

# **Public Information Meeting**

## ***Rehabilitation of Bridge No. 02719***

***Route 147 over Lyman Meadow Brook***

***State Project No. 081-091***

***Middlefield, Connecticut***



# **Design Team**

**CTDOT Bureau of Engineering and Construction**

**Contact: Mary E. Baker**

**Consultant Liaison: Close, Jensen and Miller, P.C.**

**Contact: Ajit S. Gokhale, P.E.**

**Design Engineer: Zuvic, Carr and Associates, Inc.**

**Contact: James C. Otis, P.E.**



# **CTDOT Role and Mission**

## **Bureau of Engineering and Construction**

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



# **Close, Jensen and Miller, P.C.** **Consultant Liaison Engineers**

**CTDOT has retained the firm of Close, Jensen and Miller to supervise the activities relative to the design of this bridge project.**



# **Zuvic, Carr and Associates, Inc.** **Consulting Engineers**

**CTDOT retained the firm of Zuvic, Carr and Associates to design the bridge project.**



# **Project Goals**

- **Replace the existing bridge**
- **Minimize disturbance to traveling public**
- **Complete construction in a timely manner**
- **Effectively use funds**

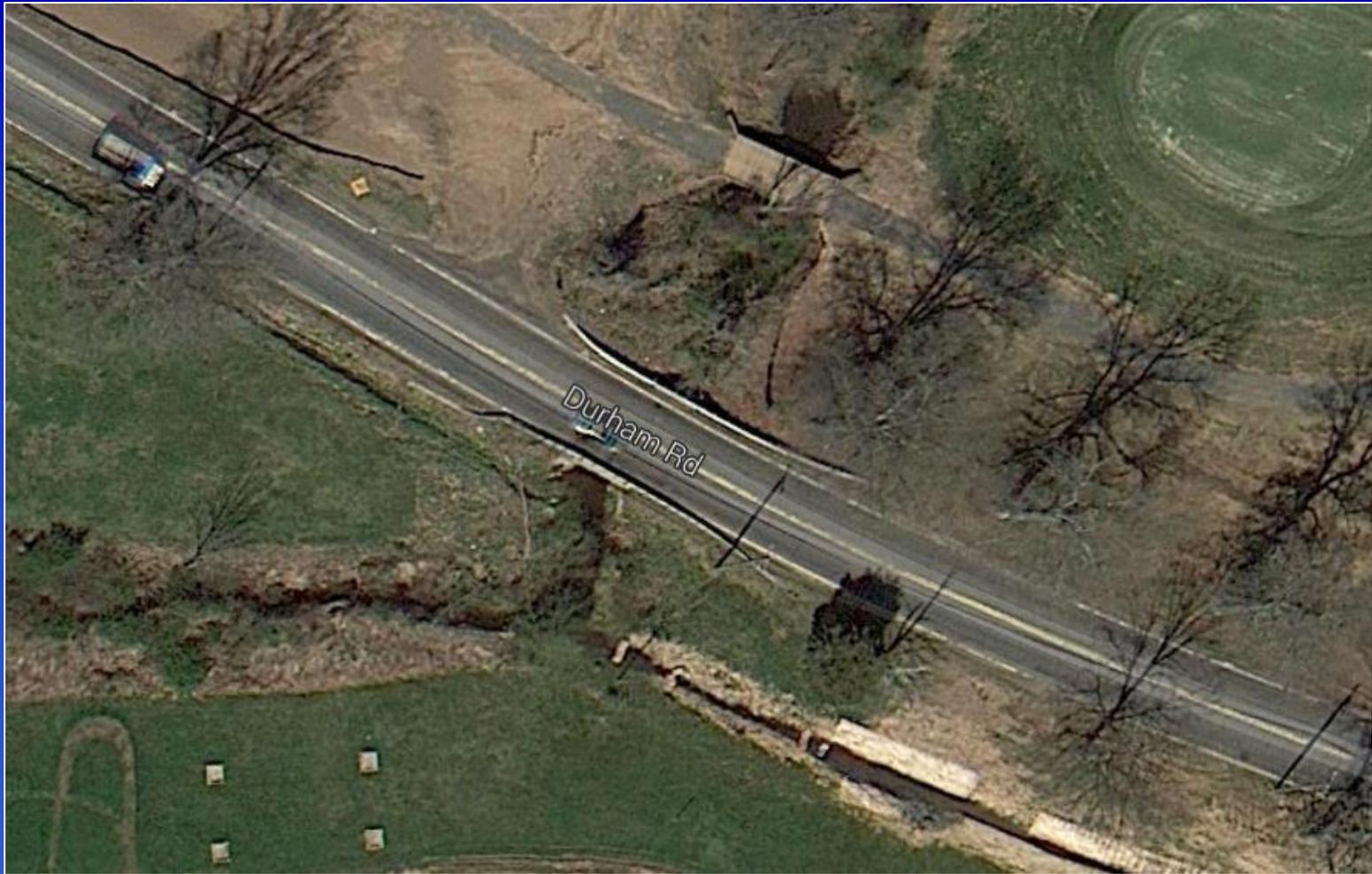


Bridge No. 02719



# Project Location





## Aerial View

*Looking North*

Connecticut Department of Transportation



# **Existing Route 147 Bridge**

- **Single-span structure originally built in 1920**
- **Carries two lanes of Route 147 over Lyman Meadow Brook**
- **Concrete slab on stone masonry abutments**
- **Reinforced concrete parapet walls with mounted metal beam guide rail**
- **Maximum clear span of 8 feet**





## North Elevation

*Looking Southwest*

Connecticut Department of Transportation





## **Route 147**

*Looking West, Bridge No. 02719*

Connecticut Department of Transportation



# **Reasons for Project**



**Condition of Abutments, Wingwalls,  
Roadway Features**

# **Reasons for Project**



**Condition of Slab, Abutments, Channel**

# **Utility Coordination**

- **Overhead utilities are present at the bridge:**
  - **Telecommunications**
  - **Electrical**
  - **Cable TV**
- **CJM has notified the appropriate utility companies of the project, and there will be a coordination meeting with the utilities**



# **Proposed Roadway**

## **Reconstruction of Route 147:**

- **Maintain existing horizontal and vertical alignment**
- **Widen existing 26.6 foot curb-to-curb width to 32 feet over the proposed culvert**





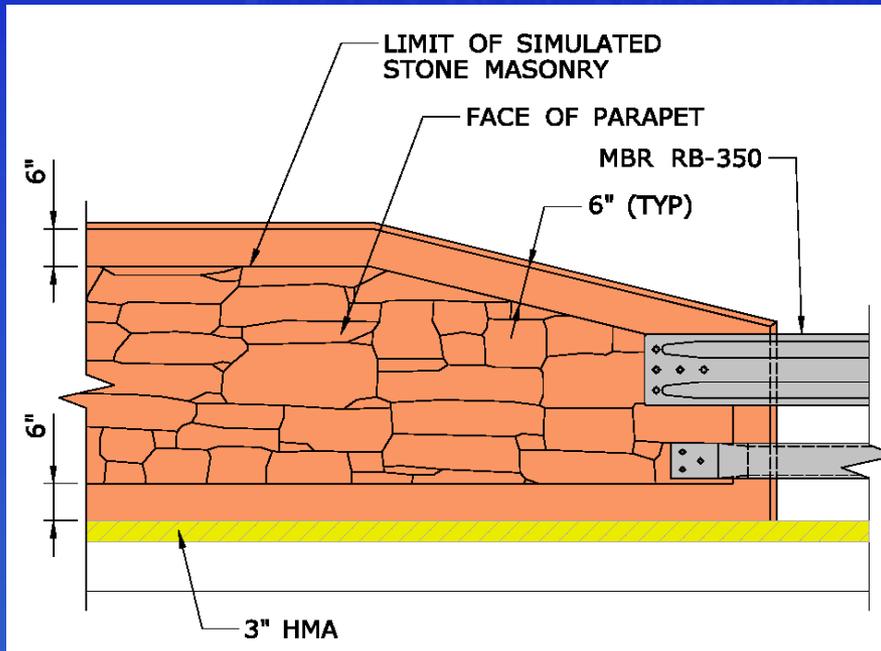
# **Proposed Replacement**

- **Accelerated bridge construction techniques**
- **Precast concrete box culvert and wingwalls**
- **Cast-in-place concrete parapets with simulated stone masonry (formliner) finish**
- **Repaving of 420 feet of Route 147 over bridge**
- **Grading and slope protection on south side of roadway to reduce impacts**





# Proposed Bridge



*Simulated Stone Masonry Dry Stack Pattern  
(Concrete Form Liner)*

# *Proposed Bridge*



*Simulated Stone Masonry Dry Stack Pattern  
(Concrete Form Liner)*

# **Maintenance & Protection of Traffic**

## **Vehicular Detour to Reduce Construction Duration:**

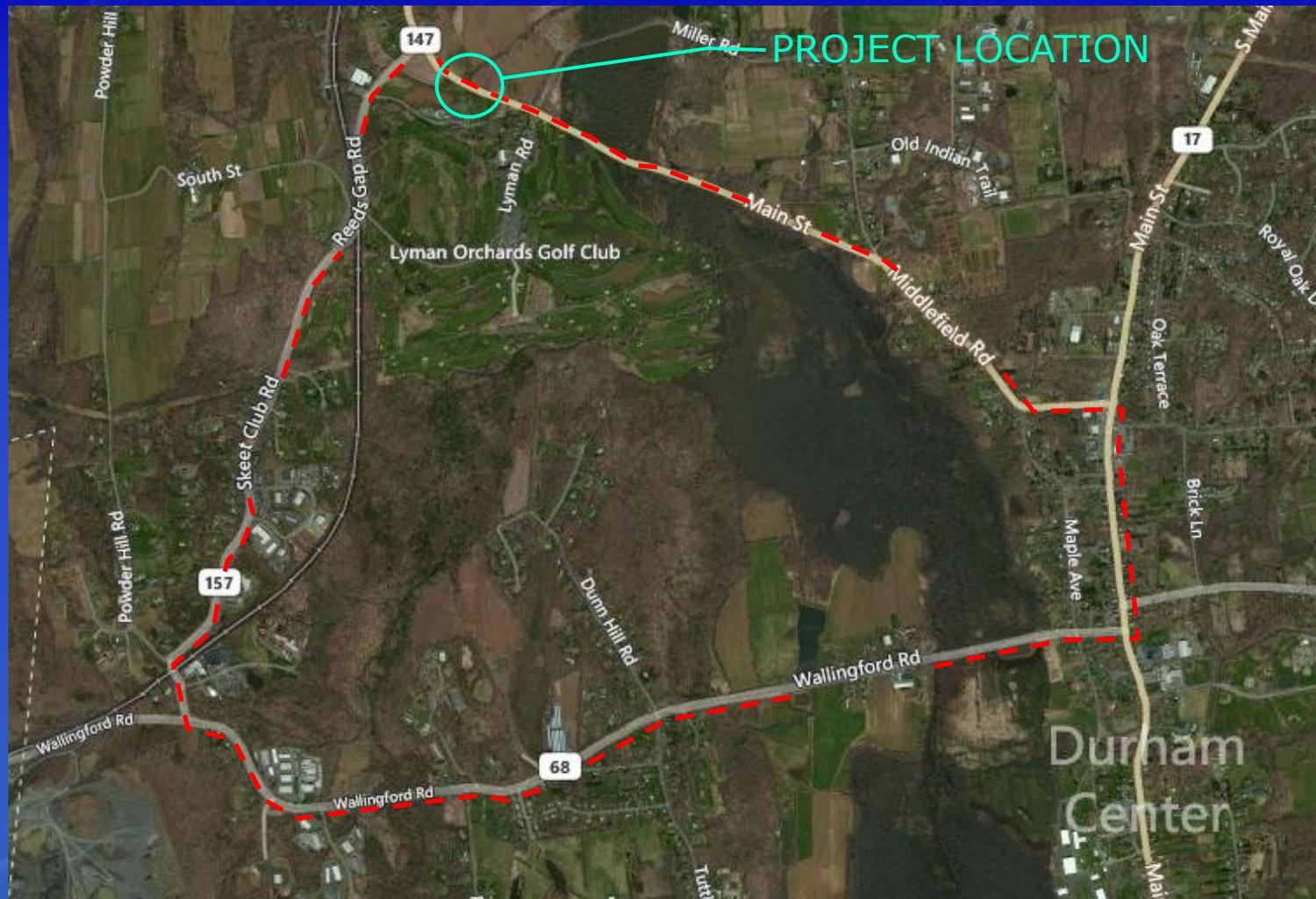
- **Bridge closure duration: 14 days**
- **Detour: Route 157 (Reeds Gap Rd/Skeet Club Rd), Route 68 (Wallingford Rd), Route 17 (Main St), Route 147 (Middlefield Rd/Durham Rd)**
- **Length of detour: 7.2 miles**

## **After the Detour:**

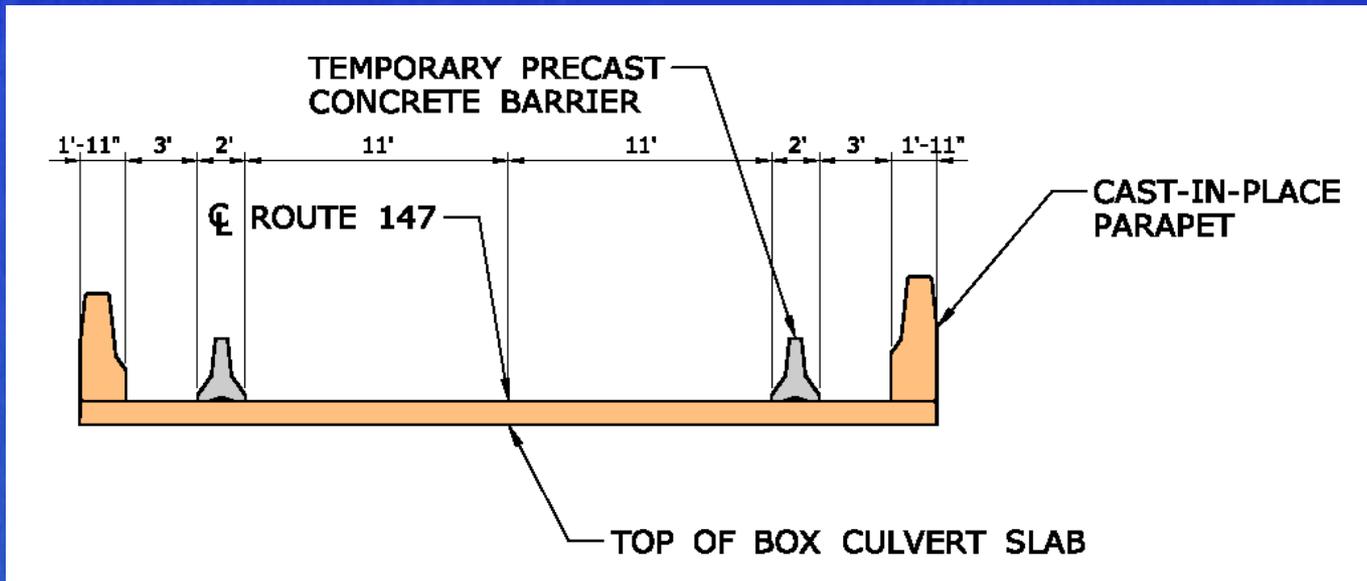
- **Open bridge to traffic. Close shoulders to complete parapet work, if necessary; use standard off-peak lane closure patterns to complete guiderail, paving**



# Detour



# After Detour



*Typical Section*

# **Environmental Permitting**

## **Required Permits:**

- **Connecticut Department of Energy and Environmental Protection (CTDEEP) Inland Wetlands and Watercourse Permit**
- **CTDEEP Flood Management Certification**
- **U.S. Army Corps of Engineers / Connecticut Programmatic General Permit**





# **Property Impacts**

- **A temporary construction easement will be required on a private property owned by Lyman Farm, Inc. to construct temporary water handling features**
- **A permanent drainage easement may be required for a drainage swale on the same private property**



# **Project Schedule & Cost**

**Bridge No. 02719: Spring 2015 Construction\***

**Construction Duration: 4 Months**

**\$1,250,000 including incidentals and contingency  
(State funding)**

**\* *Schedule contingent upon funding and receipt of permits***



# **Contact Information**

- **CTDOT**

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***THANK YOU...***

***FOR YOUR TIME AND ATTENTION***

Connecticut Department of Transportation

