

Public Information Meeting

Project 44-147

Replacement of Bridge No. 00368

US Route 1 over Niantic River

East Lyme/Waterford, Connecticut

Connecticut Department of Transportation



CTDOT Role and Mission

Bureau of Engineering and Construction

- **Introductions**
- **Responsible for engineering design, construction, and inspection of transportation projects**

Contact: Mr. David Cutler, PE



Stantec Consulting Services Inc. **Consultant Engineers**

CTDOT has retained the firm of Stantec Consulting Services Inc. to provide the design of this bridge project.

Contact: Mr. John F. Eberle, P.E.

Connecticut Department of Transportation



Reasons for Project

Structure recommended for full replacement under the List 19 Bridge Program.

Reasons include:

- **Structurally Deficient**
- **Functionally Obsolete Deck Geometry**
- **Scour Critical**
- **“Poor” Rating of Substructure**



Project Goals

- **Replacement of Bridge No. 00368**
- **Minimize disturbance and improve safety for the traveling public**
- **Complete construction in a timely manner**
- **Effectively use funds**
- **Address above with consideration for surroundings**



Aerial View of Bridge No. 00368



Connecticut Department of Transportation





Aerial View looking North

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Looking East over Bridge

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Looking West over Bridge

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Existing Bridge Description

- **Single span structure built c. 1926**
- **Structure Dimensions**
 - **Total Length = 65 ft, 1 span**
 - **Overall Width = 34 ft**
 - **Roadway width = 31.7 ft**
- **Located between two horizontal curves**
- **Located near low point of sag vertical curve**
- **Carries one lane of traffic in each direction**
 - **Estimated Average Daily Traffic (ADT) ~ 10,200 vehicles (2010)**

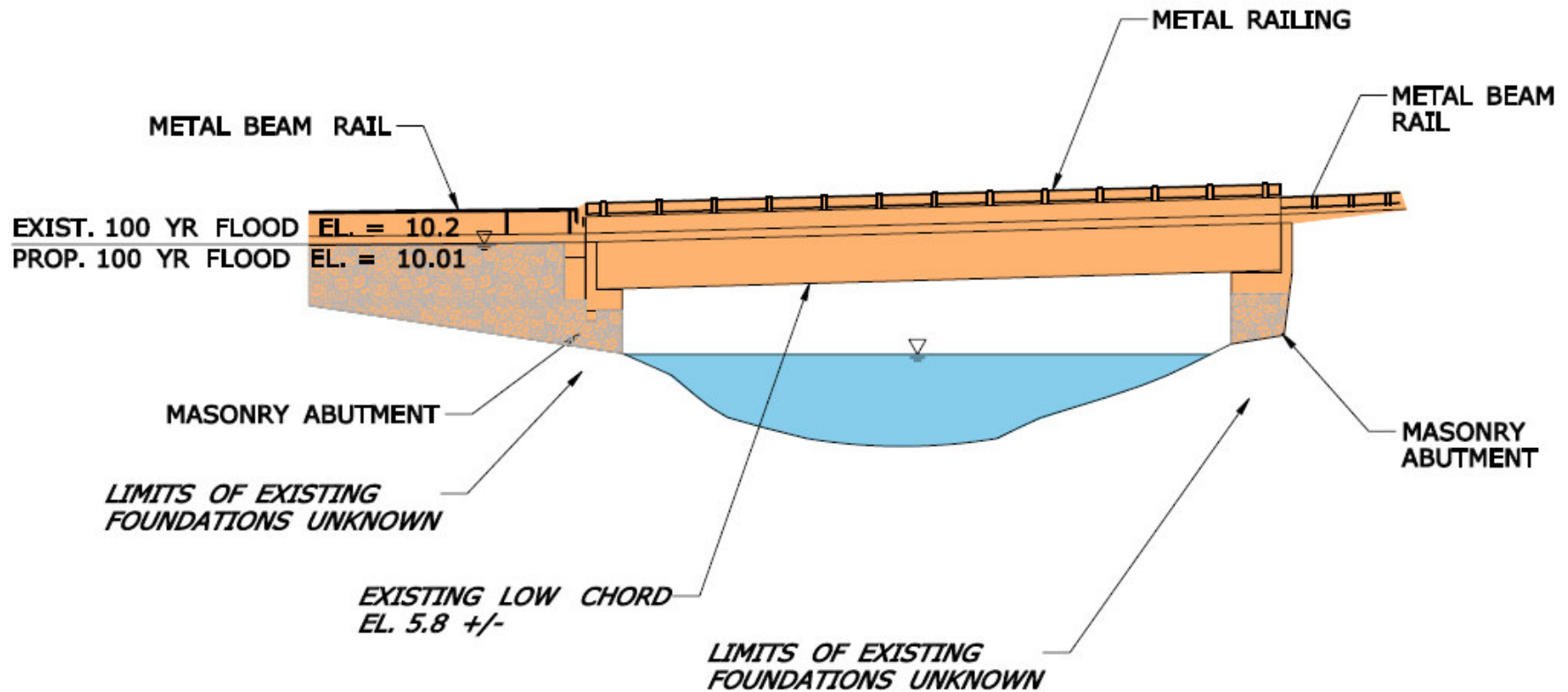


Existing Bridge Description

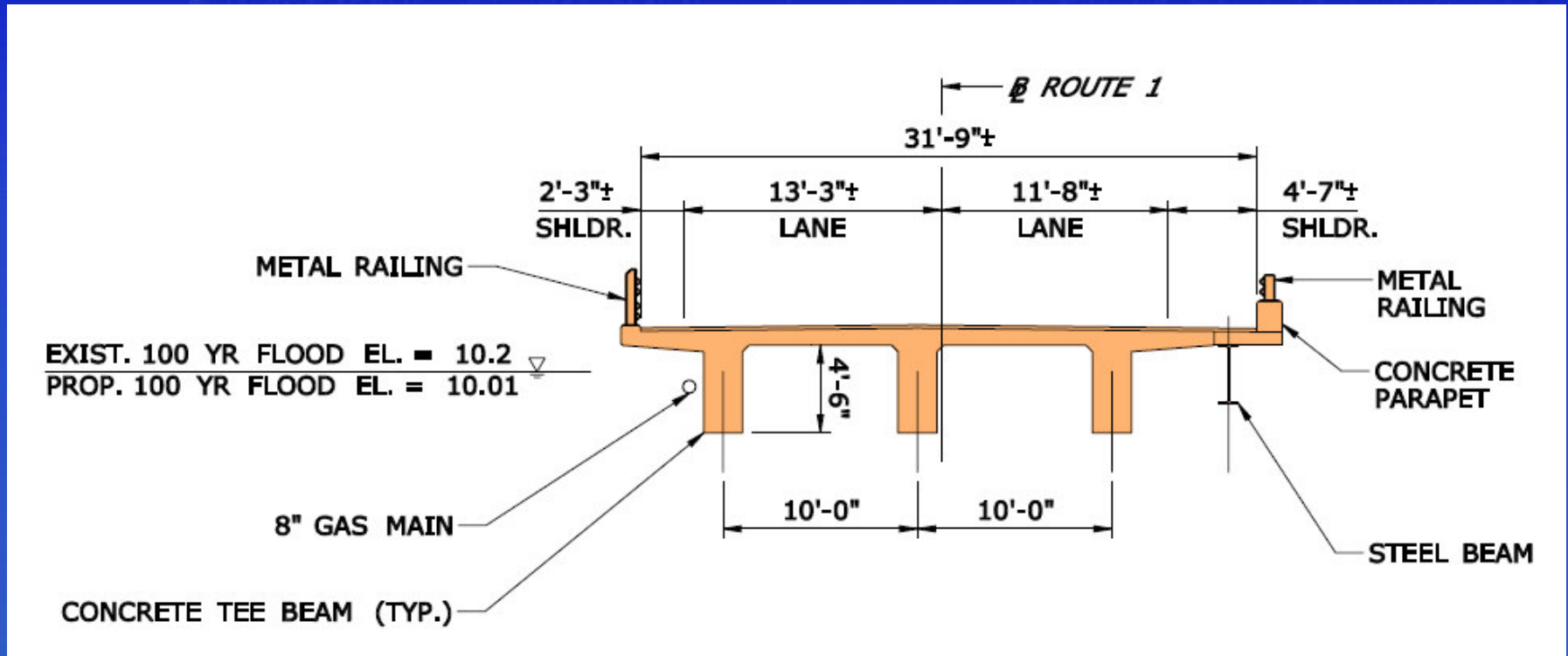
- **Superstructure consists of:**
 - **Original Structure:** Three concrete T-Beams
 - **Widened Portion:** Steel beam with concrete deck
- **Substructure consists of:**
 - **Masonry abutments with concrete bridge seats**
- **Bridge is located along CT designated bike route**



Existing Bridge Description



Existing Bridge Description



Existing Bridge Description



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Existing Bridge Description



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Reasons for Project

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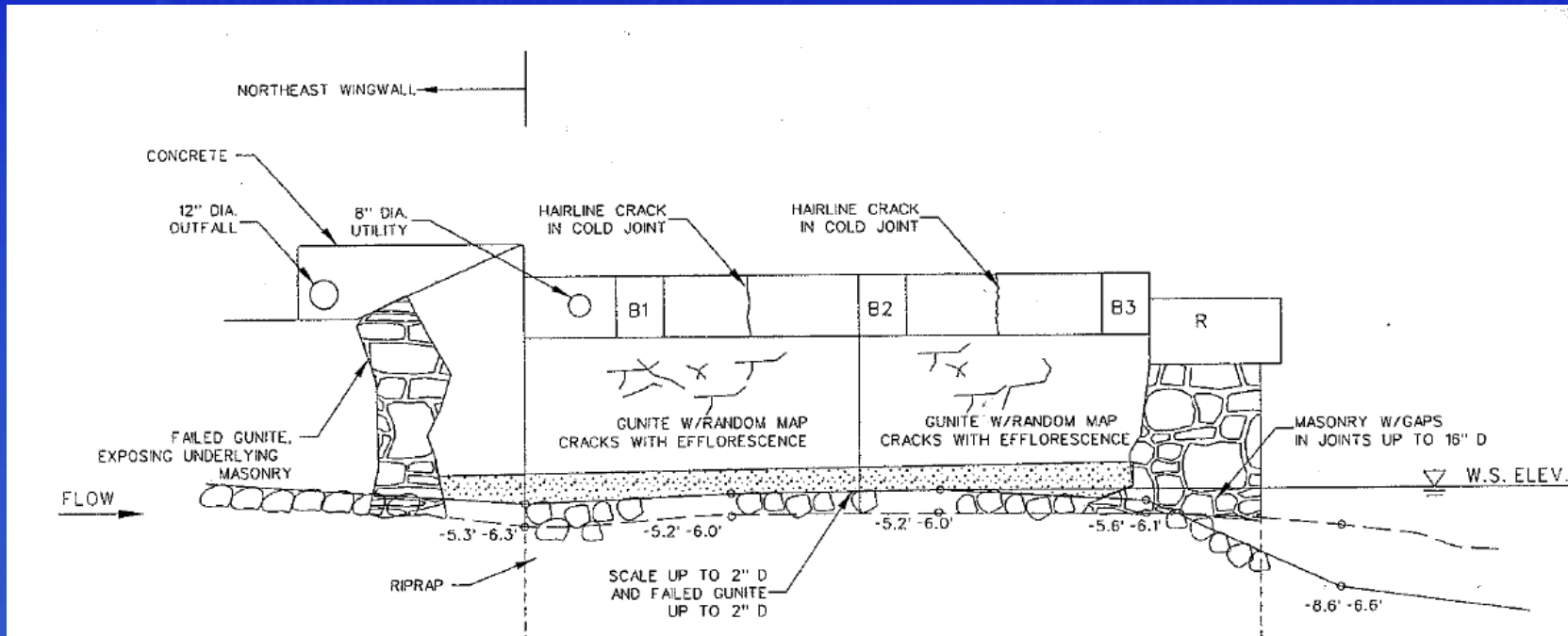
- **Structurally Deficient Substructure**
- **Functionally Obsolete Deck Geometry**
- **Scour Critical**
- **“Poor” Rating**



Existing Bridge Condition



Existing Bridge Condition



Proposed Construction

- **Replace bridge with new: steel stringers with concrete deck supported by concrete abutments and deep foundations**
- **Widen roadway to include shoulders and bypass for Oil Mill Road**
- **Improve safety of approach roadways**

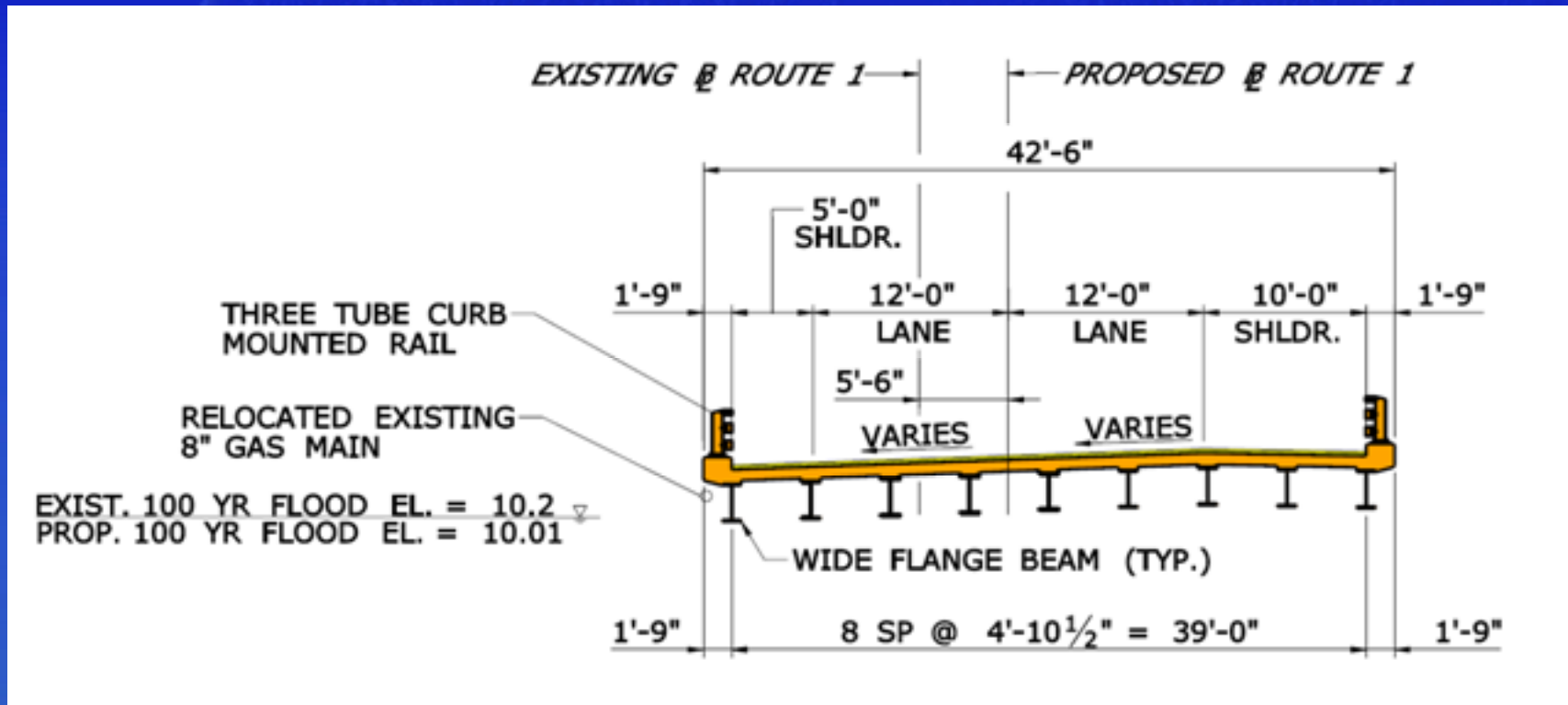


Proposed Construction

- **Proposed structure will have asphaltic overlay on cast-in-place concrete bridge deck**
- **Full depth pavement reconstruction will occur to the approach roadway approximately 260 feet to the west and approximately 150 ft to the east of the bridge**
- **Roadway to be raised approximately 2' in vicinity of bridge to improve hydraulic performance**
- **Bridge railing will consist of 3-tube curb-mounted railings for the full length of bridge**
- **The roadway centerline will be shifted 5.5 feet to the south to improve the horizontal curvature and to facilitate staged construction**



Proposed Construction

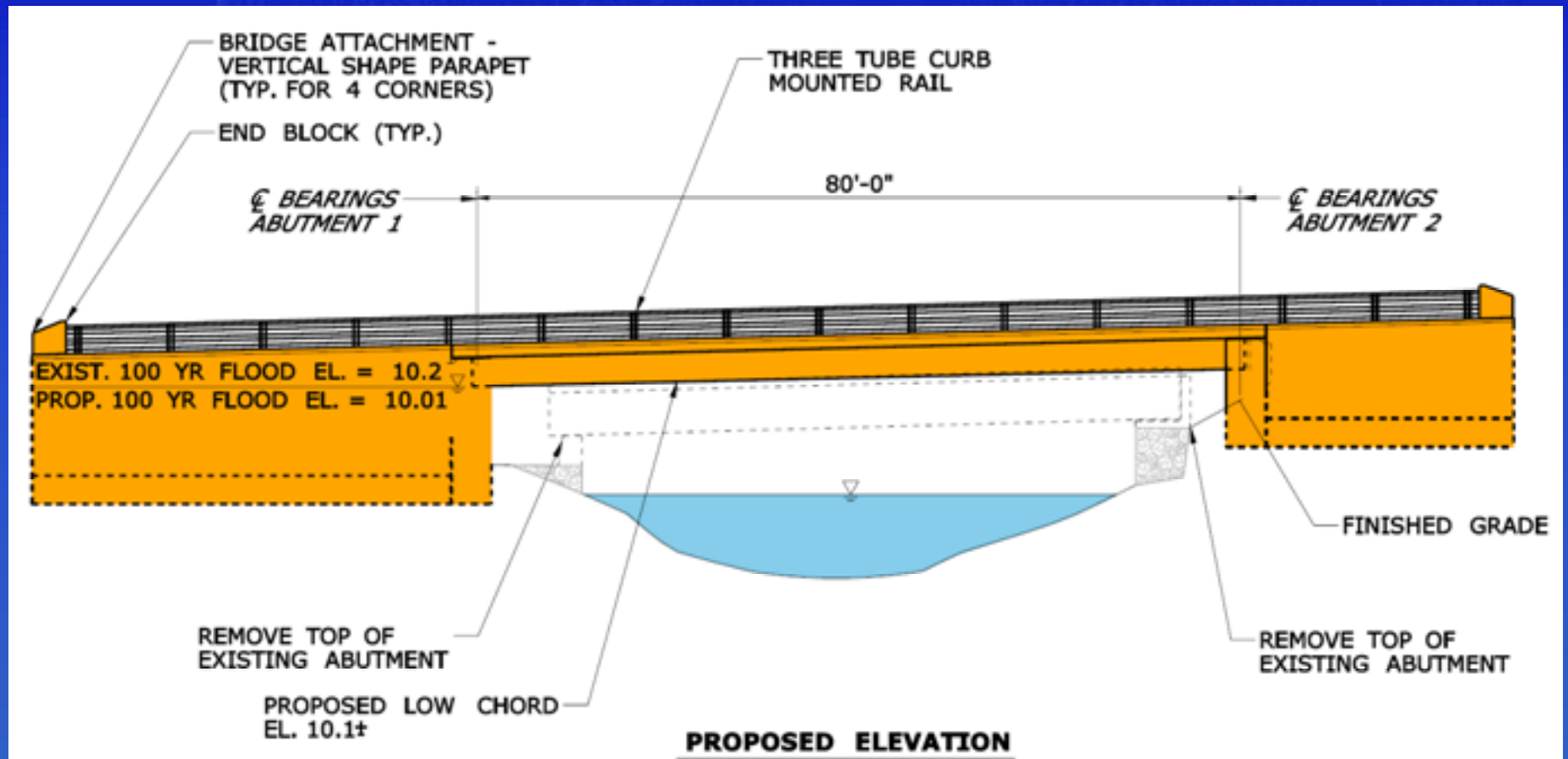


Bridge Cross Section

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Proposed Construction



Bridge Elevation

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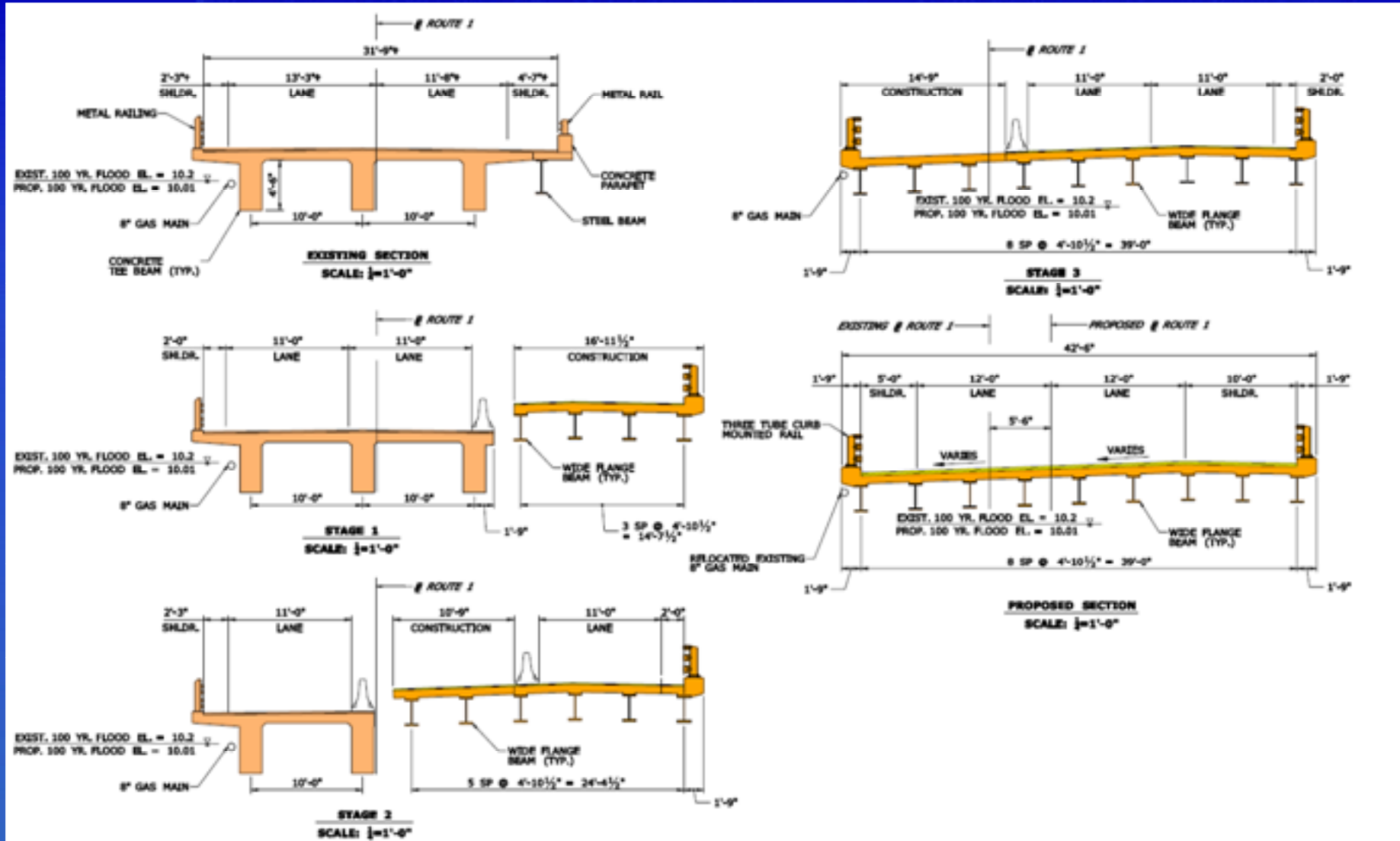


Construction Staging

- **Bridge to be constructed in three stages**
 - **Two lanes of traffic to be maintained during construction**
 - **Significant traffic volumes on Route 1 necessitate staged construction**



Construction Staging



Environmental Considerations

- **Project is located within a FEMA Flood Zone (Zone A)**
- **Niantic River is tidally influenced waterway**
- **No state threatened species or species of special concern were identified**
- **No negative impacts to fish habitat, however seasonal construction restrictions may be necessary to accommodate spawning migration of Alewife**
- **No known contaminated and/or hazardous materials within project limits**
- **Best management practices will be utilized to handle sedimentation control during construction**



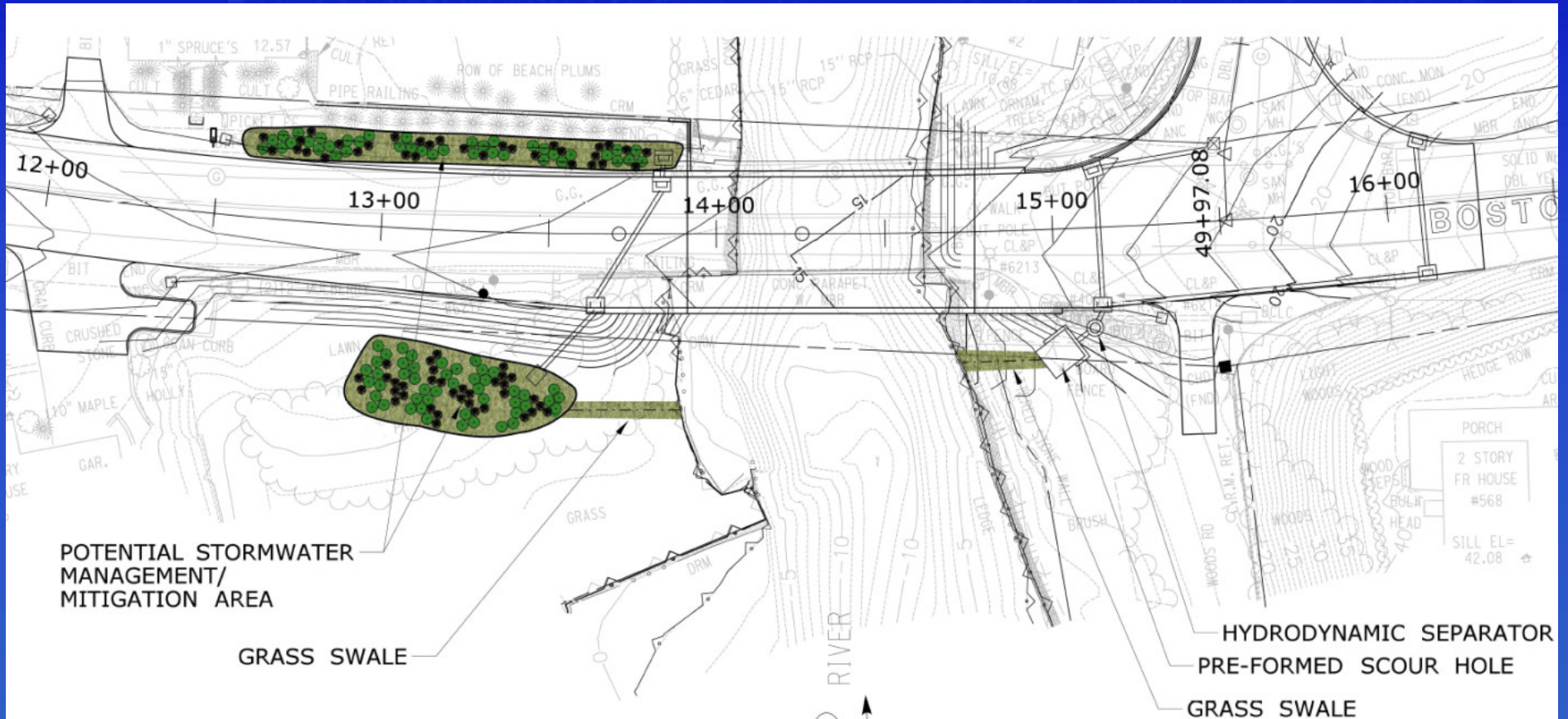
Environmental Considerations



Connecticut Department of Transportation



Environmental Considerations



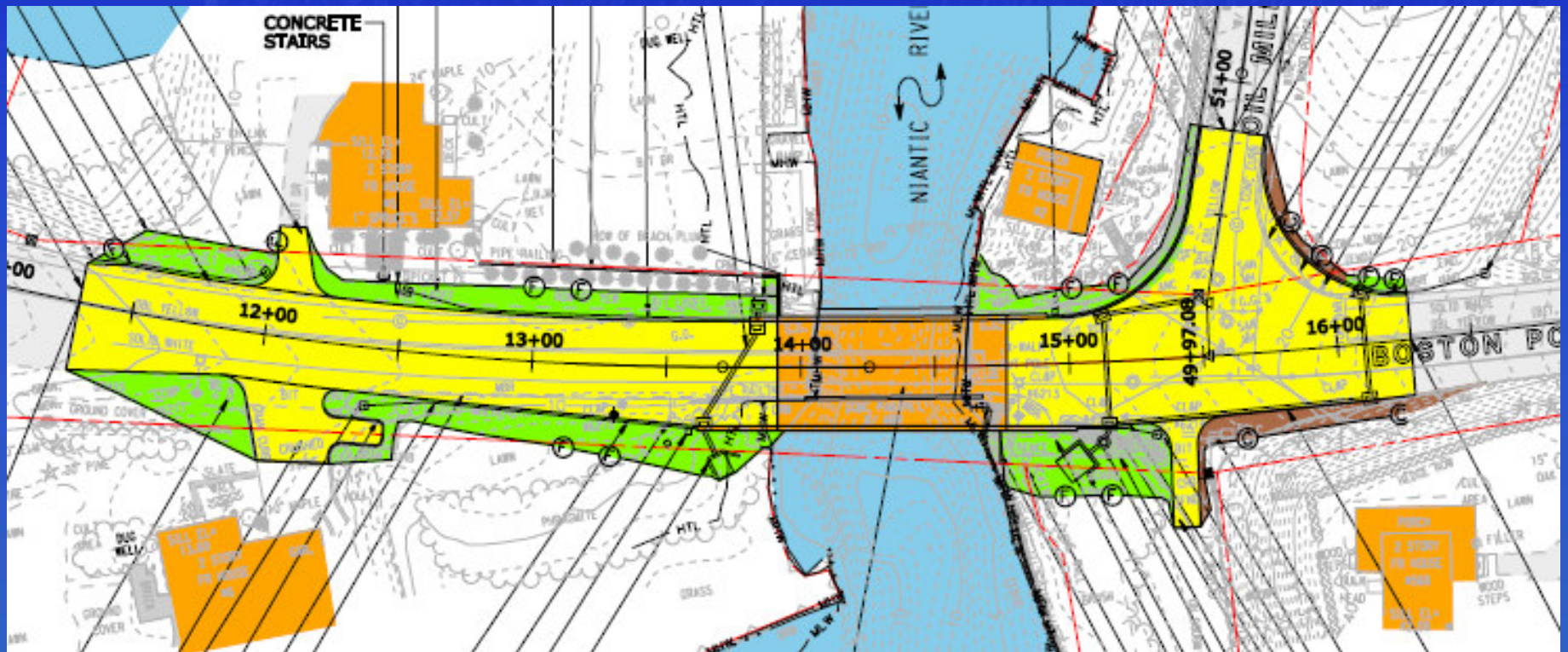
Public Utilities

- **Subsurface utilities in the vicinity of the bridge:**
 - **Water**
 - **Sewer**
 - **Gas**
- **Overhead utilities present along south side of bridge:**
 - **Telecommunications**
 - **Power Distribution**
- **CTDOT has notified the appropriate utility companies of the scheduled project**
- **Utilities will be maintained in place or relocated as necessary during the proposed construction activities**



Rights-of-Way

Impacts to private property consisting of permanent easements as well as temporary construction easements are anticipated.



Project Cost

The estimated construction cost for the entire project is approximately \$4,500,000 (2011).

This bridge replacement is anticipated to be undertaken using 80% Federal funds and 20% State funds.



Project Schedule

The project is anticipated to begin construction as early as Spring 2014.

Project duration estimated to be two construction seasons ~ 18 months, but will depend on permitting restrictions.

The schedule is preliminary and is predicated upon the availability of funding, obtaining all necessary permits, and the scheduling and the receipt of all required property acquisitions.



Contact Information

- **CTDOT**

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- **Stantec Consulting Services Inc.**

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THANK YOU...

FOR YOUR TIME AND ATTENTION

**Connecticut Department of Transportation
and
Stantec Consulting Services Inc.**

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