

Manager, and Ms. Michelle Lynch, P.E. (Project Engineer)

Lenard Engineering, Inc. Consultant Engineers

- CTDOT retained Lenard Engineering, Inc. to provide the design of this bridge project
- Contacts: Mr. James R. Bancroft, P.E. (General Manager), and Mr. Paul Magyar, P.E. (Project Manager)

Reason for Project

The structure is recommended for full replacement with pre-cast concrete box culvert under the List 19S Bridge Program for the following reasons:

- Structurally deficient superstructure (rating = 3 on scale of 1-9)
- Structurally deficient substructure (rating = 4 on scale of 1-9)
- Obsolete deck geometry
- The existing 8.5 foot wide opening is hydraulically inadequate

Project Goals

- Improve safety at this crossing
- Replace Bridge No. 02498 with structurally and hydraulically code-compliant new structure
- Minimize disturbance to traveling public
- Complete construction in a timely manner
- Effective use of funds

Mr. Paul Magyar provided an overview of the proposed construction and technical details of the project:

Existing Bridge

- Showed a satellite map of the bridge site as well as photos taken of the bridge elevations, underside of the deck, and road alignments
- The single span structure was built in 1922
- Principal dimensions of the structure: Overall length = 13 feet, Overall width = 30 feet, Roadway width = 24 feet
- Curved horizontal roadway alignment
- Minimal sag vertical curve in roadway over the watercourse
- The structure carries one traffic lane in each direction
- Approximate Average Daily Traffic (ADT) is 6,600 vehicles (counted in 2007)
- The superstructure consists of cast-in-place concrete slab with metal beam rail
- Substructure consists of mortared masonry abutments and wingwalls
- Showed plan, elevation view, and section drawings of the existing bridge

Proposed Construction

- Replace existing bridge with pre-cast concrete box culvert
- Replace stone masonry wingwalls with cast-in-place concrete wingwalls
- Widen road, maintain existing alignment
- Improve safety of approach roadways (improved railing system)
- Staged construction – alternating traffic on a single lane will be maintained during the entire length of the construction
- Showed plan, section, and inlet elevation drawings of the proposed culvert

Maintenance and Protection of Traffic

- The proposed structure will be constructed in two stages
- Maintain alternating traffic on a single lane, controlled with temporary traffic signals, during the entire length of the construction

Environmental Considerations

- Wetland areas are known to exist within the project limits
- No contaminated and/or hazardous materials are expected to be encountered within the project limits
- Best management practices will be utilized to handle sedimentation control and to protect wildlife in the stream channel during construction

Public Utilities

Utilities at the bridge site consist of overhead wire utilities along the westerly side of the road:

- Comcast of Connecticut, LLC
- AT&T Connecticut
- Northeast Utilities Service Co.
- CTDOT conducted a utility coordination meeting with the affected utility companies
- Utilities will be maintained in place or relocated as necessary during the proposed construction activities

Rights-of-Way

- Temporary (during construction) and permanent (upon completion of the construction) impacts on neighboring private properties along the westerly side of the road are anticipated
- The existing curb, wingwalls, and road rails on the west side of the road are already located on private properties, without easements. Appropriate easements on the affected properties will be established to accommodate these features of the proposed structure
- Mr. Derrick Ireland gave a brief overview of the CTDOT right-of-way process

Project Cost

- The approximate construction cost for the entire project is approximately \$1,000,000

Project Schedule

- The project is anticipated to be constructed in the construction season starting in the spring of 2015
- The project duration is estimated to be one construction season of approximately 8 months
- The schedule is preliminary and is predicated upon the availability of funding

Public Comments/Questions

- Q: Where is the proposed staging area for construction equipment? A: Some equipment will be stored within the state right-of-way on the west side of the road, or will be parked overnight in a Town facility
- Q: Are there sightline considerations for the alternating traffic? A: Appropriate advance warning signs will be located along the approach roads for safety of the traveling public. Permanent sightline improvement through excavation of the existing embankment southeast from the bridge will be considered
- Q: Will overhead wires conflict with crane picks? A: Yes. Overhead wires will be relocated temporarily from the west side of the road to the east side, where there is more room within the state right-of-way
- Q: Will the wingwalls be constructed using plain concrete? A: Yes. The wingwalls will not be easily visible for the motorists traveling along the road

PRESENTATION - BRIDGE NO. 02486 - STATE PROJECT NO. 69-77

Ms. Michelle Lynch provided a brief introduction of the project including administrative aspects as well as overview of the project needs:

Purpose of the Meeting

- To inform the public of the proposed project and allow interested parties to view the proposed plans and ask questions regarding the project

Project Location

- The subject bridge is located along CT Route 79 (Durham Road) approximately 500 feet south from the intersections with CT Route 148 (Killingworth – Durham Road)

CTDOT Role

- The Bureau of Engineering and Construction is responsible for engineering design, construction, and inspection of transportation projects
- CTDOT contacts: Mr. Scott A. Hill, P.E. (Manager of Bridges and Facilities), Mr. David Cutler, P.E. (Project Manager, and Ms. Michelle Lynch, P.E. (Project Engineer)

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Reason for Project

The structure is recommended for full replacement with pre-cast concrete box culvert under the List 19S Bridge Program for the following reasons:

- Structurally deficient superstructure
- Structurally deficient substructure
- “Poor” superstructure rating (4 on scale 0-9)
- Hydraulically inadequate existing opening (14 feet)
- Functionally obsolete existing bridge parapet

Project Goals

- Improve safety at this crossing
- Replace Bridge No. 02486 with structurally and hydraulically code-compliant new structure
- Minimize disturbance to traveling public
- Complete construction in a timely manner
- Effective use of funds

Mr. Paul Magyar provided an overview of the proposed construction and technical details of the project:

Existing Bridge

- Showed a satellite map of the bridge site as well as photos taken of the bridge elevations and road alignments
- The single span structure was built in 1930
- Principal dimensions of the structure: Overall length = 21 feet, Overall width = 30 feet, Roadway width = 23 feet
- Straight horizontal roadway alignment
- Minimal sag vertical curve in roadway over the watercourse
- The structure carries one traffic lane in each direction
- Approximate Average Daily Traffic (ADT) is 5,900 vehicles (counted in 2008)
- The superstructure consists of cast-in-place concrete deck, parapet, and curbs
- Substructure consists of cast-in-place abutments and wingwalls
- Showed plan, elevation view, and section drawings of the existing bridge

Proposed Construction

- Replace superstructure with a single span cast-in-place concrete slab superstructure
- Deck will consist of 9 inch average thick concrete slab
- Reconstruct existing abutments and wingwalls on pile foundation
- Improve safety of approach roadways (improved parapets and railing system)
- Staged construction – alternating traffic on a single lane will be maintained during the entire length of the construction

- Bridge opening and deck elevation will be increased for improved hydraulics
- Showed plan, section, and elevation drawings of the proposed bridge

Maintenance and Protection of Traffic

- The proposed structure will be constructed in two stages
- Maintain alternating traffic on a single lane, controlled with temporary traffic signals, during the entire length of the construction

Environmental Considerations

- Wetland areas are known to exist within the project limits
- No contaminated and/or hazardous materials are expected to be encountered within the project limits
- Best management practices will be utilized to handle sedimentation control and to protect wildlife in the stream channel during construction

Public Utilities

Utilities at the bridge site consist of overhead wire utility line along the westerly side of the road:

- AT&T Connecticut
- CTDOT conducted a utility coordination meeting with the affected utility company
- Utility line will be maintained in place or relocated as necessary during the proposed construction activities

Rights-of-Way

- Impacts (temporary or permanent) on private properties are not anticipated

Project Cost

- The approximate construction cost for the entire project is approximately \$1,000,000

Project Schedule

- The project is anticipated to be constructed in the construction season starting in the spring of 2016
- The project duration is estimated to be one construction season of approximately 8 months
- The schedule is preliminary and is predicated upon the availability of funding

Public Comments/Questions

- Q: Was a subsurface boring program accomplished at the abutment locations? A: Yes, the Geotechnical Department of CTDOT conducted four test borings at the four corners of the existing bridge in 2007.
- Q: Why is the bridge wider than the roadway? A: For two reasons. First, the bridge needs to carry the roadway shoulders too, not jut the travel lanes. Second, a sufficiently wide structure is needed to accommodate the needs of the proposed staged construction
- Q: Why isn't a pre-cast concrete box culvert recommended at this location? A: The hydraulics of this

structure would require a twin culvert, which if constructed in stages, would require more than two stages, meaning longer construction time and inconvenience to the traveling public

ADJOURNMENT

The meeting was adjourned at approximately 9:20 PM.

Attachment: attendance sheet

