a 2" High x Full Width at the bottom.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Girder G18 at Pier 1 Photo taken from Right Side	219.91-350-28-09-15Sp2G18.JPG	<b>73</b>

**Description(s):**

- Up to 50% corrosion at the top and bottom 8" of the girder web.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	4
350	30	Paint	2	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2, girder G18 at Pier, Right side, looking toward the End	219.91-350-28-10-15Sp2G18.JPG	<b>74</b>

**Description(s):**

- Localized section loss of the top 8" of the girder web.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 1 Girder 7 - 10 Looking towards Begin	219.91-350-30-00-15Span1.JPG	<b>75</b>

**Description(s):**

- Active corrosion at the bottom flanges of the girders.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	30	Paint	1	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Span 2 Girder G6 - G10 Looking towards End	219.91-350-30-01-15Span2.JPG	<b>76</b>

**Description(s):**

- Active corrosion of at the bottom flanges of the girders

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	30	Paint	2	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 joint, EB side, looking from median	219.91-350-31-00-15EB.JPG	77

**Description(s):**

- Minor shallows spalls along the concrete header.  
Previous spall in the driving lane from Span 1 Side was patched since last inspection.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Bearings for Left fascia girder G1 at the Pier, Left side	219.91-350-33-00-15P1G1.JPG	78

**Description(s):**

- Rocker bearings exhibit advanced corrosion. Rust debris accumulated between the rockers and masonry plate.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Bearings for girder G5 at the pier, Right side	219.91-350-33-01-15P1S2G5.JPG	<b>79</b>

**Description(s):**

- Spans 2 rocker can be rocked slightly by hand, indicating girder does not transfer load to bearing.

\*\*YELLOW Structural Flag (#15-078)\*\*



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Bearings for girder G10 at the pier, Right side	219.91-350-33-02-15P1G10.JPG	<b>80</b>

**Description(s):**

- Rocker bearings exhibit advanced corrosion. Rust debris accumulated between the rockers and masonry plate.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Bearing for Span 1, girder G17 at the pier, Begin side	219.91-350-33-03-15S1G17P.JPG	<b>81</b>

**Description(s):**

- Pack rust accumulated between rocker and masonry plate, lifting rocker off plate by up to 1/2 in., exposing the 2 pintels/dowels.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Top Cap Beam at Pier 1 Girder Bay 1	219.91-350-35-00-15P1B1.JPG	<b>82</b>

**Description(s):**

- 3 1/2' Long x 3' Wide hollow sounding concrete.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier Cap or Beam	1	4

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Top Cap Beam at Pier 1 in Girder Bay 6	219.91-350-35-01-15P1B6.JPG	<b>83</b>

**Description(s):**

- 1' Long x 2' Wide x 2" Deep spall at the End Left corner of the masonry plate of G7. Adjacent to the spall is 1' Long x 1' Wide hollow sounding area.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier 1 Cap or Beam	1	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Top of Cap Beam at Pier 1 in Bay 8	219.91-350-35-02-15P1B8.JPG	<b>84</b>

**Description(s):**

- 2 1/2' Long x 2' Wide delaminated concrete area.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier 1 Cap or Beam	1	4



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap Beam at Pier 1 Column Bay 1 from End	219.91-350-37-00-15P1CB1E.JPG	85

**Description(s):**

- Multiple delaminated concrete areas with several 2" deep spalls.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap Beam at Pier 1 in Column Bay 1 from Left	219.91-350-37-01-15P1CB1.JPG	86

**Description(s):**

- Full Length x 2 1/2' Wide x 3" Deep spall along the Begin Bottom face of the cap beam.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap Beam at Pier 1 in Column Bay 4 From End	219.91-350-37-02-15P1B5E.JPG	<b>87</b>

**Description(s):**

- 18 SF of delaminated concrete and 3' Long x 3' Wide x 2" Deep spall with one exposed corroded shear stirrup.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap beam at Pier 1 Coulmn 7 from End	219.91-350-37-03-15P1C7.JPG	<b>88</b>

**Description(s):**

- 8' Long x 6" High x 3" Deep spall along the bottom corner of the End face of the cap beam. The spall extends the full width of the Bottom face of the cap beam.
- 8' High x 3' Wide delaminated concrete.



**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3
350	38	Pier Columns	1	3

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap Beam at Pier 1 Column 8 End	219.91-350-37-04-15P1C8E.JPG	<b>89</b>

**Description(s):**

- 24 SF delaminated and 12.5 SF spalled concrete along the end face.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3
350	38	Pier Columns	1	3



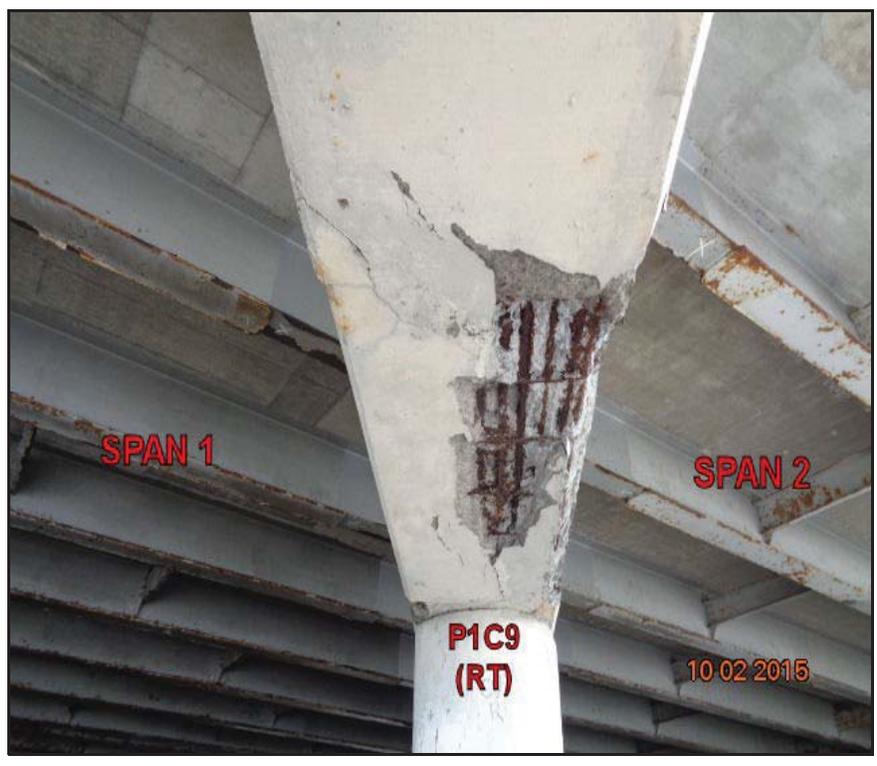
<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap Beam at Pier 1 Column Bay 9 from Right	219.91-350-37-05-15P1CB8.JPG	<b>90</b>

**Description(s):**

- 10 SF x 3" Deep spall at the bottom face of the cap beam near Column C9.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Cap Beam at Pier 1 Girder Bay 16 from Begin	219.91-350-37-06-15P1B16B.JPG	<b>91</b>

**Description(s):**

- 11.5' Long x Full Hight hollow sounding concrete with 13 SF x 3" Deep spall.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 Column C1 from Begin	219.91-350-38-00-15P1C1B.JPG	<b>92</b>

**Description(s):**

- 9 1/2' High x 1 3/4' Wide x 4" Deep spall with 7 out of 8 exposed ties broken.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 Column C1 from Begin Left	219.91-350-38-01-15P1C1B.JPG	93

**Description(s):**

- Two vertical exposed and debonded rebars.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 Column C1 from Begin	219.91-350-38-02-15P1C1B.JPG	94

**Description(s):**

- Severe corrosion of the vertical exposed rebars.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier Column C3 Begin Face	219.91-350-38-03-15P1C3B.JPG	<b>95</b>

**Description(s):**

- 6' High x 2 1/2' Wide x 2 1/2" Deep spall with 5 ties and 2 Vertical rebars exposed.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 Column C7 Begin Face	219.91-350-38-04-15P1C7B.JPG	<b>96</b>

**Description(s):**

- 7 1/2' High x 2' Wide x 2 1/2" Deep spall with 3 out of 7 exposed ties broken and 5 exposed vertical rebars.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 1 Column C10 from Begin Right	219.91-350-38-05-15P1C10B.JPG	<b>97</b>

**Description(s):**

- 4" High x 2 1/2" Deep x Full Width spall at the base of the column.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



# **INVENTORY**

# INVENTORY FIELD VERIFICATION FORM

The accuracy and completeness of the data in the BIMS data base has been compared to field observation of elements that appear to have been improved and to current underclearance measurements recorded during this year's inspection.

**NO CHANGES ARE REQUIRED**

**BIN:** 1020079

**MP:** 219.91

DATE	PREPARED BY	REVIEWED BY	REMARKS
10/2/2015	G.Mullings	G.Hoffmann	NONE



**MINIMUM BRIDGE UNDERCLEARANCE  
MAINLINE BRIDGES  
SYRACUSE DIVISION  
NEW YORK STATE THRUWAY AUTHORITY**

MP: 219.91 SHEET 1 OF 1

BIN: 1020079 DATE: 10/2/2015

Bridge Orientation: West

TWY Traffic Direction: WEST

Feature Crossed: NYS Route 28

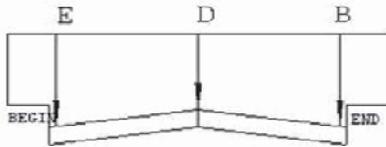
Date	A	B	C	D	E	F	G	H	A'	B'	C'	D'	E'	F'	G'	H'
08/12/2009		14.63		14.72	14.59					14.64		14.74	14.55			
08/10/2011		14.64		14.74	14.59					14.65		14.71	14.57			
09/06/2013		14.66		14.74	14.58					14.66		14.72	14.55			
10/02/2015	14.71	14.65		14.75	14.58					14.64		14.71	14.54		14.58	

**REMARKS:** 90 IX over SR 28 (Mohawk St.)  
Readings were taken to the bottom of the Right Fascia Girder.  
Point(s) B, D, E, B', D' and E' were taken at the stripes. Point A and G' were taken at the curb.

**NOTES:**

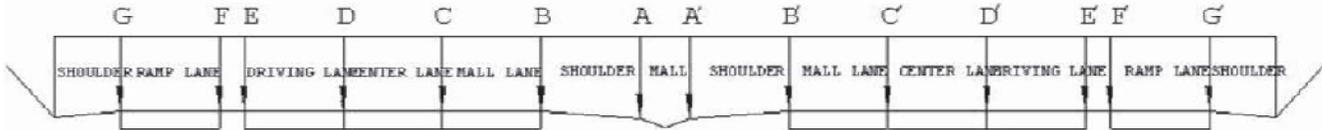
- 1) Use appropriate profile sketch 'A' or 'B'
- 2) When using sketch 'B' use points E, D & B and E', D' & B' to record measurements for 2 lane sections.
- 3) When using sketch 'B', use point F for detached ramps only
- 4) H and H' measurements taken at any other needed location or NA. Note location 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**



SKETCH 'A'  
(NON-DIVIDED HIGHWAY UNDER TWY)  
PROFILE VIEW

**THRUWAY MAINLINE BRIDGE**



SKETCH 'B'  
(DIVIDED HIGHWAY UNDER TWY)  
PROFILE VIEW

ACCESS CATEGORY CODING FORM

RC - BIN: 

1	2
2	3

 - 

3	4	5	6	7	8	9
1	0	2	0	0	7	9

INSPECT DATE: 10/2/2015

TEAM LEADER: Glenford Mullings

Span No			Walking	Step Ladder	Extension	40' UBIU	60' UBIU	LGWT - UBIU	<= 30' Lift	30 -90' Lift	> 90' Lift	Row Boat	Barge	Diving	RR Flagging	Electric RR	Scaffolding	Lane Closure	W/Shad Veh	Other		Contractor Code	Record Code	Tx Code
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		116	118	120
B	R	I	X	X	X				X										X			31	17	2
0	0	1	X	X	X				X										X			31	17	2
0	0	2	X		X				X										X			31	17	2

INSTRUCTIONS: - Only a single BIN will be addressed on any single sheet -

- a) Complete the date, preparer, and sheet number headings.
- b) Enter the region, county and BIN number.
- c) In the first line of the form, having a span number of "BRI", place an "X" in each access category necessary for a proper inspection of the entire bridge and enter the contractor code.
- d) In all subsequent rows, WITH ONE SPAN PER LINE AND USING AS MANY LINES AS THERE ARE SPANS FOR THE ENTIRE BRIDGE STRUCTURE, enter the span number being addressed (columns 10-12, right justified and zero filled) place an "X" in each access category necessary for a proper inspection of that span (and the two substructure faces facing that span) and enter the contractor code.
- e) IF DIVING ACCESS IS REQUIRED (as directed by Inspection TA 87-012) FOR EITHER OF THE TWO SUBSTRUCTURE FACES FACING THE SPAN BEING CODED, INDICATE SO WITH AN "X". THIS MUST BE DONE EVEN IF A DIVING INSPECTION IS NOT REQUIRED DURING THE CURRENT INSPECTION SEASON. NOTE that some NYSDOT documents refer to bridges requiring diving inspection as having an "I" ACCESS CATEGORY.
- f) Recode the entire bridge if ANY UPDATING of the Access Category is necessary.
- g) Use col. 28 for situations requiring lane closure WITHOUT a shadow vehicle and col. 29 for lane closure WITH a shadow vehicle.

# **LOAD RATING**

**NEW YORK STATE THRUWAY AUTHORITY**  
**BRIDGE INSPECTION FIELD VERIFICATION OF LOAD RATING DATA**

Date: 10/2/2015

MP/BIN: 219.91/1020079

Feature Carried / Crossed: 90 IX over Mohawk Street (NYS Route 28)

**Dead Load:**

WS Thickness & Material Shown on Plans - 3.75" asphalt concrete

Changes Noted in Field: None

Railing Type Shown on Plans - Left: 2-rail steel bridge railing open web post ; Right: 4-rail panelized steel with thrie beam add-on. Median: 2-sided w-section on weak posts.

Changes Noted in Field: None

Other DL Contributions (e.g. utilities) on Plans - None

Changes Noted in Field: None

**Section Loss:**

Existing Documentation (sketches, etc.) ? - Yes

Location of Documentation (previous report, blue folder, etc.)? - Previous inspection report.

New Section Loss noted? - Yes

Brief Description (attach sketches if helpful) - Span 1, G18 at Pier - web loss increased to 49% in bearing area.

Additional Notes: See attached "Gider End Section Loss Documentation".

Attachments:  yes       no      (please circle)

Team Leader: Glenford A. Mullings

Signature: 

Date: 10/2/2015

## LEVEL 2 LOAD RATING (VIRTIS LFD)

MILEPOST: 219.91

BIN: 1020079

REGION: 2

COUNTY: HERKIMER

FEATURE CARRIED: 90IX

FEATURE CROSSED: MOHAWK STREET (NY ROUTE 28)

### LEVEL 2 LOAD RATING REVIEW

VIRTIS RUN DATE: 10/8/2013

CHANGES TO INPUT DATA: G10 live load distribution factors revised.  
Section loss added per 2013 inspection report.  
See list of changes on page 2 of VIRTIS  
load rating in BIN folder.

LOADING	INVENTORY RATING (TONS)	OPERATING RATING (TONS)
HS-20	34.9 (HS-19) ✓	58.3 (HS-32) ✓
H-20	27.8 (H-27) ✓	46.3 (H-46) ✓

\* ANALYSIS METHOD: LOAD FACTOR

\*\* Lane loading controls the H20 rating. Truck loading controls the HS20 rating.

### CONTROLLING MEMBER FOR RATING

LOCATION: SPANS 1 & 2 - WESTBOUND

COMPONENT: MEDIAN FASCIA GIRDER G10

FAILURE TYPE: MIDSPAN FLEXURAL CAPACITY

EFFECTIVE SPAN LENGTH: 61'

H EQUIVALENT OF LEGAL LOAD: H25

PRIMARY MEMBER RATING: 4

SAFE LOAD CAPACITY: H39

SLC COMPUTATION USED (IN BOLD)				
0.60 HOR	0.70 HOR	0.80 HOR	<b>0.85 HOR</b>	HOR

ACTION TAKEN: NONE REQUIRED X

RECOMMEND LEVEL 1 \_\_\_\_\_

UNRATABLE \_\_\_\_\_

COMPLETED BY

Michael Gaskill

MICHAEL GASKILL  
LOAD RATING ENGINEER

REVIEWED BY

Garret Hoffmann 10/24/13

GARRET HOFFMANN  
PE # 070686  
QUALITY CONTROL ENGINEER

**NEW YORK STATE THRUWAY AUTHORITY  
STEEL DETAILS VULNERABILITY ASSESSMENT REVIEW (SDVA)\***

**Region:** 2 **County:** 3 HERKIMER **BIN:** 1020079  
(Code) (Name)

**Carried:** 90IX **Crossed:** Mohawk St. (NYS Route 28)

**Owner:** New York State Thruway Authority

**Existing Steel Details Vulnerability Rating** \_\_\_\_\_  
**Existing Rating Date** \_\_\_\_\_

	Yes	No
1. Since the last assessment/inspection, were there any modifications to the steel superstructure or steel substructure ?		X
2. Since the last assessment/inspection, is there any reason to suspect a significant increase in the Avg. Daily Truck Traffic (AADT) ?		X
3. Since the last assessment/inspection, have any structural flags been issued for metal cracking, corrosion or metal impact damage ? (If yes, attach copy)		X
4. Since the last assessment/inspection, is there any <b>new</b> evidence of metal cracking ?		X
5. Since the last assessment/inspection, has the condition rating dropped to 3 or below for the following elements (or raised from a 3 or below to a 4 or higher):		
a) Paint on a primary member ? (Form TP-350g, column 30)		X
b) Deck elements recommendation ? (Form TP-350g, column 27)	X	
c) Joints ? (Form TP-349n, column 22 or 23 or Form TP-350g, column 31)	X	
d) Primary member ?		
Steel Superstructure (Form TP-350g, column 28)		X
Steel Substructure Rigid frames (Form TP-349n, columns 30 & 31)		X
Steel Pier capbeams (Form TP-350g, column 37)		X
e) Drainage ? (Form TP-350g, column 23 [scuppers] or column 24 [gratings])		X
f) Bearings ? (Form TP-349n, column 24 or 25 or Form TP-350g, column 33)	X	

**Comments** (Explain, or reference, "Yes" answers to inspection report and note other things of possible significance)

Span 2 curb rated '3'.  
 Joint at pier rated '3'.  
 Bearings at Begin and End abutments, and at Pier all rated '3'.

**Inspected By** Glenford Mullings Prudent **Date** 10/2/2015 **Quality Control Engineer** GH **Date** 11/16/2015  
(Name) (Title) (Initial)

Does the Regional Bridge evaluation Engineer (RBEE) recommend follow-up action ?        No        Yes  
 If Yes, Explain \_\_\_\_\_  
 \_\_\_\_\_  
(RBEE Signature) (Date)

\* This form is to be completed only if there is a "Yes" answer, or a comment noting an item of possible significance.

## **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. 1020079 OVER PS&E 7/9/05 Anticipated Year of Construction 2018  
 BRIDGE I-90 EB&WB Mohawk Street  
 NUMBER OF SPANS: 1 SPAN ARRANGEMENT 125 WIDTH 136 ft  
 ABUTMENT TYPE semi-integral SKEW 38.33 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>38.33</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>136</u> Bridge Width (ft) <small>(Width of opening for culvert)</small>	<u>10,055</u> * Shoulder Break Area (Square Feet)
1A.) Base: (\$ / ft <sup>2</sup> SB AREA)	<u>\$165</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 <sup>2</sup> &	<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>\$27</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>\$66</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 \$75. 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**  
**\$ / ft<sup>2</sup> SB AREA =** \$409

Shoulder Break Area (ft <sup>2</sup> )	<u>10,055</u>	X Cost / ft <sup>2</sup>	<u>\$409</u>	= BRIDGE ONLY COST	<u>\$4,116,920</u>
<b>Contingencies:</b>	Remove existing bridge				<u>\$300,000</u>
	Work Zone Traffic Control (WZTC)				<u>\$100,000</u>
	Cross-over for Mainline				<u>\$200,000</u>
	Channel work				<u>                    </u>
	Slope protection, other than for channel work				<u>                    </u>
	Utilities				<u>\$0</u>
	Aesthetics (e.g. Form liners, decorative railing, lights & stone facades)				<u>                    </u>
	MSE for abutments. Specified "Plain" \$53, "As Shown" \$102 per ft <sup>2</sup> of MSE				<u>                    </u>
	Overhead (e.g. Construction office, computer software & hardware, office supplies)				<u>\$10,000</u>
	Input as decimal for anticipated year of letting:				<u>                    </u>
<b>Simple Inflation Rate For SFY:</b>	<u>13/14 to 14/15 - 3.0%; 14/15 to 15/16 - 3.0%; 15/16 to 16/17 - 3.0%;</u>				<u>0.030</u>
	<b>TOTAL BRIDGE SHARE</b> (Includes additional 4 % for mobilization				<b>= \$ <u>5,063,477</u></b>

rev. 12/2016  
 (Project Data Up to 12/15/2016)