Public Information Meeting

State Project No. 40-141
Rehabilitation of Bridge No. 01138
Route 82 over Connecticut River

East Haddam and Haddam, Connecticut

Monday, October 2, 2017 at 7:00 pm
Grange Hall
488 Town Street
East Haddam, CT
Introductions

Connecticut Department of Transportation
- Theodore Nezames – Manager of Bridge Division
- Rabih Barakat – Transportation Principal Engineer
- Andrew Cardinali – Transportation Supervising Engineer
- Jonathan Kang – Transportation Project Engineer
- Michelle Miller – Project Coordinator

Hardesty & Hanover
- Steven Harlacker – Principal Associate
- Ben Hawthorne – Project Engineer

CME Associates, Inc.
- Anand Seshadri – Senior Project Manager
- Tracey Brais – Project Engineer
Department’s Role

- Systematically inspect bridges for deficiencies and schedule the rehabilitation of structures
- Oversee the development of technical drawings and bid documents on projects
- Administration and inspection during construction
Project Needs and Goals

• Maintain a safe crossing of the Connecticut River for vehicles traveling on Route 82

• Rehabilitation of bridge to extend service life

• Improve roadway ride-ability for traveling public

• Improve swing span operation reliability

• Minimize disturbance to the traveling public during construction
Project Overview

• Project is in preliminary design stage
  – We are looking for your input

• Rehabilitation of bridge to repair deteriorated elements

• Preventive maintenance to ensure extended service life
East Haddam Swing Bridge
(Bridge No. 01138)

• Built c. 1913; major rehabilitation projects completed in 1988, 1999 & 2007

• Emergency repair project completed in 2016

• Movable, steel truss bridge supported by 2 abutments and 3 piers
**East Haddam Swing Bridge**  
(Bridge No. 01138)

Existing Bridge and Roadway Geometry
- Total Structure Length = 885’
- Bridge Curb-to-Curb Width = 24’-6”
- Min. Vertical Clearance above Roadway = 15’-7”
- 2015 ADT: 9,200 vehicles (4% truck traffic)

Existing Condition Ratings
- Deck: “5” Fair
- Superstructure: “4” Poor
- Substructure: “5” Fair
- Structure Evaluation: “4” Poor

Structure Appraisals
- Deck Geometry: “2”
- Approach Roadway Alignment: “3”
- Waterway Adequacy: “8”
- Scour Critical: “5”
East Haddam Swing Bridge
(Bridge No. 01138)

Span No. 1: Fixed Deck Truss
East Haddam Swing Bridge
(Bridge No. 01138)

Span No. 2: Fixed Through Truss
East Haddam Swing Bridge  
(Bridge No. 01138)

Span Nos. 3 & 4: Movable (Swing) Through Truss
East Haddam Swing Bridge
(Bridge No. 01138)

East Approach

View Across the Bridge (Looking West)
East Haddam Swing Bridge
(Bridge No. 01138)

Top of Deck at Span 2 Contraction Joint

Typical Underside of Deck (Span 1)
East Haddam Swing Bridge
(Bridge No. 01138)

Pitting and Section Loss at Floorbeam – Truss Connections

Perforations through Floorbeam Web in Span 4
East Haddam Swing Bridge
(Bridge No. 01138)

Pier 2 West Elevation

Spall in Pier 2 Cap
East Haddam Swing Bridge
(Bridge No. 01138)

West Abutment (Typical)

East Abutment (Typical)
East Haddam Swing Bridge
(Bridge No. 01138)

Submarine Cables
Missing Protective Jacket

East Machinery Brake Manual
Lever No Longer Locks
East Haddam Swing Bridge
(Bridge No. 01138)

Structural Rehabilitation Measures:

- Steel strengthening repairs
- Deck repair in Spans 1 and 2
- Deck replacement over machinery pit
- New thin overlay on half-filled deck sections
- Bridge rail replacement
- Bearing replacement/repairs
- Localized Painting of Steel Members
- Joint replacement in Span 2
- Substructure patching and masonry repointing
Additional Rehabilitation Measures:

- Replacement of major mechanical system components
- Replacement of the electrical system
- Relocation of the electrical house and operator house staircase
Design of Cantilevered Sidewalk Structure:

- 6’ wide, ADA compliant sidewalk on south side of bridge
- Lighter materials are being considered to reduce the added dead load
- Sidewalk load to be accounted for in bridge rehab repair design
East Haddam Swing Bridge: General Plan & Elevation
Utility & Environmental Impacts

Utility Impacts

• Lights on bridge will likely be protected in-place
• Electrical conduits that feed the operator house to be replaced
• Navigation lights will remain in-place, may need to be temporarily supported

Environmental Impacts

• Osprey nesting platform on bridge
• State and Federal-listed endangered or threatened species within vicinity of project
• Coordination with CT DEEP, NOAA, US Coast Guard and Army Corps of Engineers
Department of Transportation
Division of Rights of Way
(ROW)

Michelle Miller
Project Coordinator
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546
Function

- Acquire all property/property rights necessary for transportation projects.
Statutory References

- **State of Connecticut**
  C.G.S. Sections 13a-73 & 13a-98e

- **Federal**
  Uniform Relocation Assistance and Real Properties Acquisition Act of 1970, as amended.
Property Impacts

- Total Acquisitions
- Partial Acquisitions
- Easements
- Construction Easements
- Rights

* Note: Specific impacts are subject to change as the design progresses.
ROW Acquisition Process

- Letter of Intent to Acquire
- Valuation
- Offer of Just Compensation
- Negotiation
- Acquisition
  - Agreement
  - Eminent Domain/Condemnation
    » 6 month appeal period
Timing for Acquisitions

- All property rights must be acquired by the Project Advertisement Date

- Current Project Advertisement Date: 3/27/2019
Construction Access & Right-of-Way Impacts

Construction in Span 1

• Work on underside and trusses can be done from ground
• Construction easements may be needed at northwest and southwest corners of bridge

Construction in Spans 2 - 4

• Work on underside and trusses to be done from barges and using lane closures
Vehicular Traffic:
- One-way alternating traffic throughout construction
- Work zone limited to one span at time
- Temporary traffic signals to maintain alternating traffic
- Advanced signing to be placed for alternate routes
- Full closures of roadway for half-day periods for 3 weeks to replace span drive

Marine Traffic:
- Swing span operation outage for approximately 4 weeks
- Additional short-term outages may be needed to test mechanical and electrical systems
- Coordination/permit with Coast Guard required
East Haddam Swing Bridge: Maintenance & Protection of Traffic

STAGING PLAN - TRAFFIC ON WESTBOUND LANE
SCALE: 1" = 40'

STAGING SECTION - TRAFFIC ON WESTBOUND LANE
SCALE: 1/4" = 1'

LEGEND

- PIER-MOUNTED NAVIGATION LIGHT
- SUBMARINE CABLE
- STEEL OPEN GRID DECK (UNDISTURBED)
- NEW POLYMER CONCRETE OVERLAY
- NEW SIDEWALK
- EXISTING BRIDGE
- WATERWAY (RIVER)
- WORK AREA

PRELIMINARY DESIGN REVIEW
Detour for Bridge Roadway Closure

Bridge No. 01138

TOTAL DETOUR LENGTH 29.6 MILES
Alternate Route:
To East Haddam from I-95

Legend:
Current Route
Suggested
Alternate Route
Alternate Route:
To East Haddam From Middletown

Legend:
Current Route
Suggested Alternate Route

Bridge No. 01138
Project Cost and Schedule

Schedule

• Construction Start: Late Fall 2019
• Completion: Fall 2021

Cost

• Total construction cost for the project is currently estimated at $55,000,000
• Rehabilitation of this bridge will be undertaken using State and Federal Funds under the “STP-Rural”, “STP-Anywhere” and “State Funded Project” programs.

The cost and schedule are preliminary and are subject to change.
Thank You
Questions and Comments

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