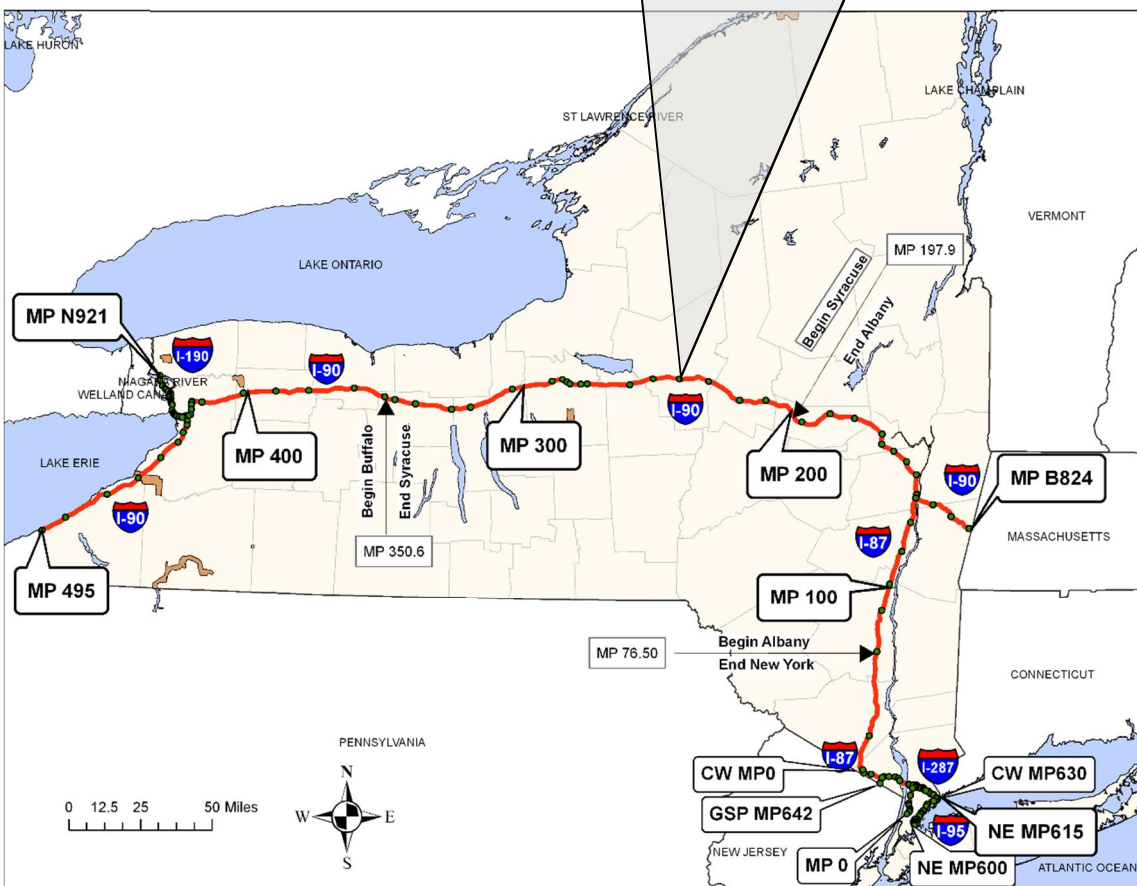


# TRANSPORTATION

## FINAL DESIGN REPORT

June 2017

Bridge Project  
NYSTA D214386  
PIN S52886 B690.1  
MP 240.48 BIN: 5512980  
Judd Rd. (C.R. 840) over I-90  
Oneida County  
Town of Whitestown



PROJECT REPORT



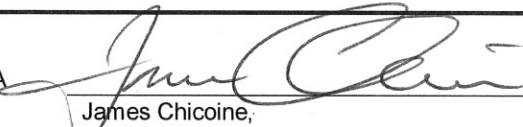


**PROJECT APPROVAL SHEET**

(Pursuant to SAFETEA-LU Matrix)

**A. Capital Plan Project Proposal Approved**

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

  
James Chicoine,

Director of Program Capital Management

7/12/17  
Date**B. Scope Approval**

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

Scoping Concurrent w/ Design (Approved by):

  
Thomas A. Mahar, P.E.

Director of Engineering Support Services

8/1/17  
Date**C. Public Hearing Certification  
(23 USC 128):**

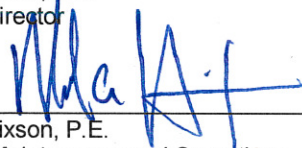

A public hearing was not required.

  
David T. Vosburgh, P.E.

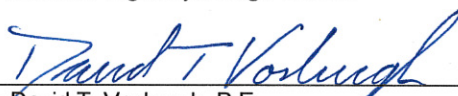
Preliminary Design Project Manager

7/12/17  
Date**D. Recommendation for Design Approval**

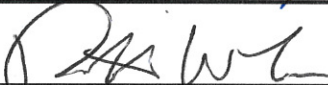
This Project Design Report has been reviewed and meets my approval. The report documents the project needs and has evaluated appropriate alternatives.

  
Patrick Hoehn, P.E.  
Division Director7/21/17  
Date  
Mark A. Hixson, P.E.  
Director, Maintenance and Operations7/24/17  
Date  
Timothy R. Conway, P.E.  
Director, Office of Design7/24/2017  
Date**E. Recommendation for Design and  
Nonstandard Feature Approval**

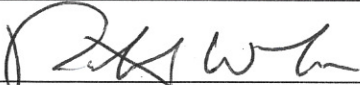
All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise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

  
Albert S. Mastroianni, P.E.  
Director, Highway Design Bureau7/12/17  
Date  
David T. Vosburgh, P.E.  
Director, Structures Design Bureau7/12/17  
Date**D. Nonstandard Feature Approval**

No nonstandard features have been created or will be retained.

  
Richard W. Lee, P.E.  
Chief Engineer8/9/17  
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 Engineer8/9/17  
Date

## LIST OF PREPARERS

This report was prepared by the following Consultant staff:

Mark Laistner, P.E., Project Manager, Popli Design Group



**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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Hazardous Waste / Contaminated Materials Technical Memorandum, February 2017	
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## CHAPTER 1 – EXECUTIVE SUMMARY

### 1.1. Introduction

This project proposes to replace the existing bridge carrying Judd Rd. over I-90 (I-90) EB & WB (BIN 5512980) located at MP 240.48 in the Town of Whitestown, Oneida County, New York.

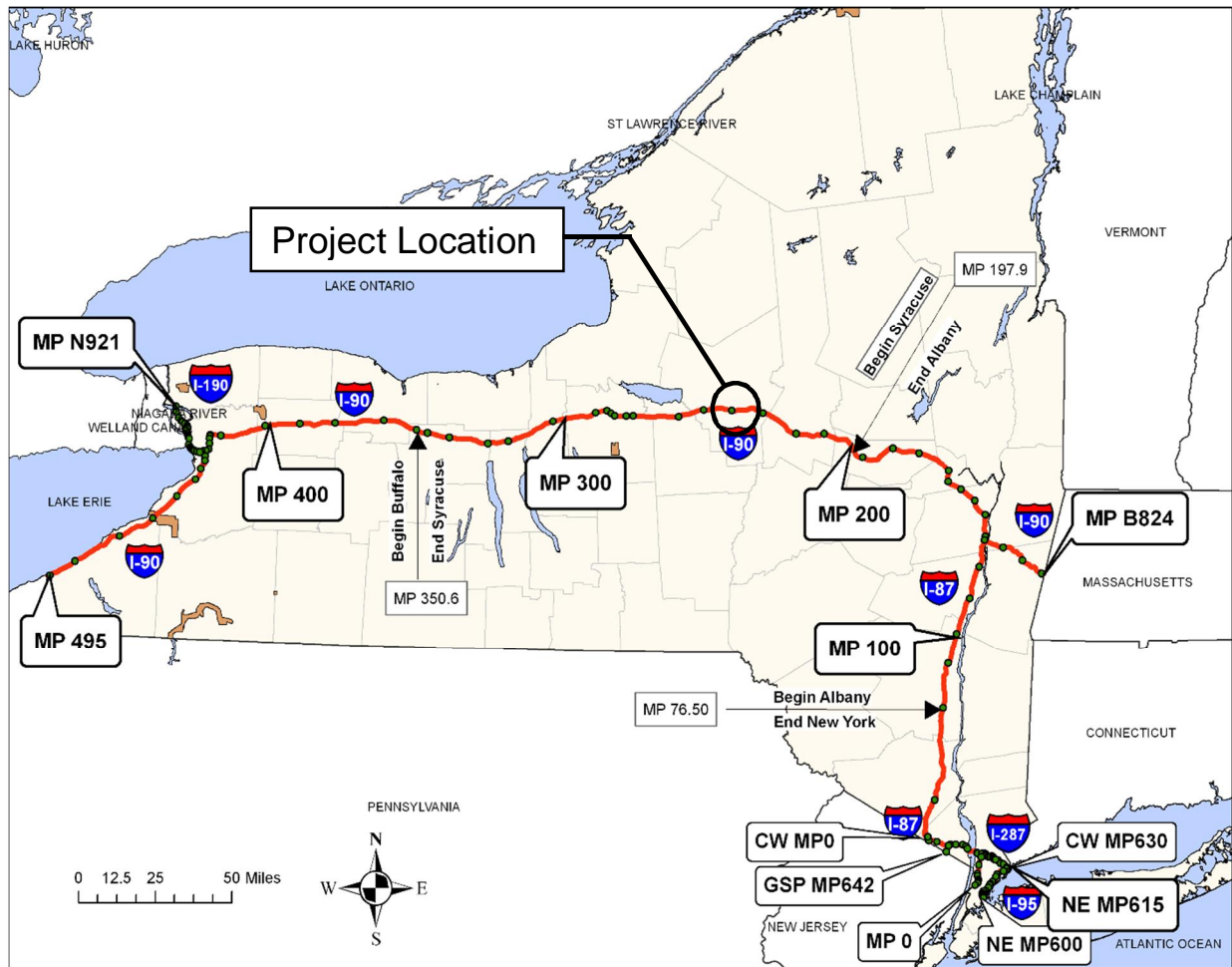
This report will assess existing conditions, identify the overall project objectives, analyze alternative solutions, and discuss the social, economic and environmental effects on the community resulting from the implementation of the feasible alternative under consideration.

### 1.2. Purpose and Need

#### 1.2.1. Where is the Project Located?

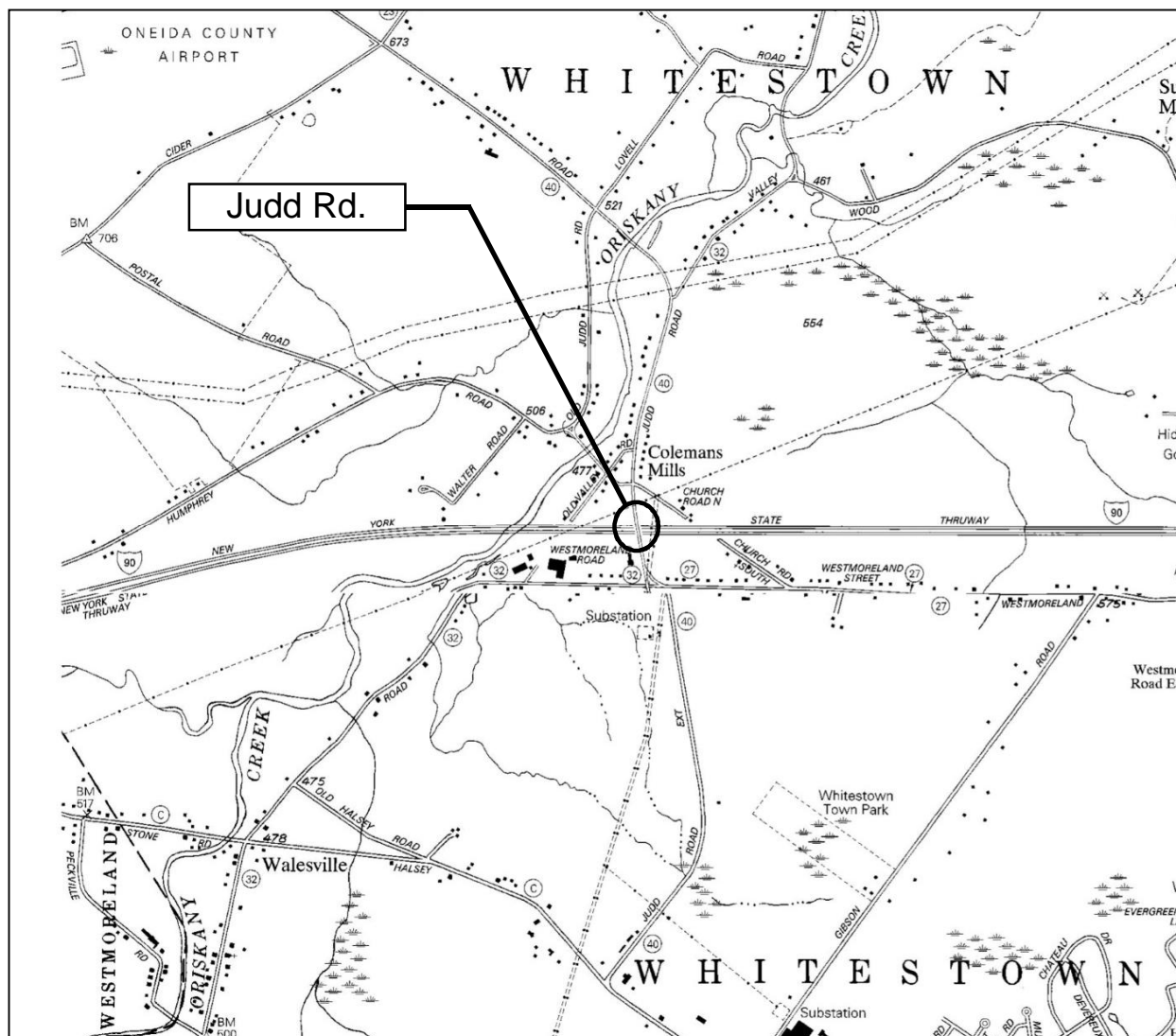
This project is located within the Town of Whitestown, Oneida County. For more information, see Figure 1 – General Location Map and Figure 2 – Project Location Map.

- (1) Route number – CR 840
- (2) Route name – Judd Rd.
- (3) SH number and official highway description – N/A
- (4) BIN number and feature crossed – 5512980, I-90
- (5) City/Village/Township – Town of Whitestown
- (6) County – Oneida
- (7) Length – 960 feet
- (8) Project Termini – Begin – 250 feet south of the centerline of I-90 WB  
End – 630 feet north of the centerline of I-90 EB



## **FIGURE 1 - GENERAL LOCATION MAP**

NEW YORK STATE THRUWAY AUTHORITY  
Judd Rd. over I-90 Bridge Replacement  
Town of Whitestown



## **FIGURE 2 - PROJECT LOCATION MAP**

NEW YORK STATE THRUWAY AUTHORITY  
Judd Rd. over I-90 Bridge Replacement  
Town of Whitestown



### 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 General Recommendation of 4. 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 I-90 meeting current Federal, State and NYSTA standards with a service life of at least 75 years.
- (2) Meet the objective above in a socially, economically and environmentally sensitive manner.

### 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 and the bridge will continue to deteriorate until the time where it will need to be posted and eventually closed. NYSTA maintenance forces would continue routine maintenance and repairs on the structure, as required, and the existing structural deficiencies and non-standard features would remain. 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 remove structural deficiencies for the next 25 to 30 years and to eliminate all the non-standard features as is economically feasible. The superstructure repair scope would include a new metalized steel superstructure with concrete deck, widening the existing abutments and piers to accommodate the wider superstructure, reconstruction of existing pedestals that satisfy AASHTO seismic criteria and installing a new stem wall, new approach slabs, and new approach and bridge railing that satisfy the current NYSDOT and NYSTA criteria and a new approach pavement to match the raised profile for the bridge. The total cost for the rehabilitation option is \$5.95M. Since the cost of the rehabilitation option is approximately 107% of the replacement cost and the service life of this alternative is less than 75 years, this alternative is eliminated from further review.

**Reconstruction Alternative – Bridge Replacement** – 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 36'-0" clear roadway width by providing two 12'-0" travel lanes and 6'-0" shoulders. The new bridge would utilize a two-span superstructure. Concrete abutments and a median pier would be placed so that adequate shoulders can be provided for the under roadway. The over roadway profile would be raised as necessary to meet the 16'-6" minimum vertical clearance requirement and to accommodate any increase in structure depth. Approach roadway work would include reconstructing the approaches to each end of the bridge as required to accommodate the new bridge and replacement of guide railing.

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

Anticipated Permits/Certifications/Coordination:

##### NYSDEC

- State Pollutant Discharge Elimination System (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.

##### NYSDOT

- Highway Work Permit (WZTC Signage)

##### Coordination

- NYSDEC
- NYSDOT
- Oneida County
- Town of Whitestown
- NY Natural Heritage Program
- US Fish & Wildlife
- NY State Historic Preservation Office (SHPO)

#### 1.5. What are the Costs & Schedules?

The estimated construction cost for the preferred alternative is \$5.56M. 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 24 months beginning in July 2018.

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

#### 1.6. Which Alternative is Preferred?

The preferred alternative is the bridge replacement alternative.

### 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 will consider all comments received from the various review agencies and the public information meeting.

<b>Exhibit 1.7 Schedule of Milestone Dates</b>	
<b>Activity</b>	<b>Date Occurred/Tentative</b>
Design Approval	<i>July, 2017</i>
Proposal Due Date	<i>September 27, 2017</i>

A detour feasibility meeting was held on June 8, 2017 at 9:30 AM to discuss the project with public service and emergency services representatives. See Appendix E for further information.

A public information meeting (open house format) was held on July 12, 2017 from 5:00 PM to 8:00 PM at the Whitestown Community Center to present the project and discuss alternatives with any interested parties. There were 8 attendees. See Appendix E for further information.

For further information, questions or comments contact:

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

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 I-90 corridor including the bridges carrying Judd Rd. over I-90 at MP 240.48.

### **2.1. Project History**

I-90, in the vicinity of MP 240.48, 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 Judd Rd. Bridge over I-90 (EB & WB) (BIN 5512980) at MP 240.48 was constructed with the original highway in 1952. Only random substructure repairs have been undertaken by the Division Bridge Maintenance forces since the bridge was built.

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.

Judd Rd. connects Westmoreland Rd. with Old Judd Rd., running in a north/south direction, and provides access to several local rural roadways. It is also an access route to the NYS Emergency Preparedness Training Center and Oneida County Emergency Services Center.

##### **2.2.2.2. Alternate Routes**

If the bridge were permanently closed an alternate route that could serve as a detour would be west of the bridge utilizing Halsey Rd. (CR 52), Stone Rd. (CR 52), E. Main St. (CR 52), NY State Route 233 and Sutliff Rd. (CR 840). This route is approximately 13 miles long. Another route is available east of the

bridge that is approximately 7 miles long. However, that route has an active 6-ton weight limit on Valley Rd. (CR 32).

### 2.2.2.3. Corridor Deficiencies and Needs

The existing bridge is classified as structurally deficient and contains several non-standard features as described later in this chapter. Continued deterioration and eventual load posting of the roadway and bridges would have a detrimental impact on motorists using the NYS Thruway.

### 2.2.2.4. Transportation Plans

This project is being progressed as a bridge replacement project which when bundled with seven other bridges within the Syracuse Division to be replaced will be let as a 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 highway section through the project limits consist of two 12'-0" travel lanes in each direction with approximately 10'-0" (5'-0" paved and 5'-0" unpaved) inside shoulders and approximately 8'-0" outside shoulders. The eastbound and westbound travel lanes are separated by an approximately 25'-0" wide grassed median and box beam/w-beam median barriers. The median is such that it can accommodate a future third lane. Speed limits are regulatory posted at 65 mph for I-90 within the project corridor.

The existing Judd Rd. highway section to the north and south of the project area includes one 10'-0" travel lane in each direction with 6'-0" shoulders (3'-0" paved and 3'-0" unpaved). The bridge section includes only 3'-0" shoulders.

Currently, there are no plans to reconstruct the adjacent sections of I-90 or Judd Rd.

## 2.3. Transportation Conditions, Deficiencies and Engineering Considerations

### 2.3.1. Operations (Traffic and Safety) & Maintenance

#### 2.3.1.1. Functional Classification and National Highway System (NHS)

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

### 2.3.1.2. Control of Access

Access to I-90 is fully-controlled. The highway is a toll facility with access limited via toll booths at interchanges. Judd Rd. has uncontrolled access.

### 2.3.1.3. Traffic Control Devices

There are no traffic signals within the project limits. 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)

A fiber optic line (owned by Windstream Communications) is located under the north abutment of the existing bridge and runs parallel to the I-90 WB Roadway.

### 2.3.1.5. Speeds and Delay

Refer to Exhibit 2.3.1.5 for existing speed data along I-90 and Judd Rd. within the project limits:

<b>Exhibit - 2.3.1.5 Speed Data</b>		
Route	I-90	Judd Rd. (C.R. 840)
Existing Speed Limit	65 MPH	55 MPH
Operating Speed and Method Used for Measurement	70 MPH <sup>1</sup>	60 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

Refer to Exhibit 2.3.1.6-1 for a summary of the traffic data:

<b>Exhibit - 2.3.1.6-1 Existing and Forecast Traffic Volumes</b>				
Route	<b>I-90</b>			
Year	AADT	DHV	DDHV	% Trucks
Existing (2016)	23,797	N/A	1,608	22
ETC (2020)	25,257	N/A	1,707	22
ETC+10 (2030)	29,312	N/A	1,981	22
ETC+20 (2040)	34,018	N/A	2,299	22
ETC+30 (2050)	39,479	N/A	2,668	22

Route	Judd Rd.			
Year	AADT	DHV	DDHV	% Trucks
Existing (2015)	7,394	N/A	502	4.2
ETC (2020)	7,771	N/A	528	4.2
ETC+10 (2030)	8,584	N/A	583	4.2
ETC+20 (2040)	9,482	N/A	644	4.2
ETC+30 (2050)	10,474	N/A	711	4.2

An assumed annual growth rate of 1.5% and 1.0% were used for future traffic volume projection of I-90 and Judd Rd. respectively.

#### 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 NYSDOT PDM Appendix 5. An ETC+30-year projection was completed as the project involves the replacement of a bridge.

#### 2.3.1.7. Level of Service and Mobility

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

Level of Service (LOS) defines traffic operating conditions in which “A” represents the best conditions (traffic that is free flowing with minimal delay) and “F” which represents the condition where upstream demand exceeds capacity on a regular basis (results in reduction in free flow speed and unacceptable delay).

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

Exhibit - 2.3.1.7-1 Thruway Mainline Service Summary	
YEAR	LOS
Existing (2016)	B
ETC (2020)	B
ETC+10 (2030)	B
ETC+20 (2040)	C
ETC+30 (2050)	C

#### 2.3.1.8. Safety Considerations, Accident History and Analysis

The accident analysis was conducted for the time period of 1/1/13 – 12/31/15.

There was a total of 26 accidents during the analysis period, with one fatality. The fatality occurred January 25, 2013 due to a head-on collision between two vehicles. Based on City Data Fatal Accident Statistics for the Town of Whitesboro, NY, this accident occurred due to the car crossing into the southbound lane striking an oncoming vehicle. This accident occurred outside the current project limits.

The 3-year accident rate is 4.40 acc/MVM, which is significantly higher than the 2014 Statewide Accident Rate of 2.33 acc/MVM for 2-lane Urban Undivided Functional Class.

Top Accident Types:

Animal 38%

Fixed Object 23%

Rear End 15%

Accidents due to animals do not typically attribute to the geometry of the project corridor. Therefore, the accident rate without considering accidents due to animal collisions is 2.73 acc/MVM, which is closer to the statewide accident rate mentioned above. Based on this information the current geometry does not reduce the overall safety of the project corridor.

**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 Oneida County Sheriff's Department is responsible for enforcement along Judd Rd.

**2.3.1.10. Parking Regulations and Parking Related Conditions**

Parking on Interstate highways is restricted by law. There are no regulations restricting parking on Judd Rd.

**2.3.1.11. Lighting**

There is no street lighting on I-90 or Judd Rd. within the project limits.

**2.3.1.12. Ownership and Maintenance Jurisdiction**

The New York State Thruway Authority operates and maintains the Thruway (I-90) and the bridge carrying Judd Rd. over I-90 within the project limits. Oneida County owns and maintains the remaining portions of Judd Rd. within the project limits.

**2.3.2. Multimodal****2.3.2.1. Pedestrians**

Pedestrians are prohibited on Interstate Highways by state law. Pedestrians utilizing Judd Rd. within the project limits are required to use the shoulders on the approaches to the bridge, and may use the narrow shoulders when on the bridge.

**2.3.2.2. Bicyclists**

Bicyclists are prohibited on Interstate Highways by state law. Bicyclists utilizing Judd Rd. north of the Westmoreland Rd. intersection within the project limits use the travel lanes and/or the shoulders. Bicyclists utilizing Judd Rd. south of the Westmoreland Rd. intersection may use the Rayhill Memorial Trail. A Complete Streets Checklist can be found in Appendix C.

**2.3.2.3. Transit**

There are no transit providers with operating facilities within the project limits.

**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)

The Oriskany Snow Drifters Snowmobile Trail is a Class C (Secondary) trail that runs along Judd Rd. across the bridge. There are no entrances to any other recreation areas within the project limits.

### 2.3.3. Infrastructure

#### 2.3.3.1. Existing Highway Section

Typical sections, plans and profile sheets showing the existing Judd Rd. highway section can be found in Appendix D. Judd Rd. consists of two 10'-0" travel lanes with 6'-0" (3'-0" paved and 3'-0" unpaved) shoulders. The pavement consists of a 2½" asphalt top course and a 3" bottom course underlain by a 9" foundation course. The shoulders were not constructed as a full depth pavement.

The I-90 roadway section through the project limits consist of two 12'-0" travel lanes in each direction with approximately 10'-0" (5'-0" paved and 5'-0" unpaved) inside shoulders and approximately 8'-0" outside shoulders.

#### 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	Vertical Clearance	14'-4½"	16'-6"
I-90	Shoulder Pier Protection	32" Jersey Barrier	54" high barrier
Judd Rd.	Stopping Sight Distance	365 ft.	522 ft.

##### 2.3.3.2. (2) Other Design Parameters

The existing bridge rail is non-conforming. It consists of a two-rail box-beam bridge rail upgrade tied to the existing four rail discontinuous steel bridge rail over a curbed safety walk. Current Thruway policy requires a TL-5 concrete barrier on all replacement bridges on or over the Thruway. Concrete barrier has been deemed practical and therefore will be specified on the new superstructure.

Corrugated W-beam guide rail is present along the inside shoulders of I-90 to provide impact protection to the median pier. The outside shoulders consist of steel box-beam railing mounted on a Jersey barrier under the bridge to provide impact protection to the shoulder piers. These pier protection railing/barrier systems do not meet the current AASHTO standards.

After project completion, all the above-mentioned features will be conforming.

#### 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 generally collected via toe of slope ditches flowing away from I-90. Drainage along the Judd Rd. bridge is collected and directed to the north approach by the concrete curbs.

Along I-90, drainage from the travel lanes is collected in roadside ditches or closed drainage systems. The roadside ditches run along the north and south sides near the highway boundary. The closed drainage

system runs along the I-90 median with a single 24" diameter Reinforced Concrete Pipe running on the north side of the center pier foundation. No other drainage structures are within the project limits.

### **2.3.3.5. Geotechnical**

Soil borings were taken as a part of the project in December 2016. The soil below the existing Judd Rd. bridge consists mainly of brown/gray silty sand with up to 25% gravel from ground surface to a depth on approximately 15 feet. This layer is underlain by primarily brownish gray sandy silt with up to 40% gravel with a dense, massive soil structure for up to 40 feet of depth followed by brownish gray gravelly soil with very dense soil structure at lower depths. The borings were terminated between 50-65 feet. No rock was encountered.

The abutments of the existing bridge are founded on concrete piles approximately 25'-0" and 28'-0" in length.

### **2.3.3.6. Structure**

#### **2.3.3.6. (1) Description**

There is one structure located within the project limits that carries Judd Rd. over I-90.

- a) BIN – 5512980
- b) Feature carried and crossed – Judd Rd. over I-90.
- c) Type of bridge, number and length of spans, etc. – The bridge consists of a 206-foot-long steel multi-girder superstructure comprised of four simple spans of lengths 44'-8", 59'-8", 59'-8" and 38'-2" respectively. The substructure consists of pile-supported concrete piers and abutments. The bridge carries two travel lanes, one in each direction with steel bridge railing supported on safety walks/brush curbs on either side. The existing railing is comprised of four rail non-continuous steel with box-beam upgrade attachment to the existing rail posts on top of the curbed safety walk.
- d) Width of travel lanes and shoulders – The bridge has a curb-to-curb width of 26'-0", comprised of two 10'-0" wide travel lanes and 3'-0" wide shoulders.
- e) Sidewalks – The bridge has two 3'-6" wide brush curbs with approx. 2'-10" safety walks.
- f) Utilities carried – The bridge carries sign panels on the fascia girders and horizontal clearance markers on the approaches.

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

Judd Rd. over I-90 EB & WB has a minimum horizontal clearance of 3'-0" from the edge of pavement to the edge of railing.

The minimum horizontal clearance on the I-90 is approximately 10'-0" measured from the right edge of travelway to the concrete barrier.

The vertical clearance above the bridges is unrestricted, while the minimum vertical clearance below the bridge is approximately 14'-4½" measured from the I-90 WB pavement to the bottom of steel girders. This vertical clearance does not meet the 16'-6" minimum NYSTA vertical clearance standard.

#### **2.3.3.6. (3) History & Deficiencies**

The Judd Rd. Bridge over I-90 (BIN 5512980) at MP 240.48 was constructed with the original highway in 1952. Since then, only random substructure repairs have been undertaken by the Division Bridge Maintenance forces. The bridge railing system was upgraded by installing a two-rail box beam steel bridge railing system attached to the existing four-rail steel bridge rail posts. The date of this railing upgrade is unknown.

The bridge is considered to be structurally deficient, meaning that its deterioration is at a level that requires corrective maintenance or rehabilitation to restore the bridge to its fully functional condition. The

bridge also has non-standard and non-conforming design features including but not limited to narrow shoulders, low steel rocker bearings, insufficient vertical clearance, shoulder piers and discontinuous steel railing.

A safety flag (15-041) was issued for severe spalling with exposed, corroded and debonded reinforcement in the Pier 1 and Pier 3 columns.

The inventory rating is HS23 (42.0 tons) and the operating rating is HS38 (70.1 tons). The bridge is not posted for load restrictions.

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

The bridge was last inspected on 06/17/2015. A full copy of the inspection report and the current bridge inventory can be found in Appendix D.

- a) NYS Condition Rating – 3.75
- b) NYS General Recommendation – 4
- c) Summary of Condition and Inspection reports – The 2015 Inspection Report assigned a condition rating of 4 out of 7 to the abutments due to several spalls and exposed rebar on the pedestals. The bearings, anchor bolts and pads are rated minimum 3 out of 7 for exhibiting heavy rust scale throughout, with thick pack rust under the sole plates. Corrosion may restrict proper movement of bearings. The joints at the abutments are rated 4 out of 7 due to missing joint seals and active leakages at some locations.

The structural steel is in poor to fair condition, rated a minimum of 4 out of 7. The girders along all spans exhibit moderate to heavy corrosion with significant section loss particularly in Spans 2 and 3. The paint system deterioration has affected approximately 75% of the total steel surface area in Spans 2 and 3. The structural deck is rated minimum 3 out of 7, which exhibits fine mapcracking and dampness affecting up to 90% of the deck surface area in each span. The left fascia overhang shows spalling with exposed and corroded rebar. Deck joints over the piers are rated 3 out of 7 due to a damaged/missing joint sealants and heavy active leakage through the joints contributing to significant deterioration of the underlying elements.

Piers 1 and 3 are have a rating of 3 and 4 out of 7 respectively due to severe spalling with exposed, corroded and debonded rebar in the pier columns, cap beam and pedestals.

#### **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, eventually leading to the closure of the bridge.

#### **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

At Judd Rd., a two-rail highway box beam bridge rail upgrade is present on the bridge tied to the original bridge railing posts. The approach consists of two-rail box beam railing transitions. The existing bridge railing to which the two-rail bridge rail is attached to is in a poor condition. Otherwise, the railing systems are in a good condition.

Corrugated W-beam guide rail is present along the inside shoulders of I-90 to provide impact protection to the median pier. The outside shoulders consist of steel box-beam railing mounted on a Jersey barrier under the bridge to provide impact protection to the shoulder piers. These pier protection railing/barrier systems do not meet the current AASHTO standards.

### 2.3.3.9. Utilities

Sign panels are mounted on the outer surface of the webs of the fascia girders. These sign panels are in good condition. The horizontal clearance marker at the begin left approach is missing. All other horizontal clearance markers are in excellent condition.

An underground fiber optic line cuts across Judd Rd. approximately 300 ft. north of the bridge. The underground thruway fiber optic line runs parallel to the I-90 WB Roadway, passing under the north abutment of the existing Judd Rd. bridge. Another underground fiber optic line cuts across and runs along the embankments on either side of Judd Rd. south of the existing bridge. An underground gas line runs parallel to I-90 EB cutting across the south approach pavement of the existing bridge.

An overhead electric line runs parallel to Judd Rd. approximately 25 ft. west of the existing bridge. Overhead electric transmission lines run approximately parallel to I-90 Roadway and cut across Judd Rd. 250 ft. north of the existing bridge. Another set of overhead electric transmission lines run across Judd Rd. approximately 400 ft. south of the existing bridge.

The following companies were identified as the utility owners in the project area:

<u>Utility Company</u>	<u>Type of Utility</u>
Windstream Communications	Fiber Optic
Buckeye Partners	Gas
Niagara Mohawk/National Grid	Electric

### 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.

## 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 adjacent to the bridge on the north and south side of the interstate can be mainly characterized as grassed / wooded side slopes. Residential areas are located within 1,000 ft on each side of the bridge.

The area within the Thruway right of way consists of a divided, limited access highway, separated by a grassed median and grassed areas on either side.

**2.3.4.2. Opportunities for Environmental Enhancements**

There are no practical opportunities for environmental enhancements in 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:

#### 3.1.1. Null / No-Build Alternative

The null alternative provides for only continued maintenance of the existing bridge and Roadway. The no-build/maintenance alternative will result in the continued deterioration of the structure, resulting in increased maintenance and eventually requiring the structure to be closed to traffic. Since this alternative will not satisfy the project objectives, it is not considered a feasible alternative, but will be used for comparison with the feasible alternatives for the purpose of evaluating impacts.

#### 3.1.2. Rehabilitation Alternative

Under this alternative, the existing structure would be rehabilitated to remove structural deficiencies for the next 25 to 30 years and to eliminate all non-standard features. The scope of work would include:

- Major concrete repairs and extension of abutments, backwalls, piers to accommodate wider superstructure
- Bearing replacements
- Repairs to bridge seats and reconstruction of pedestals to accommodate new bearings and raised profile to provide NYSTA standard vertical clearance
- Replacement of curbs
- Full superstructure replacement including new steel girders, concrete deck and bridge railing
- New approach slabs
- New approach pavement and guide railing to match the raised profile for the bridge

The total cost for the rehabilitation option is \$5.95M which is approximately 107% of the replacement cost and the service life of this alternative is less than 75 years. Per NYSDOT Bridge Manual, since the rehabilitation cost is greater than 85% of the replacement cost, the preliminary choice is a complete bridge replacement.

### 3.2. Feasible Build Alternatives

#### 3.2.1. Description of Feasible Alternatives

##### 3.2.1.1. Reconstruction Alternative – Bridge Replacement

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

- All existing horizontal geometric attributes will be maintained under this alternative. The bridge centerline will essentially be maintained at the existing location. The new vertical alignment will be raised to achieve the NYSTA standard vertical clearance of minimum 16'-6" below the bridge. The approaches will be re-graded as necessary to achieve the required profile at the bridge.

Operational	• This alternative does not affect operations.
Control of Access	• This alternative does not affect control of access.
Right of Way	• No acquisition of right of way will be required.
Environmental	• There are no significant environmental impacts from this project.
Project Costs	• Total estimated cost of this alternative is \$5.56M.
Project Goals	This alternative will meet all the project objectives of eliminating structural deficiencies, providing a safe crossing over Judd Rd. with a service life of at least 75 years, and doing so in a socially, economically and environmentally sensitive manner.

Exhibit 3.2.1		
Activities		Reconstruction Alternative
Construction	Bridge	\$2,180,000
	Highway	\$456,000
Subtotal (2017)		\$2,636,000
Incidentals (2017) 20%		\$527,200
Subtotal (2017)		\$3,163,200
Contingencies 15%		\$474,500
Subtotal (2017)		\$3,637,700
Potential Field Change Order 5%		\$181,900
Subtotal (2017)		\$3,819,600
Mobilization (4%)		\$152,800
Subtotal (2017)		\$3,972,400
Inflation @ 5%/yr. to midpoint of Construction (2019)		\$397,300
Design and Construction Inspection (30%)		\$1,191,800
<b>Total Cost</b>		<b>\$5,561,500</b>

### 3.2.2. Preferred Alternative

The preferred alternative is the Reconstruction Alternative – Bridge 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 NYSDOT *Highway Design Manual* (HDM) and the NYSDOT *Bridge Manual* (BM).

### 3.2.3.2. Critical Design Elements

The following tables identify critical design elements applicable to this project.

Exhibit 3.2.3.2.a Judd Rd.						
PIN:		S52886	NHS (Y/N):		No	
Route No. & Name:		Judd Rd. (CR 840)	Functional Classification:		Urban – Major Collector	
Project Type:		Bridge Replacement & New Construction	Design Classification:		Rural – Major Collector HDM Section 2.7.3.1 *	
% Trucks:		4.2%	Terrain:		Rolling	
ADT:		10,474	Truck Access/Qualifying Hwy.		Access-Yes; Qualifying-No	
Element		Standard *			Existing Condition	Proposed Condition
1	Design Speed	50 mph minimum 60 mph maximum HDM Section 2.7.3.1A Rolling Terrain (ADT>2000)			55 mph	60 mph
2	Lane Width	12'-0" minimum HDM Section 2.7.3.1 A, Exhibit 2-5 12'-0" maximum NYSDOT BDM Appendix 2A Table N			10'-0"	12'-0"
3	Shoulder Width	3'-0" minimum, 8'-0" maximum NYSDOT BM Section 2.3.1 Table 2-1, and Appendix 2A Tables R & N Class C (Secondary) Snowmobile Trail Width = 5'-0" Minimum NYS Snowmobile Trail Manual			3'-0"	6'-0"
4	Horizontal Curve Radius	801 ft. @ e = 8.0% HDM Section 2.7.3.1 D, Exhibit 2-5			2,825 ft.	2,825 ft.
5	Superelevation	8.0% maximum HDM Section 2.7.3.1 E			Normal Crown	Normal Crown
6	Stopping Sight Distance	522 ft. minimum (Crest) HDM Section 2.7.3.1 F, Exhibit 2-5			365 ft.	522 ft.
7	Grade	6.0% HDM Section 2.7.3.1 G, Exhibit 2-5			3.0%	3.16%
8	Cross Slope	Minimum 1.5% Maximum 3% HDM Section 2.7.3.1 H			1.5%	2.0%
9	Vertical Clearance	15'-0" (Above Minimum) BM Section 2.4			N/A	N/A
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle NYSDOT BM § 2.6			HS-20	HL-93 and the NYS Design Permit Vehicle
11	Pedestrian Accommodations	Complies with HDM Chap. 18			None	On shoulders

\* All criteria for Urban Major Collector has been modified in accordance with NYSDOT HDM Section 2.4 to Rural Major Collector.



Exhibit 3.2.3.2.b Mainline (I-90)				
PIN:		S52886	NHS (Y/N):	Yes
Route No. & Name:		I-90, Syracuse Section	Functional Classification:	Urban Principal Arterial – Interstate (11)
Project Type:		Bridge Replacement & New Construction	Design Classification:	Interstate – HDM 2.7.1.1
% Trucks:		22%	Terrain:	Rolling
ADT:		39,479	Truck Access/Qualifying Hwy.	Access-Yes; Qualifying-Yes
Element		Standard	Existing Condition	Proposed Condition *
1	Design Speed	70 mph minimum 80 mph maximum HDM Section 2.7.1.1 A (Rural Area Character, Rolling Terrain)	65 mph (Posted)	70 mph
2	Lane Width	12'-0" HDM Section 2.7.1.1 B, Exhibit 2-2	12'-0"	12'-0"
3	Shoulder Width	10'-0" minimum, 12'-0" desirable (Right Side) 4'-0" minimum, 8'-0" desirable (Left Side) HDM Section 2.7.1.1 C, Exhibit 2-2	8'-0" (Right) 5'-0" (Left)	12'-0" (Right) 5'-0" (Left)
4	Horizontal Curve Radius	2,040 ft. @ e=6.0% 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	Normal Crown	No Change
6	Stopping Sight Distance	730 ft. minimum HDM Section 2.7.1.1 F, Exhibit 2-2	888 ft.	No Change
7	Grade	4% HDM Section 2.7.1.1 G, Exhibit 2-2	1.55%	No Change
8	Cross Slope	Minimum 1.5% Maximum 2.5% HDM § 2.7.1.1 H	2.0%	No Change
9	Vertical Clearance	16'-6" Replacement (Above Minimum) NYSTA & NYSDOT Bridge Manual	14'-6"	16'-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	None	N/A

\*Information on the mainline (Proposed Conditions) shall be used to establish the bridge replacement length that would be needed to accommodate future mainline roadway improvements (including widening) with no guide rail. No work on the mainline is proposed at this time.

### 3.2.3.3. Other Design Parameters

Exhibit 3.2.3.3.a Other Design Parameters Judd Rd.			
Element	Standard	Existing Conditions	Proposed Condition
Horizontal Clearance	10'-0" with no barrier Shoulder width or 4'-0" min. with barrier HDM § 2.7.3.1 I	3'-0"	6'-0"
Rollover	Between parallel lanes: 4% maximum At pavement edge: 8% maximum HDM Section 3.2.5.1	3.2% / 4.7%	4% / 8%

Exhibit 3.2.3.3.b Other Design Parameters Interstate 90 – NYSTA Mainline			
Element	Standard	Existing Conditions	Proposed Condition
Level of Service	Min. "C"	B	B
Drainage Design Storm	10 Year	10 Year	10 Year
Horizontal Clearance	15'-0" with no barrier Shoulder width or 4'-0" min. with barrier HDM § 2.7.1.1 I	8'-0"	12'-0"
Rollover	Between parallel lanes: 4.0% maximum At pavement edge: 8.0% maximum HDM Section 2.7.1.1 L	3.2% / 4.7%	3.2% / 4.7%

## 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

- 1) Traffic Signals: No new traffic signals are proposed.
- 2) 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**

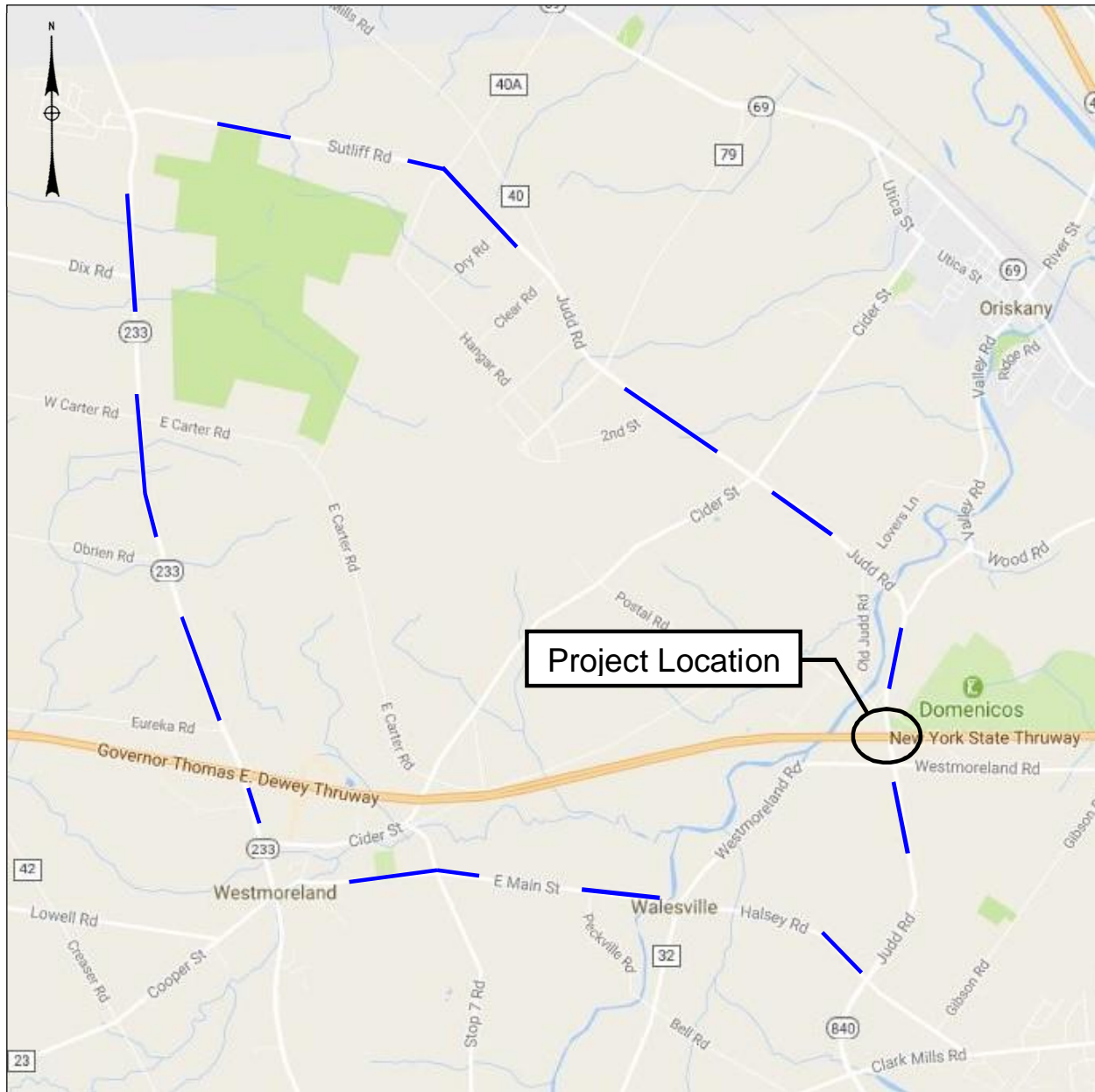
The existing posted speed limit will remain unchanged. Travel time estimates are not applicable for a bridge replacement project.

**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**

The new bridge will have wider shoulders that meet current standards. This will improve the sight distance and the horizontal clearance along Judd Rd.



### **FIGURE 3 - DETOUR MAP**

NEW YORK STATE THRUWAY AUTHORITY  
Judd Rd. over I-90 Bridge Replacement  
Town of Whitestown

### **3.3.1.8. Work Zone Safety & Mobility**

Judd Rd. (CR 840) in the vicinity of the bridge will be closed during construction. An offsite detour will be used to maintain the traffic during construction. The suggested detour route west of the bridge is approximately 13 miles long and utilizes Halsey Rd. (CR 52), Stone Rd. (CR 52), E. Main St. (CR 52), NY State Route 233 and Sutliff Rd. (CR 840). Another detour route is available east of the bridge that is approximately 7 miles long. This route was not selected due to an active 6-ton weight limit on Valley Rd. (CR 32).

The Oneida County Department of Public Works was contacted to discuss the closure of Judd Rd. during construction and they suggested that Sutliff Rd. (CR 840) be utilized to carry the detour traffic instead of Cider Street. The response letter is included in Appendix E.

Judd Rd. is an access route to the NYS Emergency Preparedness Training Center and Oneida County Emergency Services Center. Both agencies were contacted to discuss the closure of Judd Rd. during construction. A response letter from the NYS Emergency Preparedness Training Center is included in Appendix E. NYSTA met with Oneida County Emergency Services to discuss the effects of the detour on response times. As a result of this coordination, to avoid delays in response times for emergency responders, mitigation may be needed along the proposed detour route, particularly at signalized intersections, to accommodate the increase in traffic volumes. The details for the work zone traffic control will be prepared and evaluated during the final design phase.

A lane closure will likely be utilized on the I-90 during removal of the existing shoulder piers.

### **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 bridge replacement scopes, the existing non-conforming bridge rail and approach guide rail will be replaced to meet the current standards.

### **3.3.1.10. Impacts on Police, Fire Protection and Ambulance Access**

It is anticipated that Judd Rd. will be closed during construction. As such, response times for emergency vehicles will be increased during construction operations. Close coordination with emergency service providers will be required during final design and construction.

I-90 will remain open during the work. Response times for emergency vehicles using I-90 will not be affected.

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

### **3.3.1.11. Parking Regulations and Parking Related Issues**

No changes are proposed.

### **3.3.1.12. Lighting**

No changes are proposed.

### **3.3.1.13. Ownership and Maintenance Jurisdiction**

No changes are proposed. Refer to section 2.3.1.12.

### **3.3.1.14. Constructability Review**

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

### **3.3.2. Multimodal**

#### **3.3.2.1. Pedestrians**

Within the project limits pedestrians will be accommodated along Judd Rd. on the Roadway shoulders.

On interstate highways, pedestrians are prohibited by state law.

#### **3.3.2.2. Bicyclists**

No special provisions are proposed to accommodate bicyclists on Judd Rd. Within the project limits bicyclists will be accommodated along Judd Rd. on the Roadway shoulders. See Appendix C for the Complete Streets Checklist.

On interstate highways, bicyclists are prohibited by state law.

#### **3.3.2.3. Transit**

No changes are proposed.

#### **3.3.2.4. Airports, Railroad Stations, and Ports**

No changes are proposed.

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

The Oriskany Snow Drifters trail that runs along Judd Rd is a Class C (Secondary) snowmobile trail. Per the NYS Snowmobile Trail Manual, Class C Trails are maintained to a 5-foot minimum cleared trail width. The shoulders will be increased from 3'-0" to 6'-0" to accommodate snowmobile access. See Section 3.3.3.1 regarding the Proposed Highway Section. No other changes are proposed.

### **3.3.3. Infrastructure**

#### **3.3.3.1. Proposed Highway Section**

The width of the outside shoulders along I-90 will be increased from 8'-0" to 12'-0" within the project limits to match the approach shoulders outside the project area.

The proposed Judd Rd. will consist of two 12'-0" travel lanes with 6'-0" shoulders. The shoulders will be increased to accommodate pedestrian, bicycle and snowmobile access.

##### **3.3.3.1. (1) Right of Way**

No right of way acquisitions will be required.

##### **3.3.3.1. (2) Curb**

No curbing is proposed within the project limits.

**3.3.3.1. (3) Grades**

The Roadway grade of Judd Rd. over I-90 will be altered as necessary to accommodate the required raise in profile over I-90 so as to meet the minimum vertical clearance criteria. The approach to the bridges will be regraded to meet the required vertical profile.

The Roadway grade of I-90 will be maintained.

**3.3.3.1. (4) Intersection Geometry and Conditions**

There are no intersections within the project limits.

**3.3.3.1. (5) Roadside Elements**

(a) Snow Storage, Sidewalks, Utility Strips, Bikeways, Bus Stops – There are no special Roadside elements within the project limits. Snow storage and the existing Snowmobile Trail will be accommodated in the roadway shoulders. See Section 3.3.2.5 regarding Access to Recreation Areas.

(b) Driveways – A driveway is located approximately 250 feet south of the bridge.

(c) Clear Zone - The required clear zone along Judd Rd. cannot be obtained due to embankment slopes. These areas will be protected by the installation of guide railing. The required clear zone width of 30'-0" will be obtained along I-90 by the removal of the outside shoulder piers.

**3.3.3.2. Special Geometric Design Elements****3.3.3.2. (1) Non-Standard Features**

All the non-standard features will be eliminated as part of the bridge reconstruction.

**3.3.3.2. (2) Non-Conforming Features**

All the non-conforming features will be eliminated as part of the bridge reconstruction.

**3.3.3.3. Pavement and Shoulder**

The Judd Rd. approach roadway sections will utilize a conventional pavement design section.

**3.3.3.4. Drainage Systems**

No drainage system is proposed for the replacement structures.

**3.3.3.5. Geotechnical**

Based on the boring information available and Record Plans, the proposed abutments and pier are likely to be founded on steel H piles. Details will be established during final design with the preparation of the Foundation Design Report.

**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 under Roadway is 16'-6" minimum.

**3.3.3.6. (1) Description of Work – Bridge replacement**

- (a) The new bridge will be a two-span continuous structure that spans over each bound of I-90. The design-build team will determine the most efficient structure type.
- (b) This alternative would include complete removal and replacement of the existing structure with the new bridge on the existing horizontal alignment. The replacement structure would accommodate two 12'-0" travel lanes with 6'-0" shoulders. The wider shoulders will accommodate pedestrians, bicyclists and snowmobiles.
- (c) No utilities will be carried by the bridge.

**3.3.3.6. (2) Clearances (Horizontal/Vertical)**

Horizontal clearances along Judd Rd. and I-90 will be equal to the new shoulder widths. A 16'-6" minimum vertical clearance will be provided over the I-90.

**3.3.3.6. (3) Live Load**

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

**3.3.2.6. (4) Associated Work**

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

**3.3.3.6. (5) Waterway**

There are no waterways within the project limits.

**3.3.3.7. Hydraulics of Bridges and Culverts**

There are no waterways within the project limits.

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

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

**3.3.3.9. Utilities**

The underground fiber optic line which cuts across Judd Rd. 300 ft. north of the bridge is not likely to be impacted by the project. The underground fiber optic line running parallel to the thruway is close to the existing north abutment. This utility line will need to be protected during construction. The underground fiber optic line and the gas line to the south of the existing bridge are not likely to be impacted by the project.

There are multiple overhead electric lines within the project limits. The overhead electric line that runs parallel to Judd Rd. along the west will not be impacted by the project. The vertical clearance of the overhead transmission lines that cross Judd Rd. north of the bridge will be reduced by a maximum of 3'-0" due to the change in the vertical profile. The vertical clearance of the overhead transmission lines south of the bridge is not likely to be affected by the proposed roadway work.

The elevation of the overhead lines was not available to determine the adequacy of the vertical clearance during the preliminary design stage. Coordination with the existing utility companies will be required during final design to confirm proper vertical clearance requirements.



**3.3.3.10. Railroad Facilities**

No Railroad facilities will be affected by the project.

**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

##### 4.1.1.1. NEPA Classification

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

##### 4.1.1.2. 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**

##### **4.1.2.1. NEPA Cooperating and Participating Agencies**

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

##### **4.1.2.2. 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 Judd Rd. bridge over the New York State Thruway (I-90) in Whitestown, 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 Thruway. 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**

###### **4.2.1.1. Demographics and Affected Population**

The project is located in the Town of Whitestown in Oneida County. The project vicinity includes undeveloped land and scattered development, including both residential and commercial properties. Residences are located along Judd Rd. at the northern portion of the Study Area, a golf course is located

northeast of the Study Area, and community facilities for the Town of Whitestown are located to the southwest of the Study Area.

The 2010 US Census reports that the Town of Whitestown has a population of 18,667 persons. The median reported age was 41.8, with 17.2% of the population being reported at age 65 or older. 95.7% of the population was identified as white.

Based on data collected from the US Census' American Community Survey, approximately 8.1% 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 Oneida County, 11.3%, and higher than the percentage for New York State, 7.4%. The Town had 9.6% of its population reported to be below the poverty level, which was below that year's national average of 13.5%.

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

#### **4.2.1.2. 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**

##### **4.2.2.1. Community Cohesion**

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

##### **4.2.2.2. 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**

##### **4.2.3.1. Elderly and/or Disabled Persons or Groups**

A review of US Census data in Section 4.2.1 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.

##### **4.2.3.2. 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.

##### **4.2.3.3. 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**

##### **4.2.4.1. School Districts**

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

##### **4.2.4.2. Recreational Areas**

There are no parks or recreational properties within the Study Area. The Whitestown Community Center and Ice Rink is located southwest of the Study Area, and is accessed from Westmoreland Rd. During construction, a temporary off-site detour will be in place, which will increase travel times to this Community Center from properties located to the north and east. The Oriskany Snow Drifters Snowmobile Trail runs along Judd Rd. across the bridge. Rayhill Memorial Trail runs on Judd Road 0.1 miles south of the bridge from the Judd Road – Westmoreland Road intersection. There are no entrances to any other recreation areas within the project limits.

This project will have no permanent adverse impacts on existing recreational areas.

##### **4.2.4.3. Places of Worship**

There are no places of worship within the Study Area or along the proposed detour. Thus, this project will have no impacts on existing places of worship.

#### **4.3. Economic Guidance from FHWA Technical Advisory T6640.8A:**

##### **4.3.1. Regional and Local Economies**

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

##### **4.3.2. Business District Impacts**

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

##### **4.3.3. Specific Business Impacts**

There will be no permanent measurable or known adverse impacts to established businesses as a result of this project.

#### **4.4. Environmental**

##### **4.4.1. Wetlands**

A site visit was conducted on November 10, 2016, which identified wetlands within and adjacent to the Study Area. Refer to the Wetland Delineation Letter Report for further information.

##### **4.4.1.1. 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.

#### **4.4.1.2. 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.

#### **4.4.1.3. Federal Jurisdiction Wetlands**

A review of existing wetland and stream databases (National Wetland Inventory [NWI], NYSDEC mapped wetlands, and NYSDEC mapped streams) indicates the presence of one NWI mapped wetland within the Study Area. In addition, there are three NWI mapped wetlands adjacent to the southern, eastern, and western boundaries of the Study Area, along Judd Rd. Note that Oriskany Creek, which is a NWI Riverine Resource and NYSDEC Class B(T) protected stream, is also present to the northwest of the Study Area.

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 concluded:

EDR delineated five palustrine emergent (PEM) wetlands and two palustrine scrub-shrub (PSS) wetlands within the Study Area, and one PEM wetland adjacent to the northwestern boundary of the Study Area. These wetlands were identified based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology and total approximately 0.37 acre within the Study Area. These wetlands appear to have a direct or indirect surface water connection to Oriskany Creek, and therefore are likely to be considered jurisdictional by the U.S. Army Corps of Engineers (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 0.3-mile) and lack of obvious hydrologic or significant habitat connectivity, in EDR's opinion these wetlands should not be regulated under Article 24 of the Environmental Conservation Law.

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

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

#### **4.4.1.4. 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.

#### **4.4.1.5. 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**

##### **4.4.2.1. Surface Waters**

Based upon a review of the NYSDEC GIS data maps for regulated streams, there are no surface waterways within the Study Area. However, Oriskany Creek, a NWI Riverine Resource and NYSDEC Class B(T) protected stream, is located to the northwest of the Study Area.

The project activities do not involve excavation in or discharge of dredged or fill material into Oriskany Creek. No permits under this Section are anticipated.

##### **4.4.2.2. Surface Water Classification and Standards**

Based upon a review of the NYSDEC GIS data for regulated streams, Oriskany Creek is the only surface waterway in the immediate vicinity of the Study Area. Oriskany Creek is a NYSDEC Class B(T) 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 trout propagation and survival.

The project activities do not involve excavation in or discharge of dredged or fill material into Oriskany Creek.

##### **4.4.2.3. 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 in the vicinity of the Study Area, Oriskany Creek.

Because this protected stream is outside the Study Area, a NYSDEC Protection of Waters permit is not required for this project. Although a permit is not required, this project should not diminish the water quality standards of Oriskany Creek. During construction, precautions should be taken to prevent contamination of the waterbody by silt, sediment, fuels, solvents, lubricants, or any other pollutants. Promptly after construction, care will be taken to stabilize all disturbed areas.

#### **4.4.3. Wild, Scenic, and Recreational Rivers**

##### **4.4.3.1. 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.

##### **4.4.3.2. 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**

##### **4.4.4.1. State Regulated Waters**

There are no state regulated navigable waters located within the Study Area that will be impacted by the project.

##### **4.4.4.2. 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.

#### **4.4.4.3. 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.

#### **4.4.4.4. Rivers and Harbors Act – Section 10**

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

### **4.4.5. Floodplains**

#### **4.4.5.1. State Flood Insurance Compliance Program**

As shown on the FEMA Flood Insurance Rate Map, part of the 100-year floodplain for Oriskany Creek is located to the northwest of the Study Area. However, the 100-year floodplain is not located within the Study Area, and no work is proposed within this floodplain.

#### **4.4.5.2. Executive Order 11988**

The project will not impact any floodplains; therefore, EO 11988 does not apply.

### **4.4.6. Coastal Resources**

#### **4.4.6.1. 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.

#### **4.4.6.2. State Coastal Erosion Hazard Area -**

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

#### **4.4.6.3. 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.

#### **4.4.6.4. 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**

#### **4.4.7.1. 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.



#### **4.4.7.2. Drinking Water Supply Wells (Public and Private Wells) and Reservoirs**

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

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

During the design phase, measures to avoid, minimize or mitigate adverse impacts to these wells will be identified. Best Management Practices (BMPs) to protect the well will be employed, including Erosion and Sediment Control, Stormwater Management and Construction Chemical Storage and Handling.

#### **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 depending on the total amount of disturbance and changes in total impervious area.

#### **4.4.9. General Ecology and Wildlife Resources**

The Study Area encompasses the Judd Rd. bridge over I-90 in a disturbed area. The Study Area includes primarily paved roadways, with mowed lawn and shrubs along the edges of the roads, and provides limited habitat opportunities for wildlife.

##### **4.4.9.1. 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.

##### **4.4.9.2. 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.

##### **4.4.9.3. 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 31<sup>st</sup> through March 31<sup>st</sup>.

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.

#### **4.4.9.4. Invasive Species**

This project includes a bridge over the Thruway, 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.).

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

#### **4.4.9.5. Roadside Vegetation Management**

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

### **4.4.10. Critical Environmental Areas**

#### **4.4.10.1. State Critical Environmental Areas**

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

#### **4.4.10.2. 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**

#### **4.4.11.1. National Heritage Areas Program -**

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

#### **4.4.11.2. National Historic Preservation Act – Section 106 / State Historic Preservation Act – Section 14.09 -**

A Cultural Resource Survey Report (PSP) has been prepared for the proposed project. The PSP will be submitted to the Thruway's Preservation Officer for review.

#### **4.4.11.3. Architectural Resources**

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

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

#### **4.4.11.4. Archaeological Resources**

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

A review of historic aerial photographs indicates that the land within and adjacent to the APE was primarily agricultural and undeveloped prior to the construction of the New York State Thruway. The land within and adjacent to the Study Area has been heavily disturbed by the construction of the New York State Thruway. The APE for the proposed project is considered to have low archaeological sensitivity for historic and prehistoric cultural resources, and the proposed project is not anticipated to impact archaeological resources.

#### **4.4.11.5. Historic Bridges**

The bridge within the Study Area was constructed circa 1952. 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 5512980 as eligible for listing on the NRHP.

#### **4.4.11.6. Historic Parkways**

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

#### **4.4.11.7. 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.

#### **4.4.11.8. 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**

##### **4.4.12.1. State Heritage Area Program**

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

##### **4.4.12.2. National Heritage Areas Program**

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

##### **4.4.12.3. National Registry of Natural Landmarks**

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

##### **4.4.12.4. Section 4(f) Involvement**

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

#### **4.4.12.5. 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.

#### **4.4.12.6. 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**

##### **4.4.14.1. State Farmland and Agricultural Districts**

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

##### **4.4.14.2. 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**

##### **4.4.15.1. 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.

##### **4.4.15.2. 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.

##### **4.4.15.3. 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.

##### **4.4.15.4. 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.

#### **4.4.15.5. Particulate Matter (PM) Analysis**

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

#### **4.4.15.6. 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**

##### **4.4.18.1. Screening**

An asbestos screening has been performed for this project which reviewed the “as-builts” of the utilities and the bridge. Based on the materials revealed from the review of the plans, an Asbestos Assessment was performed, and it has been determined that there are positively identified asbestos materials: white paint on wingwall and abutments. See the Hazardous Materials Screening Report for sampling and laboratory results.

#### **4.4.19. Lead**

##### **4.4.19.1. Screening**

A screening for lead has been performed for this project review of the “as-builts” for the bridge was conducted to identify lead containing materials. It has been determined from the review that there are areas of positively identified lead materials: the pad between the abutment and back wall. See the Hazardous Materials Screening Report for sampling and laboratory results.

#### **4.4.20. PCBs**

##### **4.4.20.1. Screening**

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

#### **4.4.21. 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.

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

The conclusions of this screening included the following:

Markers indicating the presence of a buried petroleum pipeline were observed along the Thruway, adjacent to the Study Area. Markers indicating the presence of buried fiber optic cables were also noted along Judd Rd. Prior to excavations for the proposed Project, the location of all buried utilities and pipelines should be confirmed to avoid potential impacts.

The Whitestown Highway Garage at 5605 Westmoreland Rd., located southwest of the Study Area is listed as having had two former Underground Storage Tanks (USTs), and two active Aboveground Storage Tanks (ASTs). In 1993, a failed tightness test for one of the USTs resulted in this property being listed as a leaking UST site. As stated in the database report, corrective actions have been taken to address this release, and the release has been closed. Based on separating distance, topographic gradient, and the removal of USTs from this parcel, significant impacts to soil and/or groundwater within the Study Area are not anticipated.

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 will also have temporary noise impacts. The proposed project includes the replacement of the Judd Rd. bridge over the mainline of the NYS Thruway. The project vicinity includes undeveloped land and scattered development, including both residential and commercial properties. Temporary noise impacts are not expected to have a significant adverse impact on nearby properties.

## **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**



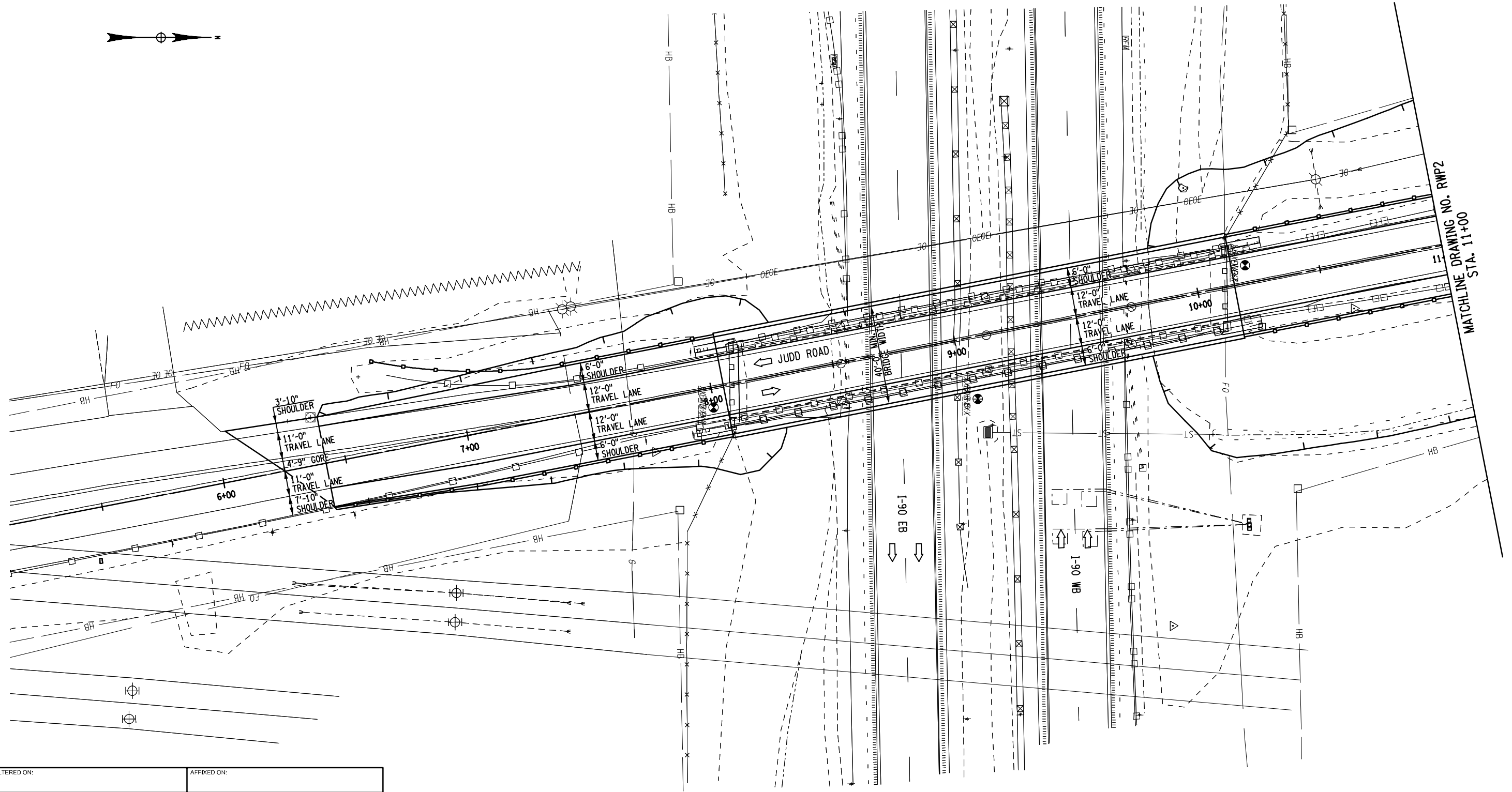
CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR: M. LAISTNER



ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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.

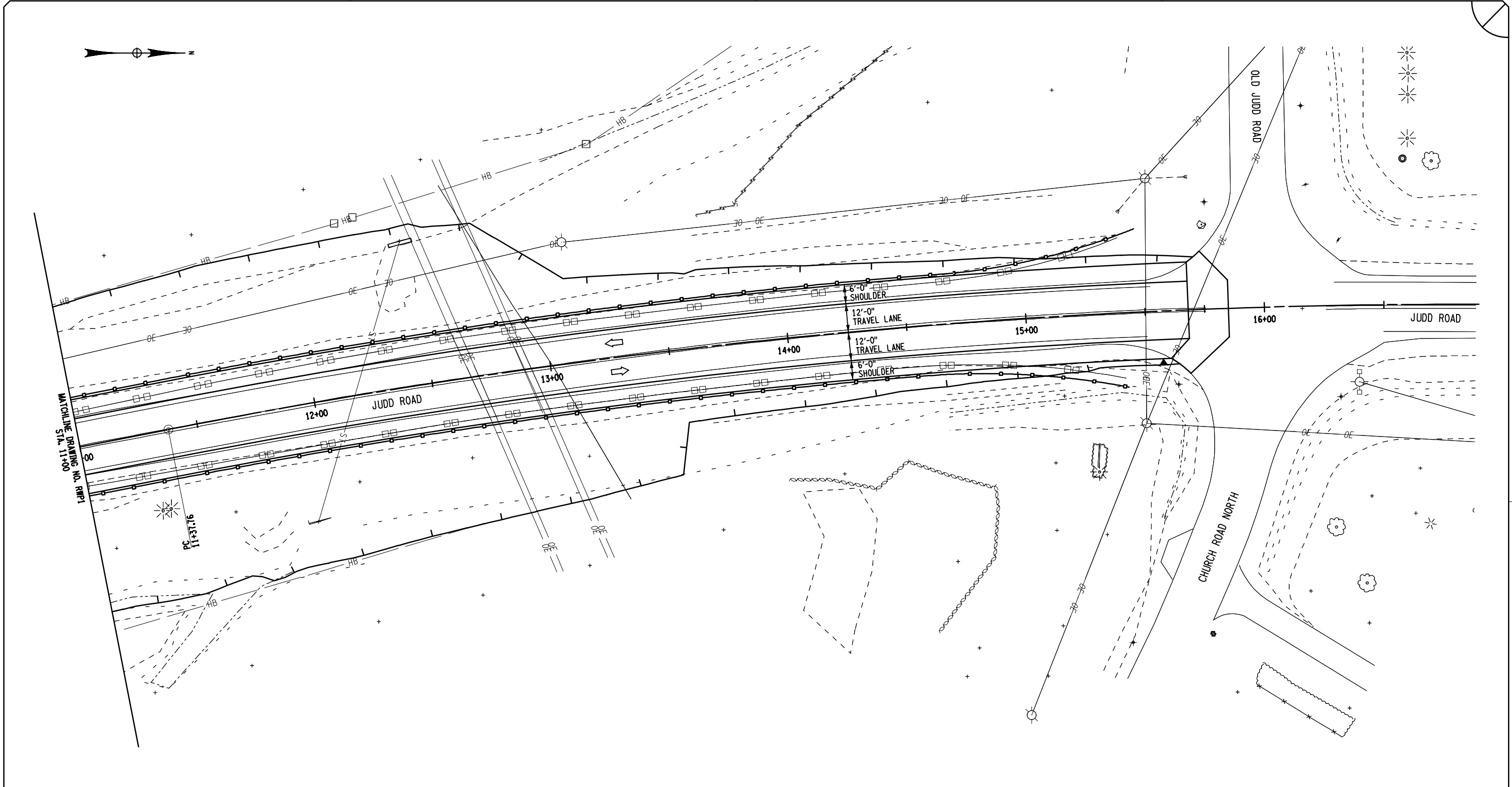
REVISIONS			
DATE	DESCRIPTION	BY	SYM.



TITLE OF PROJECT	JUDD ROAD OVER I-90
LOCATION OF PROJECT	TOWN OF WHITESTOWN ONEIDA COUNTY, NY
TITLE OF DRAWING	ROADWAY PLAN (1 OF 2)

CONTRACT NUMBER:	TAB 17-X
DATE:	JUNE 2017
DRAWING NUMBER:	RWP1



DESIGNED BY: M. LAISTNER  
CHECKED BY:  
DRAFTED BY:  
CHECKED BY:



ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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REVISIONS			
DATE	DESCRIPTION	BY	SYM.

 <b>Thruway Authority</b>  	TITLE OF PROJECT JUDD ROAD OVER I-90	CONTRACT NUMBER: TAB 17-X
	LOCATION OF PROJECT TOWN OF WHITESTOWN ONEIDA COUNTY, NY	DATE: JUNE 2017
	TITLE OF DRAWING ROADWAY PLAN (2 OF 2)	DRAWING NUMBER: RWP2

CHECKED BY:

DRAFTED BY:

CHECKED BY:

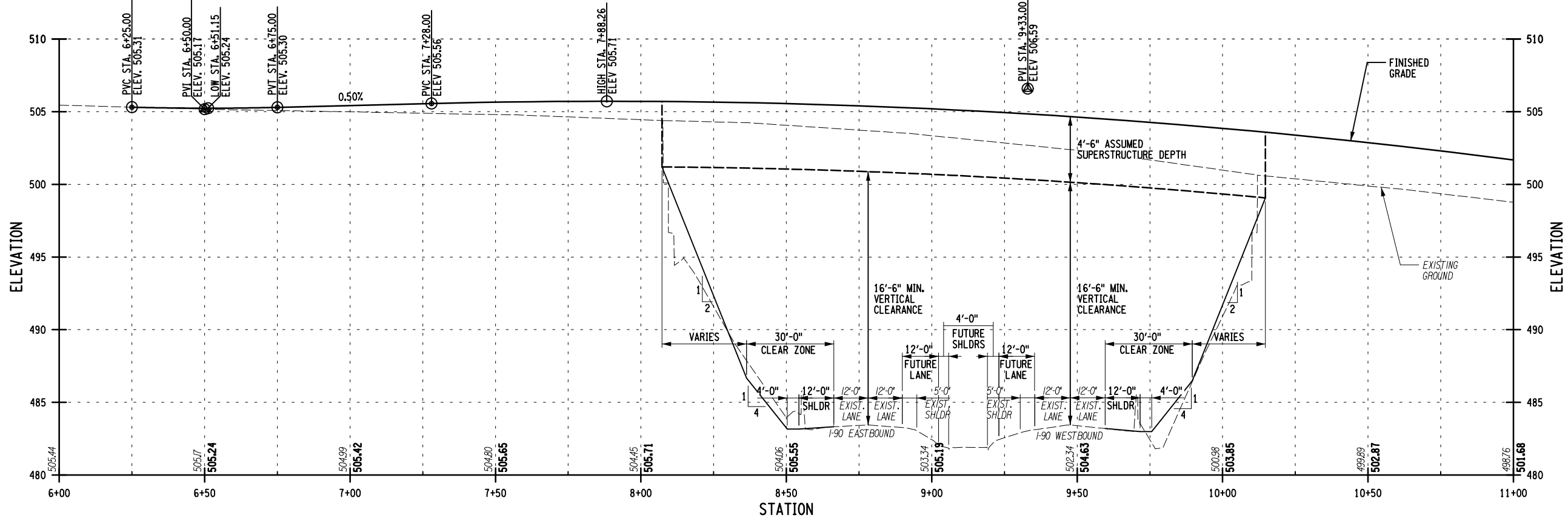
DESIGNED BY:

DESIGN SUPERVISOR: M. LAISTNER

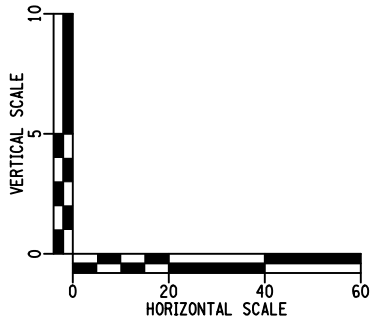
BEGIN CONSTRUCTION  
MEET EXISTING GRADE  
STA. 6+25.00

LVC = 50.00 FT  
G1 = -0.55%  
G2 = 0.50%  
MO = 0.07 FT  
SSD = UNLIMITED

LVC = 410.00 FT  
G1 = 0.50%  
G2 = -2.90%  
MO = -1.74 FT  
SSD = 522 FT



JUDD ROAD PROFILE



ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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REVISIONS			
DATE	DESCRIPTION	BY	SYM.



TITLE OF PROJECT	JUDD ROAD OVER I-90
LOCATION OF PROJECT	TOWN OF WHITESTOWN ONEIDA COUNTY, NY
TITLE OF DRAWING	PROFILE STA. 6+00 TO STA. 11+00 (1 OF 2)

CONTRACT NUMBER:	TAB 17-X
DATE:	JUNE 2017
DRAWING NUMBER:	PRO-1

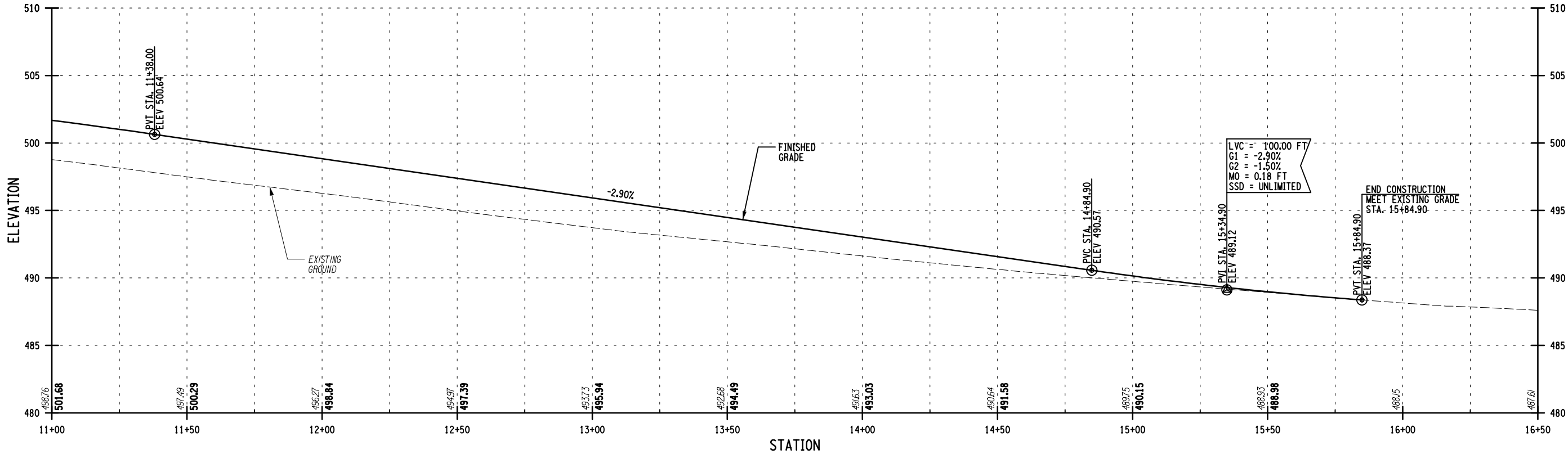
CHECKED BY:

DRAFTED BY:

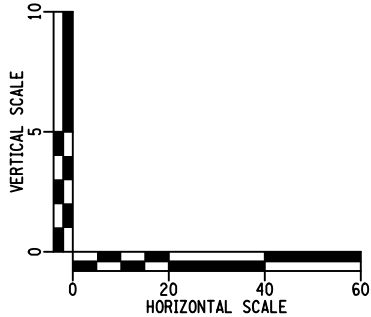
CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR: M. LAISTNER



JUDD ROAD PROFILE



ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL



TITLE OF PROJECT JUDD ROAD OVER I-90	CONTRACT NUMBER: TAB 17-X
LOCATION OF PROJECT TOWN OF WHITESTOWN ONEIDA COUNTY, NY	DATE: APRIL 2017
TITLE OF DRAWING PROFILE STA. 11+00 TO STA. 16+50 (2 OF 2)	DRAWING NUMBER: PRO-2

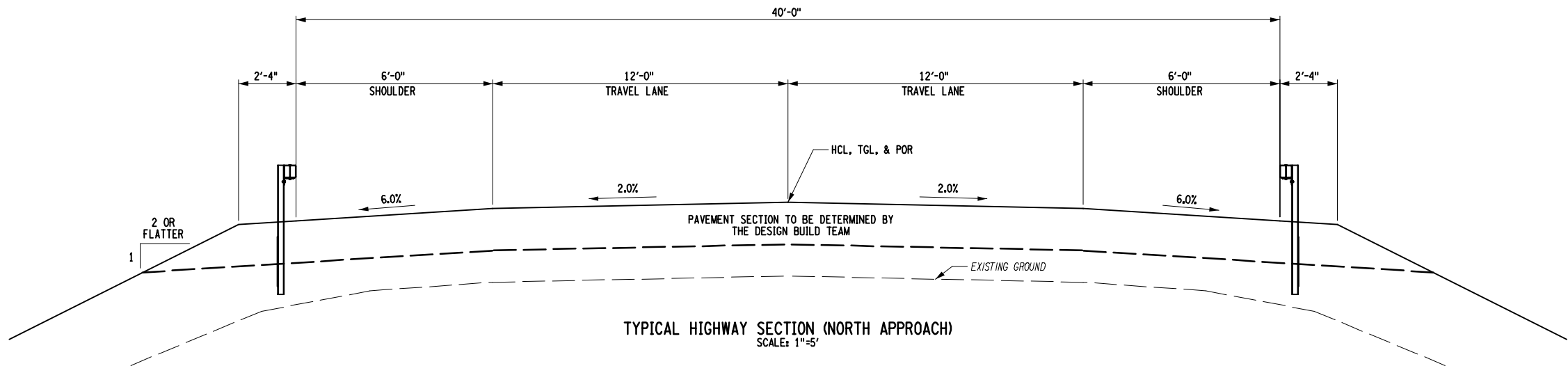
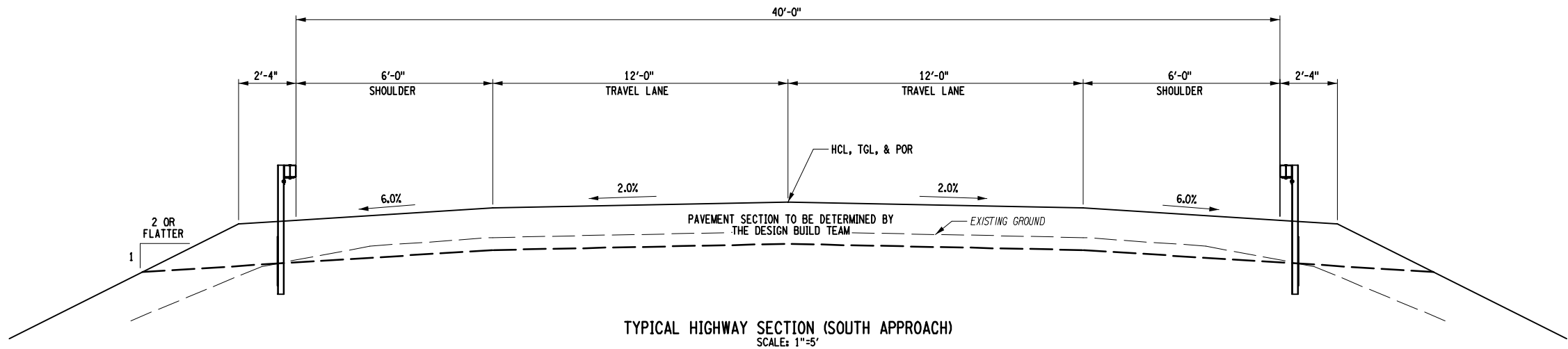
CHECKED BY:

DRAFTED BY:

CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR: M. LAISTNER



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REVISIONS			
DATE	DESCRIPTION	BY	SYM.



TITLE OF PROJECT	JUDD ROAD OVER I-90	CONTRACT NUMBER:	TAB 17-X
LOCATION OF PROJECT	TOWN OF WHITESTOWN ONEIDA COUNTY, NY	DATE:	JUNE 2017
TITLE OF DRAWING	TYPICAL HIGHWAY SECTIONS	DRAWING NUMBER:	TYP-1

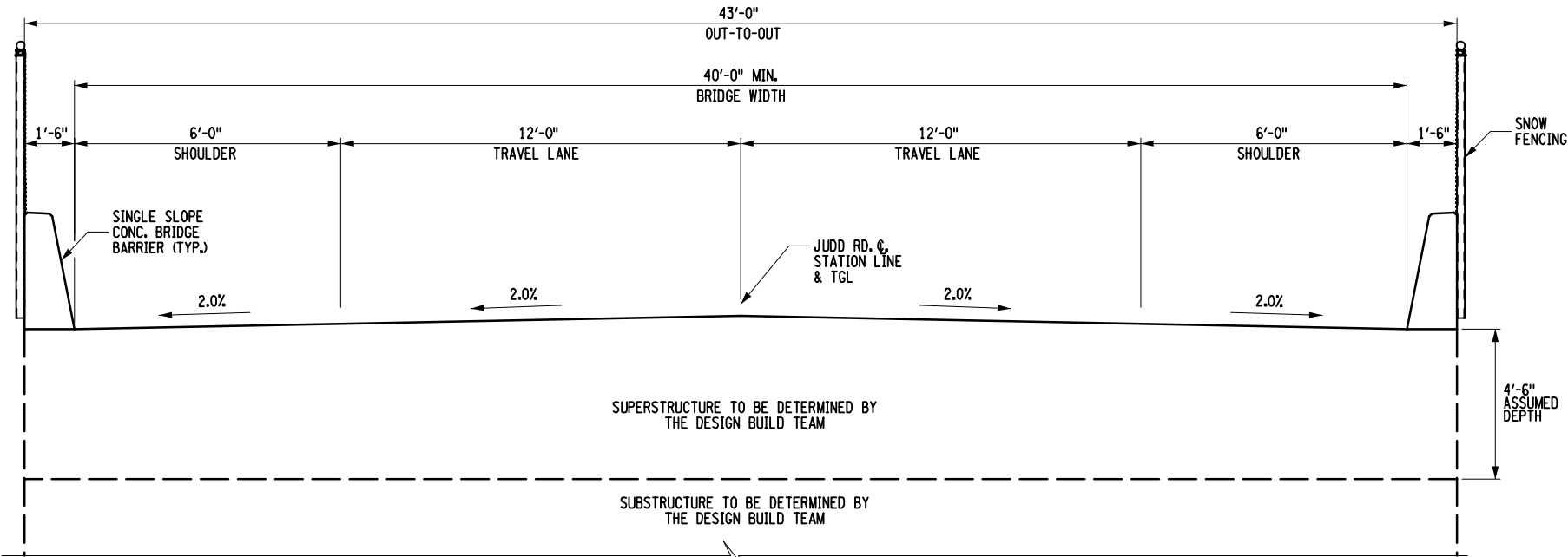
CHECKED BY: M. SAVINO

DRAFTED BY: K. SHAH

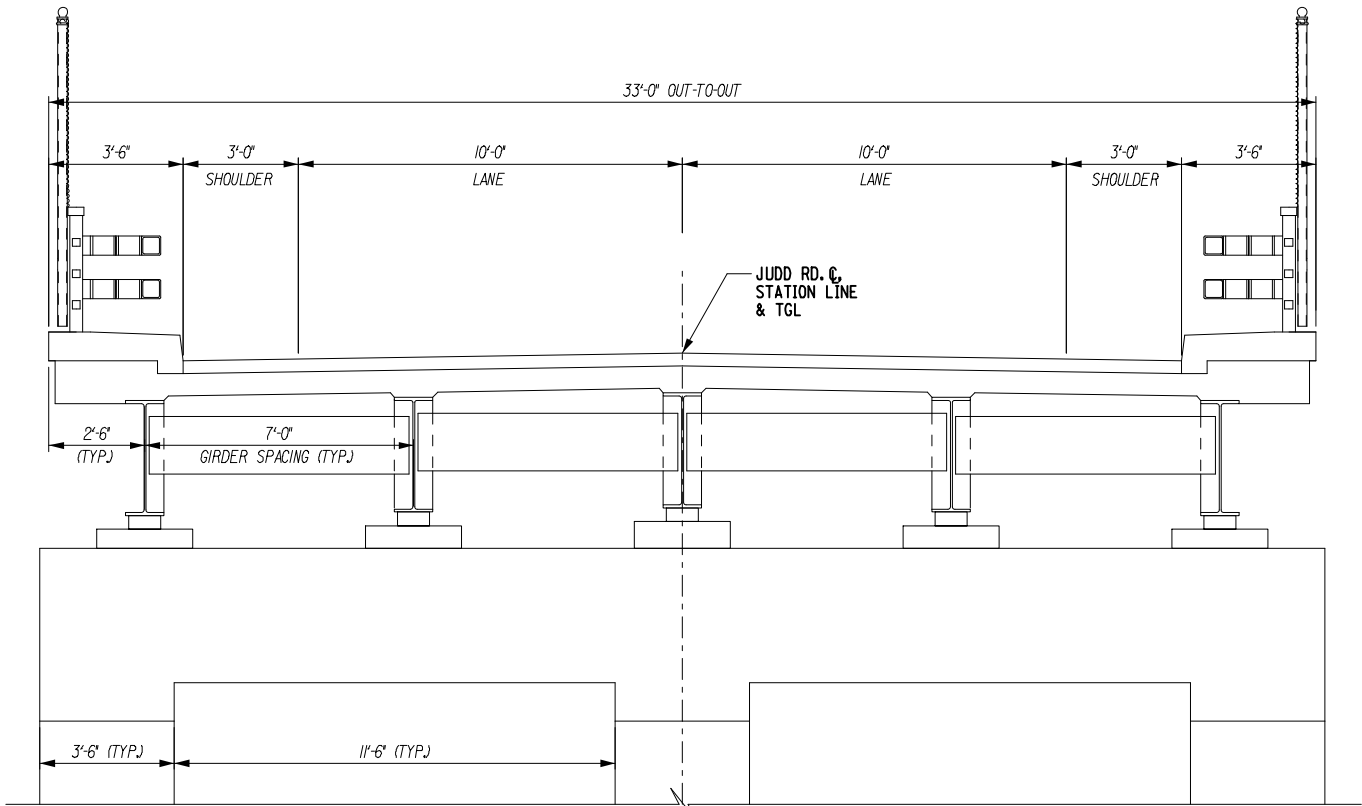
CHECKED BY: M. SAVINO

DESIGNED BY: K. SHAH

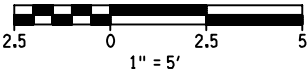
DESIGN SUPERVISOR: M. LAISTNER



PROPOSED TYPICAL BRIDGE SECTION  
SCALE 1" = 5'-0"



EXISTING TYPICAL BRIDGE SECTION  
SCALE 1" = 5'-0"



ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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REVISIONS			
DATE	DESCRIPTION	BY	SYM.



**Thruway**  
Authority



POPPLI DESIGN GROUP

TITLE OF PROJECT	JUDD ROAD OVER I-90
LOCATION OF PROJECT	TOWN OF WHITESTOWN ONEIDA COUNTY, NY
TITLE OF DRAWING	TYPICAL BRIDGE SECTIONS

CONTRACT NUMBER:	TAB 17-X
DATE:	JUNE 2017
DRAWING NUMBER:	TYP-2



## **Appendix B Environmental Agency Correspondence**





## 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-0238

November 07, 2016

Event Code: 05E1NY00-2017-E-00612

Project Name: NYSTA MP 240.48 Judd Road

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 240.48 Judd Road

## 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-0238

**Event Code:** 05E1NY00-2017-E-00612

**Project Type:** BRIDGE CONSTRUCTION / MAINTENANCE

**Project Name:** NYSTA MP 240.48 Judd Road

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

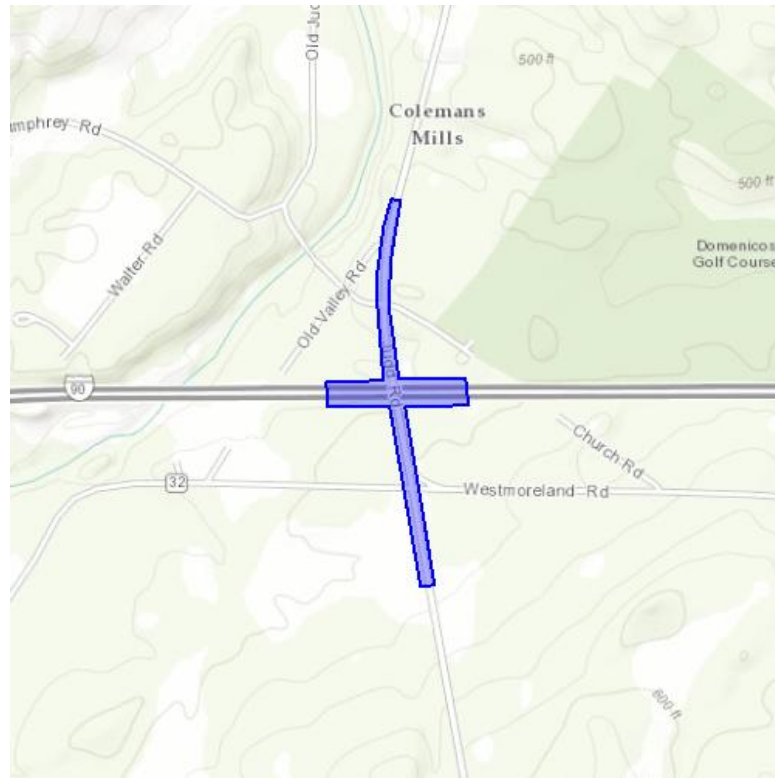
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior  
Fish and Wildlife Service

Project name: NYSTA MP 240.48 Judd Road

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-75.34467279911041 43.13128382645265, -75.3449410200119 43.13010151710161, -75.34500002861023 43.12951426886264, -75.34501612186432 43.12896616541927, -75.34475326538086 43.12754890374651, -75.34282207489014 43.12755281887925, -75.34274160861969 43.12702427369472, -75.34456014633179 43.1269890371867, -75.34370183944702 43.123249936820585, -75.34410953521729 43.12322644436809, -75.34502148628235 43.1269890371867, -75.34678101539612 43.12696946134016, -75.34684002399445 43.127494091862054, -75.34516632556915 43.12752932807914, -75.34534871578217 43.12910319174058, -75.34534335136414 43.129772658782414, -75.34516632556915 43.13072399407898, -75.34497320652008 43.13133080516005, -75.34467279911041 43.13128382645265)))

**Project Counties:** Oneida, NY



United States Department of Interior  
Fish and Wildlife Service

Project name: NYSTA MP 240.48 Judd Road

## 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 240.48 Judd Road

## **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 240.48, Judd Road over the New York State Thruway, Whitestown,  
BIN 5512980, EDR No. 16134-4

Town/City: Whitestown. County: Oneida.

Dear Ms. Graff:

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

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

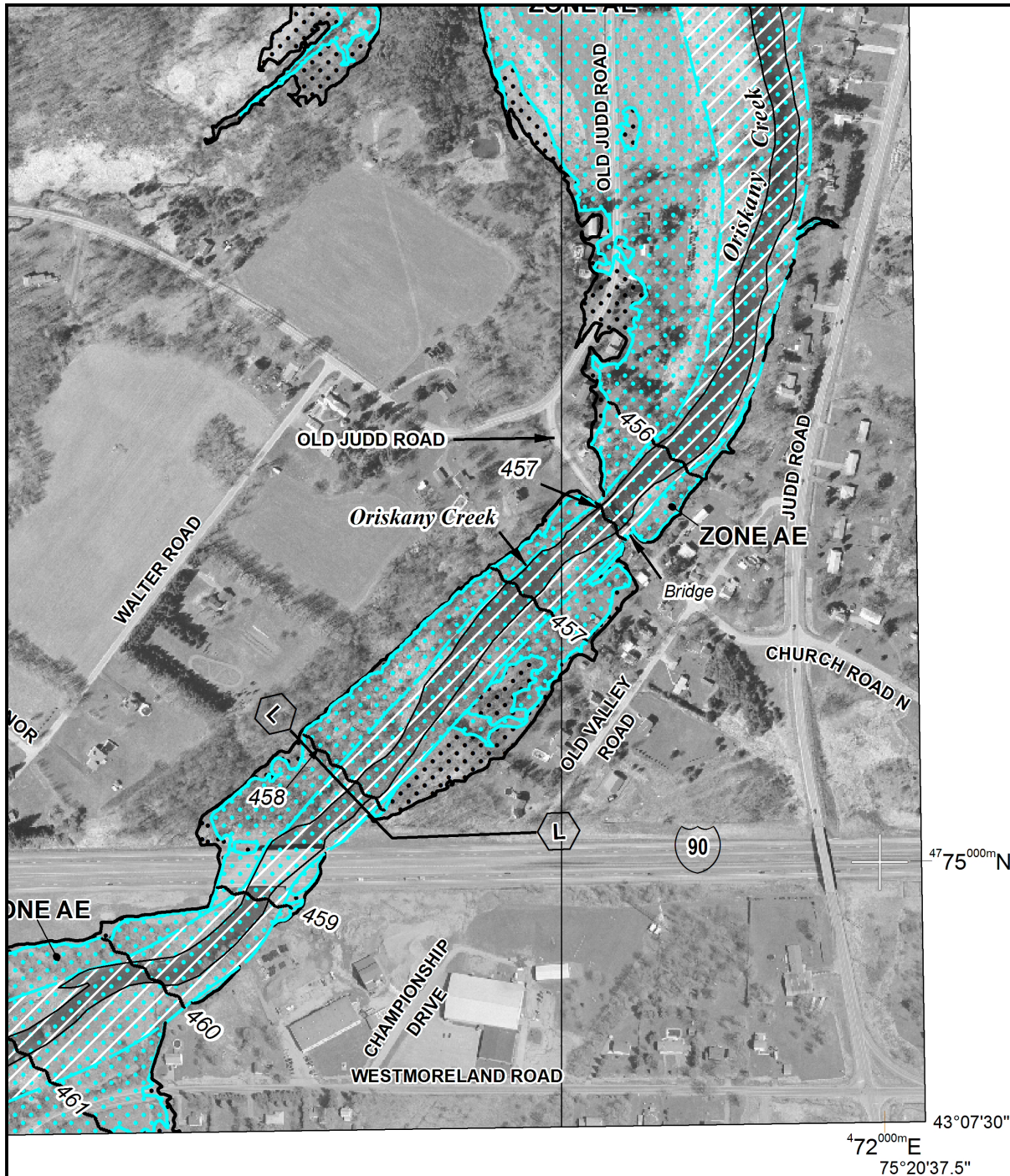
The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive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

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

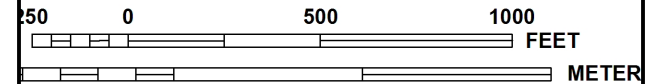
Sincerely,

A handwritten signature in black ink, appearing to read "Nick Conrad", written in a cursive style.

Nicholas Conrad  
Information Resources Coordinator  
New York Natural Heritage Program



MAP SCALE 1" = 500'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0588F

## FIRM

FLOOD INSURANCE RATE MAP

for ONEIDA COUNTY, NEW YORK  
(ALL JURISDICTIONS)

CONTAINS:

COMMUNITY	NUMBER
WHITESTOWN, TOWN OF	360567

PANEL 588 OF 926

MAP SUFFIX: F

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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



MAP NUMBER  
36065C0588F

EFFECTIVE DATE  
SEPTEMBER 27, 2013

Federal Emergency Management Agency

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

## **Appendix C Complete Streets Checklist**



## CAPITAL PROJECTS COMPLETE STREETS CHECKLIST

<b>PIN:</b>	<input type="text" value="N/A"/>	<b>Project Location:</b>	<input type="text" value="Oneida County, Town of Whitestown"/>
<b>Context:</b>	<input type="radio"/> Urban / Village <input checked="" type="radio"/> Suburban <input type="radio"/> Rural		
<b>Project Title:</b>	<input type="text" value="NYSTA D214386, Judd Road (CR 840) over Interstate 90"/>		
<b>STEP 1- APPLICABILITY OF CHECKLIST</b>			
<b>1.1</b>	Is the project located entirely on a facility where bicyclists and pedestrians are prohibited by law and the project does not involve a shared use path or pedestrian/bicycle structure? <i>If <b>no</b>, continue to question 1.2. If <b>yes</b>, <u>stop here</u>.</i>		<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>1.2</b>	a. Is this project a 1R* Maintenance project? <i>If <b>no</b>, continue to question 1.3. If <b>yes</b>, go to part b of this question.</i>		<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>1.2</b>	b. Are there opportunities on the 1R project to improve safety for bicyclists and pedestrians with the following Complete Street features? <ul style="list-style-type: none"> <li>Sidewalk curb ramps and crosswalks</li> <li>Shoulder condition and width</li> <li>Pavement markings</li> <li>Signing</li> </ul> <i>Document opportunities or deficiencies in the IPP and <u>stop here</u>.</i> <small>* Refer to Highway Design Manual (HDM) Chapter 7, Exhibit 7-1 "Resurfacing ADA and Safety Assessment Form" under ADA, Pavement Markings and Shoulder Resurfacing for guidance.</small>		<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>1.3</b>	Is this project a Cyclical Pavement Marking project? <i>If <b>no</b>, continue to question 1.4. If <b>yes</b>, review <a href="#">EI 13-021</a>* and identify opportunities to improve safety for bicyclists and pedestrians with the following Complete Streets features:</i> <ul style="list-style-type: none"> <li>Travel lane width</li> <li>Shoulder width</li> <li>Markings for pedestrians and bicyclists</li> </ul> <i>Document opportunities or deficiencies in the IPP and <u>stop here</u>.</i> <small>* EI 13-021, "Requirements and Guidance for Pavement Marking Operations - Required Installation of CARDS and Travel Lane and Shoulder Width Adjustments".</small>		<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>1.4</b>	Is this a Maintenance project (as described in the "Definitions" section of this checklist) and different from 1.2 and 1.3 projects? <i>If <b>no</b>, continue to Step 2. If <b>yes</b>, the Project Development Team should continue to look for opportunities during the Design Approval process to improve existing bicycle and pedestrian facilities within the scope of project. Identify the project type in the space below and <u>stop here</u>.</i> <div style="border: 1px solid black; height: 80px; margin-top: 10px;"></div>		<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>STEP 1 prepared by:</b> <input type="text" value="Kevin Shah"/> <span style="float: right;"><b>Date:</b> <input type="text" value="02/20/2017"/></span>			
<b>STEP 2 - IPP LEVEL QUESTIONS (At Initiation)</b>			<b>Comment / Action</b>



## CAPITAL PROJECTS COMPLETE STREETS CHECKLIST

<b>2.1</b>	<p>Are there public policies or approved known development plans (e.g., community Complete Streets policy, Comprehensive Plan, MPO Long Range and/or Bike/Ped plan, Corridor Study, etc.) that call for consideration of pedestrian, bicycle or transit facilities in, or linking to, the project area? <i>Contact municipal planning office, Regional Planning Group and Regional Bicycle/Pedestrian Coordinator.</i></p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<div style="border: 1px solid black; padding: 5px; min-height: 100px;">           Herkimer &amp; Oneida counties have a joint Bicycle and Pedestrian Plan put together by HOCTS in 2002.         </div>
<b>2.2</b>	<p>Is there an existing or planned sidewalk, shared use path, bicycle facility, pedestrian-crossing facility or transit stop in the project area?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<div style="border: 1px solid black; padding: 5px; min-height: 100px;">           Rayhill Memorial Trail runs on Judd Road 0.1 miles south of the bridge from the Judd Road - Westmoreland Road intersection.         </div>
<b>2.3</b>	<p>a. Is the highway part of an existing or planned State, regional or local bicycle route? <i>If <b>no</b>, proceed to question 2.4. If <b>yes</b>, go to part b of this question.</i></p> <p>b. Do the existing bicycle accommodations meet the minimum standard guidelines of <a href="#">HDM Chapter 17</a> or the AASHTO "Guide for the Development of Bicycle Facilities"? * <i>Contact Regional Bicycle/Pedestrian Coordinator</i></p> <p><small>* Per HDM Chapter 17- Section 17.4.3, Minimum Standards and Guidelines.</small></p>	<p><input type="radio"/> Yes   <input checked="" type="radio"/> No</p> <p><input type="radio"/> Yes   <input type="radio"/> No</p>	<div style="border: 1px solid black; padding: 5px; min-height: 100px;">           See Step 2.2.         </div>
<b>2.4</b>	<p>Is the highway considered important to bicycle tourism by the municipality or region?</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<div style="border: 1px solid black; padding: 5px; min-height: 100px;">           Per NYSDOT Region 2 planning department, Judd Road experiences a fair amount of bicycle traffic.         </div>
<b>2.5</b>	<p>Is the highway affected by special events (e.g., fairs, triathlons, festivals) that might influence bicycle, pedestrian or transit users? <i>Contact Regional Traffic and Safety</i></p>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<div style="border: 1px solid black; padding: 5px; min-height: 100px;"></div>
<b>2.6</b>	<p>Are there existing or proposed generators within the project area (<i>refer to the "Guidance" section</i>) that have the potential to generate pedestrian or bicycle traffic or improved transit accommodations? <i>Contact the municipal planning office, Regional Planning Group, and refer to the CAMCI Viewer, described in the "Definitions" section.</i></p>	<input checked="" type="radio"/> Yes <input type="radio"/> No	<div style="border: 1px solid black; padding: 5px; min-height: 100px;">           See Step 2.2.         </div>
<b>2.7</b>	<p>Is the highway an undivided 4 lane section in an urban or suburban setting, with narrow shoulders, no center turn lanes, and existing Annual Average Daily Traffic (AADT) &lt; 15,000 vehicles per day? <i>If <b>yes</b>, consider a road diet evaluation for the scoping/design phase. Refer to the "Definitions" section for more information on road diets.</i></p>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<div style="border: 1px solid black; padding: 5px; min-height: 100px;"></div>

## CAPITAL PROJECTS COMPLETE STREETS CHECKLIST

<b>2.8</b>	Is there evidence of pedestrian activity (e.g., a worn path) and no or limited pedestrian infrastructure?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
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**STEP 2** prepared by: Kevin Shah      Date: 02/20/2017

Bicycle/Pedestrian Coordinator has been provided an opportunity to comment:    ☐ Yes   ☒ No

**ATTACH TO IPP AND INCLUDE RECOMMENDATIONS FOR SCOPING/DESIGN.**

<b>STEP 3 - PROJECT DEVELOPMENT LEVEL QUESTIONS (Scoping/Design Stage)</b>			Comment / Action
<b>3.1</b>	Is there an identified need for bicycle/pedestrian/transit or "way finding" signs that could be incorporated into the project?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.2</b>	Is there history of bicycle or pedestrian crashes in the project area for which improvements have not yet been made?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Unknown at this time.
<b>3.3</b>	Are there existing curb ramps, crosswalks, pedestrian traffic signal features, or sidewalks that don't meet ADA standards per <a href="#">HDM Chapter 18</a> ?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.4</b>	Is the posted speed limit is 40 mph or more and the paved shoulder width less than 4' (1.2 m) (6' in the Adirondack or other State Park)? Refer to <a href="#">EI 13-021</a> .	<input checked="" type="radio"/> Yes <input type="radio"/> No	
<b>3.5</b>	Is there a perceived pedestrian safety or access concern that could be addressed by the use of traffic calming tools (e.g., bulb outs, raised pedestrian refuge medians, corner islands, raised crosswalks, mid-block crossings)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.6</b>	Are there conflicts among vehicles (moving or parked) and bike, pedestrian or transit users which could be addressed by the project?	<input checked="" type="radio"/> Yes <input type="radio"/> No	The narrow shoulders on the bridge can be widened to accomodate pedestrian and bicycle traffic.
<b>3.7</b>	Are there opportunities (or has the community expressed a desire) for new/improved pedestrian-level lighting, to create a more inviting or safer environment?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.8</b>	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	N/A to proposed location.

## CAPITAL PROJECTS COMPLETE STREETS CHECKLIST

<b>3.9</b>	Are there gaps in the bike/pedestrian connections between existing/planned generators? <i>Consider locations within and in close proximity of the project area. (Within 0.5 mi (800 m) for pedestrian facilities and within 1.0 mi (1600 m) for bicycle facilities.)</i>	<input type="radio"/> Yes <input checked="" type="radio"/> No	See Step 2.2.
<b>3.10</b>	Are existing transit route facilities (bus stops, shelters, pullouts) inadequate or in inconvenient locations? (e.g., not near crosswalks) <i>Consult with Traffic and Safety and transit operator, as appropriate</i>	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.11</b>	Are there opportunities to improve vehicle parking patterns or to consolidate driveways, (which would benefit transit, pedestrians and bicyclists) as part of this project?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.12</b>	Is the project on a "local delivery" route and/or do area businesses rely upon truck deliveries that need to be considered in design?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Unknown at this time.
<b>3.13</b>	Are there opportunities to include green infrastructure which may help reduce stormwater runoff and/or create a more inviting pedestrian environment?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>3.14</b>	Are there opportunities to improve bicyclist operation through intersections and interchanges such as with the use of bicycle lane width and/or signing?	<input type="radio"/> Yes <input checked="" type="radio"/> No	

**STEP 3** prepared by: Kevin Shah      Date: 02/20/2017

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:



## **Appendix D   Structure Information**



**BIN:** 5512980 **MP:** 240.48  
**Region:** 2 **County:** 6 ONEIDA  
**Feature Carried:** JUDD ROAD  
**Feature Crossed:** 90IX  
**General Recommendation:** 4  
**Condition Rating:** 3.75  
**Inspect Date:** 6/17/2015



**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

INITIAL:

RED FLAG ☐

Ad. YELLOW FLAG ☒

SAFETY FLAG ☐

FLAG NUMBER: 15-041

**SUPERSEDED FLAG(S):** 14035

INSPECTOR: Andrew Lachina

DATE OF INSPECTION: 6/9/2015

CURRENT FLAG INDICATOR: ACTIVE

PROMPT INTERIM ACTION RECOMMENDED: YES X NO

BRIDGE DESCRIPTION:

MP: 240.48      BIN: 5512980

REGION: 2                      COUNTY: 6 (ONEIDA)                      TOWN: Whitestown

FEATURES: CARRIED: JUDD ROAD                      CROSSED: 90IX

NUMBER OF SPANS BY TYPE: 4 Spans; Type 302; Steel - Rolled Beam, Multi-Girder

YEAR BUILT: 1952

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) :

Pier 1, Column 1 has severe spalling with exposed, corroded and debonded reinforcement on the End Left face. Spalling is up to 5.0' high x 2.8' wide x 4" deep, with 2 debonded vertical bars and 18 broken spiral ties. Both vertical bars are debonded over a height of 3.5'. The concrete within the spall crumbles easily when struck. Adjacent concrete on the End face is partially hidden by the concrete barrier, but the visible portion above the barrier is cracked and delaminated. Spalling is located 4.5' above the top of footing, and represents an approximate 10% loss of column area.

The affected column is 1 of 3 columns, each 3.5' in diameter with 13 vertical column bars. The loss of containment for the 2 vertical bars significantly affects the capacity of the column. Failure of this column would compromise Spans 1 and 2.

Though not specifically meeting the extent of deterioration to warrant a Yellow Flag, Pier 3, Column 3 is also noted here as it is in similar condition. Spalling on the Right face is 7.5' H x up to 1' W x 2" D with one exposed vertical bar and 30 exposed spiral ties, 13 of which are broken. The vertical bar is only slightly exposed over a height of 5', and the concrete within the spall is solid when struck. The spall is surrounded by 15 SF of cracked and delaminated concrete.

INSTANT DEVELOPED PHOTOS ATTACHED? X YES NO IF YES, NUMBER ATTACHED: 4

FLAGGED BRIDGE REPORT COMPLETED BY: Andrew Lachina DATE: 6/9/2015

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

TO: \_\_\_\_\_ of Headquarters on \_\_\_\_\_

TO: \_\_\_\_\_ (Responsible Party) on \_\_\_\_\_


BY: \_\_\_\_\_


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

Andrew Lachina  
Signature of Thruway Team Leader


6/9/15  
Date:




<b>Location:</b>	240.48-FLG-99-00-15P1C1EL.JPG	1
Pier 1, Column 1 from End Left		
<b>Description:</b>		
The End Left face of the Column has spalling is up to 5.0' high x 2.8' wide x 4" deep, with debonded reinforcement.		
<b>Reference:</b>		
FLAG #: 15-041		

<b>Location:</b>	240.48-FLG-99-01-15P1C1EL.JPG	2
Pier 1, Column 1 from Left		
<b>Description:</b>		
Two vertical bars are debonded over a height of 3.5', and the 18 exposed spiral ties are broken.		
<b>Reference:</b>		
FLAG #: 15-041		

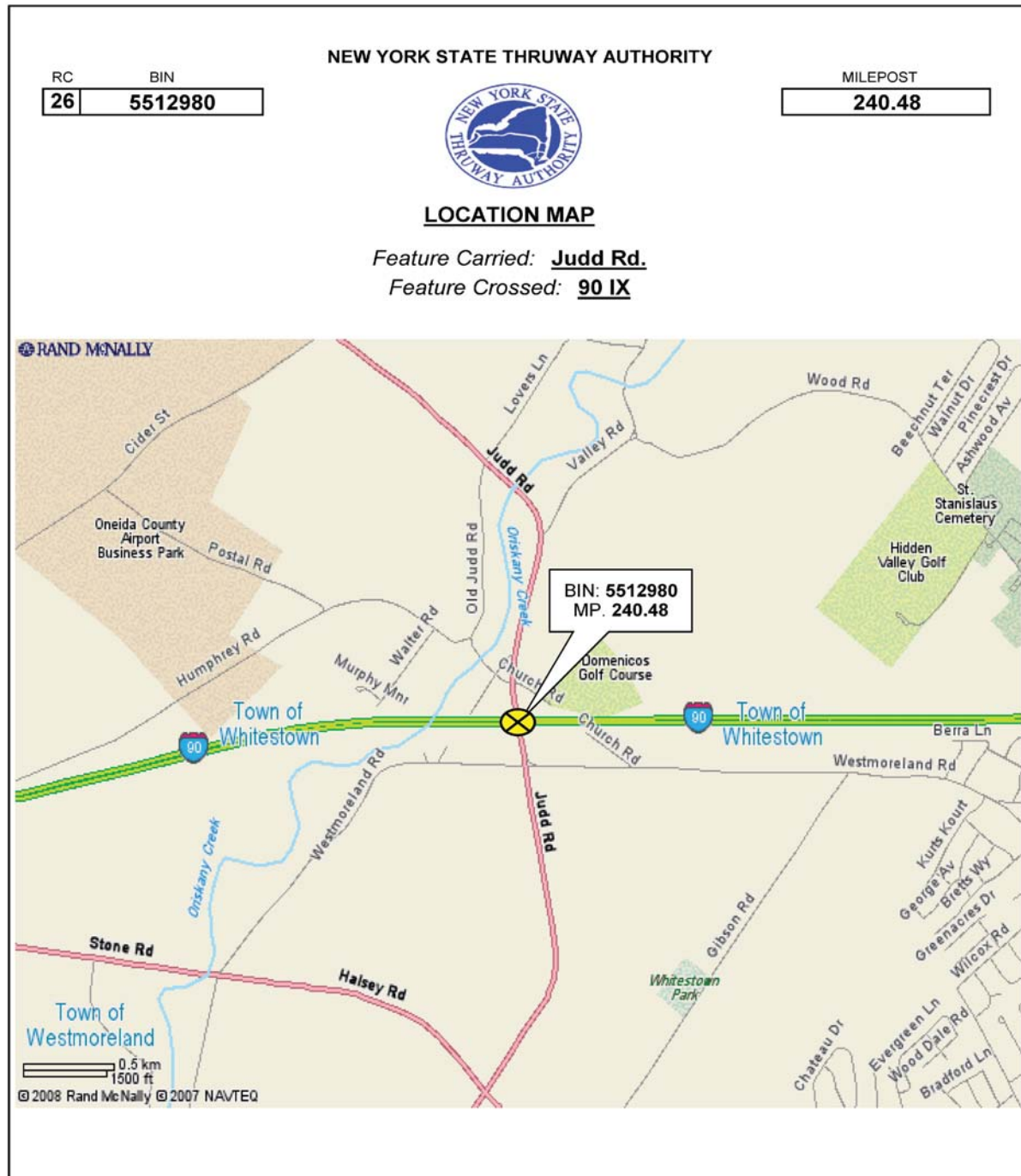


<b>Location:</b>	240.48-FLG-99-02-15P1C1EL.JPG	3
Pier 1, Column 1 from Left		
<b>Description:</b>		
The 5.0' high spall extends 1' below the surrounding ground line.		
<b>Reference:</b>		
FLAG #: 15-041		

<b>Location:</b>	240.48-FLG-99-03-15P3C3Rt.JPG	4
Pier 3, Column 3 from Right		
<b>Description:</b>		
The Right face of the Column has a 7.5' H x up to 1' W x 2" D spall with one exposed vertical bar and 30 exposed spiral ties, 13 of which are broken.		
<b>Reference:</b>		
FLAG #: 15-041		

**Sketch Type:** Location Map

**File Name:** 240.48-10-00-15LocMap.jpg



# INSPECTION



NYS DEPT OF TRANSPORTATION  
BRIDGE INSPECTION REPORT

SHEET 1 OF 32

DATE: 

MO	DAY	YEAR
06	17	15
13	14	15

RC - BIN: 

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

 MP: 240.48

TEAM LEADER: Andrew Lachina

Signature: Andrew M. Lachina

P.E. NUMBER: 092598 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: Whitestown

FEATURE(S) CARRIED: JUDD ROAD

FEATURE(S) CROSSED: 90IX

TOTAL SPANS: 4 BRIDGE ORIENTED: Northwest YEAR BUILT: 1952

BRIDGE TYPE: Steel Stringer/Multi-Beam or Girder AADT/YEAR 7388/2013

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																					
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	TONS																						
27	28																						

ABUTMENTS:	Begin	End	WINGWALLS:	Begin	End	APPROACHES:														
	Joint with deck	<table border="1"><tr><td>4</td></tr><tr><td>22</td></tr></table>		4	22		<table border="1"><tr><td>4</td></tr><tr><td>23</td></tr></table>	4	23	Walls	<table border="1"><tr><td>6</td></tr><tr><td>40</td></tr></table>	6	40	<table border="1"><tr><td>6</td></tr><tr><td>41</td></tr></table>	6	41	Drainage	<table border="1"><tr><td>4</td></tr><tr><td>53</td></tr></table>	4	53
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Bearings, anchors bolts, pad	<table border="1"><tr><td>4</td></tr><tr><td>24</td></tr></table>	4	24	<table border="1"><tr><td>4</td></tr><tr><td>25</td></tr></table>	4	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	<table border="1"><tr><td>7</td></tr><tr><td>54</td></tr></table>	7	54			
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Stem (breastwall)	<table border="1"><tr><td>8</td></tr><tr><td>30</td></tr></table>	8	30	<table border="1"><tr><td>8</td></tr><tr><td>31</td></tr></table>	8	31	STREAM CHANNEL: Stream Alignment	<table border="1"><tr><td>8</td></tr><tr><td>48</td></tr></table>	8	48		Pavement	<table border="1"><tr><td>4</td></tr><tr><td>57</td></tr></table>	4	57					
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4																				
38																				
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39																				

ACCESS CATEGORY:

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

FLAG ISSUED?

NONE: 

--

  
YELLOW: 

1
---

  
RED: 

--

  
SAFETY: 

--

BRIEF REASON

Pier 1, Column 1: spalling w/ debonded vert. bars & severed ties.

Vulnerability Reassessment Review Recommended?

HYD 

3
65

 OVL 

X
---

 STL 

2
---

 COL 

X
---

 CON 

X
---

 SMC 

X
70

  
1 = YES  
2 = NO  
3 = NA  
X = NOT USED  
THIS CYCLE

REVIEWED BY: Garret Hoffmann

P.E. NUMBER: 70686

DATE: 8/3/2015

RC - BIN: 

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

TEAM LEADER: Andrew Lachina

ASST. TEAM LEADER: Fady Gerges

DATE: 

MO	DAY	YEAR
06	17	15
13	14	15

OTHERS: NYSTA Bridge Maint. - Access & WZTC

FEATURE(S) CARRIED: JUDD ROAD

FEATURE(S) CROSSED: 90IX

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	Brgs., Anchor Bolts, Pads	Pedestals	Top of Pier	Cap Beam	Stem Solid Pier	Cap beam	Pier Columns	Footings	Erosion or Scour	Piles	Recommendation	Lighting Standards and Fixtures	Sign Structures
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
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0	0	2	3	4	5	5	8	8	8	8	4	4	5	2	3	4	3	4	4	8	5	6	9	6	8	5	8	5	8
0	0	3	3	4	5	5	8	8	8	8	3	4	5	2	3	4	3	4	3	8	3	3	9	6	8	4	8	6	8
0	0	4	3	4	5	5	8	8	8	8	4	5	5	3	8	4	8	8	8	8	8	8	8	8	8	8	8	4	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	<input type="checkbox"/>	
PIN AND HANGERS	<input type="checkbox"/>	
FATIGUE-PRONE WELDS (AASHTO D, E, OR E')	<input checked="" type="checkbox"/>	Span 2-3, Int. Girders G2-G4: Cover plate terminal welds (Cat. E')
NON-CATEGORIZED FATIGUE-PRONE DETAILS	<input type="checkbox"/>	
OTHERS (SPECIFY) Steel Web Bearing Section Loss	<input checked="" type="checkbox"/>	Spans 1 & 4: Steel web bearing areas w/SL close to, or >25%.

RECOMMEND FURTHER INVESTIGATION	<table border="1"><tr><td>1</td></tr></table>	1	1 = NO 2 = YES	REMARKS
1				

FIELD NOTES							
DATE	TIME OF ARRIVAL	TIME OF DEPARTURE	TEMP (F/C)	WEATHER CONDITIONS / ACCESS EQUIPMENT		Field Notes	
06/09/2015	10:15:00 am	3:00:00 pm	72/22	Rain		Walking, Extension Ladder	
06/17/2015	7:00:00 am	2:00:00 pm	66/19	Clear		Walking, NYSTA Scissor Lift Truck, WZTC	

# FEDERAL RATING FORM

NYS DEPT OF TRANSPORTATION

MP: 240.48

BRIDGE INSPECTION REPORT

RC - BIN: 

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

SHEET 3 OF 32

TEAM LEADER: Andrew Lachina

DATE: 

MO	DAY	YEAR
06	17	15
13	14	15
16	17	18

ASST. TEAM LEADER: Fady Gerges

FEATURE(S) CARRIED: JUDD ROAD

FEATURE(S) CROSSED: 90IX

Description	Deck	Superstructure	Substructure	Channel	Culvert
Fed. Item #	58	59	60	61	62
RATING	4	5	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: Andrew Lachina

TITLE: Prudent Engineering, Team Leader

FEATURE(S) CARRIED: JUDD ROAD

FEATURE(S) CROSSED: 90IX

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

<b>BIN PLATE LOCATION/ CONDITION</b>	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input checked="" type="checkbox"/> Damaged/Defaced <input type="checkbox"/> End Abutment <input checked="" type="checkbox"/> Begin Abutment
	BIN Plate Location: Begin Abutment Backwall, Bay 3. The edges of the plate are painted over but the numbers are legible.
<b>FLOOD ELEVATION MARKINGS</b>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Satisfactory <input type="checkbox"/> Missing <input type="checkbox"/> Damaged/Illegible (described below)
<b>ELECTRICAL</b>	<input type="checkbox"/> Class A (Caution) <input checked="" 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 type="checkbox"/> None <input checked="" 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.

☐ Superstructure

☒ Curb, Sidewalk, Fascia

In All 4 Spans, the buildup of sand along the Left and Right curblines has been removed.

☐ Deck

☐ Bridge Rail

☐ Wearing Surface

☐ Approach Rail

☐ Appr. Pavement

☐ Signage

☐ Substructure

☐ Other (explain below)

**GENERAL COMMENTS/UNUSUAL CONDITIONS:**

☐ Unusual Conditions (explain below)

SPECIAL EMPHASIS:

- 1.) Cat. E' Welds at terminations of partial length cover plates on tension flanges of Girders G2, G3, and G4 in Spans 2 & 3.
- 2.) Steel Web Bearing Area w/SL close to, or > 25% at 3 locations:
  - a.) Span 1 Girder G1 at Pier 1;
  - b.) Span 1 Girder G2 at Pier 1;
  - c.) Span 4 Girder G1 at Pier 3.

All Special Emphasis items inspected on 6/17/2015, no deficiencies found.

INSPECTED BY: Andrew Lachina TITLE: Prudent Engineering, Team Leader

FEATURE(S) CARRIED: JUDD ROAD

FEATURE(S) CROSSED: 90IX

### 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:	See below.
Driving lane	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:	See below.
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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:	See below.
Mall lane shoulder	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:	
Ramp lane	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments:	

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

#### NOTES:

WZTC and a Scissor Lift Truck were provided by NYSTA Bridge Maintenance, Verona Section. These were deployed in all 4 travel lanes (2 EB & 2 WB) and all 4 shoulders (2 EB & 2 WB) to provide access to:

- 1.) Piers 1 & 3 for inspection of Pier elements and Girder-ends (for section loss) at the Piers.
- 2.) Spans 2 & 3 for inspection of Cat. E terminal welds on partial-length cover plates.
- 3.) Spans 2 & 3 for inspection and sounding of Fascia and Deck concrete.
- 4.) Spans 2 & 3 for inspection of Girders for section loss at various points along the spans.

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

**22 Joint With Deck (Begin)**

The Begin Joint is shown on the 1952 Plans as an unsealed construction joint between the bridge deck and approach pavement, located over the center of the backwall. The asphalt pavement at the joint is cracked and segmented in a 12" wide strip across the entire width of the roadway.

4 4 1

Below deck, there is minor active leakage at the cheekwalls.

**23 Joint With Deck (End)**

The End Joint is shown on the 1952 Plans as an unsealed construction joint between the bridge deck and approach pavement, located over the center of the backwall. The asphalt pavement at the joint is cracked and raveled in a 2' to 3' wide strip across the entire width of the roadway, and ride quality is very rough over this transition.

4 4 2

Below deck, there is minor active leakage in girder Bay 1.

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

The Begin sliding low steel rocker expansion bearings have up to ¼" thick pack rust between the masonry plate and the bronze sliding surface. The front edge of the bronze sheet is bowed upward in the middle, which may restrict thermal movement. All 5 bearings are expanded by 1.5" +/- at 72°F.

4 4 3

Otherwise, all 5 bearings exhibit minimal surface corrosion, and the anchor bolts are solid.

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

The End sliding low steel rocker expansion bearings have up to 3/8" thick pack rust between the masonry plate and the bronze sliding surface. The front edge of the bronze sheet is bowed upward in the middle, which may restrict thermal movement. All 5 bearings are close to the neutral position at 72°F.

4 4 4

Otherwise, all 5 bearings exhibit minimal surface corrosion, and the anchor bolts are solid.

**26 Bridge Seat and Pedestals (Begin)**

The Begin Pedestals the following deterioration:

4 4 5

Pedestal 1: The Front face has a ½ SF x 1" deep surface spall.

Pedestal 2: The Front Right corner has a 1 SF x 3.5" deep spall with slight rebar exposure. Spalling extends to the Right edge of the masonry plate, but does not undermine it. The Front face has a ½ SF x 1" deep surface spall at the top.

Pedestal 3: The Front face has a 2 SF x 1.5" deep spall, but rebar is not exposed.

The remaining 2 Pedestals at the Begin Abutment are in better condition and would rate '5' or better.

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

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

The End Pedestal under girder G5 has a 4' W x up to 6" deep spall along the top front corner. Spalling exposes 2 debonded hoop bars and extends to the front edge of the masonry plate, but does not undermine it. The remainder of the Front face, and the entire Left face exhibit cracked and delaminated concrete.

3 3 6

The remaining 4 Pedestals at the End Abutment are in better condition and would rate '5' or better.

**32 Erosion or Scour (Begin)**

The Begin Abutment footing is exposed along the entire length of the stem, with a maximum height exposure of 2.7' below girder G3. This condition has persisted for at least 2 decades, with little change. No undermining or distress is evident.

4 4 7

**53 Drainage**

The Begin Left, End Left and End Right approach quadrants have a 3" to 6" high buildup of dirt and vegetation below the guide railing, which hinders drainage over the shoulders. Runoff is not directed toward the bridge, but appears to pond across the shoulder and up to 2' into the travel lanes.

4 4 8

Drainage at the Begin Right quadrant would rate '5'.

**55 Settlement**

At the joint transition, the Begin approach asphalt pavement at the bridge is settled across the entire width of the roadway. Settlement measures up to ¾" in the Right travel lane, and vehicles encounter a noticeable bump while traveling over the affected area.

4 4 9, 10

The End approach asphalt pavement at the bridge is settled in a 3' wide band across the entire width of the roadway. At the joint transition, settlement measures up to 1.5" in the Right travel lane, and vehicles encounter a noticeable bump while traveling over the affected area.

**57 Pavement**

The Begin approach asphalt Pavement has a 12" wide band of cracking and segmentation at the bridge, which extends across the entire width of the roadway. Away from the transition, the pavement exhibits transverse cracking and minor wheel path rutting. Ride quality is fair.

4 4 1, 2, 9, 10

The End approach asphalt Pavement has a 3' wide band of cracking, raveling and uneven patchwork at the End of the bridge, which extends across the entire width of the roadway. Raveling is up to 18"L x 2' W x 1" D in the Left travel lane. Ride quality is adversely affected, and very rough over this uneven joint transition. Away from the transition, the pavement is in good condition.

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

**19 Wearing Surface**

ALL SPANS: 1 3 3 11

In all 4 Spans, the concrete Wearing Surface exhibits a general loss of the transverse grooving throughout. The exposed aggregate surface is fairly smooth, and skid resistance of the wearing surface has been significantly reduced.

The underside of the deck exhibits sporadic areas of light dampness throughout, indicating that the Wearing surface is not water tight.

In addition, the concrete Wearing Surface is affected by the following deterioration:

Span 1:

In Span 1, the Wearing Surface has areas of hollow sounding concrete scattered throughout, which affect approximately 60% of the surface area.

Span 2: 2 3 3 12

In Span 2, the Wearing Surface in the Right travel lane has a 12' W x 15' L area of hollow sounding concrete near Pier 1. The affected area represents approximately 15% of the total surface area in Span 2.

Span 3: 3 3 3 13

In Span 3, the Wearing Surface has areas of hollow sounding concrete scattered throughout, which affect approximately 80% of the surface area.

In the Left travel lane, near Midspan there is a 3' W x 12' L area of uneven concrete and asphalt patchwork in the Right wheel path. The Right travel lane, adjacent to the concrete patch at the End, has a 2 SF area of cracked and broken concrete in each wheel path. Ride quality is poor.

Span 4: 4 3 4 14

In Span 4, the Wearing Surface is generally solid sounding, with only a few areas of hollowness. However, the Wearing Surface is slick, with exposed and polished aggregate throughout.

Rating is lowered from '4' to '3'.



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

20 Curbs

All Spans: 1 4 4 15

In All 4 Spans, the buildup of sand along the Left and Right curblines has been removed since the previous inspection. The concrete curbs on the Left and Right sides of the bridge are in good condition.

Rating is raised from '4' to '5'.

2 4 4  
3 4 4  
4 4 4

21 Sidewalks & Fascias

Span 1: 1 4 4 16, 17

In Span 1, the Left Fascia has 2 areas of bottom corner spalling which affect 70% of the total span length. Near Midspan, spalling is 26' L x 12" H x 3" D with several corroded longitudinal and transverse bars exposed. At the End, spalling measures 5' L x 6"-12" H x 3"D with exposed reinforcement. The bridge railing anchorages are not affected.

The Span 1, Right Fascia would rate '5'.

The Span 1, Left and Right Sidewalks would rate '6'.

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

27 Deck Structural

Span 1: 1 4 4 17

The Span 1 Deck is typically solid, and exhibits only fine mapcracking and light dampness, which affects approximately 40% of the total surface area.

The Left Fascia overhang, near Midspan has a 26' L x 12" W x 3" D spall with several, corroded longitudinal and transverse bars exposed. At the End, there is another 5' L x 12" W x 3"D spall with exposed reinforcement.

See Span 1 Deck Sketch.

Span 2: 2 4 4 18

The Span 2 Deck exhibits only fine mapcracking and moderate dampness, which affects approximately 30% of the total surface area, particularly in Bays 3 & 4.

In Girder Bays 3 and 4, the Begin 1/3 of the span is very damp and exhibits efflorescence and a few small areas of rust staining.

See Span 2 Deck Sketch.

Span 3: 3 3 3 19

The Span 3 Deck exhibits only fine mapcracking and dampness which affects approximately 90% of the total surface area.

See Span 3 Deck Sketch.

Span 4: 4 4 4 20

The Span 4 Deck exhibits only fine mapcracking and dampness which affects approximately 50% of the total surface area.

In Girder Bays 1 and 2, the End 1/2 of the span exhibits more concentrated, moderate dampness, mapcracking and efflorescence.

See Span 4 Deck Sketch.

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

**28 Primary Members**

Span 1: 1 5 5 21, 22

Span 1, Girders G1 and G2 exhibit heavy corrosion and moderate web section loss in the critical bearing area over their Pier 1 bearings. The worst web loss is typically just above the bottom flange, directly over the bearings. No rust through holes are present, but corrosion is active. Field measurements indicate the following web section loss:

Span 1, Girder G1 at Pier 1:  
Average SL in bearing area - 15%  
SL in critical bearing section - 22%

Span 1, Girder G2 at Pier 1:  
Average SL in bearing area - 10%  
SL in critical bearing section - 15%

See attached Girder End Section Loss Sketches.

Away from the Pier 1 supports, Girders G1 and G2 have no significant section loss.

The remaining 3 girders in Span 1 have no significant section loss.

Span 1, End-Diaphragms at Pier 1 exhibit moderate web corrosion with up to 50% section loss in Bays 1 and 4, and 30% section loss in Bays 2 and 3. No rust through perforations noted.

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

**28 Primary Members**

Span 2: 2 4 4 24

Span 2, all 5 Girders exhibit heavy corrosion with minor bottom flange section loss over the I-90 EB travel lanes. Field measurements indicate the following section losses:

Span 2, Girder G1 at L/4:  
Bottom Flange - 10% SL  
BF Cover Plate - Negligible SL  
Top Flange - Negligible SL

Span 2, Girder G1 at L/2:  
Bottom Flange - 10% SL  
BF Cover Plate - Negligible SL  
Top Flange - Negligible SL

Span 2, Girder G2 at L/4:  
Bottom Flange - 10% SL  
BF Cover Plate - Negligible SL  
Top Flange - Negligible SL

Span 2, Girder G2 at L/2:  
Bottom Flange - 9% SL  
BF Cover Plate - 10% SL  
Top Flange - Negligible SL

Span 2, Girders G3 & G4 at L/2:  
Bottom Flange - 8% SL  
BF Cover Plate - Negligible SL  
Top Flange - Negligible SL

Span 2, Girder G5 at L/2:  
Bottom Flange - 0% SL  
BF Cover Plate - 0% SL  
Top Flange - Negligible SL

Span 2, all 5 Girders exhibit no significant change since the previous inspection. Based on the pattern of corrosion over the I-90 travel lanes and the similarities in appearance among Span 2 and Span 3 girders, the following load rating assumptions made during the 2014 Inspection are still valid:

Span 2 Fascia Girders G1 & G5:  
Bottom Flange: 0' - 45' (3L/4): 14% SL  
Bottom Flange: 45' - 59.7' (L) : 0% SL  
BF Cover Plate: 0' - 45' (3L/4): 3% SL  
BF Cover Plate: 45' - 59.7' (L) : 0% SL

Span 2 Interior Girders G2 - G4:

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

**28 Primary Members**

Bottom Flange: 0' - 12.8': 23% SL  
 Bottom Flange: 12.8' - 45': 11% SL  
 Bottom Flange: 45' - 59.7': 0% SL  
 BF Cover Plate: 12.8' - 45': 13% SL  
 BF Cover Plate: 45' - 46.8': 0% SL  
 Top Flange: 0' - 45': 2% SL

Span 2, all 5 Girder Webs have minor surface corrosion with negligible section loss.

Span 2, End-Diaphragms at Piers 1 and 2 exhibit moderate web corrosion with up to 50% section loss in Bays 1 and 4, and 30% section loss in Bays 2 and 3. No rust through perforations noted.

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

**28 Primary Members**

Span 3: 3 4 4 23, 24

Span 3, all 5 Girders exhibit heavy corrosion with minor bottom flange section loss over the I-90 WB travel lanes. Field measurements indicate the following section losses:

Span 3, Girder G1 at L/2:  
Bottom Flange - 10% SL  
BF Cover Plate - 9% SL  
Top Flange - Negligible SL

Span 3, Girder G2 at L/2:  
Bottom Flange - 9% SL  
BF Cover Plate - 10% SL  
Top Flange - Negligible SL

Span 3, Girder G2 at 47':  
Bottom Flange - 21% SL  
Top Flange - Negligible SL

Span 3, Girders G3 L/2:  
Bottom Flange - 8% SL  
BF Cover Plate - 25% SL  
Top Flange - Negligible SL

Span 3, Girders G3 L/2:  
Bottom Flange - 10% SL  
BF Cover Plate - 10% SL  
Top Flange - Negligible SL

Span 3, Girder G4 at L/2:  
Bottom Flange - 9% SL  
BF Cover Plate - 10% SL  
Top Flange - Negligible SL

Span 3, Girder G5 at L/2:  
Bottom Flange - Negligible  
BF Cover Plate - 10% SL  
Top Flange - Negligible SL

Span 3, all 5 Girders exhibit no significant change since the previous inspection. Based on the pattern of corrosion over the 1-90 travel lanes and the similarities in appearance among Span 2 and Span 3 girders, the following load rating assumptions made during the 2014 Inspection are still valid:

Span 3 Fascia Girders G1 & G5:  
Bottom Flange: 0' - 15' (L/4): 0% SL  
Bottom Flange: 15' - 59.7' (L) : 5% SL  
BF Cover Plate: 0' - 15' (L/4): 0% SL  
BF Cover Plate: 15' - 59.7' (L) : 11% SL  
Span 3 Interior Girders G2 - G4:

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

## 28 Primary Members

Bottom Flange: 0' - 15': 0% SL  
 Bottom Flange: 15' - 46.8': 11% SL  
 Bottom Flange: 46.8' - 59.7': 23% SL  
 BF Cover Plate: 12.8' - 15': 0% SL  
 BF Cover Plate: 15' - 29.8': 15% SL  
 BF Cover Plate: 29.8' - 46.8' : 28% SL  
 Top Flange: 0' - 45': 2% SL

Span 3, Girder G5, near 3L/4 has heavy pitting in the lower 1/4 to 1/2 of its depth, with isolated loss of web section between 30% - 45%. The remainder of the Girder Webs have minor surface corrosion with negligible section loss.

Span 3, End-Diaphragms at Piers 2 and 3 exhibit moderate web corrosion with up to 50% section loss in Bays 1 and 4, and 30% section loss in Bays 2 and 3. No rust through perforations noted.

Span 4:

4 5 5 25

Span 4, Girder G1 exhibits minor web section loss in the critical bearing area over the Pier 3 bearing. The web loss is typically just above the bottom flange, directly over the bearing. No rust through holes are present, but corrosion is active. Field measurements indicate an overall average section loss of 9% with a maximum of 18% in the critical bearing section. Away from the Pier 3 support, Girder G1 has no significant section loss.

See attached Girder End Section Loss Sketch.

The remaining 4 girders in Span 4 have no significant section loss.

Span 4, End-Diaphragms at Pier 3 exhibit moderate web corrosion with up to 50% section loss in Bays 1 and 4, and 30% section loss in Bays 2 and 3. No rust through perforations noted.

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

**30 Paint**

Spans 1 and 4: 1 3 3 21, 22

In Spans 1 and 4, Paint failure due to active joint leakage over Piers 1 and 3 has resulted in corrosion with minor section loss on the girder webs over the bearings. Away from the Pier joints, Paint on the girder webs is faded and chalky, but with no significant peeling or corrosion.

Paint failure along the edges of the girder bottom flanges, with peeling and moderate rust scaling is typical throughout the spans. Peeling with light rust scale is intermittent along the top flanges.

Paint on the End-Diaphragms below the joints at Piers 1 and 3 has completely failed along the flanges and on the joint side of the webs, with heavy corrosion and up to 50% web section loss.

Overall, paint damage affects approximately 30% of the total steel surface area in each span.

Spans 2 and 3: 2 2 2 24

In Spans 2 and 3, Paint failure is nearly complete over the I-90 travel lanes, with continuous corrosion and minor section loss to the girder bottom flanges and cover plates. Girder webs and top flanges have freckling with light rust scale and intermittent rust blisters with localized pitting.

Away from the I-90 travel lanes, conditions in the End quarter of Span 2 and Begin quarter of Span 3 are similar to those in Spans 1 and 4.

Paint on the End-Diaphragms below the Pier joints has completely failed along the flanges and on the joint side of the webs, with heavy corrosion and up to 50% web section loss.

Overall, paint deterioration affects approximately 75% of the total steel surface area in each span.

3 2 2 23, 24  
4 3 3 25



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

### 31 Joints

Pier 1: 1 3 3 26

The Pier 1 Joint sealant is missing over a 3' length in the Right travel lane, and the joint is filled with dirt. The remainder of the caulk sealant is in place, but detached at several locations throughout the width of the bridge. The edges of the concrete wearing surface have intermittent chipping up to 1/2" deep which affect the sealant bond.

Below deck, there is heavy active joint leakage in Bay 1, and evidence of minor active joint leakage throughout the remaining width of the bridge. In Bays 1 and 2, the End header has a 6'L x 3" W x up to 3" D spall. Joint leakage contributes to significant deterioration of underlying elements.

Pier 2: 2 3 4 27

At the Pier 2 Joint, the Span 2 concrete wearing surface has edge spalling up to 2" W x up to 1" D throughout the majority of the Left travel lane, which significantly affects the sealant bond. In the Right travel lane, the Joint gap is filled with liquid asphalt.

Below deck, there is significant active joint leakage throughout the entire width of the bridge. Joint leakage contributes to significant deterioration of underlying elements.

Rating is lowered from '4' to '3' due to full width active joint leakage.

Pier 3: 3 3 3 28

At the Pier 3 Joint, no sealant is visible. In the Right travel lane the Joint gap is filled with sand and gravel. In the Left travel lane, the concrete wearing surface has a 2" wide strip of 1.5" deep edge spalling along both sides of the Joint. Spalling near the shoulder is filled with asphalt concrete. The remainder of the Left half of the Joint gap is filled with pieces of rigid foam board.

Below deck, there is heavy active joint leakage in Bay 4, which is evident by ponding water on the top of the Pier. The remaining width of the bridge exhibits signs of chronic leakage, which contributes to significant deterioration of underlying elements.

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

### 33 Bearings, Anchor Bolts, Pads

Piers 1 and 3: 1 3 3 29

At Piers 1 and 3, all Fixed Bearings (for Spans 1 and 4 respectively) exhibit heavy rust scale throughout, with thick pack rust under the sole plates. Corrosion may restrict proper movement. Gravity load function is not compromised.

At Piers 1 and 3, all Expansion Bearings (for Spans 2 and 3 respectively) exhibit heavy rust scale throughout, with thick pack rust under the sole plates, impeding rotation. The bronze sheet is bowed upward by up to 1/4" thick pack rust along one or both free edges, which may restrict thermal movement. All Expansion Bearings are within 1/2" of the neutral position at 67°F. Gravity load function is not compromised.

At all 20 Pier 1 and Pier 3 Bearings, the anchor bolt nuts typically exhibit section loss up to 75% at the fascia girders, and 25%-50% at the interior girders. All anchor bolts are in place and sound solid when struck.

Pier 2: 2 3 3 30

At Pier 2, all 10 Fixed Bearings for Spans 2 and 3 exhibit heavy rust scale throughout, with thick pack rust under the sole plates. Corrosion may restrict proper movement. The anchor bolt nuts have 50%-100% section loss. The exposed portions of the anchor bolts also exhibit heavy corrosion, but all appear to be functioning as designed. Gravity load function is not compromised.

The Pier 2, Span 3 Bearing under girder G5 is undermined by pedestal spalling. The Begin edge of the masonry plate is undermined by up to 1/4", which represents less than 3% loss of contact. The Pier 2, Span 2 Bearing under girder G5 exhibits no loss of contact.

3 3 3 31

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

34 Pedestals

Pier 2: 2 4 4 32

The Pier 2 Pedestal beneath the G5 girders has a 24" Wide x up to 3" Deep spall on its horizontal surface, affecting the entire 5" space between the masonry plates. The spall undermines the Begin edge of the Pier 2, Span 3 masonry plate by up to 1/4", which represents less than 3% loss of contact. Spalling extends up to but does not undermine the End edge of the Span 2 masonry plate.

The Pier 2 Pedestal beneath the G3 girders has a 12" L x 9" H x 1.5" D spall on the Left face. However, reinforcement is not exposed.

The remaining 3 Pedestals would rate '5' or better.

Pier 3: 3 4 4 33

The Pier 3 Pedestal beneath girder G1 has a 5" High x 3" Deep spall at the End Right corner. The spall is 14" Long on the Right face, 18" Long on the End face, and extends up to but not under the Span 4, G1 masonry plate. The spall exposes 2 debonded reinforcement bars.

The remaining 4 Pedestals would rate '5'.

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

35 Top of Pier Cap or Beam

Pier 1: 1 4 4 34

Top of Cap exhibits the following deterioration:

Girder Bay 2: There is a 10 SF area of hollow sounding concrete, which affects approximately 40% of the total bay's surface area.

Girder Bay 3: There is a 14 SF area of hollow sounding concrete in the center of the bay. The End edge has a 2 SF area of cracked and delaminated concrete, which extends 6" down the vertical face. This continues below Pedestal 4.

Girder Bay 4: The End edge has a 5 SF x 2.5" D spall with exposed and debonded rebar. The spall extends beneath Pedestal 5 and around the End half of the bullnose, for a total length of 8'.

The remainder of the Pier 1 Top of Cap would rate '5'.

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

**35 Top of Pier Cap or Beam**

Pier 2: 2 4 4 35

Top of Cap exhibits the following deterioration:

Beneath Pedestal 1: The End edge has a 1 SF x up to 2" D spall that extends 12" down the vertical face. However, reinforcement is not exposed.

Girder Bay 1: The Begin edge has a 3 SF area of hollow sounding concrete that affects 15% of the bay's surface area.

Beneath Pedestal 2: The End edge has a 1 SF x up to 2" D spall that extends 12" down the vertical face. However, reinforcement is not exposed.

Girder Bay 2: The Begin edge has a 5 SF area of cracked and delaminated concrete, which affects 30% of the bay's surface area, and extends 12" down the vertical face.

Beneath Pedestal 3: The Begin edge has a 12" W x up to 2" D spall that extends 8" down the vertical face. However, reinforcement is not exposed.

Girder Bay 3: The Begin edge has a 5 SF area of hollow sounding concrete. The End edge has a 5 SF area of cracked and delaminated concrete. Deterioration affects 60% of the bay's surface area.

Beneath Pedestal 4: The Begin edge has a 12" W x up to 2" D spall that extends 12" down the vertical face. However, reinforcement is not exposed.

Beneath Pedestal 5: The End edge has a 6" W x up to 1.5" D spall that extends 4" down the vertical face. However, reinforcement is not exposed.

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

**35 Top of Pier Cap or Beam**  
Pier 3:

3 3 3 36, 37

Top of Cap exhibits the following deterioration:

Left of Girder G1: The Begin Left edge has a 1 SF x 4" D top corner spall with exposed rebar, which affects 25% of the bullnose surface area.

Begin Edge: There is a 25' Long top corner spall which extends from below the center of Pedestal 1 to the Right side of Pedestal 4. Spalling is typically 3" deep, but ranges up to 6" deep in Girder Bay 1. Within the spall, the top corner reinforcement bar is exposed, mostly debonded and the concrete crumbles easily when struck.

Girder Bay 1: The Begin edge spall noted above affects the entire width of the bay, and extends up to 10" into the top surface. The End edge has a 3' L x 6" W x 3" D top corner spall with exposed rebar. Spalling affects 35% of the bay's surface area. The remainder of the bay is mostly hollow sounding.

Girder Bay 2: The Begin edge spall noted above affects the entire width of the bay, and extends up to 6" into the top surface. Spalling affects 15% of the bay's surface area.

Beneath Pedestal 3: The End edge has a 15" W x up to 1.5" D spall that extends 6" down the vertical face. However, reinforcement is not exposed.

Girder Bay 3: The Begin edge spall noted above affects the entire width of the bay, and extends up to 6" into the top surface. Spalling affects 15% of the bay's surface area.

Girder Bay 4: The top surface has spalling up to 2.5" deep, which affects 50% of the bay's surface area. The spalled areas are filled with water, which is promoting further deterioration.

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

37 Cap Beam

Pier 1: 1 4 4 34

Cap Beam exhibits the following deterioration:

Begin Face: Below Pedestal 3 there is a 6 SF x up to 2" D spall near the top. However, reinforcement is not exposed.

End Face: There is an 8' L x up to 8" H x 2.5" D top corner spall extending from the Right side of Pedestal 4, beneath Pedestal 5 and around the End half of the bullnose. Reinforcement is exposed and debonded throughout the length of the spall.

Bottom Face: There are isolated areas of hollow sounding concrete which affect approximately 15% of the total surface area.

Pier 3: 3 3 3 38

Cap Beam exhibits the following deterioration:

Begin Face: There is a 25' Long top corner spall which extends from below the center of Pedestal 1 to the Right side of Pedestal 4. Spalling is typically 6" H x 3" D, but ranges up to 18" H x 6" deep in Girder Bay 1. The top corner reinforcement bar is exposed and debonded along the majority of the spall's length.

Below Girder Bay 1 there is a 6' L x 4" D bottom corner spall with exposed and debonded reinforcement.

The remainder of the Begin face exhibits horizontal cracking with rust staining and hollowness. Overall, 70% of the surface area is affected by spalling or hollowness.

End Face: Below Girder Bay 1 there is a 6' L x 1' H x up to 3" D top corner spall with exposed rebar. Below Pedestal 3 there is another 1 SF x 1.5" deep surface spall.

Overall, 10% of the surface area is affected by spalling or hollowness.

Bottom Face: There are isolated areas of hollow sounding concrete which affect approximately 10% of the total surface area.

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

38 Pier Columns

Pier 1: 1 3 3 39, 40, 41

Column 1:

Yellow Flag 15-041:

Pier 1, Column 1 has severe spalling with exposed, corroded and debonded reinforcement on the End Left face. Spalling is up to 5.0' high x 2.8' wide x 4" deep, with 2 debonded vertical bars and 18 broken spiral ties. Both vertical bars are debonded over a height of 3.5'. The concrete within the spall crumbles easily when struck. Adjacent concrete on the End face is partially hidden by the concrete barrier, but the visible portion above the barrier is cracked and delaminated. Spalling is located 4.5' above the top of footing, and represents an approximate 10% loss of column area.

The affected column is 1 of 3 columns, each 3.5' in diameter with 11 vertical column bars. The loss of containment for the 2 vertical bars significantly affects the capacity of the column. Failure of this column would compromise Spans 1 and 2.

Column 2: Pier 1, Column 2, End face has an 8' H x 2.5' W area of cracked and delaminated concrete. Within the deteriorated area is a 5 SF x up to 1.5" D spall with slight rebar exposure.

Pier 1, Column 3 is in good condition and would rate '5'.

Pier 3: 3 3 3 42

Column 1: Pier 3, Column 1, Begin Right quadrant has a 6' H x 2' W area of cracked and delaminated concrete.

Column 2: Pier 3, Column 2, Begin Right quadrant has a 5' H x 3' W area of cracked and delaminated concrete.

Column 3: Pier 3, Column 3, Right face has a 7.5' H x up to 1' W x 2" D with one exposed vertical bar and 30 exposed spiral ties, 13 of which are broken. The vertical bar is only slightly exposed over a height of 5', and the concrete within the spall is solid when struck. The spall is surrounded by 15 SF of cracked and delaminated concrete.



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

44 Sign Structure

Span 1: 1 1 5 43

The Horizontal Clearance Marker (HCM) at the Begin Left approach quadrant is missing. The blunt end of the concrete parapet is protected by the approach guide railing, which is continuous and well aligned with the double box beam bridge rail. The missing HCM is on the Left side and does not present a clear and present danger to oncoming vehicular traffic.

Rating is lowered from '5' to '1' due to the missing HCM.

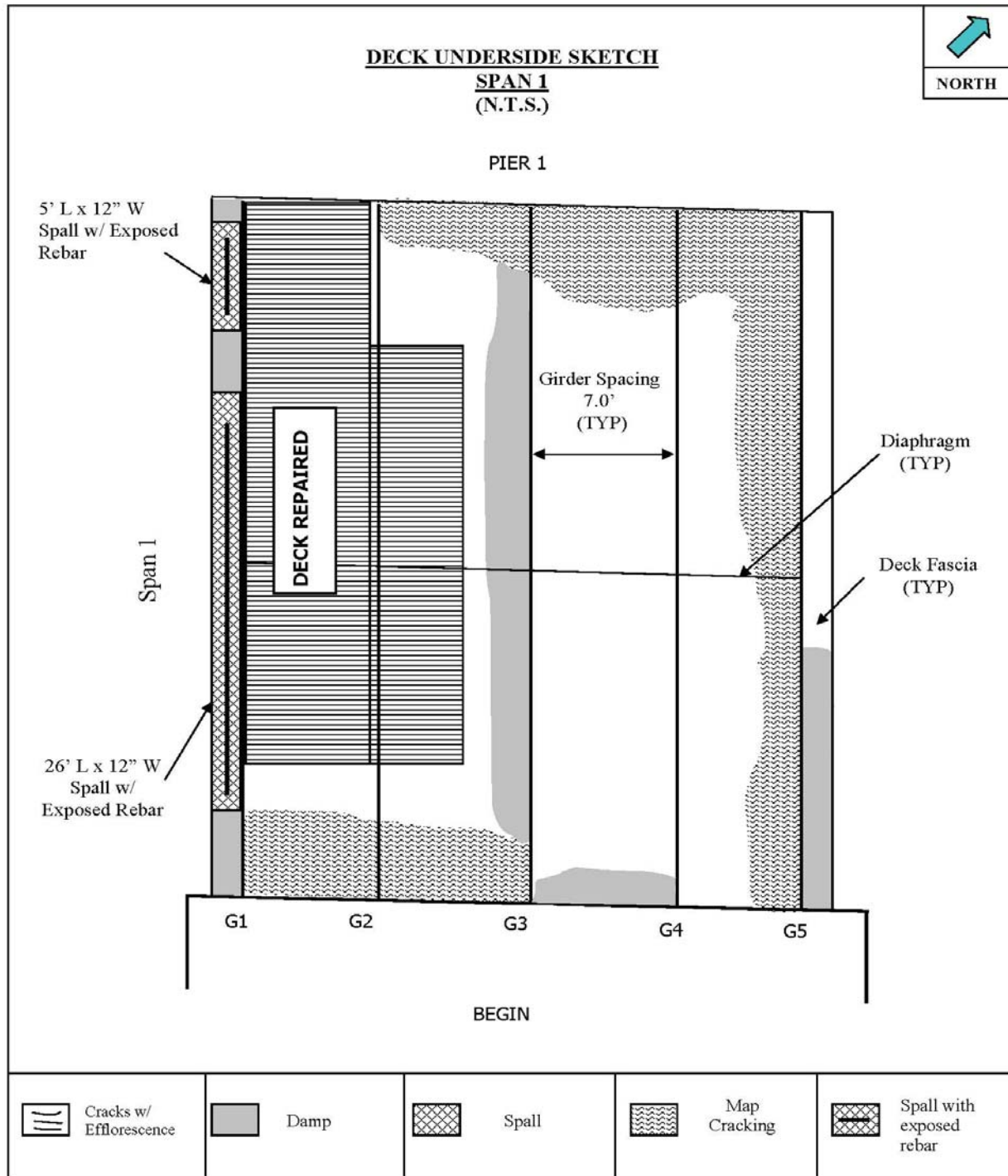
The HCM at the Begin Right approach quadrant is excellent condition. However, the inside edge of the sign panel is located 18" behind the face of the box beam rail. The HCM at the Begin Right would rate '4'.

Span 4: 4 4 6 44

The Horizontal Clearance Markers at the End approach are in excellent condition. However, the inside edge of the sign panels are located 18" behind the face of the box beam rail. These signs are not properly located, thus the rating is lowered from '6' to '4'.

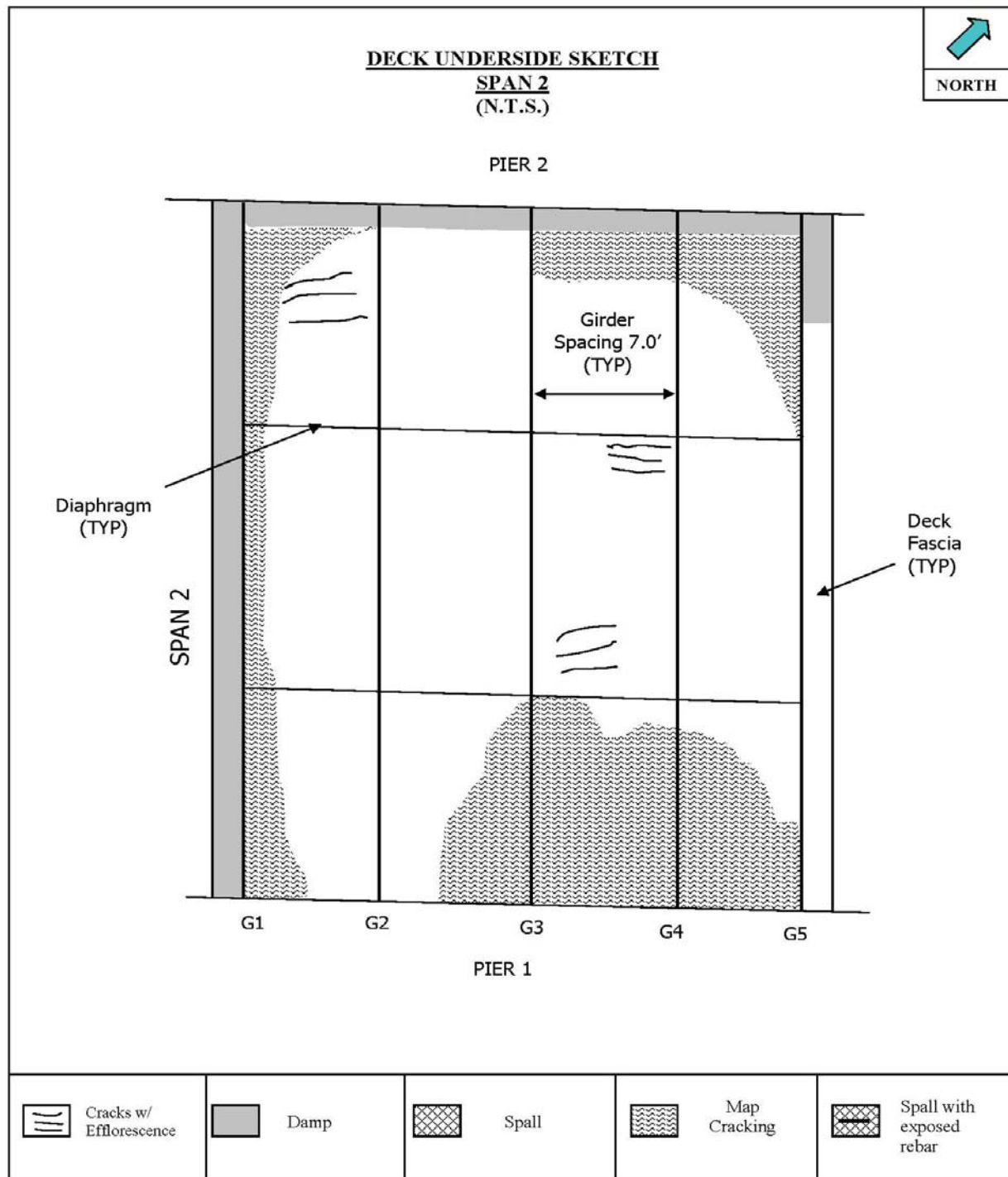
Sketch Type: Deck

File Name: 240.48-12-00-15DeckS1.jpg



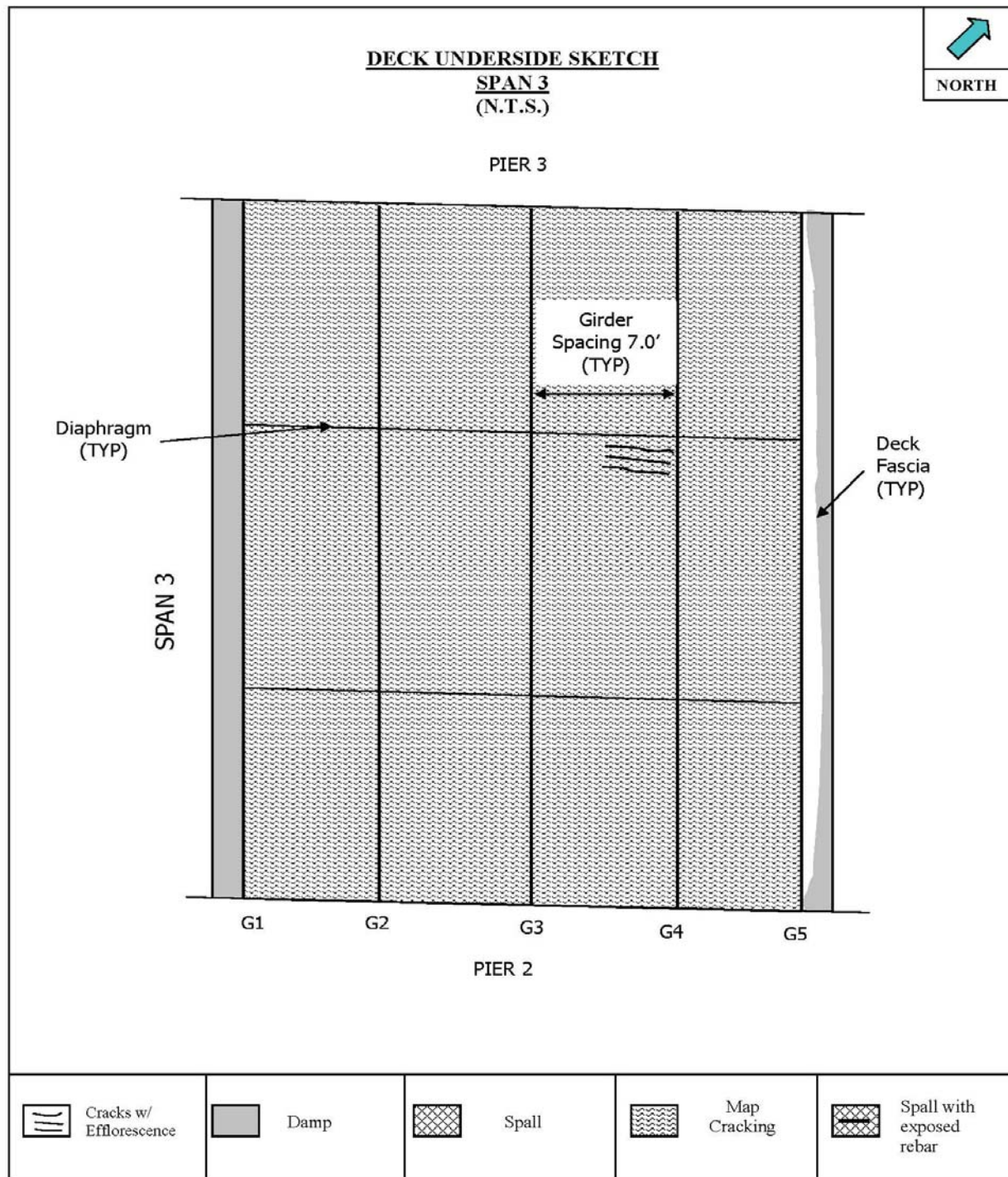
Sketch Type: Deck

File Name: 240.48-12-01-15DeckS2.jpg



Sketch Type: Deck

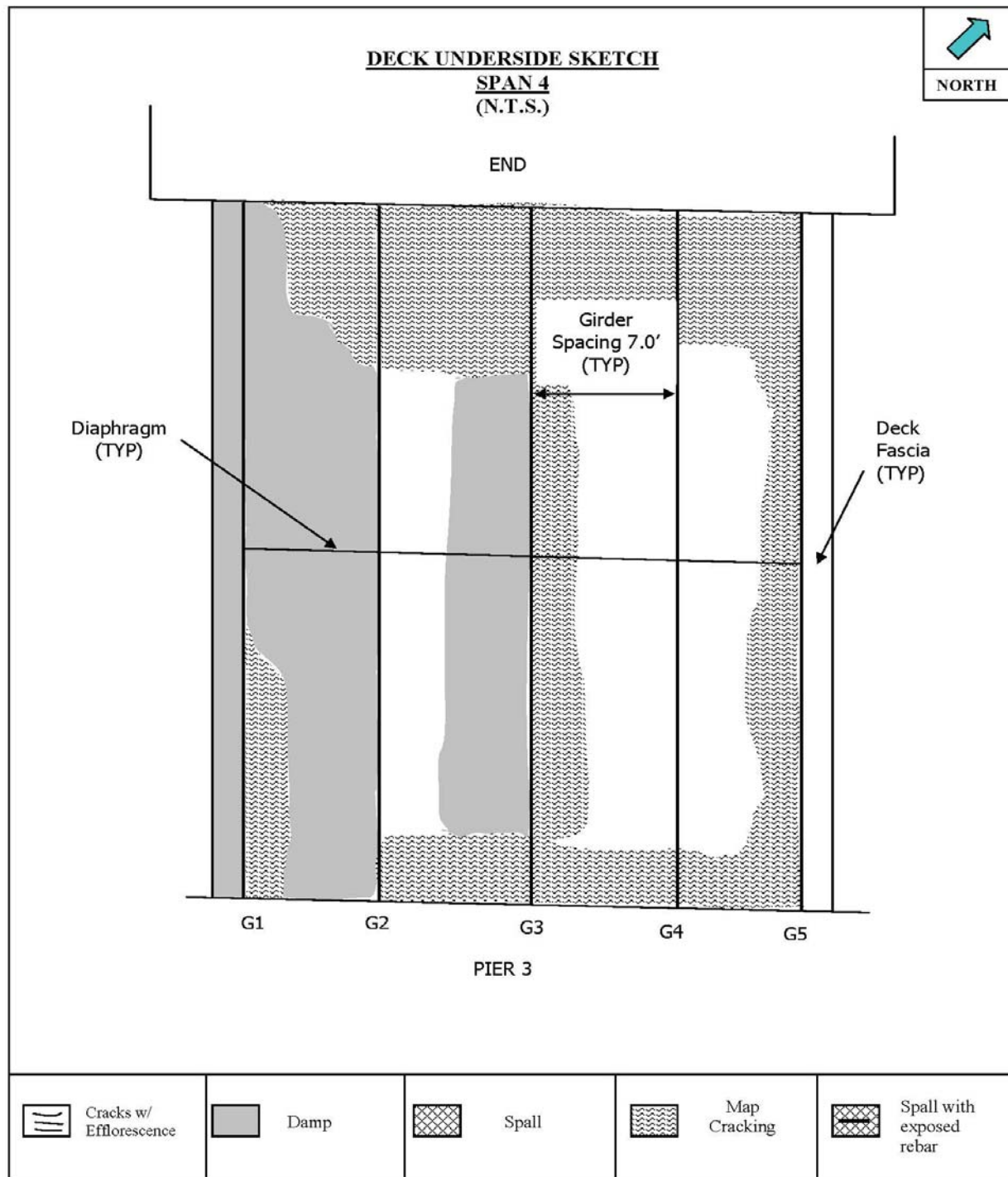
File Name: 240.48-12-02-15DeckS3.jpg



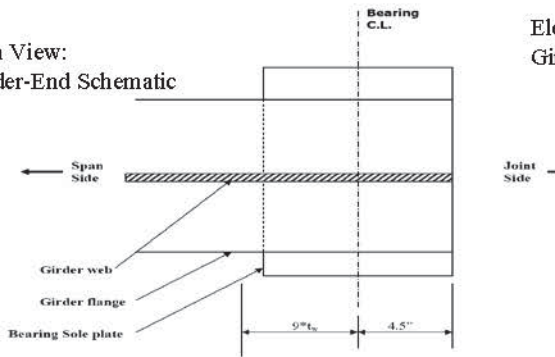
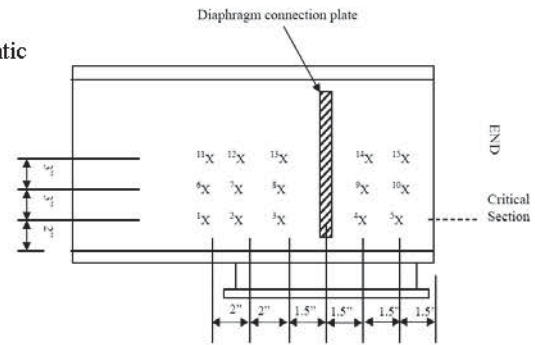


Sketch Type: Deck

File Name: 240.48-12-03-15DeckS4.jpg



## GIRDER-END SECTION LOSS – SPAN 1 GIRDER G1 @ Pier 1

Plan View:  
Girder-End SchematicElevation View:  
Girder-End Schematic

Location	Row 1					Row 2					Row 3				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Reading (in)	0.480	0.506	0.534	0.481	0.446	0.585	0.569	0.590	0.564	0.446	0.594	0.607	0.615	0.545	0.392
Average (in)	Span Side			Joint Side		Span Side			Joint Side		Span Side			Joint Side	
	0.507			0.464		0.581			0.505		0.605			0.469	
Weighted Average (in)	0.488					0.547					0.545				

Span 1, G1 @ Pier 1 Ref: M.T. 52-12/ S.T. 52-26; Plan Sheet 42 of 74 Identification: SPAN FASCIA STRINGER Design Section Per Plan: 36 WF 150; Web: 0.625", Bearing Stiffener: None* Web SL. Span Side (9*t <sub>w</sub> = 5.625") [Avg.% / Worst%] Web SL. Joint Side (4.5") [Avg.% / Worst%] Computed Avg. SL. Computed Avg. SL. for Critical Section (Row 1)	Percent Section Loss			
	2015			
	10% / 19%			
	23% / 26%			
	15%			
	22%			
Notes:				
2015: Web Section Loss monitoring continued.				

\*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 5.625" + 4.5" = 10.125"

Total original effective bearing area = 10.125" x 0.625" = 6.33 in<sup>2</sup>

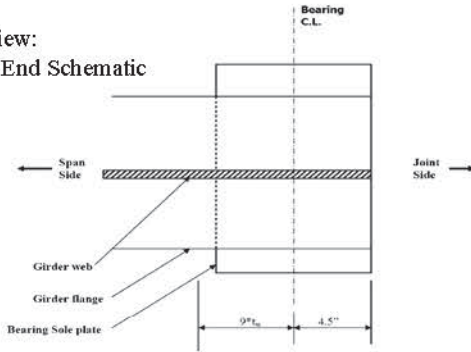
Sample calculations: (Row 1)

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

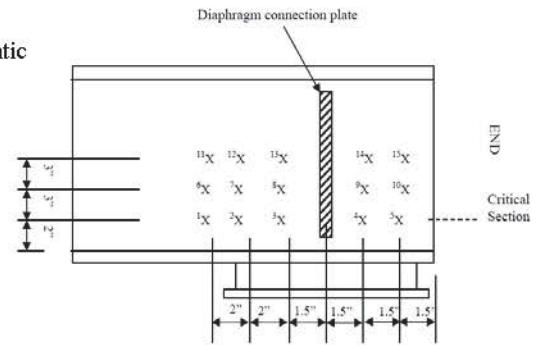
Weighted Average = [(0.507" x 5.625") + (0.464" x 4.5")] / (10.125") = 0.488"

# GIRDER-END SECTION LOSS – SPAN 1 GIRDER G2 @ Pier 1

Plan View:  
Girder-End Schematic



Elevation View:  
Girder-End Schematic



	Row 1					Row 2					Row 3				
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Reading (in)	0.553	0.523	0.578	0.529	0.420	0.601	0.592	0.587	0.580	0.430	0.590	0.596	0.605	0.610	0.444
Average (in)	Span Side			Joint Side		Span Side			Joint Side		Span Side			Joint Side	
	0.551			0.475		0.593			0.505		0.597			0.527	
Weighted Average (in)	0.517					0.554					0.566				

Span 1, G2 @ Pier 1		Percent Section Loss			
Ref: M.T. 52-12/ S.T. 52-26; Plan Sheet 42 of 74		2015			
Identification: SPAN INTERIOR STRINGER					
Design Section Per Plan: 33 WF 141; Web: 0.605", Bearing Stiffener: None*					
Average Web SL. Span Side (9*t <sub>w</sub> = 5.625") [Avg.% / Worst %]		4% / 9%			
Average Web SL. Joint Side (4.5") [Avg.% / Worst %]		17% / 21%			
Computed Avg. SL.		10%			
Computed Avg. SL. for Critical Section (Row 1)		15%			
Notes:					
2015: Web Section Loss monitoring continued.					

\*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 5.625" + 4.5" = 10.125"

Total original effective bearing area = 10.125" x 0.605" = 6.13 in<sup>2</sup>

Sample calculations: (Row 1)

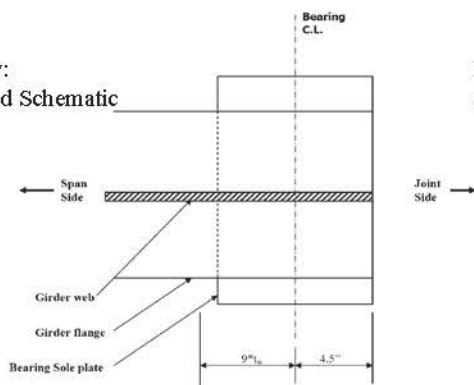
Weighted Average = [(Span Side SL x Span Side Length) + (Joint Side SL x Joint Side Length)] / (Total effective bearing length)

Weighted Average = [(0.551" x 5.625") + (0.475" x 4.5")] / (10.125") = 0.517"

## GIRDER-END SECTION LOSS – SPAN 4 GIRDER G1 @ Pier 3

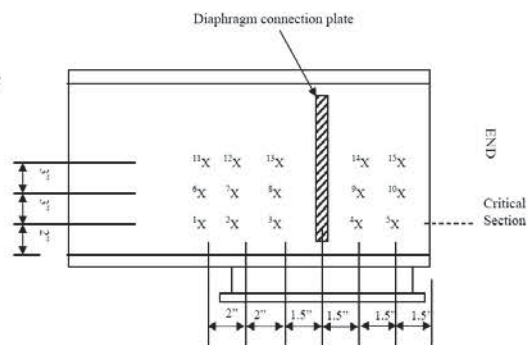
Plan View:

Girder-End Schematic



Elevation View:

Girder-End Schematic



	Row 1					Row 2					Row 3				
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Reading (in)	0.420	0.454	0.404	0.625	0.625	0.554	0.578	0.569	0.625	0.625	0.605	0.615	0.606	0.625	0.625
Average (in)	Span Side			Joint Side		Span Side			Joint Side		Span Side			Joint Side	
	0.426			0.625		0.567			0.625		0.609			0.625	
Weighted Average (in)	0.514					0.593					0.616				

Span 4, G1 @ Pier 3		Percent Section Loss			
Ref.: M.T. 52-12/ S.T. 52-26; Plan Sheet 42 of 74		2015			
Identification: SPAN FASCIA STRINGER					
Design Section Per Plan: 36 WF 150; Web: 0.625", Bearing Stiffener: None*					
Average Web SL. Span Side (9*t <sub>w</sub> = 5.625") [Avg.% / Worst%]		15% / 32%			
Average Web SL. Joint Side (4.5") [Avg.% / Worst%]		0%			
Computed Avg. SL.		9%			
Computed Avg. SL. for Critical Section (Row 1)		18%			
Notes:					
2015: Web Section Loss monitoring continued. All D-Meter readings on joint side 0.625" or greater.					

\*Diaphragm connection plates are not full depth.

Total effective bearing length = Span Side Length + Joint Side Length = 5.625" + 4.5" = 10.125"

Total original effective bearing area = 10.125" x 0.625" = 6.33 in<sup>2</sup>

Sample calculations: (Row 1)

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

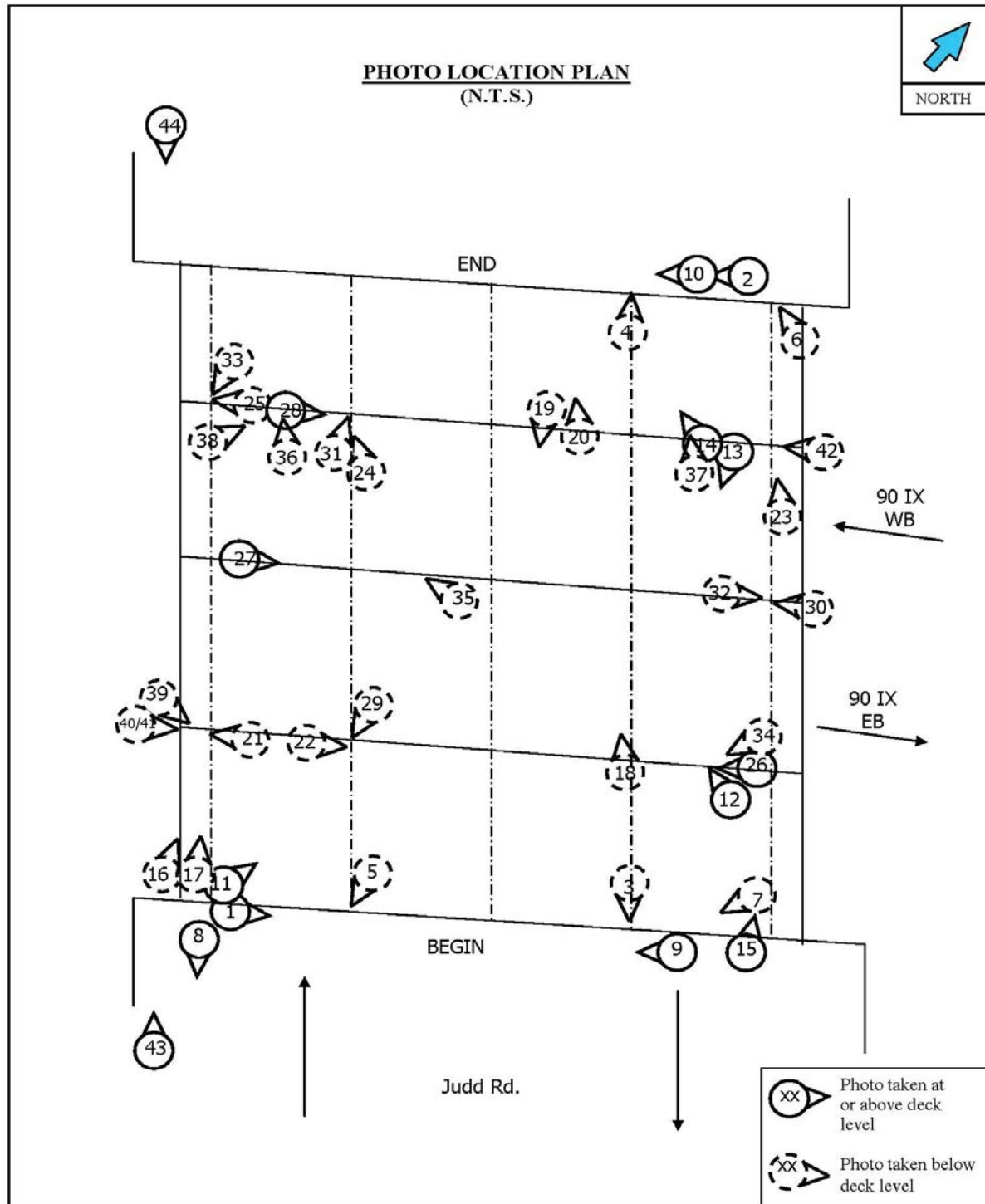
Weighted Average = [(0.426" x 5.625") + (0.625" x 4.5")] / (10.125") = 0.514"



# PHOTOGRAPHS

**Sketch Type:** Photo Location

**File Name:** 240.48-15-00-15PLPlan.jpg



Location:	Photo Name:	Photo #:
Begin Abutment Joint from Left	240.48-349-22-00-15BegJnt.JPG	1

**Description(s):**

- 12" wide strip of cracked and segmented pavement across the entire width of the roadway.

Reference:			
Form:	Item:	Item Desc:	Rate:
349	22	Joint With Deck (Begin)	4
349	57	Pavement	4



Location:	Photo Name:	Photo #:
End Abutment Joint from Right	240.48-349-23-01-15EndJnt.JPG	2

**Description(s):**

- 2' to 3' wide strip of cracked and raveled pavement across the entire width of the roadway.

Reference:			
Form:	Item:	Item Desc:	Rate:
349	23	Joint With Deck (End)	4
349	57	Pavement	4





Location:	Photo Name:	Photo #:
Begin Abutment Bearing under Girder G4	240.48-349-24-00-15BrgG4B.JPG	3

Description(s):
<ul style="list-style-type: none"> <li>- The bronze sheet is bowed upward in the middle due to 1/4" thick pack rust. Thermal movement may be restricted.</li> </ul>

Reference:			
Form:	Item:	Item Desc:	Rate:
349	24	Bearings, Anchor Bolts, Pads (Begin)	4



Location:	Photo Name:	Photo #:
End Abutment Bearing under Girder G4	240.48-349-25-01-15BrgG4E.JPG	4

Description(s):
<ul style="list-style-type: none"> <li>- The bronze sheet is bowed upward in the middle due to 3/8" thick pack rust. Thermal movement may be restricted.</li> </ul>

Reference:			
Form:	Item:	Item Desc:	Rate:
349	25	Bearings, Anchor Bolts, Pads (End)	4



Location:	Photo Name:	Photo #:
Begin Abutment Pedestal beneath Girder G2	240.48-349-26-00-15Ped2BA.JPG	5

**Description(s):**

- 1 SF x 3.5" deep top corner spall with slight rebar exposure. Spalling extends to the edge of the masonry plate, but does not undermine it.

**Reference:**

Form:	Item:	Item Desc:	Rate:
349	26	Bridge Seat and Pedestals (Begin)	4



Location:	Photo Name:	Photo #:
End Abutment Pedestal beneath Girder G5	240.48-349-27-00-15PedG5E.JPG	6

**Description(s):**

- 4' Wide x 6" Deep top corner spall with 2 exposed hoop bars. Spalling extends to the front edge of the masonry plate, but does not undermine it.

**Reference:**

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





Location:	Photo Name:	Photo #:
Begin Abutment from Right	240.48-349-32-00-15EroBeg.JPG	7

Description(s):
- The vertical face of the footing is exposed along the entire length of the stem, up to 2.7' below girder G3.

Reference:			
Form:		Item Desc:	Rate:
349	32	Erosion or Scour (Begin)	4



Location:	Photo Name:	Photo #:
Begin Approach, Left Shoulder Looking away from Bridge (Typical for End Left and End Right)	240.48-349-53-00-15DrainB.JPG	8

Description(s):
- 6" high accumulation of dirt and vegetation, hinders drainage over the shoulder.

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



Location:	Photo Name:	Photo #:
Begin Approach from Right	240.48-349-55-00-15Set_BR.JPG	9

Description(s):
- Up to 3/4" settlement at the bridge, adversely affecting ride quality.
Reference:
Form: Item: Item Desc: Rate:
349 55 Settlement 4
349 57 Pavement 4



Location:	Photo Name:	Photo #:
End Approach from Right	240.48-349-55-00-15Set_ER.JPG	10

Description(s):
- Up to 1.5" settlement affecting the entire width of the roadway. Patchwork is uneven, ride quality is fairly rough over this joint transition.
Reference:
Form: Item: Item Desc: Rate:
349 55 Settlement 4
349 57 Pavement 4





**NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 7 **OF** 23

**RC:** 26 **BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Span 1, Wearing Surface from Begin	240.48-350-19-01-15WSspn1.JPG	<b>11</b>

**Description(s):**

- Exposed and polished aggregate throughout, with hollowness affecting 60% of the surface area.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	1	3



Location:	Photo Name:	Photo #:
Span 2, Wearing Surface from Pier 1	240.48-350-19-02-15WSspn2.JPG	<b>12</b>

**Description(s):**

- 15' Long x 12' Wide area of hollowness in the Right travel lane.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	2	3





NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT

MILEPOST 240.48

SHEET 8 OF 23

RC: 26

BIN: 5512980

INSPECT DATE: 6/17/2015

Location:	Photo Name:	Photo #:
Span 3, Wearing Surface in the Left travel lane near Midspan	240.48-350-19-03-15WSspn3.JPG	13

Description(s):

- 12' Long x 3' Wide area of uneven patchwork in the Right wheel path.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	3	3



Location:	Photo Name:	Photo #:
Span 4, Wearing Surface from Pier 3	240.48-350-19-04-15WSspn4.JPG	14

Description(s):

- Exposed and polished aggregate throughout.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	19	Wearing Surface	4	3



**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 9 **OF** 23

**RC:** 26 **BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Span 1, Right Curb from Begin (Typical)	240.48-350-20-00-15CurbS1.JPG	15

**Description(s):**

- Previous buildup of sand has been removed from the curbline.

**Reference:**

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



Location:	Photo Name:	Photo #:
Span 1, Left Fascia	240.48-350-21-01-15FascS1.JPG	16

**Description(s):**

- 26' Long x 12" High x 3" Deep bottom corner spall with exposed reinforcement.

**Reference:**

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





**NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 10 **OF** 23

**RC:** 26

**BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Span 1, Left Fascia Overhang near Midspan	240.48-350-27-01-15DeckS1.JPG	17

**Description(s):**

- 26' Long x 12" Wide x 3" Deep spall with exposed rebar.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	21	Sidewalks & Fascias	1	4
350	27	Deck Structural	1	4



Location:	Photo Name:	Photo #:
Span 2, Deck in Girder Bays 3 & 4	240.48-350-27-02-15DeckS2.JPG	18

**Description(s):**

- Moderate dampness and Mapcracking with efflorescence and minor rust staining.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	2	4



**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 11 **OF** 23

**RC:** 26 **BIN:** 5512980 **INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Span 3 from Pier 3	240.48-350-27-03-15DeckS3.JPG	19

Description(s):
- Fine mapcracking with dampness affecting 90% of total deck surface area.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	3	3



Location:	Photo Name:	Photo #:
Span 4 from Pier 3	240.48-350-27-04-15DeckS4.JPG	20

Description(s):
- Fine mapcracking with moderate dampness and efflorescence in the End half of the span.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	27	Deck Structural	4	4





NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT

MILEPOST 240.48

SHEET 12 OF 23

RC: 26

BIN: 5512980

INSPECT DATE: 6/17/2015

Location:	Photo Name:	Photo #:
Span 1, Girder G1 at Pier 1 from Right	240.48-350-28-01-15S1G1P1.JPG	21

Description(s):
- Complete paint failure has resulted in minor corrosion, with up to 22% section loss in the critical section over the bearing.

Reference:				
Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	5
350	30	Paint	1	3



Location:	Photo Name:	Photo #:
Span 1, Girder G2 at Pier 1 from Left	240.48-350-28-02-15S1G2P1.JPG	22

Description(s):
- Complete paint failure has resulted in minor corrosion, with up to 14% section loss in the critical section over the bearing.

Reference:				
Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	1	5
350	30	Paint	1	3



**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 13 **OF** 23

**RC:** 26 **BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Span 3, Girder G5 near 3L/4	240.48-350-28-05-15S3G5Rt.JPG	23

Description(s):
- Complete paint failure has resulted in moderate corrosion, with isolated areas of up to 45% web section loss.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	3	4
350	30	Paint	3	2



Location:	Photo Name:	Photo #:
Span 3, Girder G2 at 47' (Typical for Span 2 & 3 Interior Girders over the Shoulder)	240.48-350-28-06-15S3G2MS.JPG	24

Description(s):
- Complete paint failure has resulted in heavy corrosion, with 21% bottom flange section loss.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	2-3	4
350	30	Paint	2-3	2





NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT

MILEPOST 240.48

SHEET 14 OF 23

RC: 26

BIN: 5512980

INSPECT DATE: 6/17/2015

Location:	Photo Name:	Photo #:
Span 4, Girder G1 at Pier 3 from Right	240.48-350-28-07-15S4G1P3.JPG	25

Description(s):
- Complete paint failure has resulted in minor corrosion, with up to 19% section loss in the critical section over the bearing.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	28	Primary Members	4	5
350	30	Paint	4	3



Location:	Photo Name:	Photo #:
Pier 1 Joint from Right	240.48-350-31-01-15Joint1.JPG	26

Description(s):
- Joint sealant material is missing over a 3' length.

Reference:

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	1	3



NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT

MILEPOST 240.48

SHEET 15 OF 23

RC: 26

BIN: 5512980

INSPECT DATE: 6/17/2015

<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 2 Joint from Left	240.48-350-31-02-15Joint2.JPG	27

**Description(s):**

- Joint sealant is debonded due to 2" Wide x 1" Deep spalling along the edge of the Span 2 wearing surface.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	2	3



<b>Location:</b>	<b>Photo Name:</b>	<b>Photo #:</b>
Pier 3 Joint from Left	240.48-350-31-03-15Joint3.JPG	28

**Description(s):**

- 2" wide strip of 1.5" deep edge spalling. The Joint gap is filled with rigid foam board and asphalt, with no visible sealant present.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	31	Joints	3	3





**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 16 **OF** 23

**RC:** 26

**BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 1, Span 2 Bearing under Girder G2	240.48-350-33-01-15Brg2P1.JPG	29

**Description(s):**

- Expansion Bearing surfaces exhibit heavy rust scale. The bronze sliding surface is bowed upward in the middle by 1/4" thick pack rust, which may restrict thermal movement.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	1	3



Location:	Photo Name:	Photo #:
Pier 2, Bearings under Girder G5	240.48-350-33-02-15Brg5P2.JPG	30

**Description(s):**

- Fixed Bearing surfaces exhibit heavy rust scale with thick pack rust under the sole plates, which may restrict proper movement.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	2	3



**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 17 **OF** 23

**RC:** 26 **BIN:** 5512980 **INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 3, Span 3 Bearing under Girder G2	240.48-350-33-03-15Brg3G2.JPG	31

**Description(s):**

- Expansion Bearing surfaces exhibit heavy rust scale. The bronze sliding surface is bowed upward in the middle by 1/4" thick pack rust, which may restrict thermal movement.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	33	Bearings, Anchor Bolts, Pads	3	3



Location:	Photo Name:	Photo #:
Pier 2 Pedestal under Girder G5	240.48-350-34-02-15Ped5P2.JPG	32

**Description(s):**

- 24" W x up 3" D spall between the masonry plates which undermines the Begin edge of the Span 3 masonry plate by up to 1/4". Loss of contact area is less than 3%. The Span 3 Bearing is not undermined.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	2	4





**NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 18 **OF** 23

**RC:** 26

**BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 3 Pedestal under Girder G1 from End Right	240.48-350-34-03-15Ped1P3.JPG	33

**Description(s):**

- 5" H x 3" D corner spall affecting a length of 14" along the Right and 18" along the End face. Spalling extends up to, but not under the masonry plate and exposes 2 debonded bars.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	34	Pedestals	3	4



Location:	Photo Name:	Photo #:
Pier 1 Cap Beam from End Right	240.48-350-35-01-15Cap1ER.JPG	34

**Description(s):**

- 8' L x 8" H x 2.5" D top corner spall with exposed rebar, extending from the Right side of Pedestal 4 and beneath Pedestal 5. Spalling extends 12" into the Top of Cap in Bay 4.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier	1	4
		Cap or Beam		
350	37	Cap Beam	1	4



**NYS THRUWAY AUTHORITY  
BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 19 **OF** 23

**RC:** 26 **BIN:** 5512980 **INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 2 Top of Cap in Bay 2 from Begin Right	240.48-350-35-02-15ToCB2B.JPG	35

Description(s):
- 5 SF area of cracked and delaminated concrete affecting 30% of the surface area, and extending 12" down the vertical face.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier 2 Cap or Beam	2	4



Location:	Photo Name:	Photo #:
Pier 3 Top of Cap in Bay 1 from Begin	240.48-350-35-03-15ToCB1B.JPG	36

Description(s):
- 6" deep top corner spall extending 10" into the top surface and up to 18" down the vertical face. The top corner longitudinal bar is exposed and debonded.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier 3 Cap or Beam	3	3





**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 20 **OF** 23

**RC:** 26 **BIN:** 5512980 **INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 3 Top of Cap in Bay 4 from Begin	240.48-350-35-04-15ToCB4B.JPG	37

**Description(s):**

- 50% of the Bay's surface area is spalled up to 2.5". The affected areas allow active joint leakage to pond, promoting further deterioration.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	35	Top of Pier Cap or Beam	3	3



Location:	Photo Name:	Photo #:
Pier 3 Cap Beam from Begin Left	240.48-350-37-03-15Cap3BL.JPG	38

**Description(s):**

- 25' L x up to 18" H top corner spall extending from below G1 to the Right side of G4. Also, there is a 6' L x 4" D bottom corner spall below girder Bay 1. The top and bottom corner bars are debonded.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	37	Cap Beam	3	3



**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 21 **OF** 23

**RC:** 26 **BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 1, Column 1 from End Left	240.48-350-38-01-15P1C1EL.JPG	39

**Description(s):**

- 5.0' high x 2.8' wide x 4" deep spall with exposed and debonded reinforcement. Yellow Structural Flag 15-041.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



Location:	Photo Name:	Photo #:
Pier 1, Column 1 from Left	240.48-350-38-02-15P1C1EL.JPG	40

**Description(s):**

- Two vertical bars are debonded over a height of 3.5', and the 18 exposed spiral ties are broken. Yellow Structural Flag 15-041.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3





**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 22 **OF** 23

**RC:** 26 **BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Pier 1, Column 1 from Left	240.48-350-38-03-15P1C1EL.JPG	41

**Description(s):**

- The 5.0' high spall extends 1' below the surrounding ground line. Yellow Structural Flag 15-041.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	1	3



Location:	Photo Name:	Photo #:
Pier 3, Column 3 from Right	240.48-350-38-04-15P3C3Rt.JPG	42

**Description(s):**

- 7.5' H x up to 1' W x 2" D spall with one exposed vertical bar and 30 exposed spiral ties, 13 of which are broken.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	38	Pier Columns	3	3



**NYS THRUWAY AUTHORITY**  
**BRIDGE INSPECTION REPORT**

**MILEPOST** 240.48

**SHEET** 23 **OF** 23

**RC:** 26

**BIN:** 5512980

**INSPECT DATE:** 6/17/2015

Location:	Photo Name:	Photo #:
Begin Approach	240.48-350-44-01-15SignBL.JPG	43

**Description(s):**

- The Horizontal Clearance Marker at the Left approach quadrant is missing.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	44	Sign Structure	1	1



Location:	Photo Name:	Photo #:
End Left Approach Quadrant (Typical for Right)	240.48-350-44-03-15SignEL.JPG	44

**Description(s):**

- Horizontal Clearance Marker is located 18" behind the face of the box beam rail.

**Reference:**

Form:	Item:	Item Desc:	Span:	Rate:
350	44	Sign Structure	4	4





# INVENTORY

INVENTORY FORM (BD234C)  
VERIFICATION UPDATING LOG

CHANGES WERE REQUIRED and  
Entered into III's

Date: 6/17/2015

M.P.: 240.48

BIN: 5512980

TEAM LEADER Andrew Lachina

REVIEWED BY Garret Hoffmann



**MINIMUM BRIDGE UNDERCLEARANCE  
OVERHEAD BRIDGES  
SYRACUSE DIVISION  
NEW YORK STATE THRUWAY AUTHORITY**

MP: 240.48 SHEET 1 OF 1  
BIN: 5512980 DATE: 6/17/2015

Feature Crossed: 90 IX

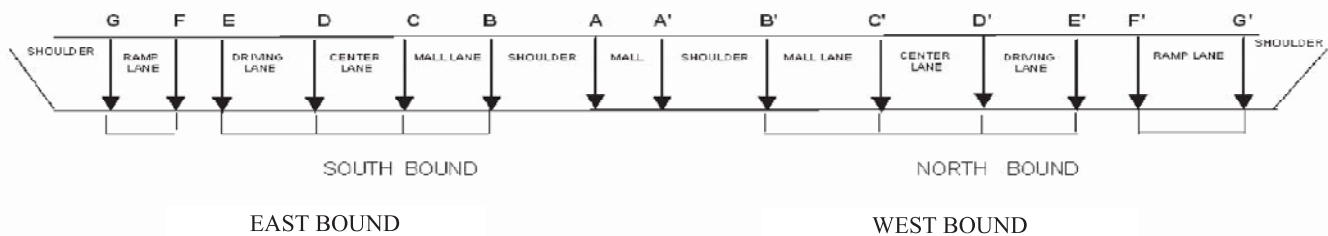
Bridge Orientation: Northwest

Date	A	B	C	D	E	F	G	H	A'	B'	C'	D'	E'	F'	G'	H'
05/26/2010	16.00	15.68		15.72	15.98				15.78	14.98		14.38	14.37			
05/23/2012	15.78	15.69		15.74	16.00				15.79	14.99		14.44	14.39			
05/29/2014	15.91	15.69		15.72	15.98				15.39	14.97		14.40	14.39			
06/17/2015	16.18	15.68		15.74	16.23				15.93	14.99		14.41	14.39			

**REMARKS:** Judd Road over 90IX

Readings were taken at the Right Fascia Girder.  
D and D' Readings were taken at the crown, not at the center strip

- NOTES:** 1) Circle the appropriate TWY direction on the sketch below
- 2) For 2 lane sections, use points E,D, & B and E',D', & B' to record measurements
- 3) 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) Dimensions A through H shall be to lowest measurement of each point
- 6) For riveted construction stringers, Dimensions shall be taken to bottom of the rivet heads.



## NEW YORK STATE DEPARTMENT OF TRANSPORTATION

## BRIDGE INVENTORY AND INSPECTION SYSTEM

## ACCESS CATEGORY CODING FORM

MP: 240.48

SHEET 1 OF 1

RC - BIN: 

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

INSPECT DATE: 6/17/2015

TEAM LEADER: Andrew Lachina

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																	31	17	2
0	0	2	X		X				X									X	X			31	17	2
0	0	3	X		X				X									X	X			31	17	2
0	0	4	X		X																	31	17	2

INSTRUCTIONS: - Only a single BIN will be addressed on any single sheet -

- Complete the date, preparer, and sheet number headings.
- Enter the region, county and BIN number.
- 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.
- 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.
- 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.
- Recode the entire bridge if ANY UPDATING of the Access Category is necessary.
- Use col. 28 for situations requiring lane closure WITHOUT a shadow vehicle and col. 29 for lane closure WITH a shadow vehicle.

# LOAD RATING

Sketch Type: Miscellaneous

File Name: 240.48-13-00-15Loadrt.jpg

NEW YORK STATE THRUWAY AUTHORITY

BRIDGE INSPECTION FIELD VERIFICATION OF LOAD RATING DATA

Date: 6/17/2015

MP/BIN: 240.48/5512980

Feature Carried / Crossed: Judd Road over 90 IX

Dead Load:

WS Thickness & Material Shown on Plans - 4" concrete wearing surface over reinforced concrete slab  
Changes Noted in Field: None

Railing Type Shown on Plans - Steel panelized bridge railing w/ ped fence and 2- box beam rails attached  
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 Report

New Section Loss noted? - None  
Brief Description (attach sketches if helpful) - No significant changes to previous section loss.

Additional Notes: None

Attachments: ☒ yes ☐ no (please circle)

Team Leader: Andrew M. Lachina

Signature: Andrew M. Lachina Date: 6/17/2015



## LEVEL 2 LOAD RATING (VIRTIS: AASHTO LFD)

MILEPOST: 240.48

BIN: 5512980

REGION: 2

COUNTY: ONEIDA

FEATURE CARRIED: JUDD ROAD

FEATURE CROSSED: 90IX

### LEVEL 2 LOAD RATING REVIEW

VIRTIS RUN DATE: 7/24/2015

CHANGES TO INPUT DATA: Section loss updated per 2015 inspection.  
See list of changes on page 2 of VIRTIS  
load rating in BIN folder.

LOADING	INVENTORY RATING (TONS)	OPERATING RATING (TONS)
HS-20	42.0 (HS-23)	70.1 (HS-38)
H-20	34.1 (H-34)	56.9 (H-56)

\* ANALYSIS METHOD: LOAD FACTOR

\*\* Lane loading controls the H20 rating. Truck loading controls the HS20 rating.

### CONTROLLING MEMBER FOR RATING

LOCATION: SPAN 3 NEAR MID-SPAN

COMPONENT: INTERIOR GIRDERS G2 & G4

FAILURE TYPE: FLEXURAL CAPACITY

EFFECTIVE SPAN LENGTH: 59'

H EQUIVALENT OF LEGAL LOAD: H25

PRIMARY MEMBER RATING: 4

SAFE LOAD CAPACITY: H48

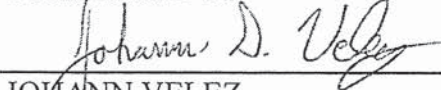
SLC COMPUTATION USED (IN BOLD)				
0.60 HOR	0.70 HOR	0.80 HOR	<b>0.85 HOR</b>	HOR

ACTION TAKEN: NONE REQUIRED X

RECOMMEND LEVEL 1                     

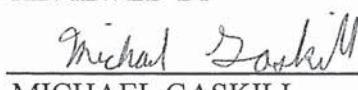
UNRATABLE                     

COMPLETED BY



JOHANN VELEZ  
STRUCTURAL ENGINEER

REVIEWED BY



MICHAEL GASKILL  
PE # 092560  
LOAD RATING ENGINEER



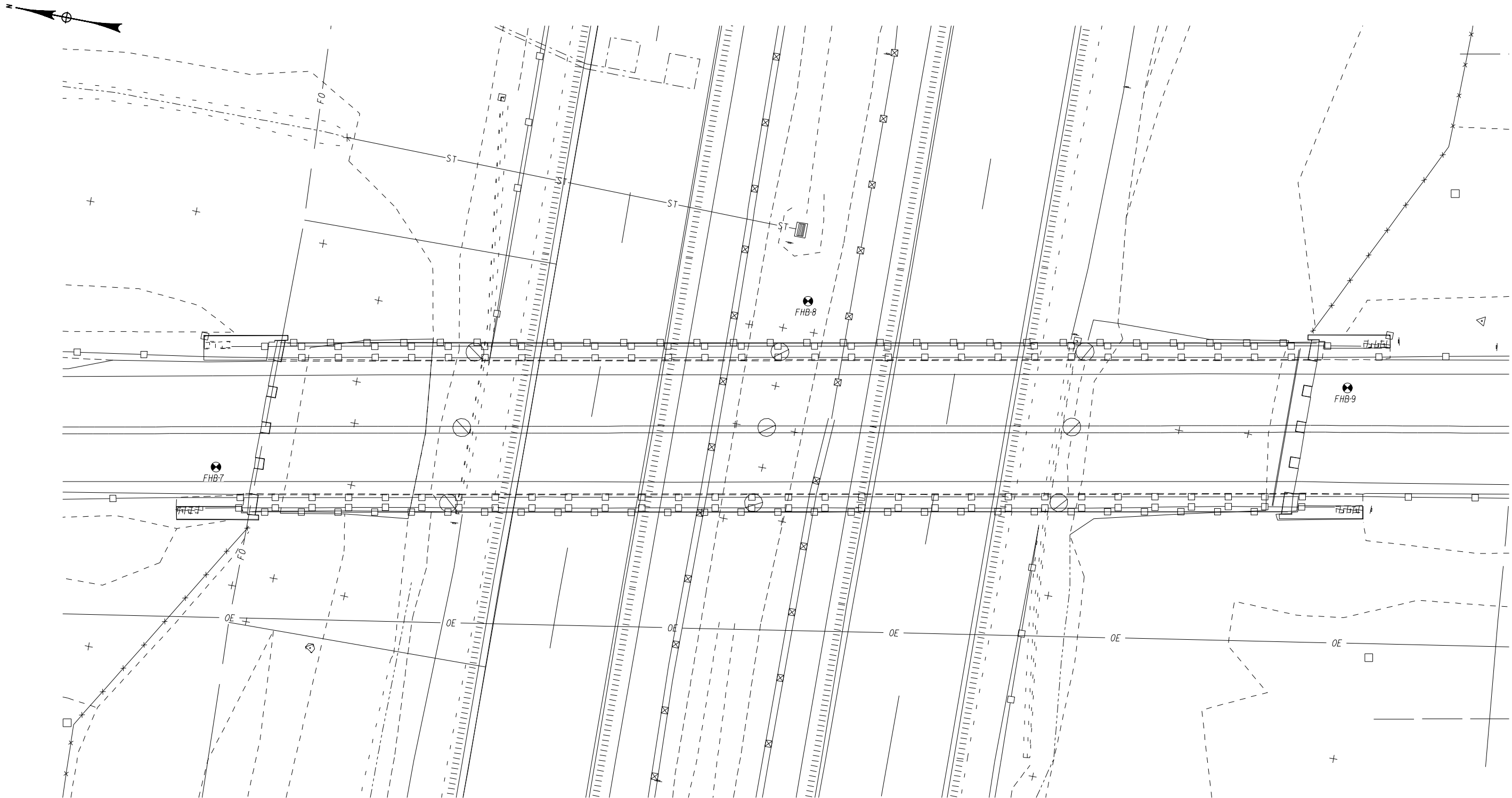
CHECKED BY: D. JENKINSON

DRAFTED BY: K. SHAH

CHECKED BY: D. JENKINSON

DESIGNED BY: K. SHAH

DESIGN SUPERVISOR: M. LAISTNER



SOIL BORING LOCATION PLAN

ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	SIGNATURE: STAMP:

SOIL BORING LOCATION		
BORING	LATITUDE	LONGITUDE
FHB-7	43.127549 N	-75.344975 E
FHB-8	43.127252 N	-75.344779 E
FHB-9	43.126959 N	-75.344772 E

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.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.



TITLE OF PROJECT JUDD ROAD (C.R. 840) OVER INTERSTATE-90 MP 240.48 / BIN 5512980
LOCATION OF PROJECT XXXXXX DIVISION ONEIDA COUNTY, NY
TITLE OF DRAWING BORING LOCATION PLAN

CONTRACT NUMBER: TAB 17-X
DATE: APRIL 2017
DRAWING NUMBER: BP-04



SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-7  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 500.44, NAD 88  
DEPTH TO WATER 24.0

COORDINATES (Lat) 43.127549°N (Long) 75.344975°W  
DATE START 12/27/2016 DATE FINISH 12/27/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING \_\_\_\_\_ lb HAMMER FALL-CASING \_\_\_\_\_ in  
CASING O. D. \_\_\_\_\_ in I. D. \_\_\_\_\_ in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18				
			6	12	18	24				
	0.0									Dark gray asphalt pavement to 1.1 feet. -
										-
	5.0	SS1	7	6	8	16	9.8%	12		Brown (SANDY-SILT) fill with 15 to 25% gravel, little to some sand, compact, massive soil structure, (ML). M - NPL
										-
	10.0	SS2	3	4	4	8	12.2%	12		Brown (SILTY-SAND) fill with 5 to 10% gravel, mostly very fine to fine size sand, trace to little silt, loose, massive soil structure, (SM). M - NPL
										-
	15.0	SS3	9	10	10	13	18.9%	15		Faintly mottled light brown to brown (CLAYEY-SILT) with 3 to 7% gravel, little to some clay, trace sand, very stiff, weakly thinly laminated with very thin silt lenses, (CL). M - PL
										-
	20.0	SS4	4	7	9	12	23.7%	19		Brown to reddish brown (SILTY-CLAY) very stiff, thinly laminated with very thin silt lenses, (CL). W - PL
										-
	25.0	SS5	3	6			21.9%	21		Reddish brown (SILTY-CLAY) stiff, thinly laminated with very thin silt lenses, (CL). M - PL
										-

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

DRILL RIG OPERATOR Philip Bence  
SOIL & ROCK DESCRIPTION Brandon Mikolin  
INSPECTOR Matthew Conley (Stantec)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway

TWY-CAN SUBSURF EXPLORATION 6K16\_BIN-5512980-DRAFTS.GPJ TWYSE1TMPL\_V05.GDT 3/31/17

SM 282 E 12/02

PSN                      BORNUM FHB-7  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
**SUBSURFACE EXPLORATION LOG**



HOLE FH-B  
LINE                       
STA                       
OFFSET ft  
SURF. ELEV. 500.44, NAD 88  
DEPTH TO WATER 24.0

COORDINATES (Lat) 43.127549°N (Long) 75.344975°W  
DATE START 12/27/2016 DATE FINISH 12/27/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING                      lb HAMMER FALL-CASING                      in  
CASING O. D.                      in I. D.                      in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18				
			6	12	18	24				
	25.0				7	10				Note: Harder material at 27.5 feet.
	30.0	SS6	4	10	7	45	11.2%	14		Brownish gray (SANDY-SILT) with 5 to 15% gravel, little W - NPL to some sand, compact, massive soil structure, (ML).
	35.0	SS7	22	35	50/4		7.9%	13		Brownish gray (SANDY-SILT) with 10 to 20% gravel, little M - NPL sand, very dense, massive soil structure, (ML).
	40.0	SS8	11	39	52	50/3	4.9%	11		Grayish brown gravelly (SANDY-SILT) with 15 to 40% M - NPL gravel, little sand, very dense, massive soil structure, (ML).
	45.0	SS9	52	50/4			3.1%	3		Same as 39.0-41.0' M - NPL
	50.0	SS10	52	50/3			6.7%	6		Same as 39.0-41.0' M - NPL

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DRILL RIG OPERATOR Philip Bence  
SOIL & ROCK DESCRIPTION Brandon Mikolin  
INSPECTOR Matthew Conley (Stantec)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway



SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-7  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 500.44, NAD 88  
DEPTH TO WATER 24.0

COORDINATES (Lat) 43.127549°N (Long) 75.344975°W  
DATE START 12/27/2016 DATE FINISH 12/27/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING lb HAMMER FALL-CASING in  
CASING O. D. in I. D. in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18				
	50.0		6	12	18	24				
	55.0	SS11	50	50/3			8.8%	8		Brownish gray (SANDY-SILT) with 10 to 20% gravel, little M - NPL sand, very dense, massive soil structure, (ML).
	60.0	SS12	55	50/4			13.1%	16		59.0-60.0' Gray (SILTY-SAND) with mostly very fine to fine size sand, trace silt, very dense, (SP). W - NPL 60.0-61.0' Gray (SANDY-SILT) with 10 to 20% gravel, little sand, very dense, massive soil structure, (ML).
	65.0	SS13	34	16	50	50/4	17.9%	22		Gray (SILTY-SAND) with mostly very fine to fine size sand, trace silt, very dense, (SP). W - NPL

BOTTOM OF HOLE AT 65.90 ft

Note:  
Advanced bore hole 4 1/4" ID x 8" OD hollow stem auger casing with 5.0-foot interval sampling to 65.9 feet. Bore hole was backfilled with cuttings and ground surface repaired with a concrete and asphalt patch.

DATE	TIME	DEPTH (ft.)			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
27-Dec-16	09:00	26.00	24.00	24.00	NO	No
27-Dec-16	14:00	65.90	64.00	36.70	NO	No

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DRILL RIG OPERATOR Philip Bence  
SOIL & ROCK DESCRIPTION Brandon Mikolin  
INSPECTOR Matthew Conley (Stantec)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway

CONTRACT \_\_\_\_\_ CONTRACTOR Earth Dimensions, Inc.

SHEET 3 OF 3 HOLE FH-B

TWY-CAN SUBSURF EXPLORATION 6K16\_BIN-5512980-DRAFTS.GPJ TWYSE1TMPL\_V05.GDT 3/31/17

SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-8  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 482.138, NAD 88  
DEPTH TO WATER 2.6

COORDINATES (Lat) 43.127252°N (Long) 75.344779°W  
DATE START 12/6/2016 DATE FINISH 12/6/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING lb HAMMER FALL-CASING in  
CASING O. D. in I. D. in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Automatic

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24				
	0.0									-
		SS1	3	4	10		15.6%	16		Brown gravelly (SILTY-SAND) fill with 10 to 25% gravel, little to some silt, compact, massive soil structre, (SM). W - NPL
	5.0					28				-
		SS2	3	13	30		10.5%	14		8.0-8.5' Same as 3.0-5.0' M - LPL 8.5-10.0' Grayish brown (SAND-SILT-CLAY) with 10 to 25% gravel, occasional cobble, little mostly very fine to fine size sand, trace to little clay, dense, massive soil structure, (ML-CL).
	10.0					31				-
		SS3	15	24	28		7.1%	20		Same as 8.5-10.0' M - LPL
	15.0					25				Boulder from 15.5-17.0' -
										-
		SS4	14	21	28		7.7%	24		Same as 8.5-10.0' M - LPL
	20.0					30				-
		SS5	53	50/5			3.8%	11		23.0-23.5' Same as 8.5-10.0' M - LPL 23.5-25.0' Boulder from 23.5-25.0' Note: Auger refusal at 23.5 feet. Advanced bore hole with 3 7/8" fluid rotary drilling methods.
	25.0									-

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DRILL RIG OPERATOR Andrew Kempisty  
SOIL & ROCK DESCRIPTION Kyle Shearing  
INSPECTOR Joe Dorety (Fisher)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway

SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-8  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 482.138, NAD 88  
DEPTH TO WATER 2.6

COORDINATES (Lat) 43.127252°N (Long) 75.344779°W  
DATE START 12/6/2016 DATE FINISH 12/6/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING lb HAMMER FALL-CASING in  
CASING O. D. in I. D. in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Automatic

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24				
	25.0									-
		SS6	17	41	33	29	10.5%	20		Gray to grayish brown gravelly (CLAYEY-SILT) with 15 to 40% gravel and flat sided stone fragments, occasional cobble, little to some clay, trace sand, hard, massive soil structure, (ML-CL). M - LPL
	30.0									-
		SS7	47	50/4			7.8%	10		Brownish gray gravelly (SAND-SILT-CLAY) with 15 to 30% gravel and flat sided stone fragments, little sand and clay, hard, massive soil structure, (ML-CL). M - LPL
	35.0									-
		SS8	69	50/3			8.2%	9		Same as 33.0-35.0' M - LPL
	40.0									-
		SS9	23	32	35	42	11.0%	24		Gray gravelly (SANDY-SILT) with 10 to 20% gravel and flat sided stone fragments, little sand, trace clay, very dense, massive soil structure, (ML). M - NPL
	45.0									-
		SS10	31	46	54	56	7.9%	20		Brownish gray gravelly (SAND-SILT-CLAY) with 15 to 30% gravel and flat sided stone fragments, little sand and clay, hard, massive soil structure, (ML-CL). M - LPL
	50.0									-

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**CONTRACT** \_\_\_\_\_ **CONTRACTOR** Earth Dimensions, Inc.

BOTTOM OF HOLE AT 50.00 ft

**DRILL RIG OPERATOR** Andrew Kempisty  
**SOIL & ROCK DESCRIPTION** Kyle Shearing  
**INSPECTOR** Joe Dorety (Fisher)  
**BIN** 5512980  
**STRUCTURE NAME** Judd Rd. (C.R. 157)/Thruway

**SHEET 2 OF 3** **HOLE** FH-B

TWY-CAN SUBSURF EXPLORATION 6K16\_BIN-5512980-DRAFTS.GPJ TWYSE1TMPL\_V05.GDT 3/31/17

SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-8  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 482.138, NAD 88  
DEPTH TO WATER 2.6

COORDINATES (Lat) 43.127252°N (Long) 75.344779°W  
DATE START 12/6/2016 DATE FINISH 12/6/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING lb HAMMER FALL-CASING in  
CASING O. D. in I. D. in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Automatic

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18				
			6	12	18	24				

*Note:  
Advanced bore hole with 4 1/4" ID x 8" OD hollow stem auger casing with 5.0-foot interval sampling to 23.5 feet. Continued below with 3 7/8" fluid rotary drilling methods with 5.0-foot interval sampling to end of boring at 50.0 feet. Bore hole was backfilled with cuttings to ground surface upon completion.*

DATE	TIME	DEPTH (ft.)			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
06-Dec-16	09:50	3.00	3.00	2.60	No	No
06-Dec-16	14:57	50.00	23.50	6.70	No	No

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DRILL RIG OPERATOR Andrew Kempisty  
SOIL & ROCK DESCRIPTION Kyle Shearing  
INSPECTOR Joe Dorety (Fisher)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway

CONTRACT \_\_\_\_\_ CONTRACTOR Earth Dimensions, Inc.

SHEET 3 OF 3 HOLE FH-B

SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-9  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 504.396, NAD 88  
DEPTH TO WATER 9.0

COORDINATES (Lat) 43.126959°N (Long) 75.344772°W  
DATE START 12/23/2016 DATE FINISH 12/23/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING lb HAMMER FALL-CASING in  
CASING O. D. in I. D. in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Safety

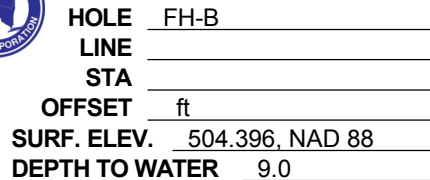
CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0 6	6 12	12 18	18 24				
	0.0									Dark gray asphalt pavement to 1.0 feet. -
										-
	5.0	SS1	10	15	17	11	7.6%	18		Brown (SANDY-SILT) fill with 15 to 25% gravel, little to some sand, trace clay, dense, massive soil structure, (ML). M - LPL
										-
	10.0	SS2	2	1	2	1	20.5%	16		Brown (SILTY-SAND) fill with 3 to 7% gravel, mostly very fine to fine size sand, little silt, very loose, massive soil structure, (SM). W - NPL
										Note: Drilling resistance increase at approximately 12.0 feet. -
	15.0	SS3	3	4	4	4	33.3%	19		14.0-15.0' Same as 9.0-11.0' W - PL 15.0-16.0' Brown (SILTY-CLAY) firm, weakly thinly laminated with very thin silt lenses, (CL).
										-
	20.0	SS4	2	4	5	6	28.8%	20		Brown (SILTY-CLAY) with 3 to 7% gravel, trace sand, stiff, W - PL thinly laminated with very thin silt lenses, (CL).
										-
	25.0	SS5	2	5			27.3%	22		Brownish gray (SILTY-CLAY) with trace sand, stiff, thinly laminated with very thin silt lenses, (CL). W - PL

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DRILL RIG OPERATOR Philip Bence  
SOIL & ROCK DESCRIPTION Brandon Mikolin  
INSPECTOR Matthew Conley (Stantec)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway

TWY-CAN SUBSURF EXPLORATION 6K16\_BIN-5512980-DRAFTS.GPJ TWYSE1TMPL\_V05.GDT 3/31/17

PSN	BORNUM	FHB-9
DIVISION	Syracuse	
COUNTY	Oneida	
PIN	S52886	
ROUTE	Thruway Mainline	
MILEPOST	240.48	
PROJECT	Syracuse Division 2017 Desi	



(Lat) 43.126959°N (Long) 75.344772°W

12/23/2016

12/23/2016

## HAMMER FALL-CASING

30

---

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18				
			6	12	18	24				
	25.0				5	11				Note: Hard below 26.0 feet.
	30.0	SS6	31	33	50/4		6.1%	15		Light brown (SANDY-SILT) with 15 to 30% gravel, little sand, very dense, massive soil structure, (ML).
	35.0	SS7	100/4				7.8%	3		34.0-34.4' Same as 29.0-31.0' 34.4-35.2' Boulder
	40.0	SS8	11	20	16	33	8.2%	16		Brownish gray (SANDY-SILT) with 15 to 30% gravel, little sand, dense, very dense below 41.0 feet, massive soil structure, (ML).
	45.0	SS9	18	22	50/4		7.7%	12		Same as 39.0-41.0'
	50.0	SS10	18	51			4.1%	6		Same as 39.0-41.0'

**DRILL RIG OPERATOR** Philip Bence  
**SOIL & ROCK DESCRIPTION** Brandon Mikolin  
**INSPECTOR** Matthew Conley (Stantec)  
**BIN** 5512980  
**STRUCTURE NAME**  
Judd Rd. (C.R. 157)/Thruway

HOLE FH-B



SM 282 E 12/02

PSN \_\_\_\_\_ BORNUM FHB-9  
DIVISION Syracuse  
COUNTY Oneida  
PIN S52886  
ROUTE Thruway Mainline  
MILEPOST 240.48  
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements



NEW YORK STATE THRUWAY AUTHORITY  
NEW YORK STATE CANAL CORPORATION  
SUBSURFACE EXPLORATION LOG



HOLE FH-B  
LINE \_\_\_\_\_  
STA \_\_\_\_\_  
OFFSET ft  
SURF. ELEV. 504.396, NAD 88  
DEPTH TO WATER 9.0

COORDINATES (Lat) 43.126959°N (Long) 75.344772°W  
DATE START 12/23/2016 DATE FINISH 12/23/2016

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER WT OF HAMMER-CASING \_\_\_\_\_ lb HAMMER FALL-CASING \_\_\_\_\_ in  
CASING O. D. \_\_\_\_\_ in I. D. \_\_\_\_\_ in WT OF HAMMER-SAMPLER 140 lb HAMMER FALL-SAMPLER 30 in  
SAMPLER O. D. 2 in I. D. 1-3/8 in HAMMER TYPE Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.)				MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
			0	6	12	18				
			6	12	18	24				
	50.0				47	50				
	55.0	SS11	9	28	50/3		6.3%	7		Same as 39.0-41.0' M - NPL
		SS12	25				7.5%	6		Same as 39.0-41.0' M - NPL
				50/3						

BOTTOM OF HOLE AT 59.80 ft

..... Note:  
Advanced bore hole with 4 1/4" ID x 8" OD hollow stem auger casing with 5.0-foot interval sampling to 34.4 feet. Continued below with 3 7/8" tricone roller bit using fluid rotary methods and 5.0-foot interval sampling to 59.8 feet. Bore hole was backfilled with cuttings and ground surface repaired with a cement plug and an asphalt patch.

DATE	TIME	DEPTH (ft.)			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
23-Dec-16	09:00	11.00	9.00	9.00	NO	No
23-Dec-16	15:00	59.80	34.40	8.00	NO	No

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DRILL RIG OPERATOR Philip Bence  
SOIL & ROCK DESCRIPTION Brandon Mikolin  
INSPECTOR Matthew Conley (Stantec)  
BIN 5512980  
STRUCTURE NAME Judd Rd. (C.R. 157)/Thruway

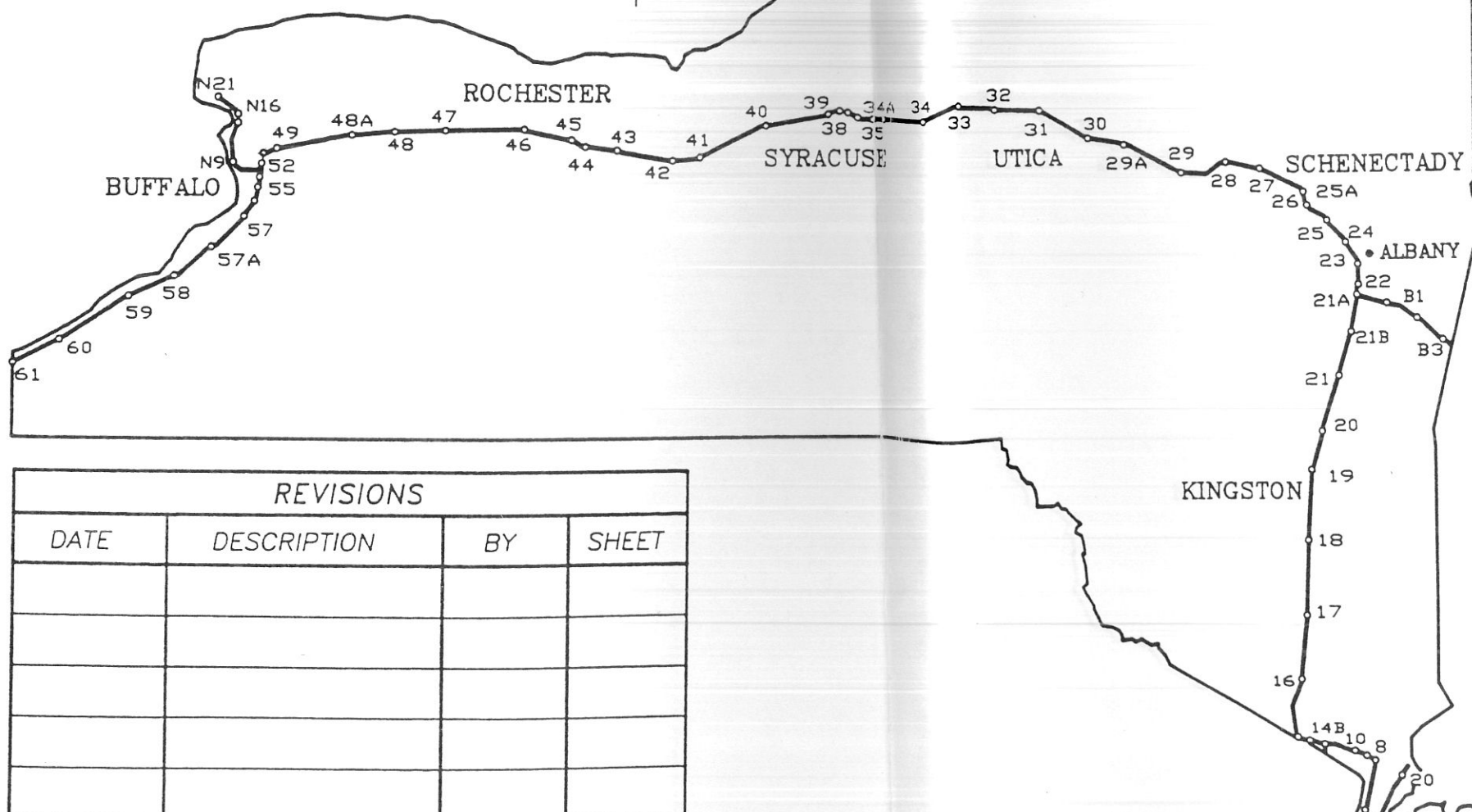
CONTRACT \_\_\_\_\_ CONTRACTOR Earth Dimensions, Inc.

SHEET 3 OF 3 HOLE FH-B



IDENTIFICATION	
MILEPOST	240.48
BIN	5512980
DESCRIPTION	JUDD ROAD OVER 90 IX
<input type="checkbox"/>	"AS-BUILTS"
<input checked="" type="checkbox"/>	CONTRACT
CONTRACT NO.	M.T. 52-12
SHEET NOS.	37-46

# GENERAL INSPECTION PLAN REVIEW LOG



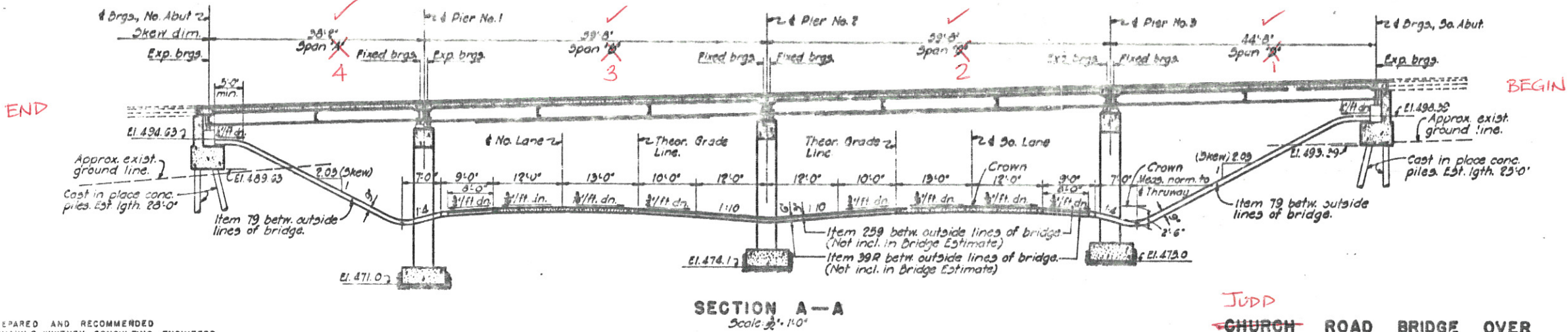
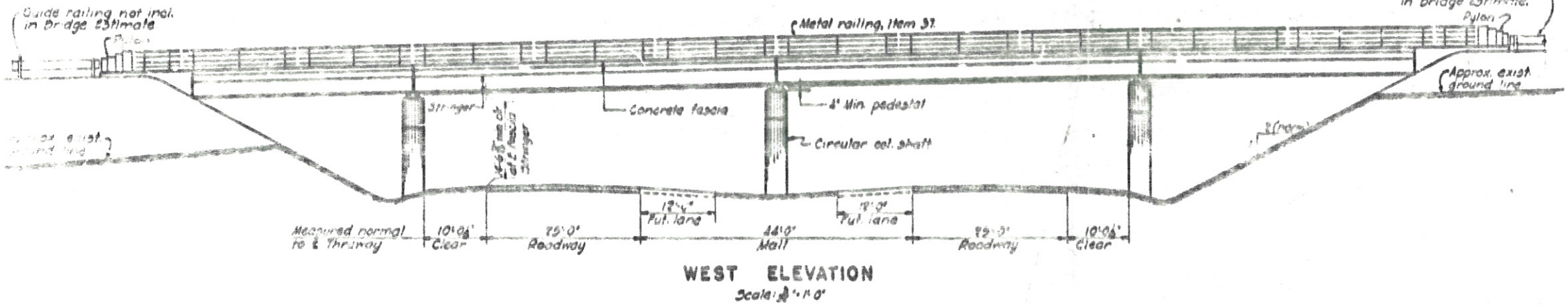
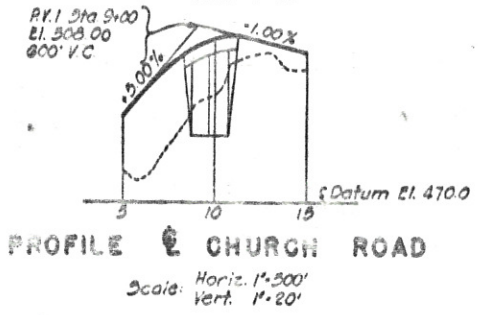
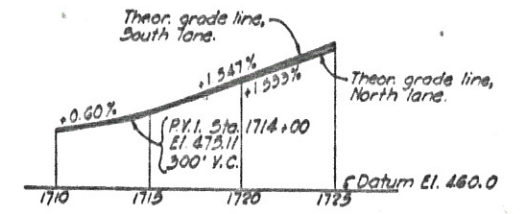
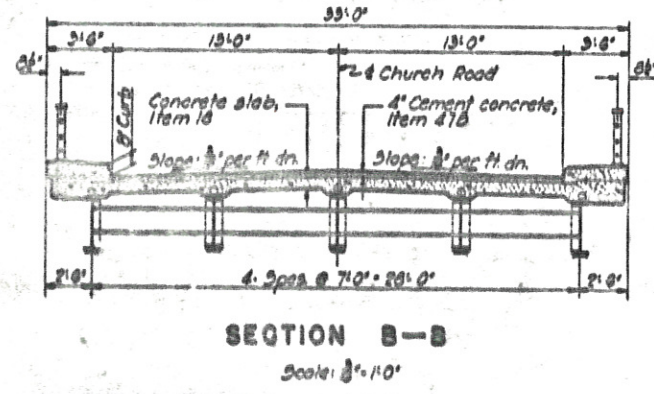
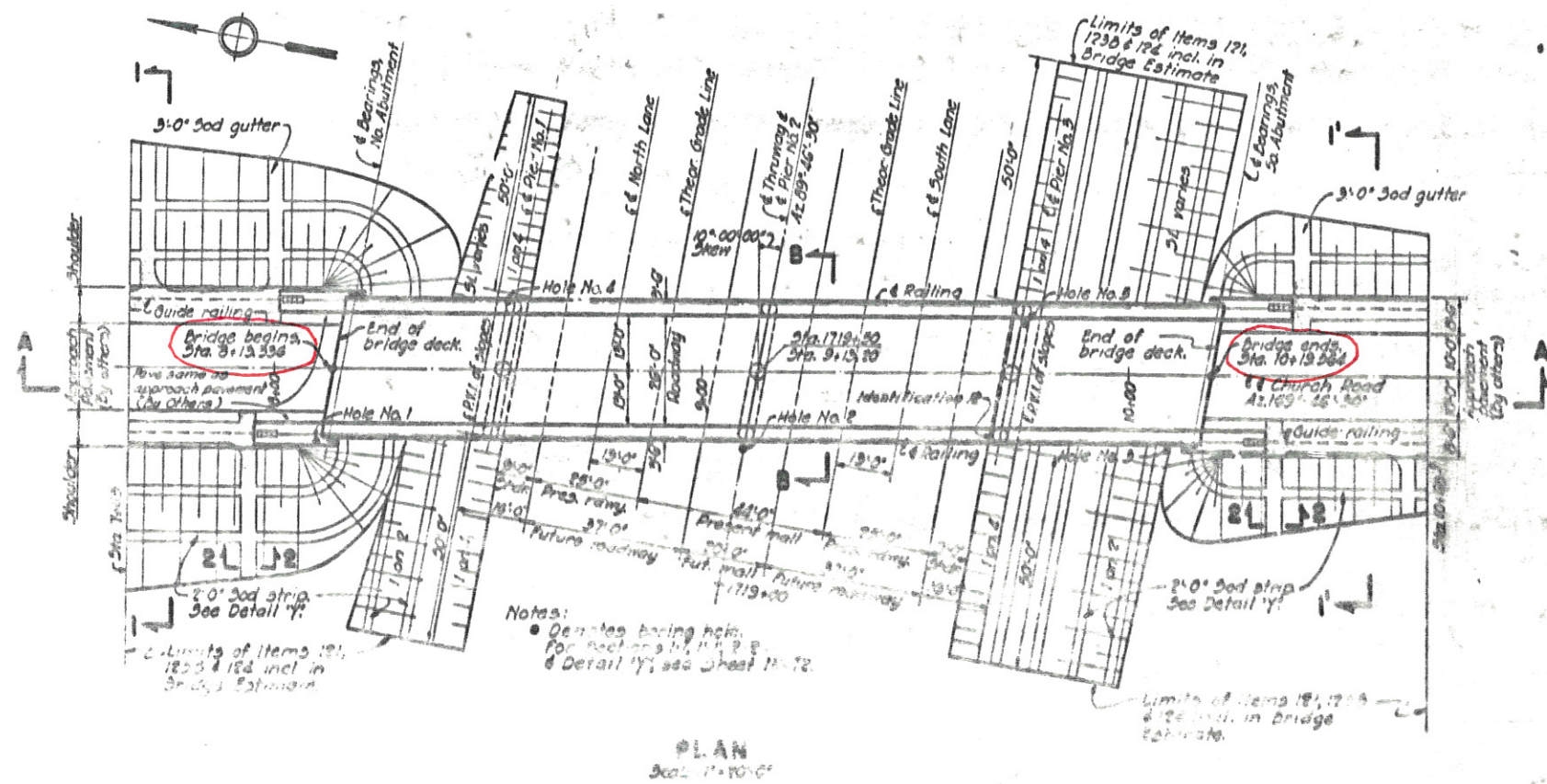
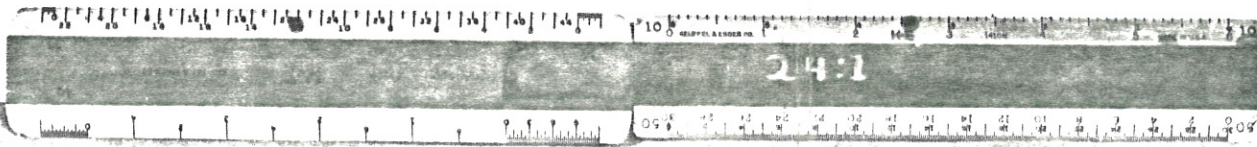
BY	PE NO.	DATE
FIELD VERIFICATION		
R. EDIC		11/29/84

B. COLWELL	46031	10/23/86
M. ERNST	63707	11/2/88
G. WANG	7221 (NH)	10/15/90
ROBERT BOONE	60047	11/12/92
D. MARKIS	55476	10/31/97
D. MARKIS	59170	9/16/96
M. Peters	68102	9/24/98
M. Peters	68102	8/4/02

\* REVIEWED FOR MAJOR  
CHANGES IN DEAD LOADS  
AND PRIMARY MEMBERS.

[illegible]





M.T. 52-12		S.T. 52-26	
COUNTY	ONEIDA	SHEET NO.	TOTAL SHEETS
		37	74
N.Y. STATE THRUWAY - MOHAWK		SECT. SUB-DIV. 7	
WESTMORELAND TO WHITESBORO			

DEPARTMENT	OF	PUBLIC	WORKS
RECOMMENDED	<i>Ray Hitchum</i>	July 31, 1952.	DATE
	DISTRICT ENGINEER		
APPROVED	<i>E.T. Sawkins</i>	8/8/52	DATE
	DEPUTY CHIEF ENGINEER		
	<i>E.W. Wendell</i>	8/8/52	DATE
	DEPUTY CHIEF ENGINEER		
	<i>J.B. McMoran</i>	8/8/52	DATE
	CHIEF ENGINEER		

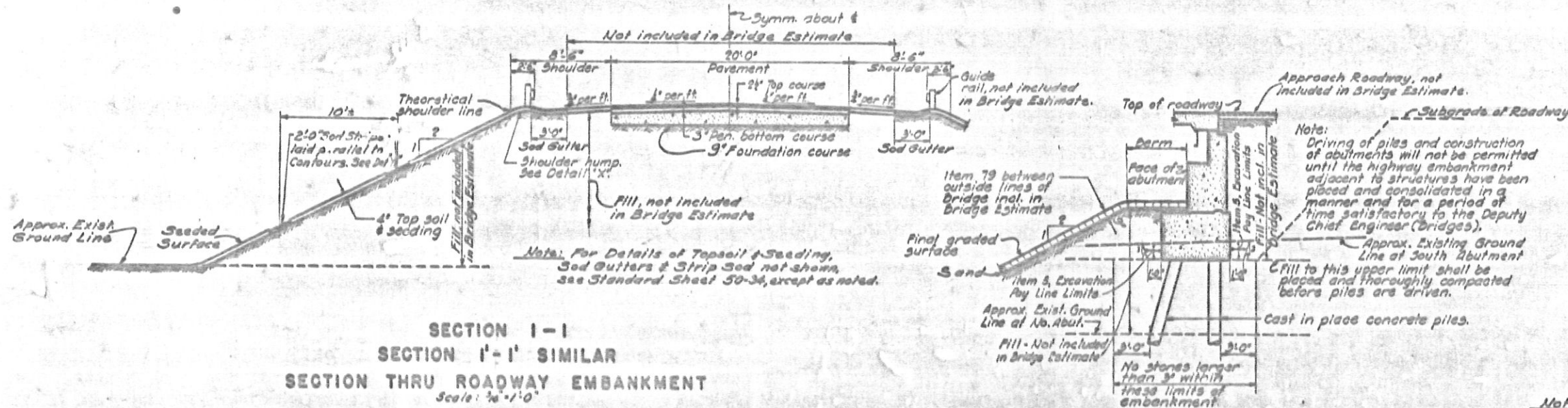
APPROVED *August 8* 1952  
NEW YORK STATE THRUWAY AUTHORITY

BERTRAM D. TALLAMY Chairman  
By: *C.H. Lang*  
DEPUTY CHIEF ENGINEER

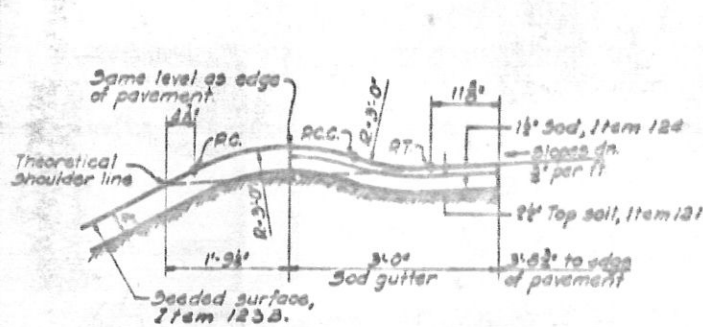
DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
RECOMMENDED FOR APPROVAL	
DISTRICT ENGINEER	DATE
APPROVED	
DIVISION ENGINEER	DATE



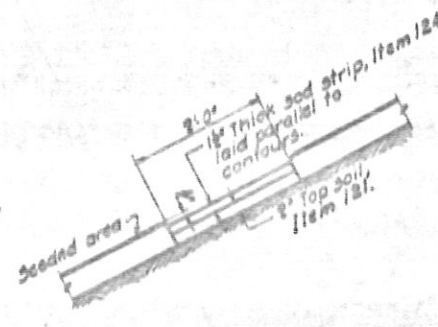
COUNTY	SHEET NO.	TOTAL SHEETS
ONEIDA	38	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7		
WESTMORELAND TO WHITESBORO		



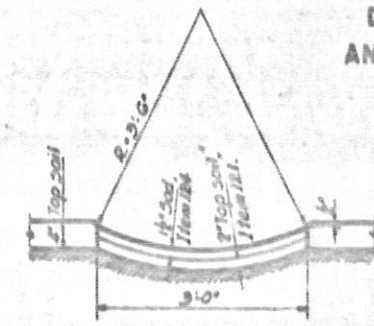
SECTION 1-1  
SECTION 1'-1' SIMILAR  
SECTION THRU ROADWAY EMBANKMENT  
Scale: 1/4" = 1'-0"



DETAIL "X"  
SHOULDER HUMP DETAIL



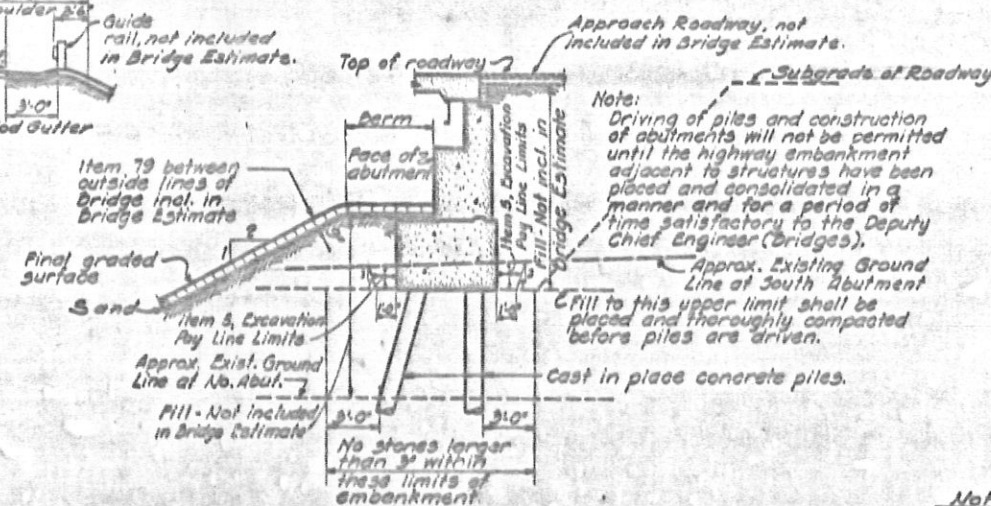
DETAIL "Y"  
DETAIL OF SOD STRIP



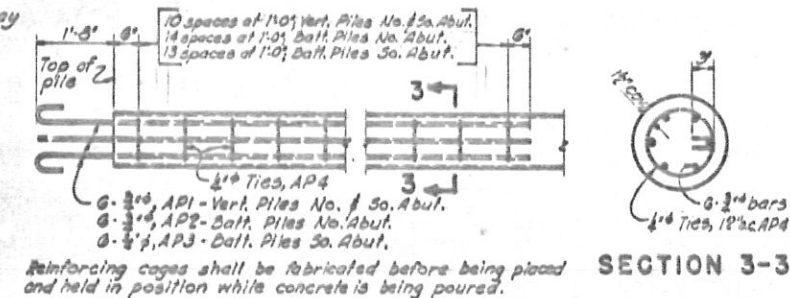
SECTION 2-2  
DETAIL OF SOD GUTTER

TYPICAL DETAILS OF ROADWAY EMBANKMENT  
Scale: 1/4" = 1'-0"

Note: For Location of Sections 1-1, 1'-1', 2-2 see Sheet No. 71.



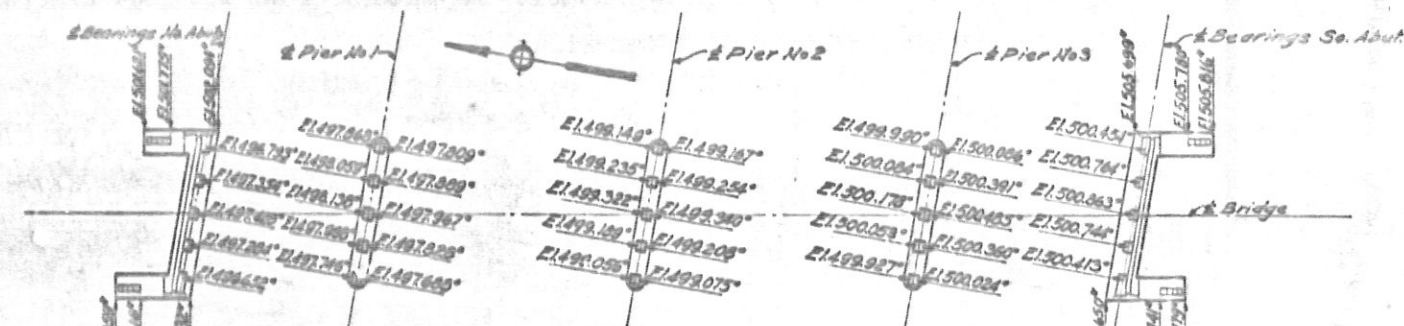
DETAILS OF EMBANKMENT  
AND BACKFILL AT ABUTMENT  
Scale: 1/4" = 1'-0"



SECTION 3-3  
CAST IN PLACE CONCRETE PILE (ITEM 85C)  
REINFORCEMENT DETAILS

Notes: Cement, Bar Reinforcement and Furnishing Equipment for Driving Piles will be paid for under their appropriate items.  
For Location of Piles see Sh. No. 73.

LEGEND:  
• Denotes elevation at bottom of bearing pt.  
+ Denotes elevation at top of wall at point indicated.



PLAN SHOWING BRIDGE SEAT & TOP OF WALLS ELEVATIONS

ESTIMATE OF QUANTITIES						
ITEM NO.	DESCRIPTION	UNIT	SUPERSTRUCTURE		SUBSTRUCTURE	
			HEAT	ROUND	HEAT	ROUND
5	Trench, Culvert & Bridge Excavation	C.Y.	—	—	487	540
15E	Portland Cement Type 3	BBls	404	423	594	623
15N	Natural Cement Type N	BBls	58	60	88	90
18	Class 1A - Concrete for Structures	C.Y.	218	230	394	415
19	Class 1A - Concrete for Railings	C.Y.	—	—	20	3
25F	Steel Fabric Reinforcement	S.Y.	630	600	—	—
26	Bar Reinforcement for Structures	Lbs	44,882	47,100	44,464	46,700
25B	Spiral Bar Shear Connectors	Lbs	2,492	2,000	—	—
29	Structural Steel	Lbs	184,723	192,000	—	—
37	Metal Railing	L.F.	410	420	30	31
47B	Cement Concrete Pavement	C.Y.	60	70	—	—
79	Dry Stone Paving	S.Y.	—	—	350	390
85C	Cast-in-Place Concrete Piles	L.F.	—	—	934	1,050
87	Furnishing Equipment for Driving Piles	Nec.	—	—	—	—
121	Topsoil Placed from Stockpiles	C.Y.	—	—	143	160
125B	Seeding on Prepared Areas	Acres	—	—	0.27	0.30
126	Sodding	S.Y.	—	—	251	280

\*Steel fabric Reinforcement shall be furnished in flat sheets.

GENERAL NOTES

All concrete except in pavement & piers shall be Item 18. Concrete in pavement shall be Item 47B. Cement Concrete Pavement. Concrete in piers shall be Item 18. Class 1A Concrete for Railings. The cost of furnishing & installing caulking compound, preformed bituminous joint material, sponge rubber, joint material, lead wool, copper flashing & baffle strips, Common Brick in Asphalt Mastic, shall be included in the Prices bid for the various items in this Contract. After the concrete is cured the Contractor shall apply a waterproofing oil treatment as described in the Specifications for M-41W to all exposed surfaces except the underside of slabs. Two applications of waterproofing oil treatment shall be applied to the top of the slab. The second application shall be applied five days prior to the placing of the pavement or sidewalk. Materials & Fabrication - Specifications of New York State Department of Public Works dated Jan. 2, 1935, and current modifications & additions. Design Specifications - A.A.S.H.O. 1949 Loading H-20-31.8-44 modified. The Contractor's attention is directed to the Special Notes for this structure which appear in the Proposal. Particular attention should be given to the Foundation Note, which briefly outlines the anticipated subsurface conditions at the site of the structures and which specifies certain requirements relative to construction. No construction joints other than those shown on the Plans will be permitted without the written permission of the Deputy Chief Engineer (Bridges). Where caulking compound is to be used the sides of the joints shall be primed with a material satisfactory to the Manufacturer of the caulking compound 20 to 30 minutes before the compound is placed. All joints must be thoroughly clean & dry before the priming coat is applied. Work must be performed by workmen experienced in this type of work. For design purposes, the assumed load per pile does not exceed 50 tons. The assumed pressure for the footings founded on soil does not exceed 2.75 tons per sq. ft. Where steel exceeding one inch in thickness is to be welded, electrodes of Classification Number E6015 or E6016 shall be used. Immediately before placing pavement concrete, the concrete surface or surfaces upon which it is to be placed shall be thoroughly wetted down continuously for one hour, if the air temperature is above 50° F. Sponge rubber shall meet the requirements of the Standard Specifications for preformed expansion joint fillers for concrete A.S.T.M. Designation D-344.

MADE	BY	DATE		
TRACED	A.K. Smith	7-19-54		
CHECKED	A.K. Smith	7-19-54		
IN CHARGE OF	L.H. Just			
NO.	REVISION	BY	DATE	

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS

BY *Milton Brown*  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14189

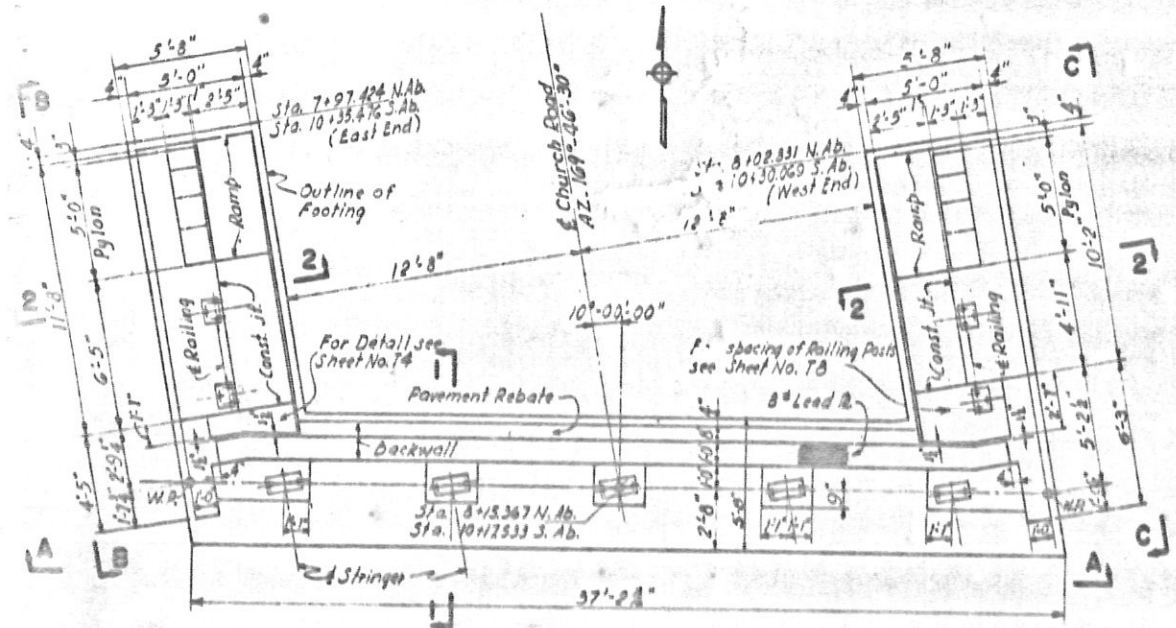
7-19-54  
DATE

CHURCH ROAD BRIDGE OVER  
JUDD N.Y. STATE THRUWAY  
SECTIONS AND DETAILS

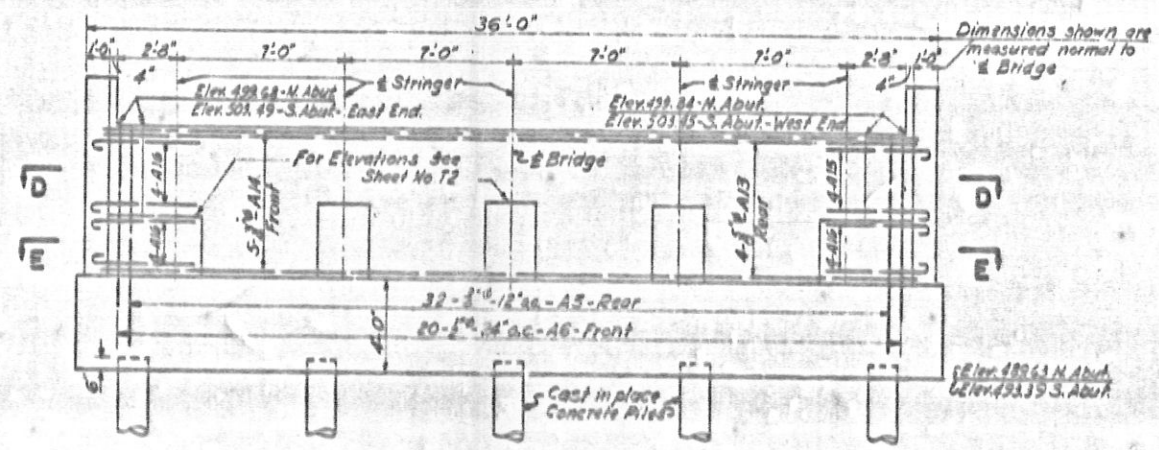


24:1

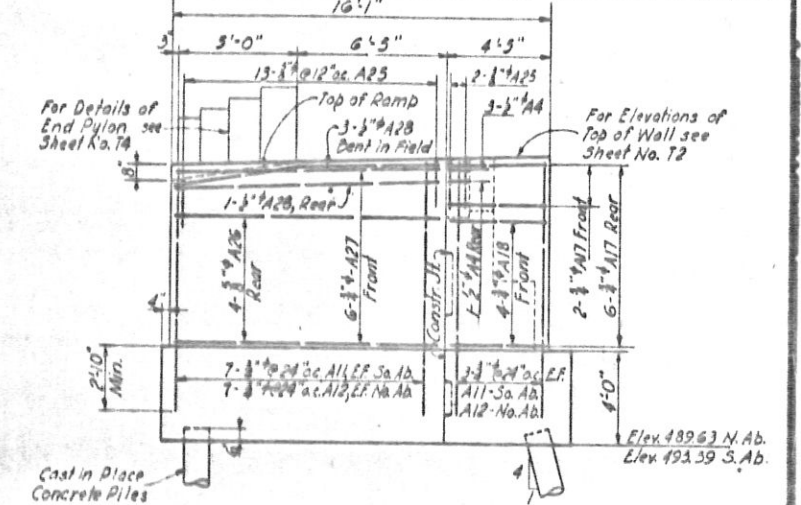
M.T. 52-12	S.T. 52-26
COUNTY	SHEET NO. TOTAL SHEETS
ONEIDA	39 74
N. Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7	
WESTMORELAND TO WHITESBORO	



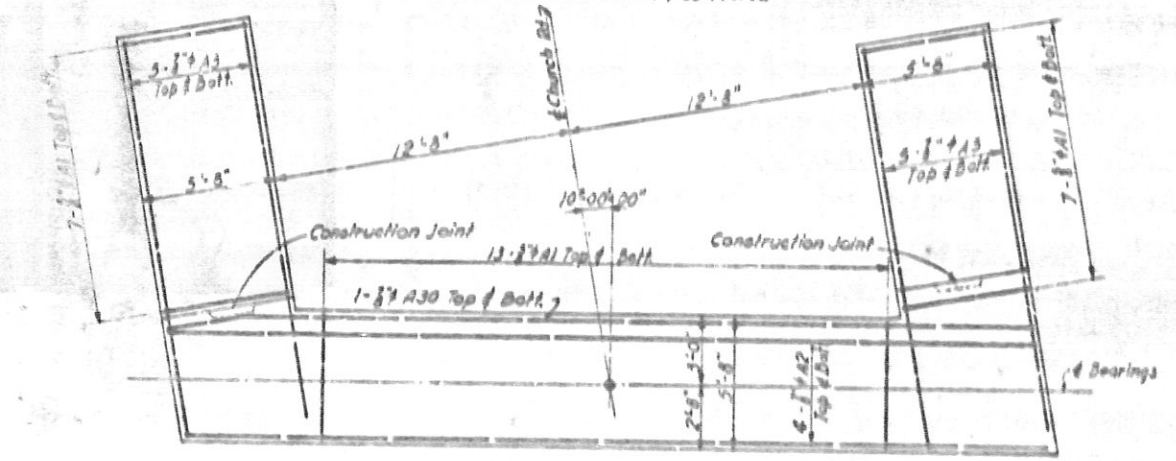
PLAN - NORTH ABUTMENT  
South Abutment Similar as Noted



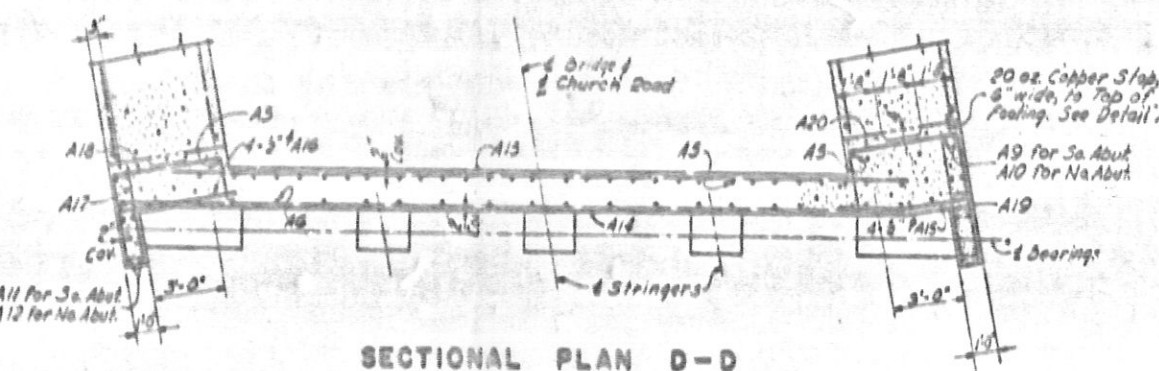
ELEVATION A-A - NORTH ABUTMENT



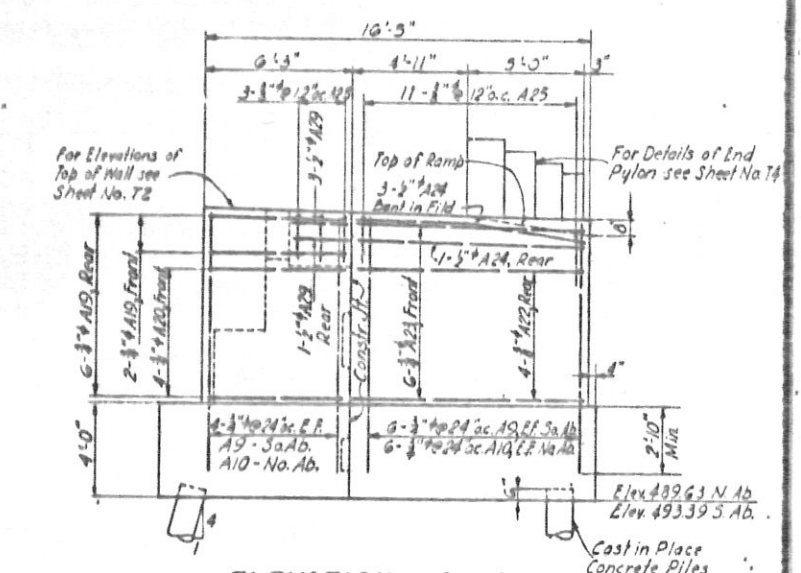
ELEVATION B-B  
WEST WING NORTH ABUTMENT  
East Wing South Abutment similar except as noted



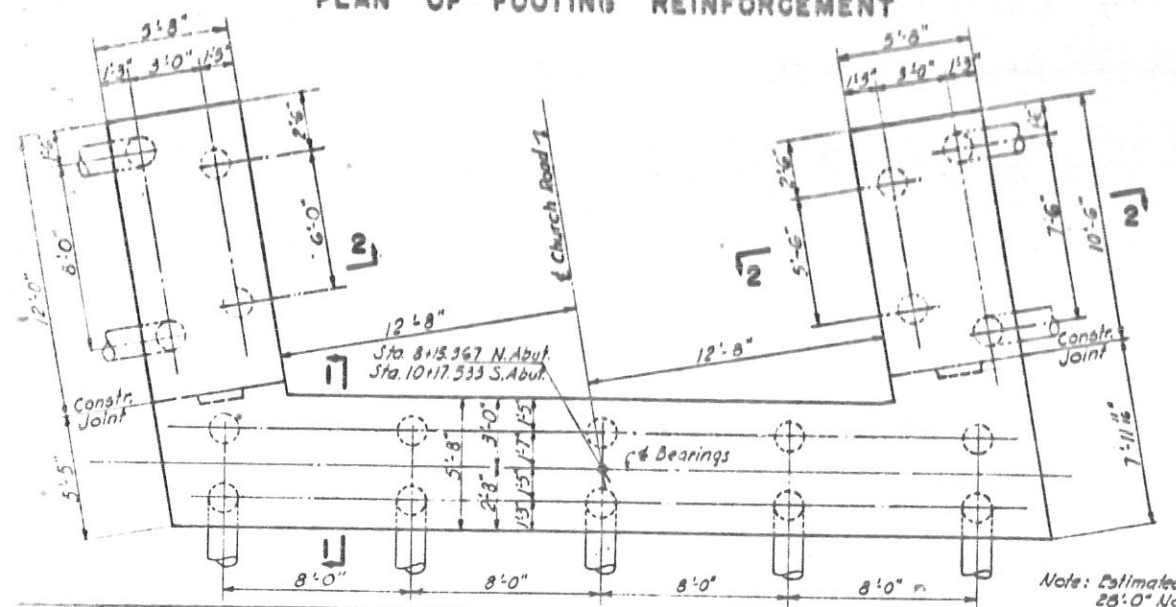
PLAN OF FOOTING REINFORCEMENT



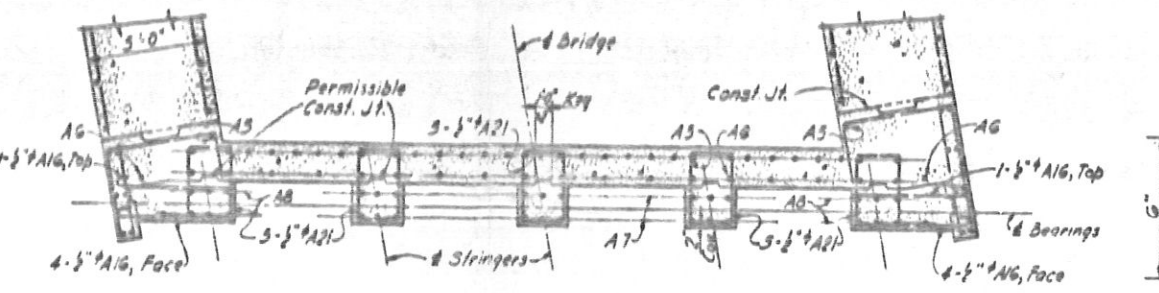
SECTIONAL PLAN D-D



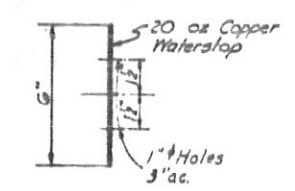
ELEVATION C-C  
EAST WING NORTH ABUTMENT  
West Wing South Abutment similar except as noted



FOUNDATION PLAN  
(Reinforcement not shown)



SECTIONAL PLAN E-E



DETAIL 'X'  
Scale: 3"=1'-0"

BY	DATE			
BY	DATE			
BY	DATE			
BY	DATE			

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14188

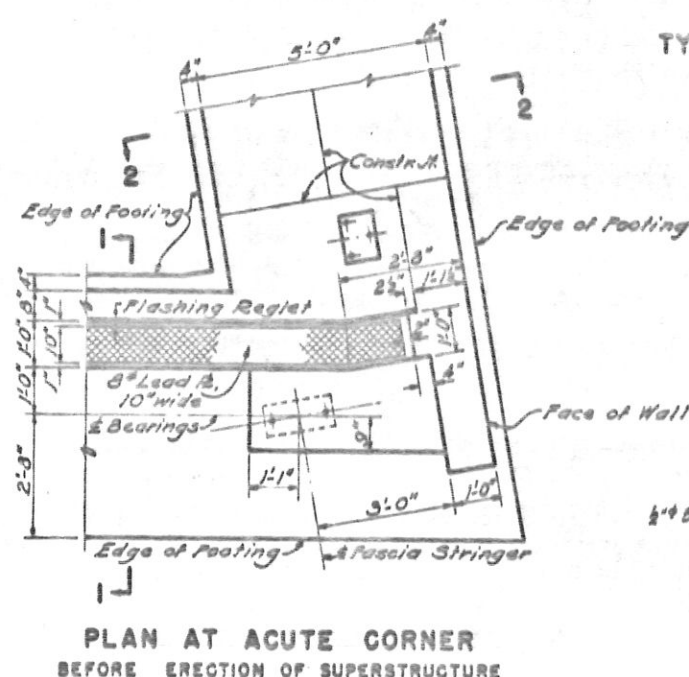
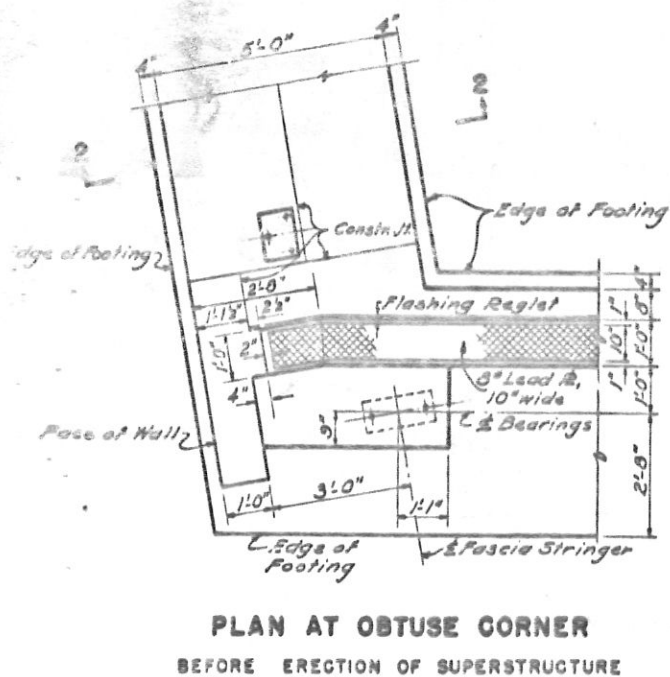
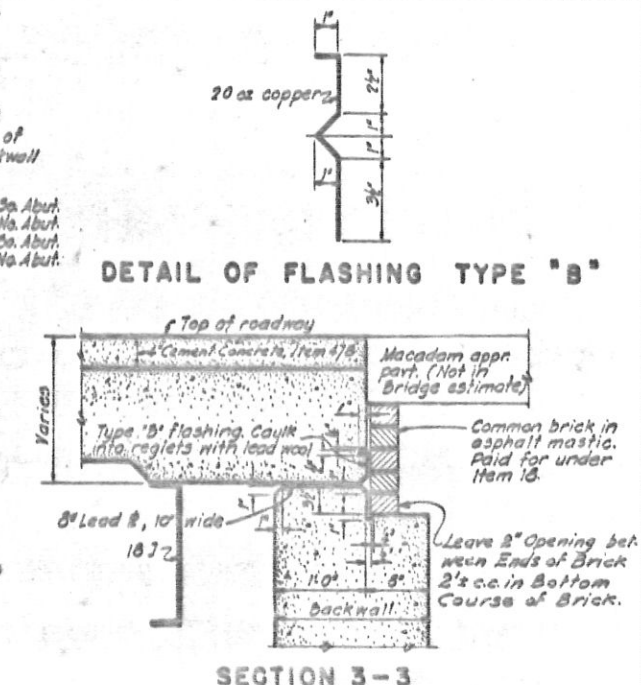
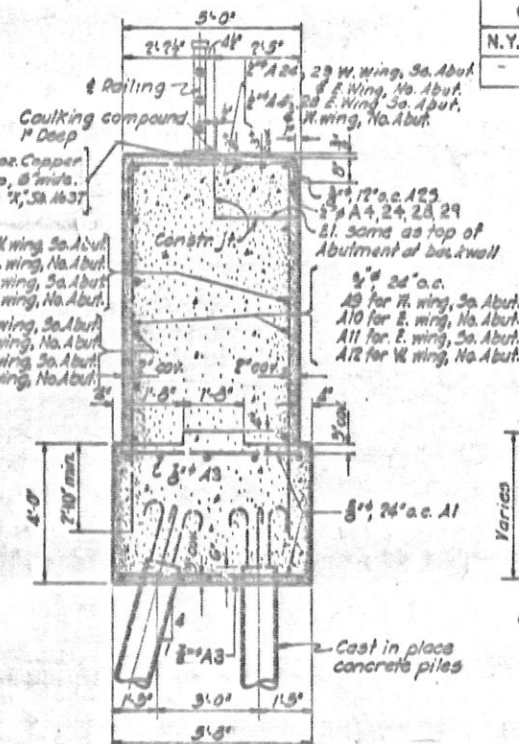
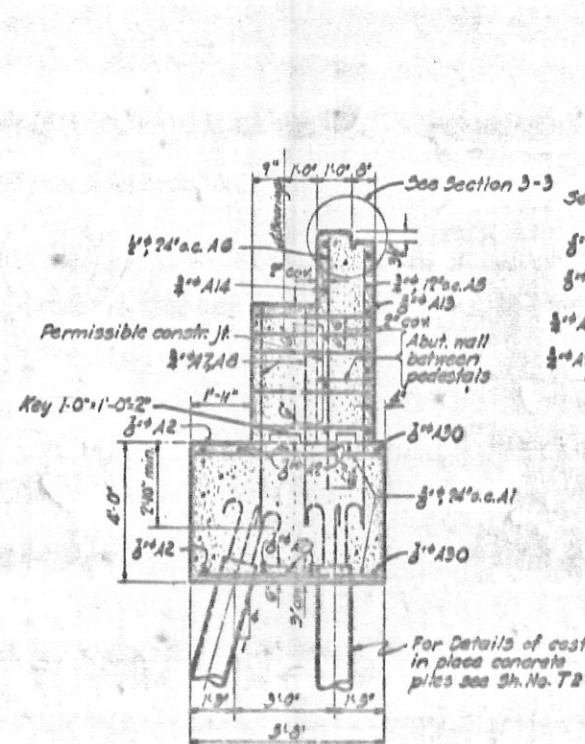
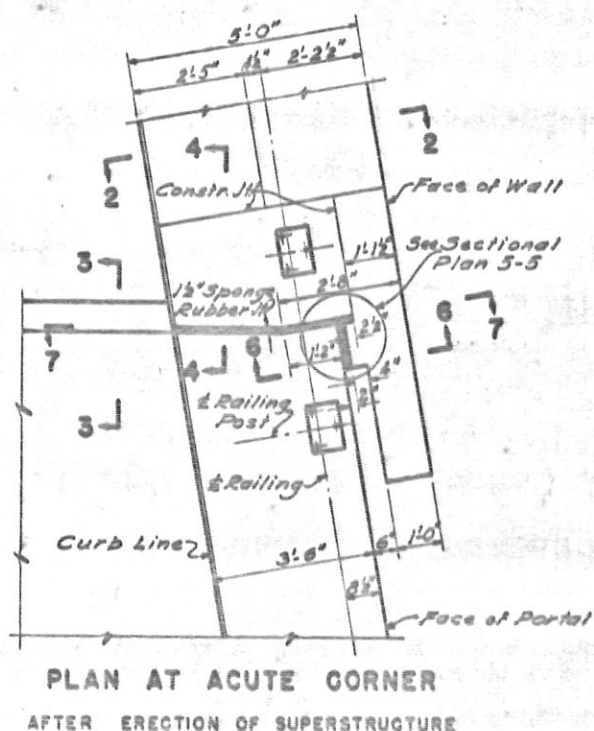
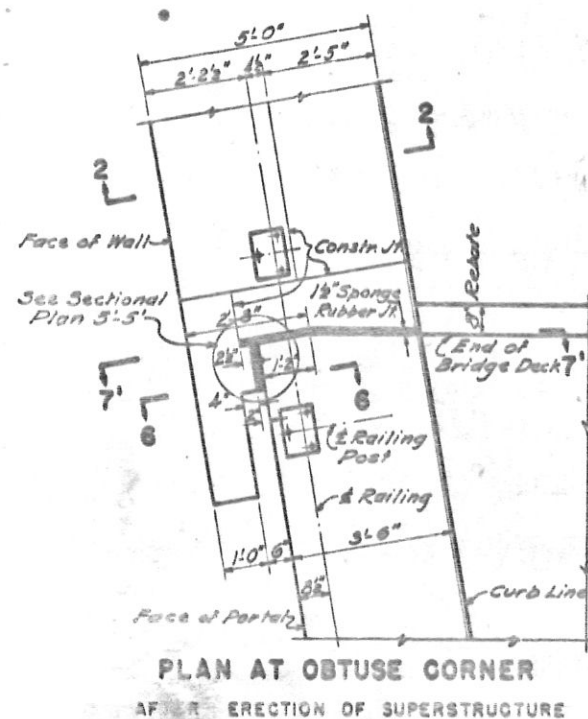
Note: Estimated Length of Piles  
28'-0" North Abutment  
25'-0" South Abutment

SCALE 4"=1'-0"

JUDD  
CHURCH ROAD BRIDGE OVER  
N. Y. STATE THRUWAY  
ABUTMENTS



COUNTY		SHEET NO.	TOTAL SHEETS
ONEIDA		40	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7			
WESTMORELAND TO WHITESBORO			



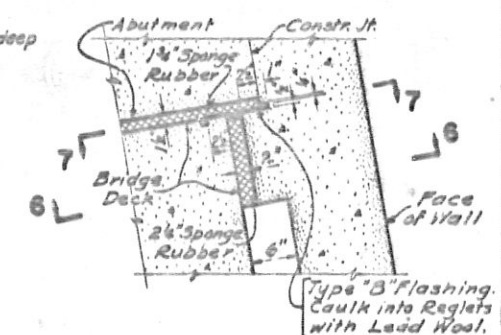
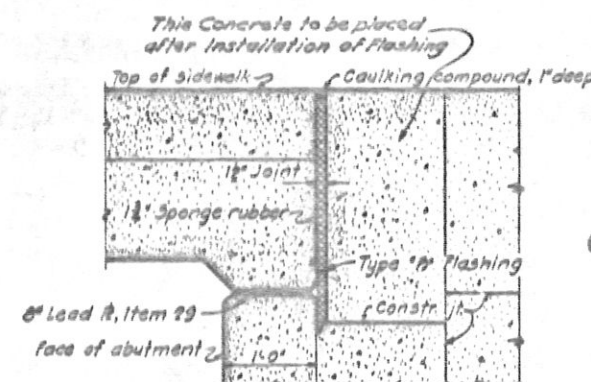
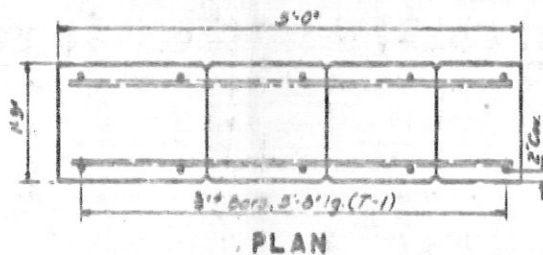
SECTION 1-1  
TYPICAL SECTION THRU ABUTMENT  
Scale: 1"=1'-0"

SECTION 2-2  
TYPICAL SECTION THRU WING

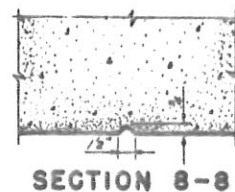
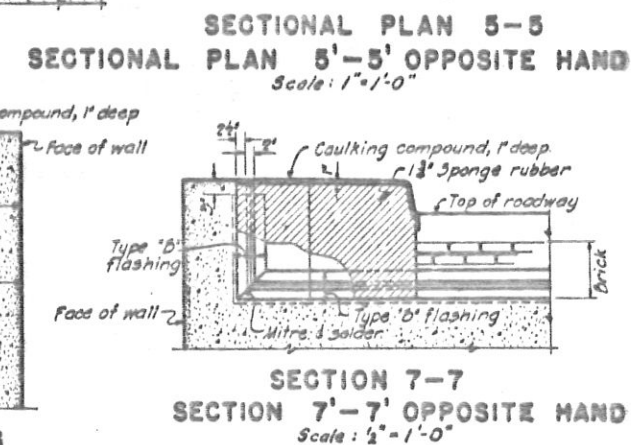
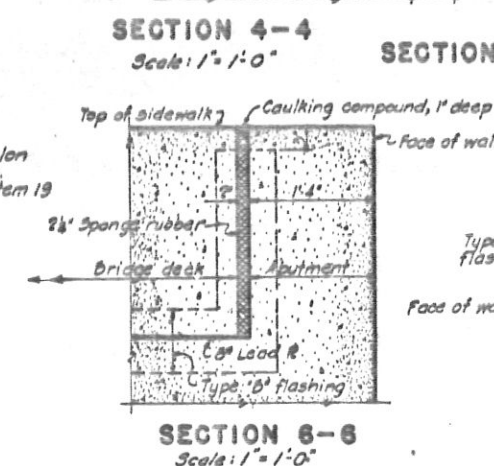
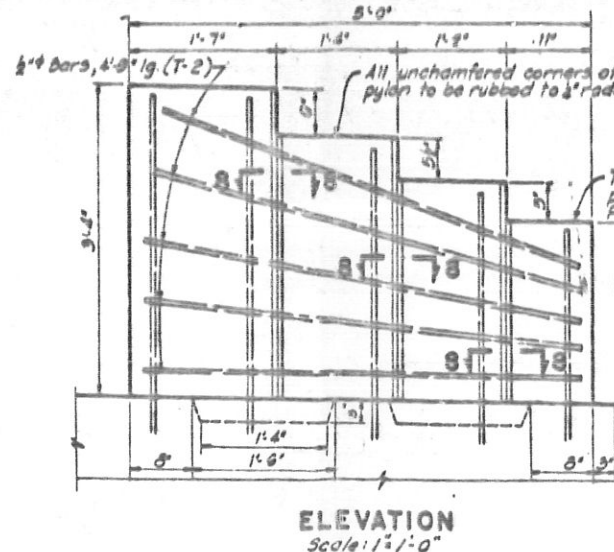
SECTION 3-3  
TYPICAL DETAIL AT TOP OF ABUTMENT

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

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



TYPICAL DETAILS OF ABUTMENT RETURNS  
3c9/2:2"=1'-0"



SECTION 8-8

**ELEVATION**  
Scale: 1" = 1'-0"

### DETAILS OF PYLON AT END OF ABUTMENT WALLS

Note: Pylon Concrete Item 19.

	BY	DATE			
AGE	<i>J. Heath</i>	<i>7-19-52</i>			
RACED	<i>J. Person</i>	<i>7-19-52</i>			
CHECKED	<i>J. Heath</i>	<i>7-19-52</i>			
CHARGE OF <i>L.A. Just</i>			NO.	REVISION	BY DATE

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS

BY M. B. Bruner  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14188

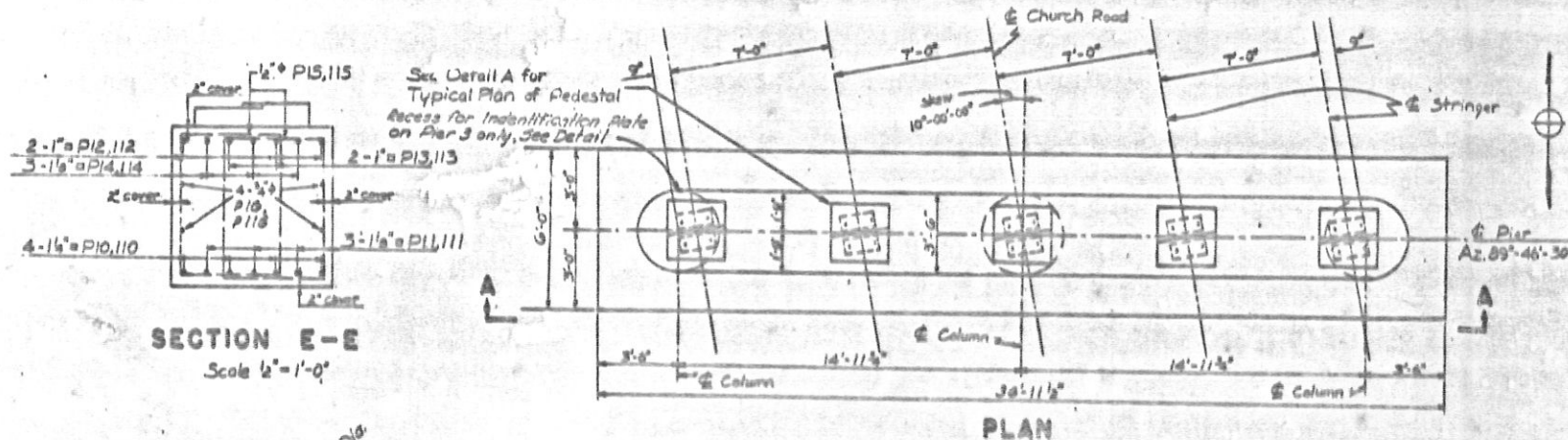
7-19-5  
DATE

JUDD  
~~CHURCH~~ ROAD BRIDGE OVER  
N. Y. STATE THRUWAY  
ARBITMENT DETAILS

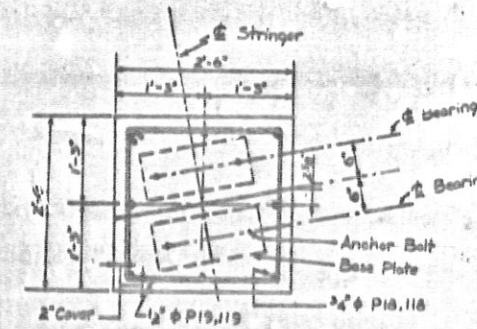
Note: Work this Sheet with Sheet No 73.



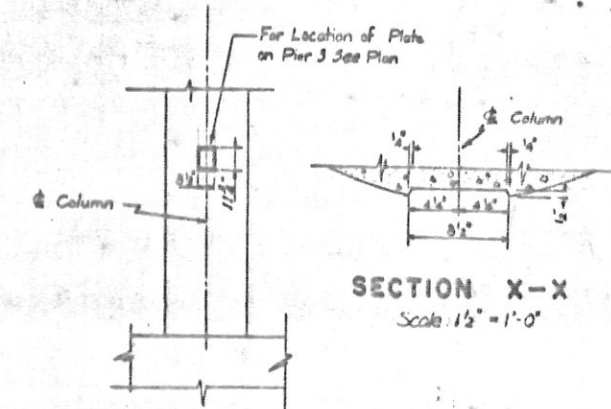
COUNTY	SHEET NO.	TOTAL SHEETS
ONEIDA	41	74
N. Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV.		
WESTMORELAND TO WHITEBORO		



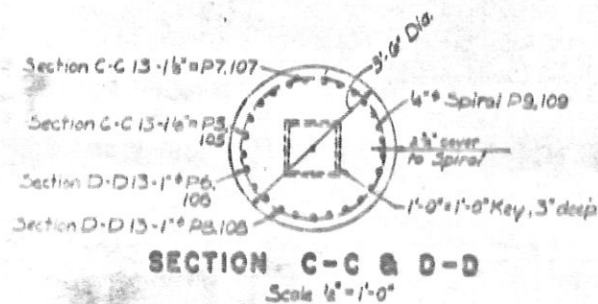
SECTION E-E  
Scale 1/2" = 1'-0"



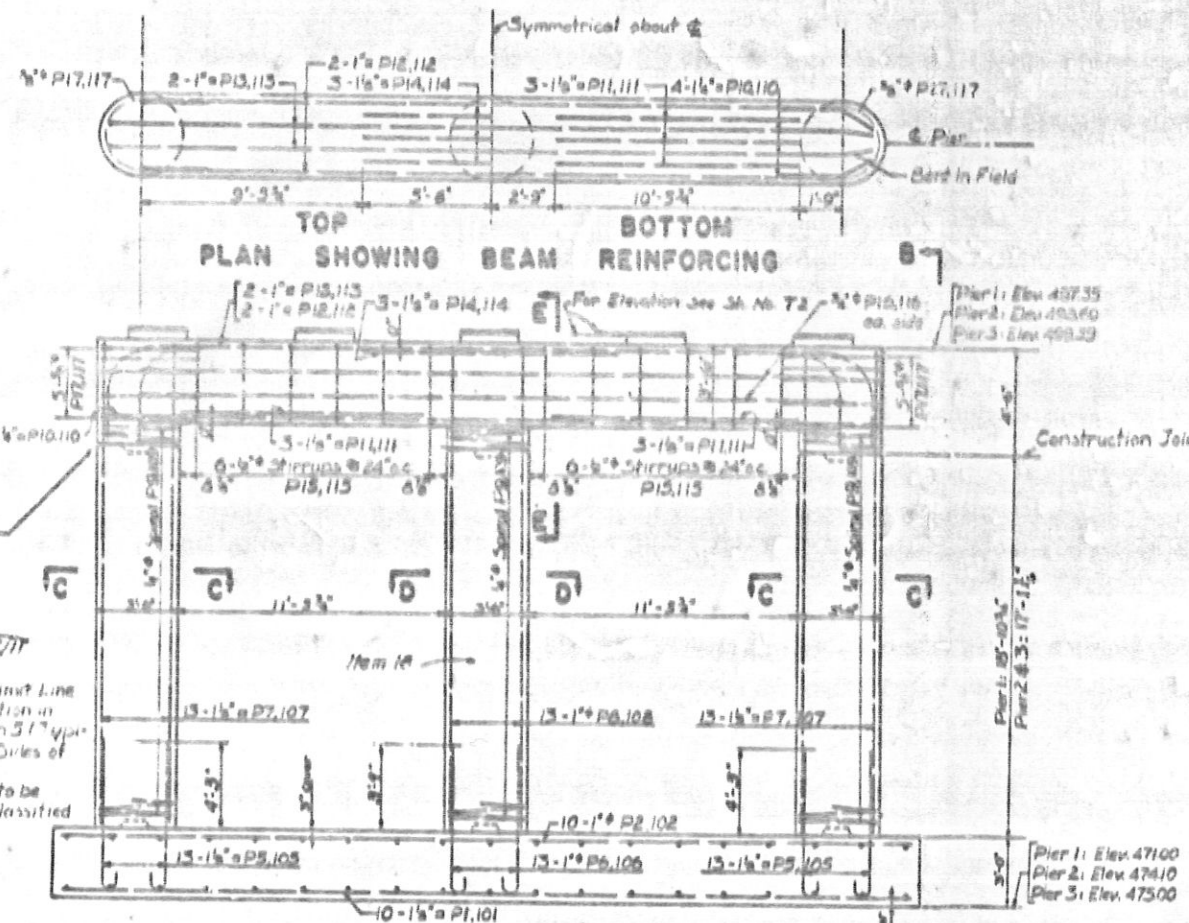
DETAIL A  
TYPICAL PLAN OF PEDESTAL  
Scale 3/4" = 1'-0"



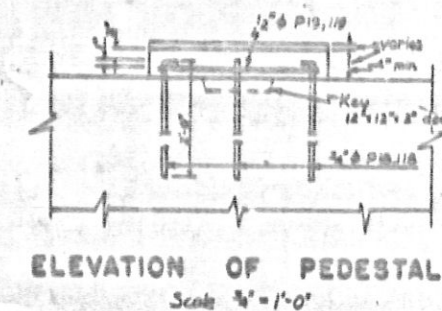
SECTION X-X  
Scale 1/2" = 1'-0"



SECTION C-C & D-D  
Scale 1/2" = 1'-0"



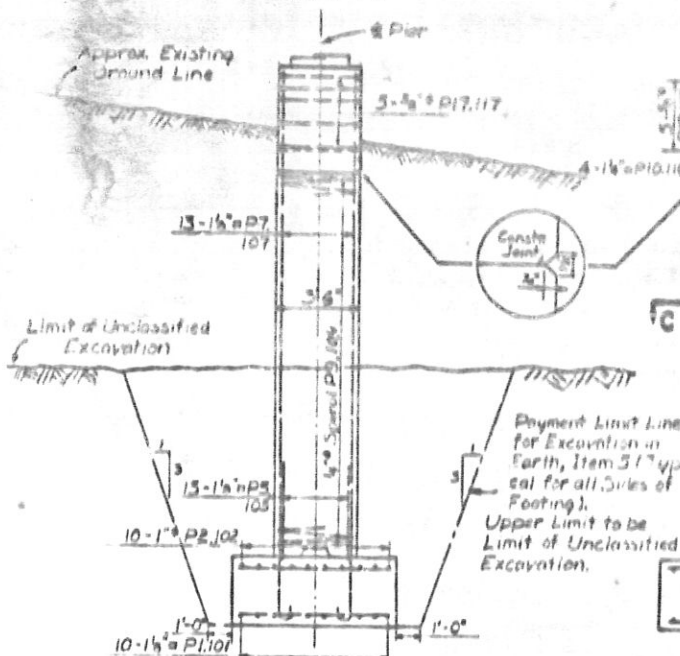
ELEVATION A-A



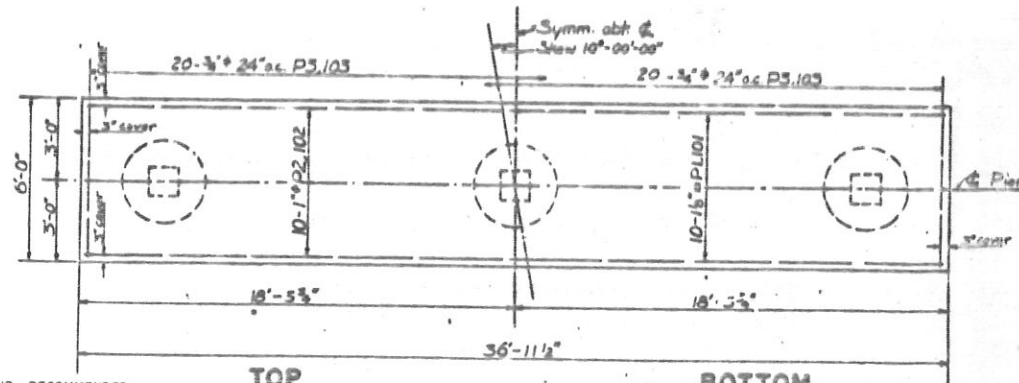
ELEVATION OF PEDESTAL  
Scale 3/4" = 1'-0"

DETAIL OF IDENTIFICATION PLATE RECESS

Note: See Std. Sheet 52-41  
Scale: 1/2" = 1'-0"



END ELEVATION B-B



TOP FOOTING PLAN . BOTTOM

1-19-52 Scale: 1/2" = 1'-0"

JUDD  
CHURCH ROAD BRIDGE OVER,  
N. Y. STATE THRUWAY  
PIERS

Notes: Anchor Bolts for Bearings shall be set at the same time that the steel in Pier Beam is placed.  
Steel in Top of the Beam may be moved slightly in order to clear Anchor Bolts if necessary.

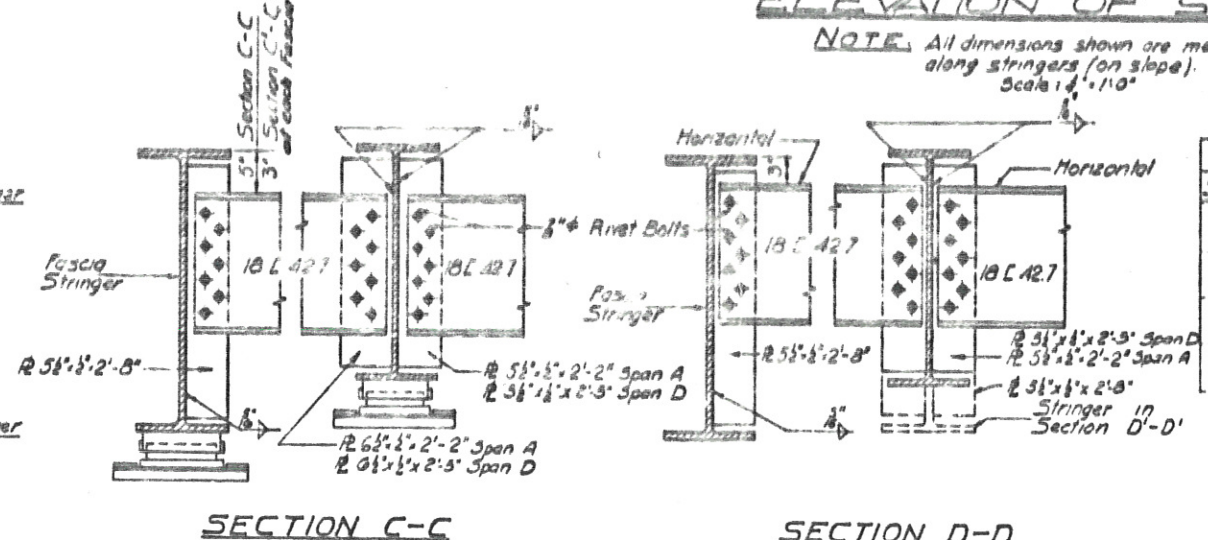
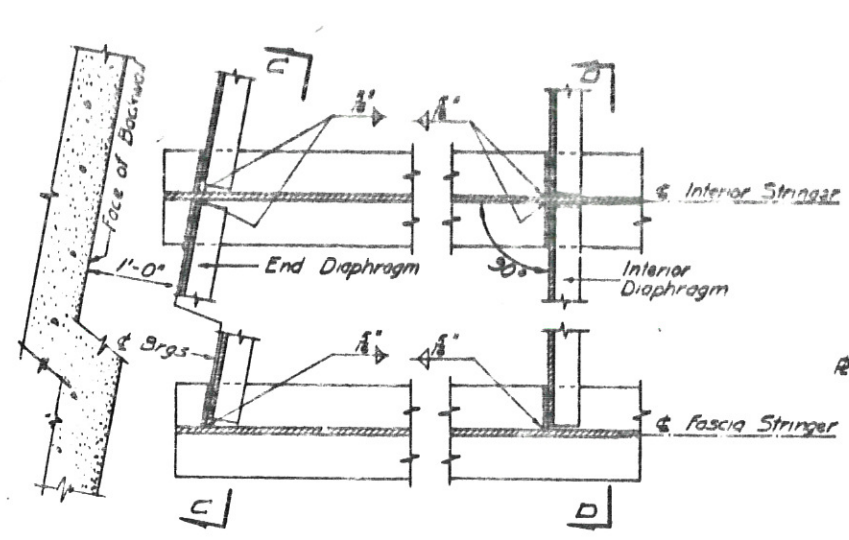
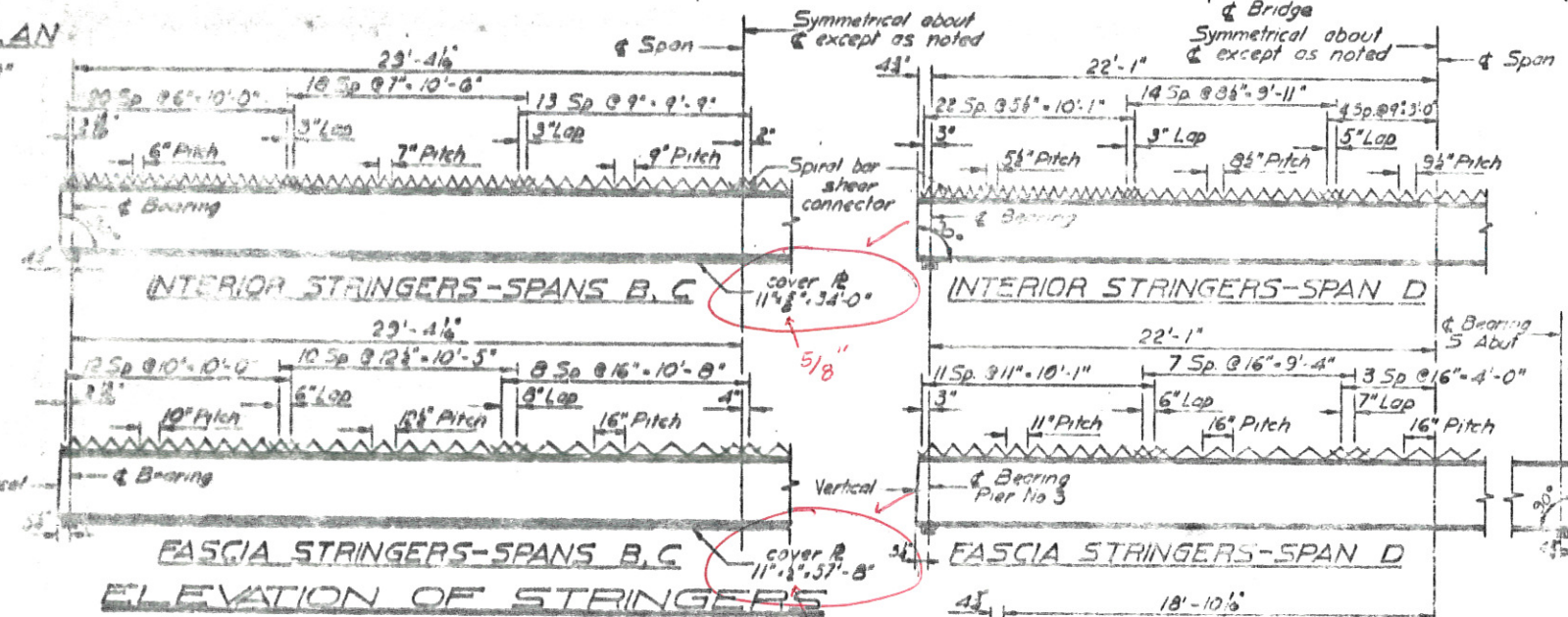
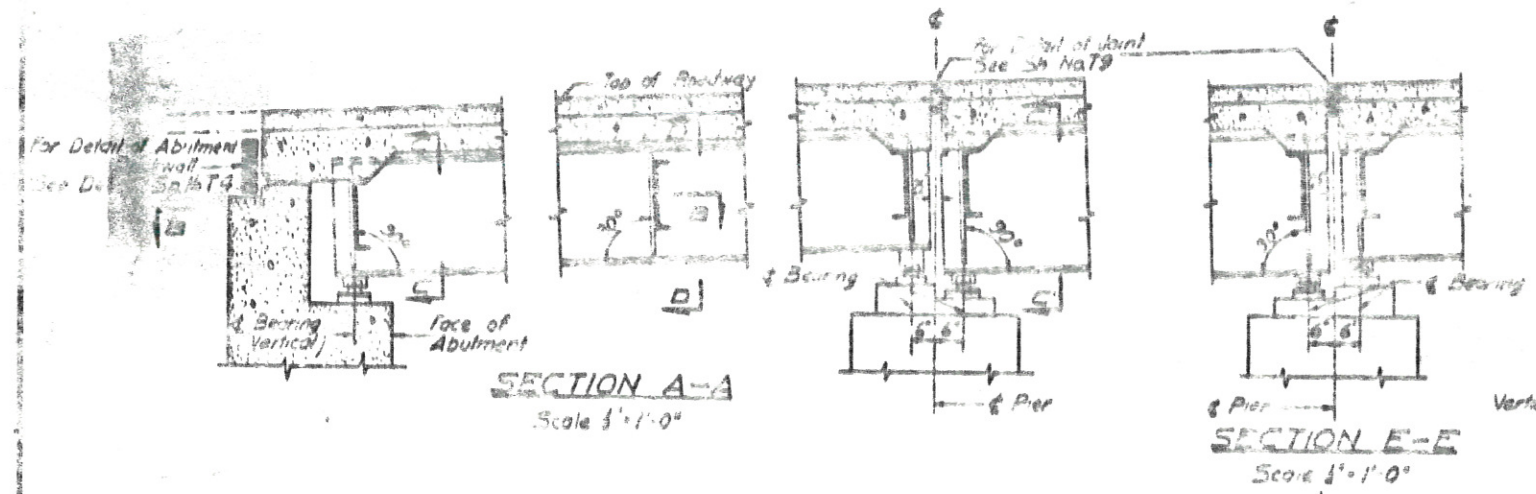
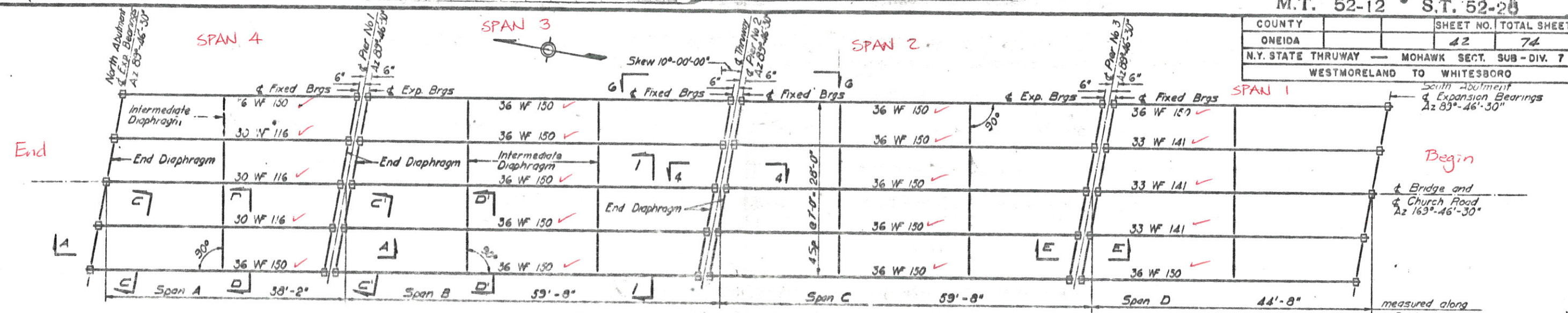
BY	DATE
C. H. Judd	7-19-52
C. H. Judd	7-19-52
J. B. Judd	7-19-52
J. B. Judd	7-19-52

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS

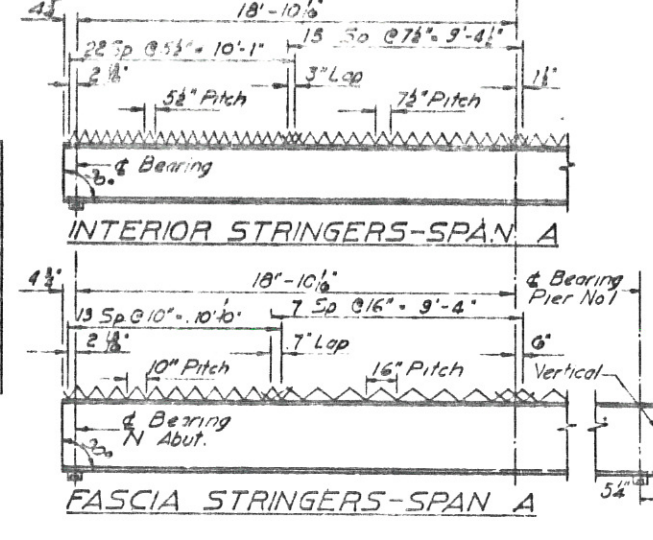
BY *W. H. Judd*  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14889



COUNTY	SHEET NO.	TOTAL SHEETS
ONEIDA	42	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7		
WESTMORELAND TO WHITESBORO		



CAMBER				
Span	Stringer	Dead Ld	Vert Cur	Total
A	Fascia	1/8"	1/8"	1/4"
	Interior	1/8"	1/8"	1/4"
B	Fascia	1/8"	1/8"	1/4"
	Interior	1/8"	1/8"	1/4"
C	Fascia	1/8"	1/8"	1/4"
	Interior	1/8"	1/8"	1/4"
D	Fascia	1/8"	1/8"	1/4"
	Interior	1/8"	1/8"	1/4"



BY	DATE
DESIGNED	7-19-52
TRACED	7-19-52
CHECKED	7-19-52

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS

SECTION C-C SIMILAR & AS NOTED  
TYPICAL END DIAPHRAGM

SECTION D-D SIMILAR & AS NOTED  
TYPICAL INTERMEDIATE DIAPHRAGM

Scale 1" = 1'-0"

JUDD  
CHURCH ROAD BRIDGE OVER  
N.Y. STATE THRUWAY

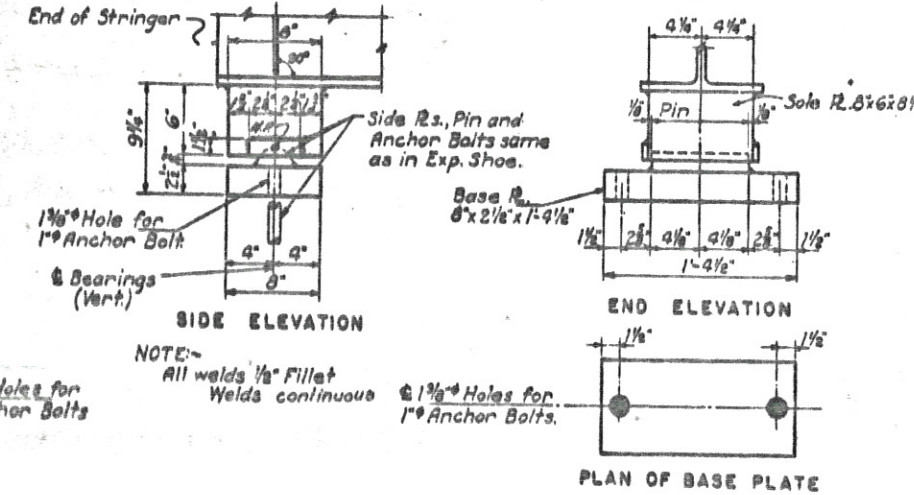
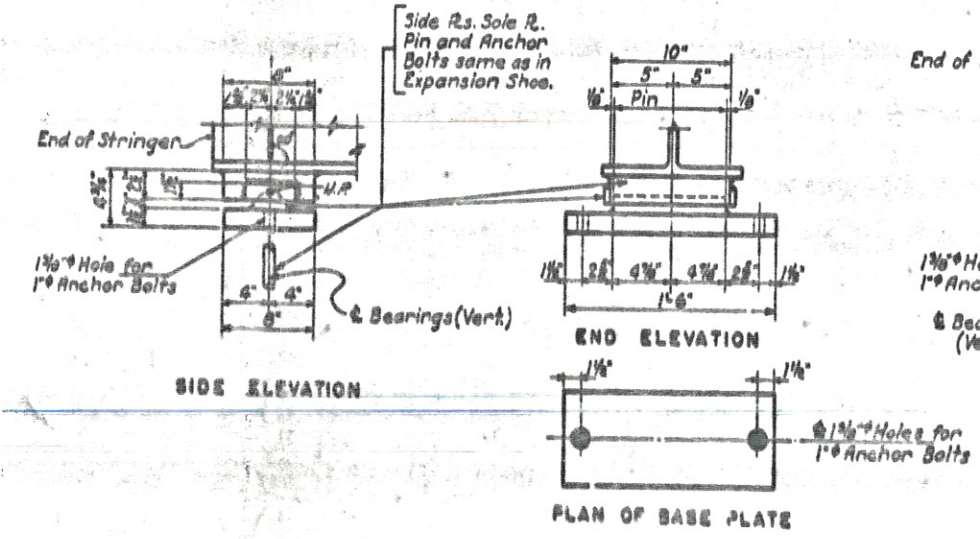
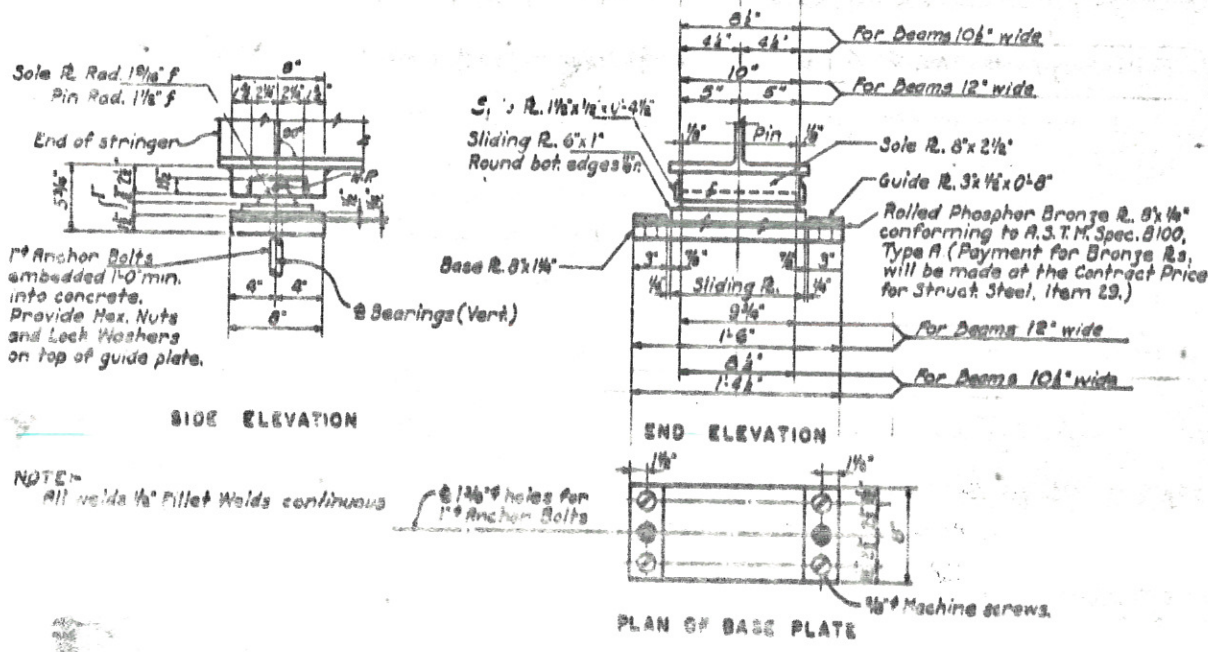
Notes: Work this Sheet with Sheet No. 77.  
All Material Structural Carbon Steel,  
Item 29, except as noted.  
All Stringers to be cambered for dead  
Load plus the Effect of Vertical Curvature  
of Roadway Profile.  
The Contractor may at his Option, use  
7/8" Field Rivets instead of the Rivet  
Bolts shown.



24:1

M.T. 52-12 S.T. 52-26

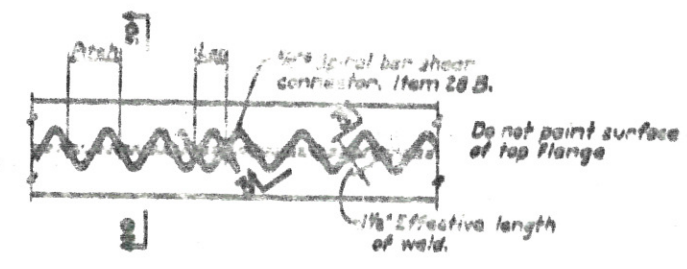
COUNTY	SHEET NO.	TOTAL SHEETS
ONEIDA	43	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7		
WESTMORELAND TO WHITESBORO		



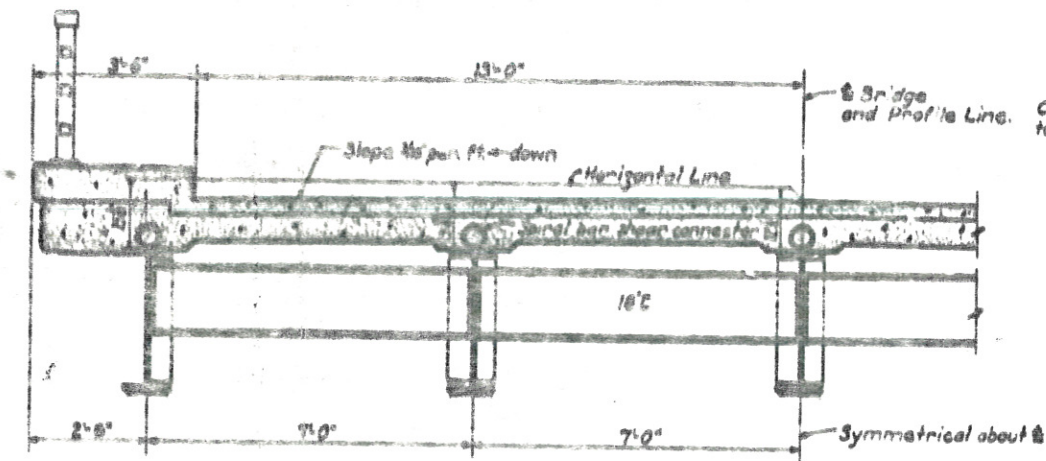
DETAIL OF FIXED SHOES FOR 30 IN. AND 33 IN. STRINGERS

DETAIL OF FIXED SHOES FOR 30 IN. STRINGERS

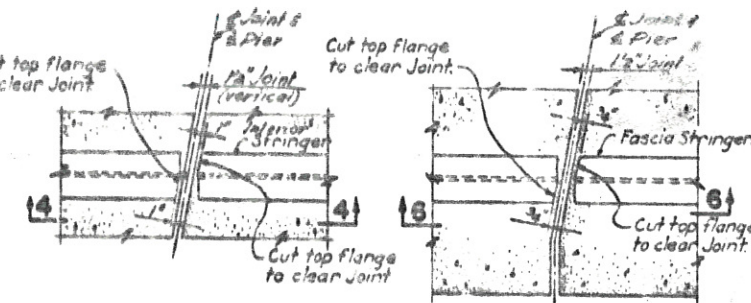
DETAIL OF EXPANSION SHOES



TYPICAL SPIRAL BAR SHEAR CONNECTOR DETAIL



TYPICAL CROSS SECTION OF BRIDGE

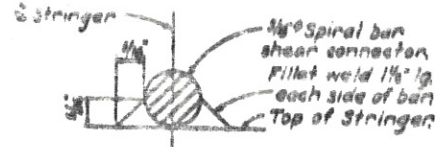


PLAN 5-5

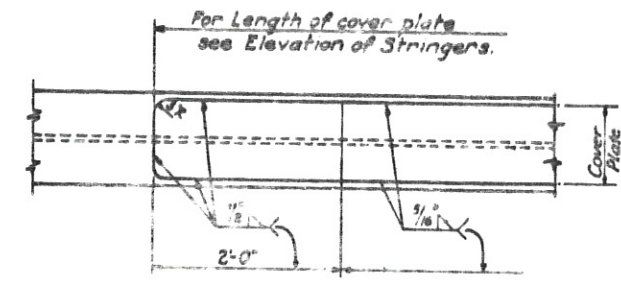
PLAN 7-7



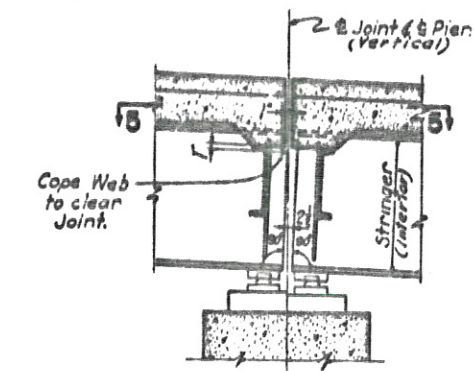
SECTION 2-2



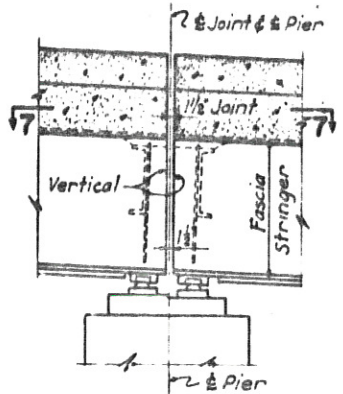
SECTION 3-3



TYPICAL COVER PLATE DETAIL



SECTION 4-4



ELEVATION 6-6

TYPICAL DETAILS OF ENDS OF STRINGERS AT PIERS

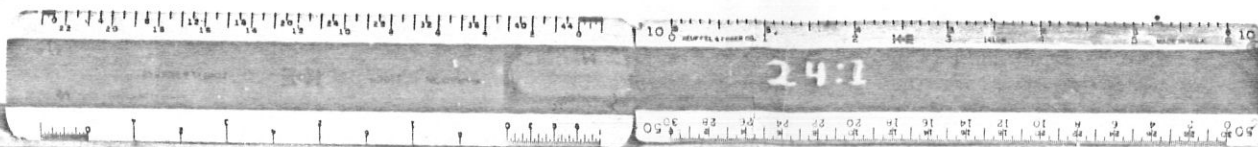
BY	DATE			
TRACED	7-13-52			
CHECKED	7-13-52			
IN CHARGE OF	7-13-52			

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS  
BY *John B. Ammann*  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14166

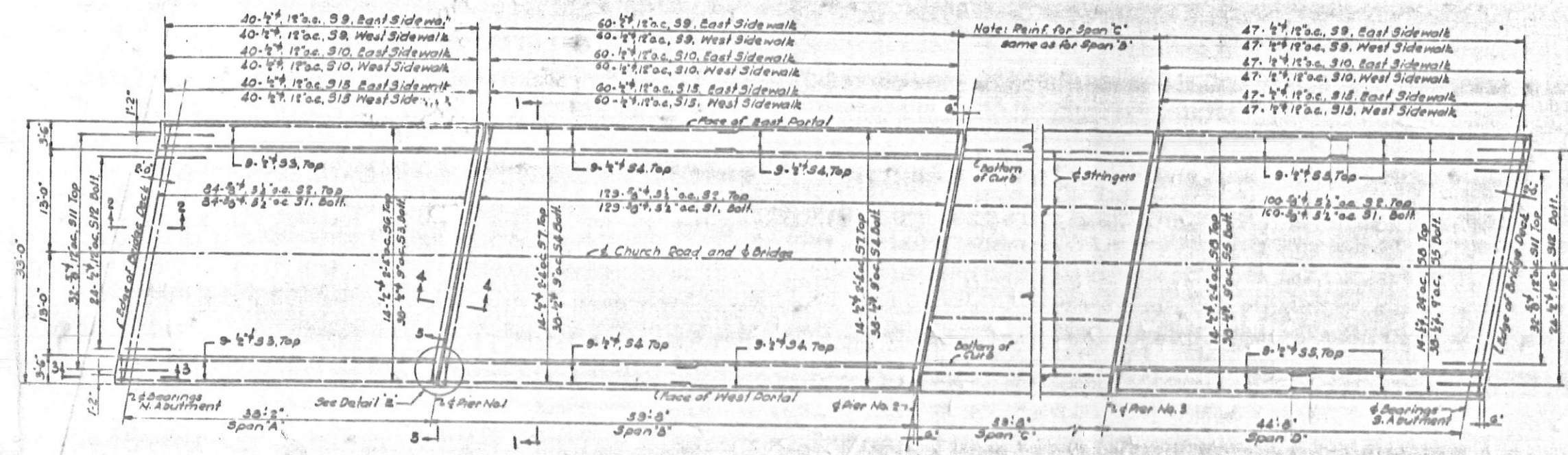
JUDD  
CHURCH ROAD BRIDGE OVER  
N. Y. STATE THRUWAY  
TYPICAL STEEL DETAILS

Note: Work this Sheet with Sheet No. 46.

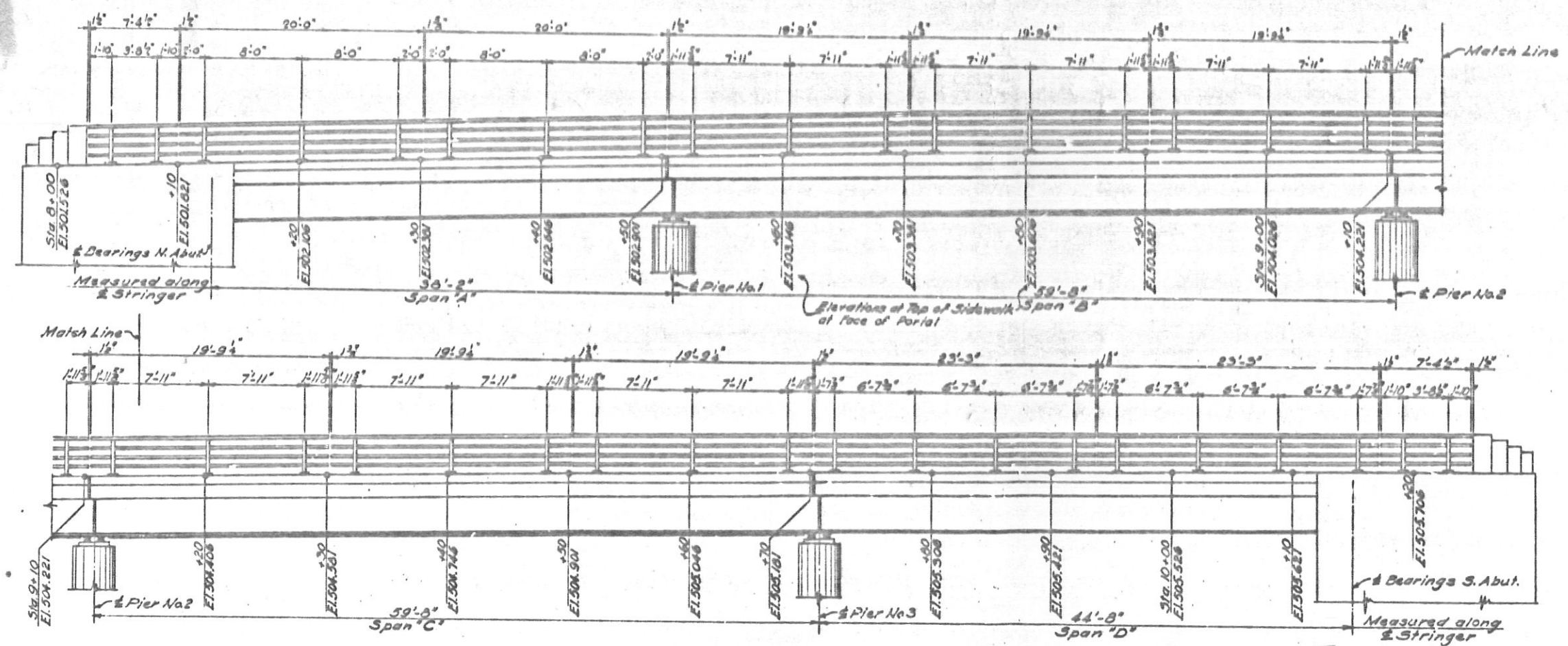




M.T. 52-12		S.T. 52-26	
COUNTY	ONEIDA	SHEET NO.	44
		TOTAL SHEETS	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7			
WESTMORELAND TO WHITESBORO			



PLAN OF DECK SLAB  
Scale: 1/8" = 1'-0"



Notes: Work this Sheet with Sheet No. T9.  
For typical Plan View of Railing Posts on Bridge Deck see Detail "E", Sheet No. T9.  
For typical Plan View of Railing Posts on Abutment Wings see Sheet No. T3.

BY	DATE			
MADE	7-19-52			
TRACED	7-19-52			
CHECKED	7-19-52			
IN CHARGE	L. H. Gault	No.	REVISION	BY DATE

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS  
BY *W. H. Bruner*  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14189

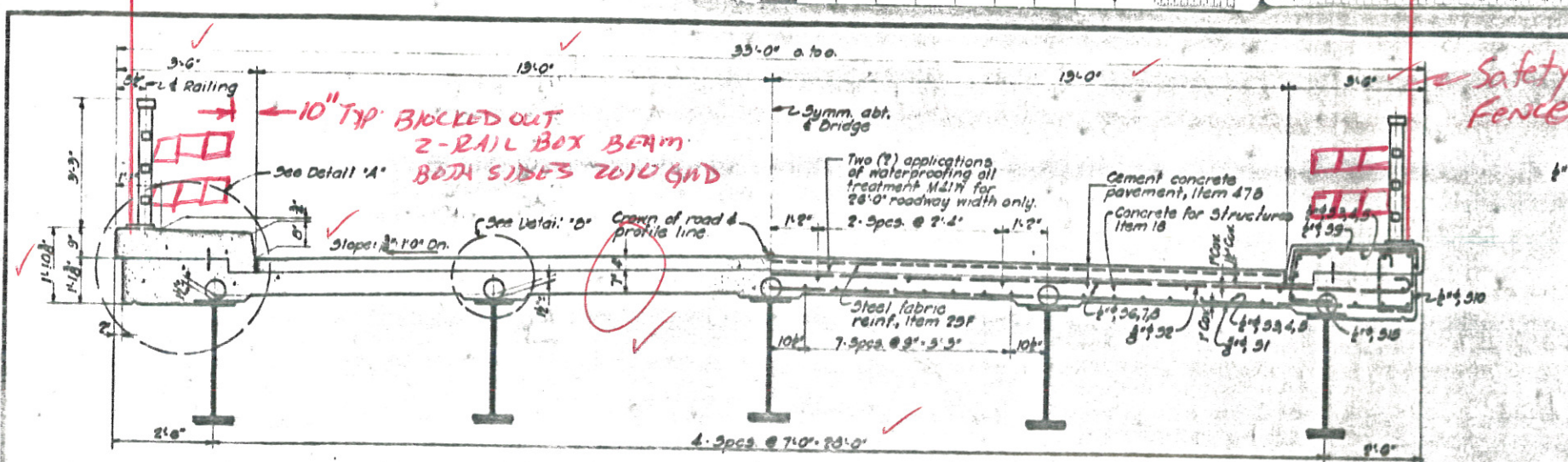
ELEVATION OF WEST RAILING LOOKING EAST  
ELEVATION OF EAST RAILING LOOKING WEST SIMILAR & OPP. HAND  
7-19-52  
Scale: 3/16" = 1'-0"

Note: All Railing Dimensions are measured in a horizontal plane along & Railing.

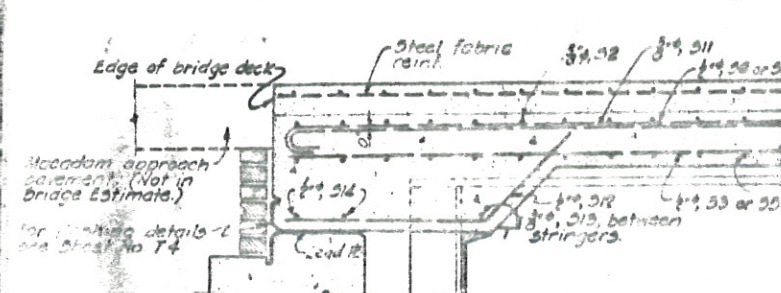
JUDD  
CHURCH ROAD BRIDGE OVER  
N. Y. STATE THRUWAY  
DECK DETAILS



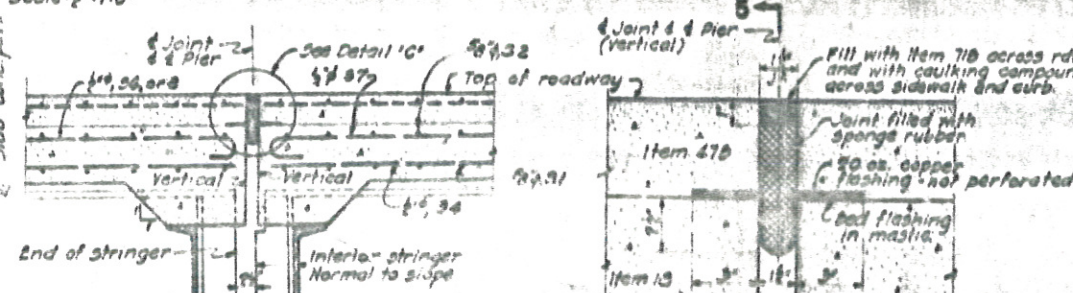
COUNTY	SHEET NO.	TOTAL SHEETS
ONEIDA	45	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7		
WESTMORELAND TO WHITESBORO		



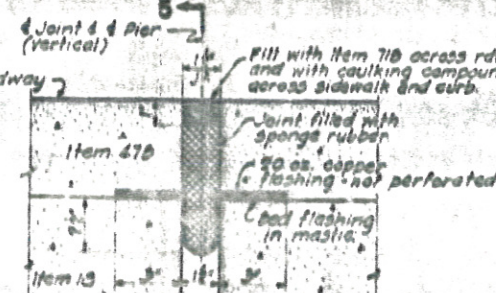
SECTION 1-1  
TYPICAL CROSS SECTION  
Scale: 1\"/>



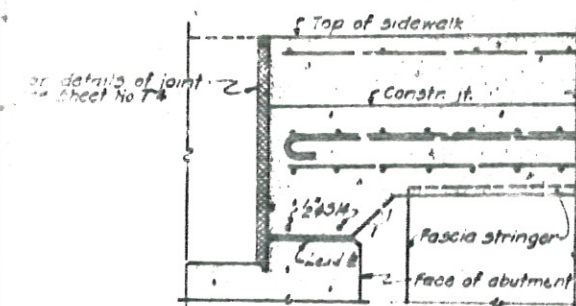
SECTION 2-2



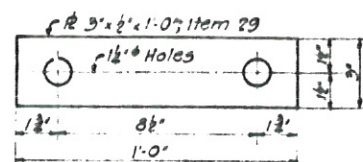
SECTION 4-4  
DETAILS OF SLAB AT PIER  
Scale: 1\"/>



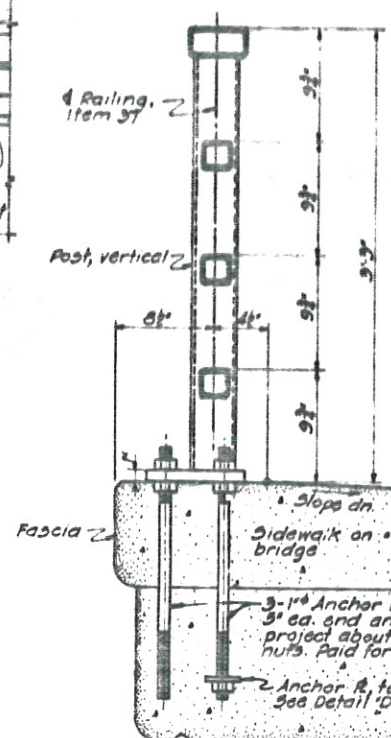
DETAIL C  
Scale: 1\"/>



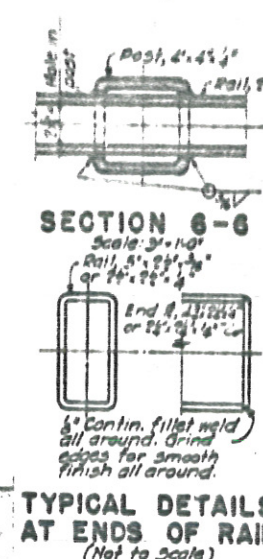
SECTION 3-3  
DETAILS OF SLAB  
AT ABUTMENT  
Scale: 1\"/>



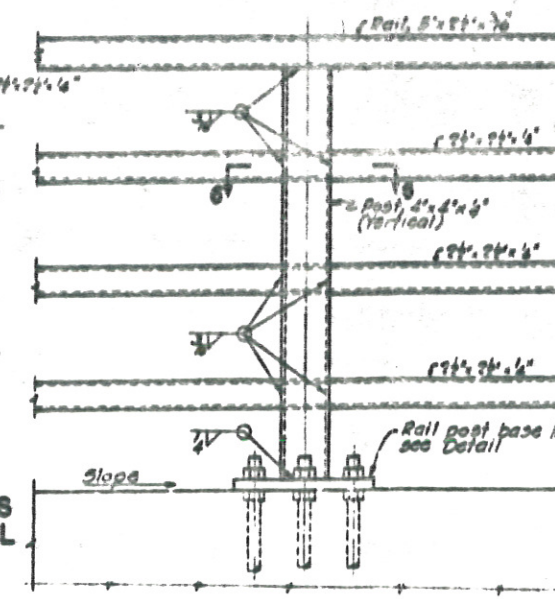
DETAIL D  
TYPICAL ANCHOR PLATE  
Scale: 3\"/>



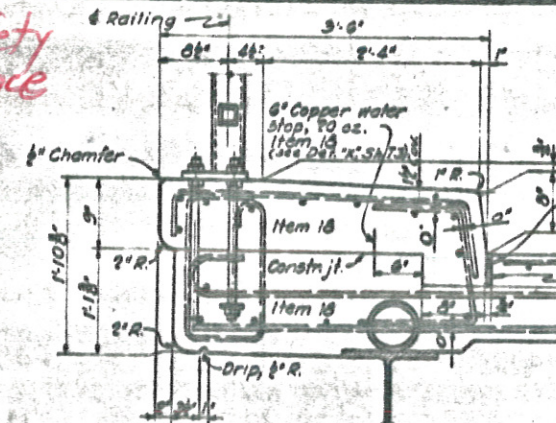
TYPICAL SECTION THRU RAILING  
Details shown for railing on bridge deck.  
Railing on abutment similar.  
Scale: 1\"/>



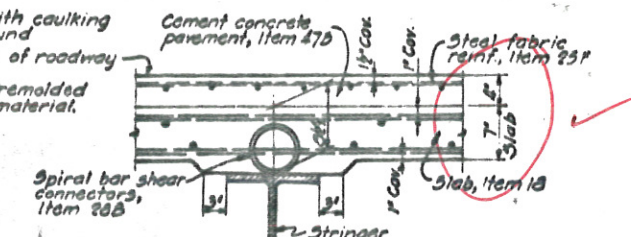
SECTION 6-6  
TYPICAL DETAILS  
AT ENDS OF RAIL  
(Not to Scale)



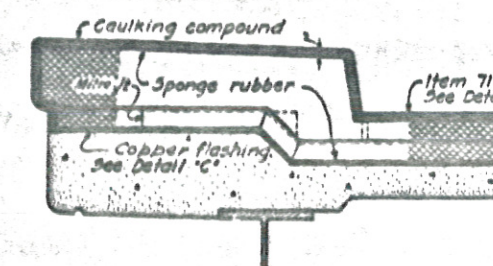
TYPICAL DETAIL OF RAILING  
Scale: 1\"/>



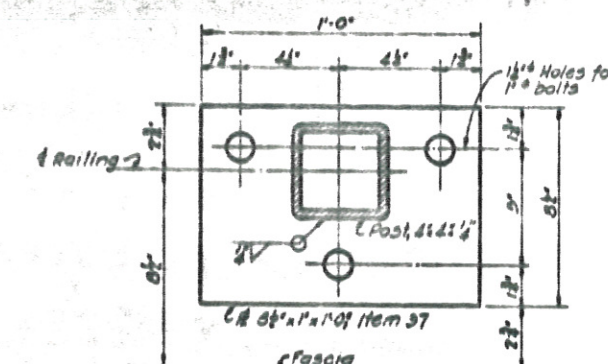
DETAIL A  
Scale: 1\"/>



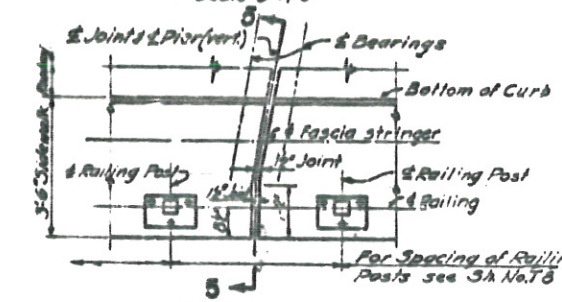
DETAIL B  
TYPICAL DETAIL OF SLAB  
Scale: 1\"/>



SECTION 5-5  
Scale: 1\"/>



TYPICAL BASE & FOR RAILING POST  
Scale: 3\"/>



DETAIL E  
TYPICAL PLAN OF DECK AT PIER  
Scale: 1\"/>

#### NOTES FOR SLAB

Bottom transverse slab steel shall be placed in, or threaded thru the spiral bar shear connectors at such intervals as to achieve as uniform a spacing as possible. This spacing shall have an average value of that specified on Drawings. For notes on caulking compound, sponge rubber, flashing and precast joint material, see General Notes, Sheet No. T2.  
All reinforcing bars to be topped forty five (45) diameters unless otherwise noted.

#### CONSTRUCTION PROCEDURE

1. Set railing anchor bolts, and pour concrete slab.
2. Apply two (2) coats of waterproofing oil to top of slab.
3. Pour cement concrete pavement.
4. Place lower nuts on upper end of anchor bolts.
5. Place railing base plates on lower nuts to bring bottom of plates to sidewalk level and railing posts to true vertical.
6. Place upper nuts on anchor bolts and tighten down plates.
7. Pour sidewalk to proper line and grade.

#### NOTES FOR RAILING

Dimensions for tubing are outside dimensions. Shop or field welding may be used in fabrication of railing. Since the finished railings must meet the requirements of fit, alignment, grade and verticality of posts to the full satisfaction of the Engineer, it is suggested that complete field measurements be made before any shop fabrication work is performed. All railings are to be fabricated and erected so that rails are parallel to each other and to the top of fascia and the posts are true vertical. Tubular rails and base plates and, also, posts are to be paid for under Item 37. Anchor bolts, nuts and anchor plates to be paid for under Item 29.

#### GENERAL NOTES:

Work this Sheet with Sheet No. T3.

BY	DATE			
MADE	7-18-52			
TRACED	7-19-52			
CHECKED	7-19-52			
IN CHARGE OF	L.H. Just	NO.	REVISION	BY



COUNTY	SHEET NO.	TOTAL SHEETS
ONEIDA	46	74
N.Y. STATE THRUWAY — MOHAWK SECT. SUB-DIV. 7		
WESTMORELAND TO WHITESBORO		

## SUPERSTRUCTURE — BAR LIST

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION
51	5/8	442	32'-10"	3/4					Transv Bars, both of Slab - All Spans
52	5/8	442	33'-11"	1	0'-10"	32'-3"	0'-5"	0'-10"	Transv Bars, top of Slab - All Spans
53	5/8	56	39'-10"	3/4					Longit. Bars, both of Slab & top of Slab - Span D
54	5/8	224	30'-8"	3/4					Longit. Bars, both of Slab & top of Slab - Span D
55	5/8	112	24'-2"	3/4					Longit. Bars, both of Slab & top of Slab - Span D
56	5/8	14	40'-10"	1	0'-8"	39'-6"	0'-4"	0'-8"	Longit. Bars, top of Slab - Span A
57	5/8	56	31'-9"	1	0'-8"	30'-5"	0'-4"		Longit. Bars, top of Slab - Spans B & C
58	5/8	28	24'-8"	1	0'-8"	24'-0"	0'-4"		Longit. Bars, top of Slab - Span D
59	5/8	414	4'-3"	II	0'-6"	3'-2"	0'-9"	0'-1"	Transv Bars, top of Slab - All Spans
60	5/8	414	5'-2"	II					Hoops at Ends of Sidewalk - All Spans
61	5/8	64	6'-0"	I	0'-10"	5'-2"	0'-5"		Longit. Bars, top of Slab - Spans A & D
62	5/8	48	3'-5"	II	2'-1"	1'-2"	0'-10"		Longit. Bars - Haunch - At Abutments
63	5/8	8	6'-10"	3/4					Transv Bars - both of Haunch - At Abutments
64	5/8	4	32'-10"	3/4					Transv Bars - both of Haunch - At Abutments
65	5/8	414	3'-5"	III	1'-3"	1'-4"	0'-10"	0'-12"	Dowels - Sidewalk - All Spans

NORTH & SOUTH ABUTMENTS — BAR LIST  
TOTAL FOR TWO ABUTMENTS

AP1	5/8	108	15'-5"	I	1'-0"	12'-5"	0'-6"		Vert. Piles, N. & S. Abutments
AP2	5/8	54	17'-5"	I	1'-0"	16'-5"	0'-6"		Bottomed Piles - N. Abutment
AP3	5/8	54	16'-5"	I	1'-0"	15'-5"	0'-6"		Bottomed Piles - S. Abutment
AP4	5/8	459	2'-10"	II	0'-9"	0'-5"			Ties for Piles - N. & S. Abutments
A1	5/8	108	5'-2"	3/4					Hor. Tie Bars, Footing - Both Abutments
A2	5/8	16	36'-9"	3/4					Hor. Bars - Footing - Both Abutments
A3	5/8	40	16'-11"	3/4					Hor. Bars - Footing - Both Abutments
A4	5/8	8	0'-9"	3/4					Hor. Bars - Footing - Both Abutments
A5	5/8	64	8'-7"	3/4					Hor. Bars - Footing - Both Abutments
A6	5/8	40	7'-11"	3/4					Hor. Bars - Footing - Both Abutments
A7	5/8	36	6'-5"	3/4					Hor. Bars - Footing - Both Abutments
A8	5/8	28	5'-10"	3/4					Hor. Bars - Footing - Both Abutments
A9	5/8	20	10'-11"	3/4					Hor. Bars - Footing - Both Abutments
A10	5/8	20	11'-1"	3/4					Hor. Bars - Footing - Both Abutments
A11	5/8	20	10'-11"	3/4					Hor. Bars - Footing - Both Abutments
A12	5/8	20	11'-0"	3/4					Hor. Bars - Footing - Both Abutments
A13	5/8	8	31'-6"	3/4					Hor. Bars - Footing - Both Abutments
A14	5/8	10	33'-6"	3/4					Hor. Bars - Footing - Both Abutments
A15	5/8	8	6'-2"	I					Hor. Bars - Footing - Both Abutments
A16	5/8	28	5'-3"	I	0'-8"	4'-7"	0'-4"		Hor. Bars - Footing - Both Abutments
A17	5/8	16	4'-1"	3/4					Hor. Bars - Footing - Both Abutments
A18	5/8	8	10'-5"	II	2'-0"	4'-8"	3'-9"	0	Hor. Bars - Footing - Both Abutments
A19	5/8	16	5'-11"	3/4					Hor. Bars - Footing - Both Abutments
A20	5/8	8	13'-0"	II	2'-9"	4'-8"	3'-7"	0	Hor. Bars - Footing - Both Abutments
A21	5/8	20	10'-5"	II	3'-4"	1'-10"			Hor. Bars - Footing - Both Abutments
A22	5/8	8	9'-10"	3/4					Hor. Bars - Footing - Both Abutments
A23	5/8	12	9'-10"	3/4					Hor. Bars - Footing - Both Abutments
A24	5/8	8	9'-10"	3/4					Hor. Bars - Footing - Both Abutments
A25	5/8	50	6'-8"	II	1'-5"	4'-7"	0'-8"	0'-4"	Transv. in Sidewalk
A26	5/8	8	11'-4"	3/4					Hor. Bars - Footing - Both Abutments
A27	5/8	12	11'-4"	3/4					Hor. Bars - Footing - Both Abutments
A28	5/8	8	11'-4"	3/4					Hor. Bars - Footing - Both Abutments
A29	5/8	8	1'-9"	3/4					Hor. Bars - Footing - Both Abutments
A30	5/8	4	36'-9"	II	33'-5"	3'-6"	0'-7"		Hor. Bars - Footing - Both Abutments
T1	5/8	40	8'-8"	3/4					Vert. Dowels in Pylons
T2	5/8	40	4'-9"	3/4					Hor. Dowels in Pylons

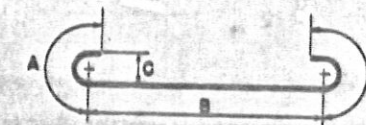
## PIER NO. 1 — BAR LIST

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION
P1	1 1/2	10	36'-5"	3/4					Longit. Bars in Footing - Bottom
P2	1 1/2	10	36'-5"	3/4					Longit. Bars in Footing - Top
P3	5/8	40	5'-8"	3/4					Transv. Bars in Footing - Top & Bottom
P4	1 1/2	26	8'-4"	I	1'-9"	6'-7"	0'-11"		Dowels in Footing
P5	1 1/2	13	7'-7"	I	1'-6"	6'-1"	0'-10"		Dowels in Footing
P6	5/8	3	780'-0"	III	19'-10"	3'-0"			Vertical Bars in Columns
P7	5/8	26	23'-8"	3/4					Vertical Bars in Columns
P8	1 1/2	13	23'-8"	3/4					Spirals in Columns
P9	5/8	3	780'-0"	III	19'-10"	3'-0"			Top Strut - Bottom
P10	1 1/2	4	33'-0"	3/4					Top Strut - Bottom
P11	1 1/2	6	10'-6"	3/4					Top Strut - Top
P12	1 1/2	2	36'-4"	III	2'-0"	3'-8"	26'-0"	2'-0"	Top Strut - Top
P13	1 1/2	2	39'-4"	III	2'-0"	3'-8"	29'-0"	2'-0"	Top Strut - Top
P14	1 1/2	3	11'-0"	3/4					Top Strut - Top
P15	5/8	24	11'-3"	II	2'-2"	3'-2"			Top Strut - Slirups
P16	5/8	4	29'-11"	3/4					Top Strut - Slirups
P17	5/8	10	9'-10"	III	2'-6"	4'-10"	3'-0"		Top Strut - Slirups
P18	5/8	40	2'-6"	II	0'-6"	2'-0"			Top Strut - Under Pads
P19	5/8	5	9'-5"	II	2'-2"	2'-2"			Top Strut - Under Pads

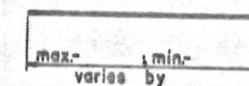
## PIERS NO. 2 &amp; 3 — BAR LIST — TOTAL FOR TWO PIERS

P101	1 1/2	20	36'-5"	3/4					Longit. Bars in Footing - Bottom
P102	1 1/2	20	36'-5"	3/4					Longit. Bars in Footing - Top
P103	5/8	80	5'-8"	3/4					Transv. Bars in Footing - Top & Bottom
P104	1 1/2	26	8'-4"	I	1'-9"	6'-7"	0'-11"		Dowels in Footing
P105	1 1/2	13	7'-7"	I	1'-6"	6'-1"	0'-10"		Dowels in Footing
P106	5/8	3	780'-0"	III	19'-10"	3'-0"			Vertical Bars in Columns
P107	5/8	26	23'-8"	3/4					Vertical Bars in Columns
P108	1 1/2	13	23'-8"	3/4					Spirals in Columns
P109	5/8	3	780'-0"	III	19'-10"	3'-0"			Top Strut - Bottom
P110	1 1/2	4	33'-0"	3/4					Top Strut - Bottom
P111	1 1/2	6	10'-6"	3/4					Top Strut - Top
P112	1 1/2	2	36'-4"	III	2'-0"	3'-8"	26'-0"	2'-0"	Top Strut - Top
P113	1 1/2	2	39'-4"	III	2'-0"	3'-8"	29'-0"	2'-0"	Top Strut - Top
P114	1 1/2	3	11'-0"	3/4					Top Strut - Top
P115	5/8	24	11'-3"	II	2'-2"	3'-2"			Top Strut - Slirups
P116	5/8	4	29'-11"	3/4					Top Strut - Slirups
P117	5/8	10	9'-10"	III	2'-6"	4'-10"	3'-0"		Top Strut - Slirups
P118	5/8	40	2'-6"	II	0'-6"	2'-0"			Top Strut - Under Pads
P119	5/8	5	9'-5"	II	2'-2"	2'-2"			Top Strut - Under Pads

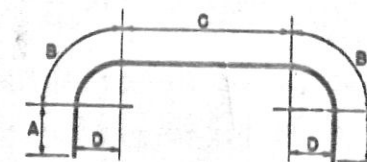
## BAR DETAILS



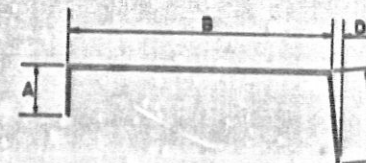
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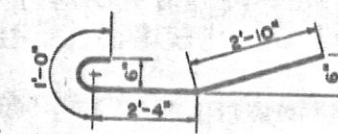
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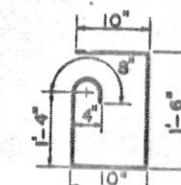
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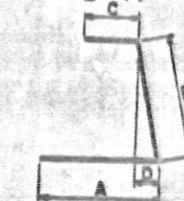
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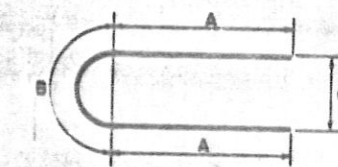
TYPE V



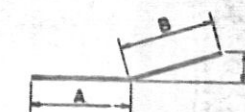
TYPE VI



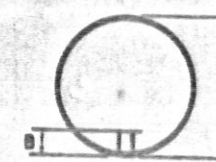
TYPE VII



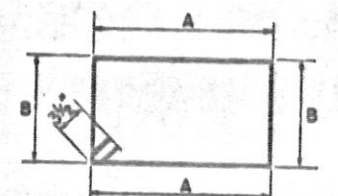
TYPE VIII



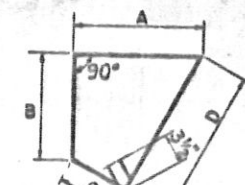
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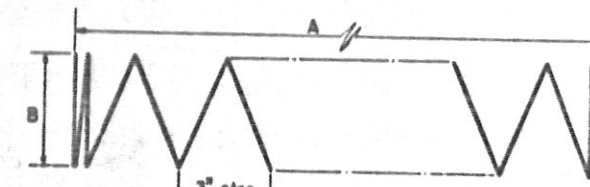
TYPE X



TYPE XI



TYPE XII



TYPE XIII

Note: If Spirals are made up of 2 or more bars, ends are to be butt welded together.

General note: All dimensions are measured along outside face or out to out of bars.

BY	DATE			
MADE	J. Judd	7-19-52		
TRACED	J. Judd	7-19-52		
CHECKED	J. Judd	7-19-52		
IN CHARGE OF	L. H. Just			
NO.	REVISION	BY	DATE	

PREPARED AND RECOMMENDED  
AMMANN & WHITNEY, CONSULTING ENGINEERS  
BY *Mill Brown*  
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 14189

7-19-52  
DATE

JUDD  
CHURCH ROAD BRIDGE OVER  
N. Y. STATE THRUWAY



## **Appendix E Stakeholder/Public Input**



ANTHONY J. PICENTE JR.  
County Executive

DENNIS S. DAVIS  
Commissioner



DIVISIONS:  
Buildings & Grounds  
Engineering  
Highways, Bridges & Structures  
Reforestation

## *Oneida County Department of Public Works*

5999 Judd Road Oriskany, New York 13424  
Phone: (315) 793-6213 Fax: (315) 768-6299

April 6, 2017

David T. Vosburgh, PE  
Director, Structures Bureau  
New York State Thruway Authority  
200 Southern Boulevard, P.O. Box 189  
Albany, NY 12201-0189

Re: MP240.48 – Judd Road (CR840) over Thruway (I-90)  
Draft Design Approval Document  
Proposed Detour Route

Dear Mr. Vosburgh:

I have reviewed the proposed detour route that will be used to facilitate replacement of the Judd Road Bridge over I-90 in the Town of Whitestown and I suggest that Cider Street not be utilized but that traffic be continued North on St. Rte. 233 to Sutliff Road, CR 840 and then Easterly on Sutliff Road, CR 840.

During development of the detour signage plan, please afford Oneida County the opportunity to review and provide comments.

Thank you for the opportunity to comment and we are looking forward to commencement and completion of this project.

Sincerely,

Dennis S. Davis  
Commissioner of Public Works

cc: Mark E. Laramie, P.E.





May 26, 2017

Via Email

Mr. Kevin W. Revere, Director  
Oneida County Emergency Services  
120 Base Road  
Oriskany, New York 13424

Re: PIN S52886; B690.1; MP 240.48; BIN 5512980  
Replacement of Judd Road (CR 840) Bridge over I-90  
Town of Whitestown, Oneida County

Dear Mr. Revere,

As discussed in our recent telephone conversation, our firm is performing the preliminary engineering for the above referenced bridge project for the New York State Thruway Authority. It is anticipated that the bridge will be completely closed to traffic during construction and a signed detour utilizing Halsey Rd., East Main St., NYS Rte. 233 and Sutliff Rd. (CR 840) will be used to maintain traffic. The bridge is anticipated to be closed for a period of 4-6 months in 2018.

We are requesting that you provide us with a written statement regarding the impact the bridge closure would have on emergency services providers. If there are any significant negative impacts, please provide sufficient detail to assist us in evaluating the impacts and developing mitigation measures for them.

If possible, please respond by June 2, 2017.

Should you have any questions, please feel free to call me.

Sincerely,



Mark R. Laistner, PE  
Director, Bridge Design



May 26, 2017

Via Email

Mr. Cory McClain  
Deputy Commissioner, Logistics  
NYS Division of Homeland Security and Emergency Services  
1220 Washington Avenue, Building 7A  
Albany, New York 12242

Re: PIN S52886; B690.1; MP 240.48; BIN 5512980  
Replacement of Judd Road (CR 840) Bridge over I-90  
Town of Whitestown, Oneida County

Dear Mr. McClain,

As discussed in our recent telephone conversation, our firm is performing the preliminary engineering for the above referenced bridge project for the New York State Thruway Authority. It is anticipated that the bridge will be completely closed to traffic during construction and a signed detour utilizing Halsey Rd., East Main St., NYS Rte. 233 and Sutliff Rd. (CR 840) will be used to maintain traffic. The bridge is anticipated to be closed for a period of 4-6 months in 2018.

We are requesting that you provide us with a written statement regarding the impact the bridge closure would have on your operations. If there are any significant negative impacts, please provide sufficient detail to assist us in evaluating the impacts and developing mitigation measures for them.

If possible, please respond by June 2, 2017.

Should you have any questions, please feel free to call me.

Sincerely,



Mark R. Laistner, PE  
Director, Bridge Design







NEW YORK  
STATE OF  
OPPORTUNITY.

Thruway  
Authority

## Sign In Sheet

### Syracuse Division Bundled Bridge Project

### Detour Feasibility Meeting

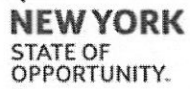
Location

Oneida County Department of Public Works

9:30 AM

June 8<sup>th</sup>, 2017

DAVID VOSBURGH	DIRECTOR, STRUCTURES DESIGN	
NYSTA, 200 SOUTHERN BOULEVARD, ALBANY NY 12099		(518) 436-2709
DAVID.VOSBURGH@THRUWAY.NY.GOV		
Angelo D. Viccario	NYS DOT	
207 GENESEE ST UTICA NY		(315) 732-8049
Angelo.D.Viccario@DOT.NY.GOV		
Fred Lampman	Oneida Co. Emergency Services	(315) 765-2522
120 Base Rd. Oriskany, NY 13424		
flampman@ocgov.net		
SAL GRANATO	T/O Whitestown Highway	315-736-4531
5605 Westmoreland Rd Whitesboro NY 13492		
highway@whitestown.net		
Robert Coluccio	ONEIDA County DPW	315-793-6224
5999 Judd Rd Oriskany NY 13424		
rcoluccio@ocgov.net		
Steven Dziura	Em's Chief	315 853 2118
7489 E South St. Clinton NY 13323		
SDZIURA@COCLVAC.org		
DENNIS S. DAVIS	ONEIDA Co DPW	315-793-6213
5999 Judd Rd Oriskany NY 13324		
ddavis@ocgov.net		



# Thruway Authority

Kerim Kerve	OC 911	765-2526
GREG FLEGER	O.C. SHERIFF	765-2272
Mike Fontana	OC Eng Svc Center	
Dan Apple	OC Emergency Services	(315) 765-2530



**Homeland Security  
and Emergency Services**

**ANDREW M. CUOMO**  
Governor

**ROGER L. PARRINO, SR.**  
Acting Commissioner

June 15, 2017

Mr. Mark R. Kaistner, PE  
Director, Bridge Design  
Popli Design Group  
555 Penbrooke Drive  
Penfield, New York 14526

Dear Director Kaistner:

Thank you for your correspondence, dated May 26, 2017, in regards to the replacement of the Judd Road (CR 840) Bridge of 1-90 in Whitestown, Oneida County. The closure of this bridge in 2018, and the accompanying detour, will have little to no impact of the operations of the State Preparedness Training Center (SPTC) in Oriskany.

If you have any follow-up questions, please do not hesitate to contact me. I can be reached at 518-402-2362 or [cory.mcclain@dhses.ny.gov](mailto:cory.mcclain@dhses.ny.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Cory E. McClain".

Cory E. McClain  
Deputy Commissioner



Public Information Meeting  
 Bridge Replacement Project in the Town Of Whitestown  
 July 12, 2017 - 5:00 p.m. to 8:00 p.m.  
 Whitestown Community Center

Sign-In

NAME	ADDRESS OR TITLE (PUBLIC OFFICIAL)	PHONE #	E-mail address
Jason L Bennett	Resident	315 794 1006	jason.bennett@oriskany-fd.com
Dan Appalar	OC Emergency Services	(315) 527-9521	dappalar@ocgov.net
JOHN CARUSO	DOMENICO'S GOLF COURSE 13 CHURCH RD. WHITESBORO, N.Y.	(315) 225-9846 (315) 736-9812	CARUSO9846@gmail.com
Bob Koenig	OC Board of Legislators 7982 Pector Rd Oriskany	(315) 736-0479	BobKoenig3@aol.com
GEORGE + SANDY M'GLYNN	5575 Judd Rd Whitestown	(315) 768-4243	GEWM.SL.FIRE.TWO.COM
WALTER HAMAROWICZ	5595 Judd Rd	315 736-5694	HAP AND PAM @ AOL.COM
Kenneth J Dobler	5400 Westmoreland Rd Whitesboro, NY	315 3683685	thods@adelphia.net
Charles Deming	12 Old Valley Road Whitesboro, NY	315 269-7724	ChucKdeming@gmail.com





## Benjamin Beardsley

---

**Subject:** FW: Bridge replacement in Town of Whitestown

-----Original Message-----

From: Domenico's [mailto:[domenicos@roadrunner.com](mailto:domenicos@roadrunner.com)]  
Sent: Sunday, July 30, 2017 11:13 AM  
To: Vosburgh, David T <[David.Vosburgh@thruway.ny.gov](mailto:David.Vosburgh@thruway.ny.gov)>  
Subject: Bridge replacement in Town of Whitestown

ATTENTION: Email messages can contain fraudulent links or attachments leading to malicious software. Do not open attachments or click on links from unknown senders or in unsolicited emails.

Dear David Vosburgh,

My name is John Caruso Co-owner of Domenico's Golf Course in Whitestown, NY. We realize that the bridge over the thruway has to be replaced, but some assistance in helping us get our customers to the golf course would be appreciated.

The proposed detour route that you had at the meeting on July 12 is 8.3 miles, just about a complete circle back to the golf course.

I do not think a few signs with Domenico's Golf Course name on them were your detour signs would be located directing golfers to the golf course is to much to ask for,if doing half the bridge with a traffic lights is not a option. Domenico's Golf Course is the only business from the Cider Rd/Route 840 Judd Rd intersection back to the Thruway bridge in the area.

Thank You,  
John Caruso  
Domenico's Golf Course  
13 Church Rd  
Whitesboro, NY 13492  
315-736-9812



## **Appendix F Estimate**





**Replacement Estimate**

**Bridge and Highway**



U.S. CUSTOMARY UNITS **PRELIMINARY COST ESTIMATE WORKSHEET (NEW AND REPLACEMENT BRIDGES)**

P.I.N.	B.I.N.	5512980	PS&E	1/0/00	Anticipated Year of Construction	2020
BRIDGE NYSTA MP 240.48 OVER Judd Road (CR 840)						
NUMBER OF SPANS:	2	SPAN ARRANGEMENT	110	110	WIDTH	43 ft
ABUTMENT TYPE:	integral	SKEW	10.00 DEG	CURVED GIRDERS	no	RADIUS 0.00 ft
SUPERSTRUCTURE: steel straight						
Alternate Design: Timber <input type="checkbox"/> Inverset <input type="checkbox"/> Slab <input type="checkbox"/>						
WZTC By: off site detour						
PREPARED BY: K. Shah DATE: 04/27/17						

**Shoulder Break Area Calculation Data** \* See Shoulder Break Area Diagram for dimensions.

	10 Average Skew (Degrees)	22 * Over Roadway Height (ft) (From Roadway to to bottom of culvert)	126 * Bottom Angle Length (ft) (Length of barrel for culvert)	43 Bridge Width (ft) (Width of opening for culvert)	9,344 * Shoulder Break Area (Square Feet)
1A.) Base:	\$130	DOT Regions 1 - 7 & 9 = \$115 steel, Multi-Span Add \$15; Regions 8 & 10 = \$173, Multi-Span Add \$27.			
(\$ / ft <sup>2</sup> SB AREA)		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	\$0	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:	\$20	Spread footing, add \$14. All abutment types footings on rock subtract \$20.			
		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:	\$0	Abutments 20 to 30 ft add \$8.			
		MSE Walls supporting CIP stub abutments are addressed as contingencies below.			
4.) Cofferdams:	\$0	Costs based on bridges up to 49 ft wide.			
Water depths based on bottom of footing		Minor Water Diversion (Sand Bags) \$3500 per bridge.			
Divide cost on right by shoulder break ft <sup>2</sup> &		Abutments in 4 ft to 6 ft of water \$6,000 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:	\$20	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:	\$0	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:	\$0	For total combined wingwall length > 60 ft calculate adjustment using the LongWingWallCosts worksheet.			
8.) Stage Construct.:	\$0	Minor wingwall \$12; WZTC On superstructure staged with sheet piling or GRES add \$15.			
		WZTC On superstructure staged with H-Pile wall lagging add \$75.			
		Down state multiply factor by 1.5.			
9.) Miscellaneous:	\$20	Bridge width less than 30 ft add \$50; Paint or galvanize steel girders add \$20; Paint steel trusses add \$50. Protection walls other than for staging.			

**TOTAL BRIDGE COST**

\$ / ft<sup>2</sup> SB AREA = \$190

Shoulder Break Area (ft <sup>2</sup> )	<u>9,344</u>	X Cost / ft <sup>2</sup>	<u>\$190</u>	= BRIDGE ONLY COST	<u>\$1,777,594</u>
<b>Contingencies:</b>	Remove existing bridge				<u>\$178,000</u>
	Work Zone Traffic Control (WZTC)				<u>\$0</u>
	Detour structure				<u>\$0</u>
	Channel work				<u>\$0</u>
	Slope protection, other than for channel work				<u>\$109,000</u>
	Utilities				<u>\$0</u>
	Aesthetics (e.g. Form liners, decorative railing, lights & stone facades)				<u>\$0</u>
	Overhead (e.g.Construction office, computer software & hardware, office supplies)				<u>\$30,000</u>
	Input as decimal for anticipated year of letting:				
<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>0.000</u>
	<u><b>TOTAL BRIDGE SHARE</b> (Includes additional 4 % for mobilization)</u>				<u>= \$ 2,178,378</u>



**NEW YORK STATE THRUWAY AUTHORITY  
JUDD ROAD BRIDGE REPLACEMENT  
TAB 17-X  
ESTIMATE OF HIGHWAY QUANTITIES**

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	TOTAL
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	\$20.00	620	\$12,400
203.03	EMBANKMENT IN PLACE	CY	\$15.00	3,800	\$57,000
304.12	SUBBASE COURSE, TYPE 2	CY	\$60.00	1,350	\$81,000
402.000013	PLANT PRODUCTION QUALITY ADJUSTMENT TO HMA ITEMS	QU	\$85.00	65	\$5,525
402.127303	12.5 F3 TOP COURSE HMA, 70 SERIES COMPACTION	TON	\$85.00	315	\$26,775
402.197903	19 F9 BINDER COURSE HMA, 70 SERIES COMPACTION	TON	\$75.00	400	\$30,000
402.377903	37.5 F9 BASE COURSE HMA, 70 SERIES COMPACTION	TON	\$65.00	725	\$47,125
407.0102	DILUTED TACK COAT	GAL	\$3.00	585	\$1,755
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	\$5.00	155	\$775
605.0901	UNDERDRAIN FILTER TYPE 1	CY	\$45.00	120	\$5,400
605.1702	OPTIONAL UNDERDRAIN PIPE, 6 INCH DIAMETER	LF	\$5.00	1,500	\$7,500
606.10	BOX BEAM GUIDE RAILING	LF	\$30.00	1,130	\$33,900
606.120102	BOX BEAM GUIDE RAILING END ASSEMBLY, TYPE I	EACH	\$1,200.00	3	\$3,600
606.73	REMOVING AND DISPOSING BOX BEAM GUIDE RAILING	LF	\$3.00	1,370	\$4,110
610.1402	TOPSOIL - ROADSIDE	CY	\$60.00	560	\$33,600
610.1601	TURF ESTABLISHMENT - ROADSIDE	SY	\$1.50	4,700	\$7,050
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	\$74,085.00	1	\$74,085
625.01	SURVEY OPERATIONS	LS	\$20,000.00	1	\$20,000
685.11	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	LF	\$1.00	1,950	\$1,950
685.12	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	LF	\$1.00	2,065	\$2,065

**TOTAL                      \$455,615.00**





# **Rehabilitation Estimate**

## **Bridge and Highway**



# PRELIMINARY COST ESTIMATE WORKSHEET (BRIDGE REHABILITATION)

BIN: **5512980**

Location Description: **Judd Road (C.R. 840) over I-90**

Record Plans: **M.T. 52-12 S.T.52-26**

Bridge Type: **4 Span Steel Multi-Girder with Concrete Deck**

Estimate Date: **May 5, 2017**

Let Date: **March 1, 2018**

Instruction: Change values in white cells (blue text). Check box for work to be included in estimate. When selecting primary member replacement type, select the white cell then use the pulldown menu button that appears to the right of the cell.

Project Description: **D214386 - Major Rehabilitation: Replacement of entire superstructure, installation of new bearings, new pedestals, beamseats and backwalls for both abutments, new beamseat and pedestals for all three piers, Class A repair of shoulder pier columns, new approach slabs, new approach rails.**

Bridge Configuration & Data: The user only needs to enter applicable information, guidance regarding what is applicable can be found in the Region 5 Preliminary Cost Guidance Manual under Appendix B.3.

## Calculated Values (FOR PRELIMINARY ESTIMATING PURPOSES ONLY):

<b>43</b>	ft - Out-Out Deck Width	
<b>40</b>	ft - Clear Width between curbs or barrier	<b>8,280</b> ft <sup>2</sup> - overlay area (portion of deck)
<b>3</b>	ft - Overhang Width (each or average width)	<b>1,242</b> ft <sup>2</sup> - overhang area (portion of deck)
<b>207</b>	ft - Begin-End Deck Length	<b>8,901</b> ft <sup>2</sup> - deck area
<b>25</b>	ft - Approach Slab Length (each or average length)	<b>2,000</b> ft <sup>2</sup> - approach slab area <b>TOTAL</b>
<b>12</b>	ft - U-Wall Length (each or average length)	<b>48.0</b> ft. - U-wall length <b>TOTAL</b>
<b>10</b>	Skew <sup>o</sup> from normal line projecting from centerline	<b>44.7</b> ft - joint length <b>EACH</b>

## Cost of Rehabilitation Work for Various Structural Elements:

<b>\$ 157,500</b>	<b>Bearing Replacement</b>	Note: Does <u>not</u> include concrete sealing.
<b># Locations</b>	<b>Work Type (Note: Add Structural Lifting later, minor steel modifications (stiffener) included)</b>	
<b>25</b>	\$4,400/ea. to replace with LAMINATED ELASTOMERIC Bearings (common), DOES NOT include pedestal reconstruction	
<b>0</b>	\$5,300/ea. to replace with MULTI-ROTATIONAL Bearings, DOES NOT include pedestal reconstruction	
<b>25</b>	\$1,900/ea. to reconstruct pedestal if necessary (structure lifting not included, add cost in other part of worksheet)	
<b>\$ 123,596</b>	<b>Deck Joint Replacement</b>	
<b># Joints</b>	<b>Work Type</b>	
<b>0</b>	JOINT SEAL ONLY: use \$55/linear feet (Item 567.51--09 only)	
<b>1</b>	ARMORLESS: use \$165/linear feet of joint on new decks, overlays, superstructure replacement (Item 567.60 price only)	
<b>0</b>	ARMORLESS: use \$370/linear feet of joint if remove/replace existing joint header (assumes 5 in. x 12 in. joint header)	
<b>0</b>	ARMORLESS: use \$650/linear feet of joint if end-of-deck reconstruction is required, where deck is bad in area of joints	
<b>0</b>	MODULAR (1-Cell): use \$1,010/linear feet of joint..... add \$400/ft for each additional joint-cell (ex. 4-cell = \$2,210/ft)	
	<== IF APPLICABLE, Enter No. of Joint-Cells in Modular Joint (Min. = 1)	
<b>2</b>	Install JOINTLESS detail where there was a joint: use \$1,300/linear feet of joint	
	Note: Includes headwall removal/replacement, joint removal, portion of deck removal/brush curb and replacement, partial approach slab remove/replace, short length of rail remove/reinstall, new precast sleeper slab, armorless joint	
<b>\$ -</b>	<b>Concrete Overlay</b>	(concrete sealing included)
	Overlay removal accomplished by <input type="checkbox"/> 100% Rebar Exposure OR <input type="checkbox"/> Scarification	
	If Scarifying, Enter Anticipated Number Scarification layers (1/2" each) ==> <input type="text"/>	
	\$37/sq.ft. of overlay area (overhang separate) for 100% REBAR EXPOSURE with 'METHOD 3' SINGLE-LIFT OVERLAY	
	\$11/sq.ft. of overlay area (overhang separate) for SCARIFICATION - 1/2 in. single pass scarification; \$2/sf each extra pass	
	Note: Deck joint replacement, approach slab work and approach paving not included, add costs in appropriate section. Typically old steel bridge rail will not meet crash test requirements, add costs for rail upgrade, overhang replacement, barrier/rail as necessary (Bridge Manual App. 6A & 6B).	
<b>\$ -</b>	<input type="checkbox"/> <b>HMA Overlay/Membrane (only used when AADT &lt; 5000)</b>	
	use \$6/sq.ft. & add deck repair area costs	

Enter Area of Deck Repair Anticipated ==>

\$42/sq.ft. for deck repair areas (not the whole deck area) needed prior to placing the HMA overlay

Note: Wearing surface removal/milling, deck joint replacement, approach slab work and approach paving not included, add costs in appropriate section if necessary.

\$ - ☐ **Deck Overhang Replacement** use \$70/sq.ft. of overhang area

Note: This is usually necessary when upgrading railing system to concrete barrier. Includes deck removal, deck concrete installation (bottom-form-req'd), rebar, grooving. Does not include barrier/rail removal, barrier installation or concrete sealing (costs can be added below).

\$ 62,000 ☒ **Approach Slab Replacement** use \$31/sq.ft. of approach slab area

☐ **Approach Slab Overlay** use \$00/sq.ft. of approach slab area

Note: Approach slab overlay cost is the same as concrete overlay/100% rebar exposure, concrete overlay/scarification or HMA Overlay used earlier.

\$ - ☐ **Deck Replacement** ☐ **Bottom forms not req'd (only for Adjacent Prestressed Box Beams)**

use \$57/sq.ft. if bottom form required... deduct 20.0% when bottom formwork IS NOT req'd (ex. adjacent box beam bridges)

Note: Only items for deck removal, deck installation and sawcutting included. Deck joint replacement, deck sealing, approach slab work, approach paving, barrier-rail removal/installation not included, add costs in appropriate section as necessary. Often U-Wall/Wingwall modification is necessary to accomodate deck replacement, add costs where necessary.

\$ 172,774 **Bridge Barrier/Rail Upgrade Replacement** (add quantity on U-walls as necessary)

Left Side	Right Side or Median		Subtotal
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	use \$212/ft for single slope 1/2 shape	\$ 97,944
<input type="checkbox"/>	<input type="checkbox"/>	use \$293/ft vertical concrete parapet (w/sidewalk & curb)	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$369/ft for Texas concrete barrier (w/sidewalk & curb)	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$255/ft median single slope concrete barrier	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$117/ft for 2 rail/brush curb	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$107/ft for 3 rail/curbless	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$156/ft for 4 rail/curbless	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$169/ft for 5 rail/curbless	\$ -
<input type="checkbox"/>	<input type="checkbox"/>	use \$211/ft for 4 rail (w/sidewalk & curb)	\$ -
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Barrier/Rail on U-walls?	\$ -

- Bridge Rail & Brush Curb Removal

☒ add \$125/ft for rail & brush curb removal if not part of superstructure or overhang removal items

- Bridge Rail Transition

☒ add \$122/ft for rail/barrier transition to guide rail

# of transitions (4 typical) ==> 4 transitions

Each/Average Transition Length (see comment to obtain bridge rail/barrier/parapet transition lengths) ==> 35 feet

- Approach Rail Work (remove and replace)

☐ add \$37/ft for approach guide rail (box beam assumed)

Length of Approach Rail ==> feet

\$4,300 added for each guide rail terminal (Type III), assumed to be same quantity as number of transitions

\$ 26,910 ☒ **Fence** use \$65/ft (snow or pedestrian fence) ☐ **Fencing on U-Walls also?**

\$ 916,803 **Primary Member System Replacement**  <---- Select Beam Type (pull down menu)

Costs include composite deck, beams/primary members, survey, sawcut, superstructure removal, joint headwall.

DOES NOT include approach paving, approach slabs, bearings/pedestals, rail/barrier or u-wall modification.

Primary Member System	Remove Super-Structure Cost	Req'd Weight of Steel	Unit Cost of Steel	Cost of Deck (From Estimator)	Cost of Beams \$/sq.ft.		Superstructure Replacement Unit Cost
Steel Plate Girder	\$09/sq.ft.	22 lb/sq.ft.	\$2.50 per lb	\$39.0/sq.ft.	\$55.0	Steel	\$103.00/sq.ft.
Adjacent Prestressed Box Beam	\$18/sq.ft.	n/a	n/a	\$22.0/sq.ft.	\$75.0	Box	\$115.00/sq.ft.
Prestressed Concrete Bulb-T	\$18/sq.ft.	n/a	n/a	\$37.0/sq.ft.	\$47.0	Bulb-T	\$102.00/sq.ft.



Prestressed Concrete I-Beam	\$18/sq.ft.	n/a	n/a	\$29.0/sq.ft.	\$55.0	I-Beam	\$102.00/sq.ft.
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Note: For Prestressed Concrete beam bridges, only enter the costs for Superstrucutre Removal (assume \$15 to \$20/sq.ft. if uncomplicated removal, higher if complicated). For Steel Weight: short spans up to 60' use 20-25 lb/sqft; medium spans use 25-30 lb/sqft; long spans use 30-45 lb/sqft; truss use 80-110 lb/sqft. Adjust unit cost of steel as site conditions require, the more difficult erection is the higher the cost will be.

Substructure Work

\$

-

☐ U-Wall or Culvert Headwall Rehab to Upgrade Barrier
 

\$430/ft (feet of wall upgraded)

\$

-

☐ Substructure - Minor Repairs - Surface/Shotcrete-Type Repairs
 

\$175/sq.ft. of repair area

Note: Concrete sealing not included

Substructure Repair Area ==> 00 SF

\$

714,000

☒ Substructure - Major Repairs - Large Scale Concrete Repairs to piers and abutments
 

\$3,500/cu.yd.

Note: Concrete sealing not included

Substructure Repair Volume ==> 204 CY

\$

10,601

Concrete Sealing

☒ New Concrete sealed (otherwise cost of sealing existing concrete used)
 ☒ Sealing the deck (out-to-out)
 ☒ Sealing the Concrete Barrier/sidewalk
 ☒ Sealing the Approach Slab
 ☐ Seal some other surface (enter area below)
 

"Other" Surface Area ==>

00 Sq. Ft.

Prices:

\$0.75/sq.ft. for NEW bridge decks, appr. slab, sidewalk, barrier

\$1.35/sq.ft. for EXISTING decks, appr. slab, sidewalk, barrier

\$1.90/sq.ft. for surfaces not shown above

MUST add Structure Lifting costs when remove/install bearings, remove/install pedestals, major substructure repairs (ex. column replacement), certain steel/superstructure repairs or superstructure replacement

\$

-

☐ Structural Lifting
 

Structural lifting can sometimes add significant costs depending on the type of lifting and height of lifting structure. There is no generic or average cost that covers most situations. Choose the category(ies) of lifting and enter unit prices based on the guidance provided.
 

Category 1:

\$1,500 to \$3,000 each lift point - Lowest Cost Category: Ex. Lift an end floorbeam or end-of-through-girder of a through-girder bridge from a bridge seat, medium-low capacity jack, very short column/wood cribbing w/shims (for steel repairs/brg replacement).

Category 2:

\$3,000 to \$10,000 each lift point - Lifting structure 5' to 15' tall or if work is somewhat more complicated than Category 1.

Category 3:

\$10,000 to \$50,000 each lift point - Lifting Structure 15' to 30' or if somewhat more complicated than Category 2. Ex. Short-span strongback to support floorbeams while thru-girder rehab'd

Category 4:

\$50,000 to \$100,000+ each lift point - Lifting over 30' tall, complicated work, long span strongbacks

0	<== Enter Number Lifting Points in Category 1	Category 1 Cost ==>	\$ 2,500 / lift point
0	<== Enter Number Lifting Points in Category 2	Category 2 Cost ==>	\$ 5,000 / lift point
0	<== Enter Number Lifting Points in Category 3	Category 3 Cost ==>	\$ 15,000 / lift point
0	<== Enter Number Lifting Points in Category 4	Category 4 Cost ==>	\$ 60,000 / lift point

Maintenance Work

\$

122,200

☒ Metallizing/Galvanizing Structural Steel (GENERAL)
 

use \$13/sq.ft. painted, includes containment & paint disposal

☐ Painting Structural Steel (LOCALIZED)
 

use \$65/sq.ft. LOCALIZED painting, includes containment & disposal

Enter Area of Steel ==> 9,400 SF

\$

-

☐ Bridge Washing
 

\$450 per span

Enter # of Bridges Washed ==> 1

Enter # of Spans Washed ==> 4

ENTER Other Required Work Items:
 

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\$	-	Approach Work (approach paving, drainage, curbing/stone ditch, excavation, topsoil etc.)
\$	-	Erosion Protection (Stream and/or Embankment)
\$	-	Piles Assumed included in the price of major substructure concrete repairs for abut/pier extensions.
\$	-	Utility Work
\$	100,000	SHPO/Aesthetic/Environmental Protection/Asbestos/Lead Related Work

\$	56,400	Overhead (Engineer's Office, Supplies, Training, Partnering, CPM Scheduling, etc.)
Time to Construct		24 Months

- ☒ \$2,100/month for Office, add \$5k supplies, \$1k cylinder box  
☐ IF PROJECT EXPECTED TO BE AT LEAST \$5M, add \$2,000 for Training & Partnering Items  
☐ IF LARGE PROJECT OVER \$20M OR COMPLEX, add \$15,000 for CPM Scheduling Item

\$	406,000	Miscellaneous (add description of work below)
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Miscellaneous work =

Includes the highway estimate and cost for scuppers.

Since the rehabilitation of the bridge will need to address the nonstandard vertical clearance at this bridge, the vertical profile of the bridge will need to be adjusted. The cost of the highway work is included under the miscellaneous work. It is assumed that the cost for highway realignment will be similar to the replacement option.

\$2,868,784 Subtotal

\$	75,000	LS Work Zone Traffic Control (Basic WZTC, Temporary Barrier/Signals/Markings, etc.)
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see WZTC chapter in Manual for percentage to use. Ensure that the percentage used covers usual WZTC items like \$15k/bridge for basic setup, \$25k per temporary signal system, \$20/ft temporary concrete barrier

**\$2,943,784 Subtotal of Project Cost, need to add Incidentals, Contingency, Field Change Payment, Mobilization...**

## REQUIRED COSTS

\$	588,757	20%	Incidentals (10% typical but less can be used for larger projects, PDM App7 DDR Shell, Section 1.5)	\$2,943,784
Covers small work items, work that is incidental to larger work items (small work not categorized in this worksheet)				
\$	529,881	15%	Contingency (25% @ Scoping, 15% @ DA typical but can vary; PDM App7 DDR Shell, Section 1.5)	\$3,532,541
Covers unknowns/errors in quantity and cost estimating that occur during scoping/preliminary design				
\$	203,000		Field Change Payment (FCP) (HDM Table 21-3, 5% (max.) for most projects)	\$4,062,422
This is an item <u>REQUIRED</u> in all NYSDOT contracts to cover unexpected addition of work items during construction				
\$	170,617		Mobilization (4% of Subtotal (including FCP) for Item 699.040001, rounded up)	\$4,265,422
This is an item <u>REQUIRED</u> in all NYSDOT contracts to cover contractor mobilization				
\$	181,507	5%	Annual Inflation Rate (5% but may vary, PDM App7 DDR Shell, Section 1.5)	
<input type="checkbox"/> Check off if Project is located on the Seneca Nation (3% TERO Surcharge applies)				
\$	1,330,812	30%	Design and Construction Inspection	

**\$5,950,000    TOTAL** rounded to nearest \$10,000, rehab is about \$668/sq. ft. deck area

For questions regarding worksheet use or costs shown, contact Geoff Gross @ 716-847-3250 or [Geoff.Gross@dot.ny.gov](mailto:Geoff.Gross@dot.ny.gov)