

# **Project Status Update Meeting**

## **June 12, 2018**

- **U.S. Route 1 (E. Main Street & Boston Post Road) over Noroton River**
  - **Replacement of Bridge No. 00315**  
**State Project No. 135-307**



# CT DOT & Consultant Engineers

## **CT DOT**

*Division of Bridges*



## **BL Companies**

*Consultant Liaison Engineer*

**Nick Giardina, P.E.**



## **Anchor Engineering Services**

*Design Consultant - Bridge No. 00315*

*State Project No. 0135-307*

**Mark Zessin, P.E.**





**Bridge No. 00315  
over Noroton River**

**Bridge No.  
00037 over I-95**

**North**

**Noroton River**

**Holly Pond**

## **Aerial View of Bridge 00315**

Connecticut Department of Transportation



# **Existing Bridge Description**

*Bridge No. 00315*

- **Built in 1913, rehabilitated in 1956**

- **Structure Dimensions**

**Bridge Length = 50-feet**

**Two Spans**

**Curb-to-Curb Width = 70-feet**

**Superstructure composed of concrete deck units, concrete encased steel beams & reinforced concrete "T" beams, and closed spandrel arches**

- **Bridge carries two lanes of traffic in each direction with a painted median**

- **Estimated Average Daily Traffic (ADT) on U.S. Route 1 at this site ~ 10,600 vehicles (2013)**





# **Reasons for Project**

*Bridge No. 00315*

**Structure is recommended for replacement under the State Bridge Program.**

## **Reasons include:**

- **Scour Critical**
  - Exposed footings
  - Risk of undermining foundations
- **Structure Condition**
  - South parapet exhibits impact damage
  - Areas of deteriorated concrete with cracks and spalls
  - Corroded reinforcing steel and steel beams





**Looking East**  
***Bridge No. 00315***

Connecticut Department of Transportation







**Looking West**  
**Bridge No. 00315**

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**Looking North**  
***Bridge No. 00315***

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**Looking South**  
***Bridge No. 00315***

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## **Substructure Deterioration**

*Bridge No. 00315*

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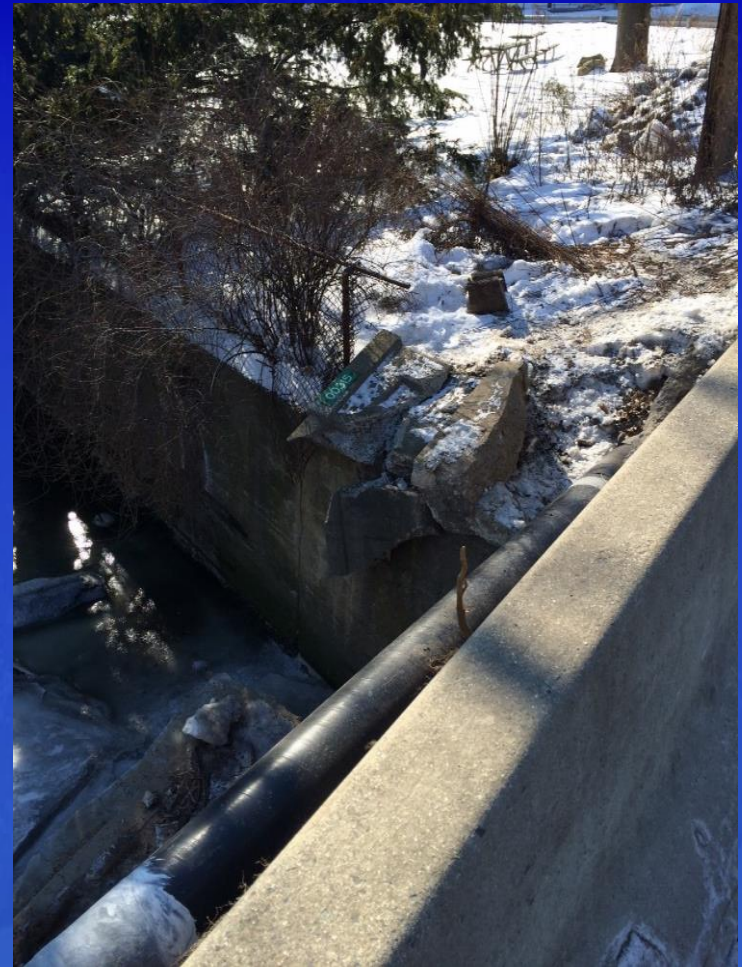
## **Substructure Deterioration**

*Bridge No. 00315*

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## **Impact Damage** ***Bridge No. 00315***

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**Exposed Footings**  
***Bridge No. 00315***

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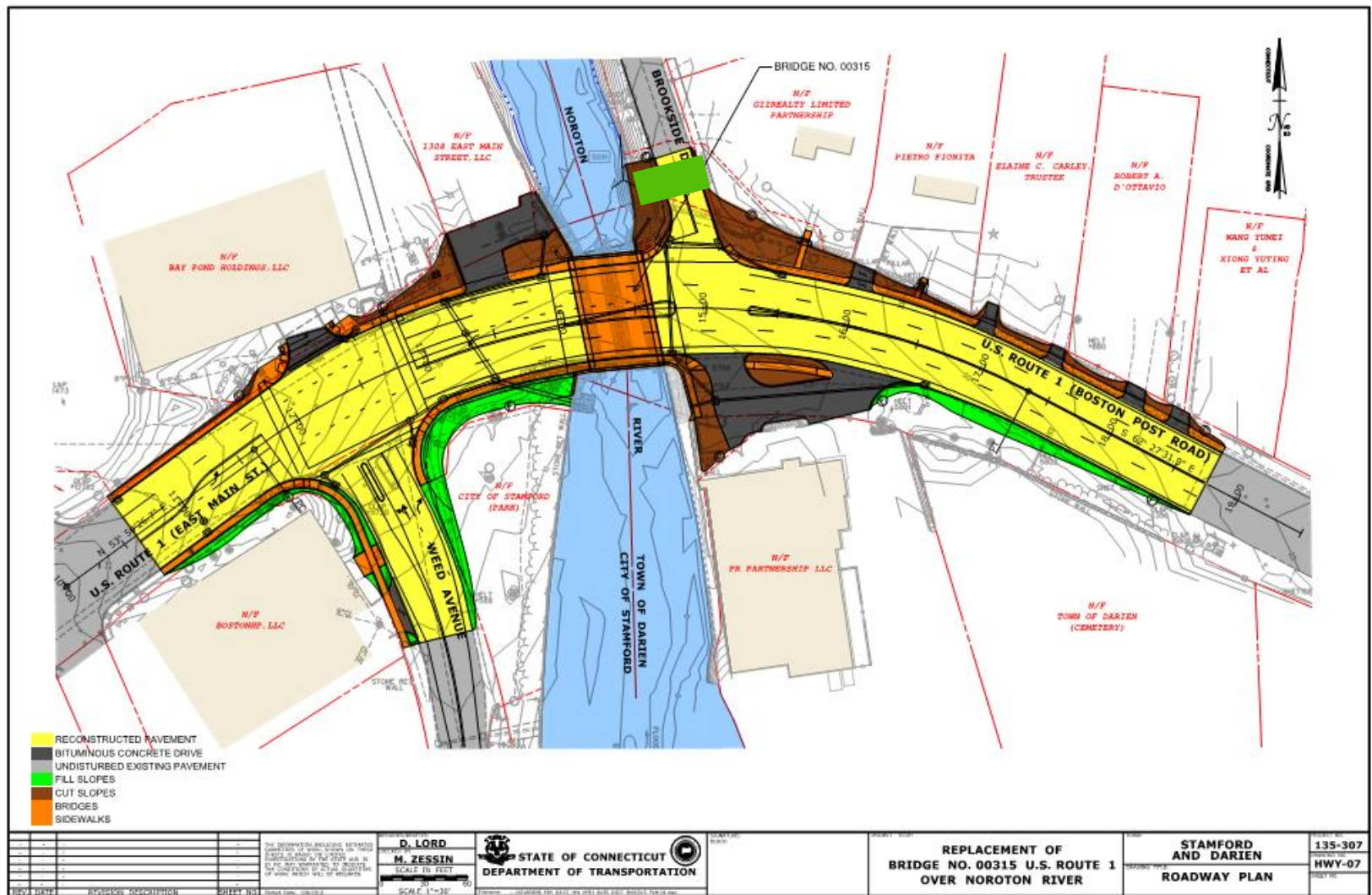
# **Proposed Construction**

*Bridge No. 00315*

- **New single-span New England Extreme Tee (NEXT) prestressed concrete multi-girder structure with a concrete deck**
- **Cast in place concrete abutments supported on piles**
- **2.5-foot profile raise of U.S. Route 1 to meet minimum hydraulic opening requirements**
- **Three lanes of traffic to be maintained during construction**
  - **Temporary bridge to the north**



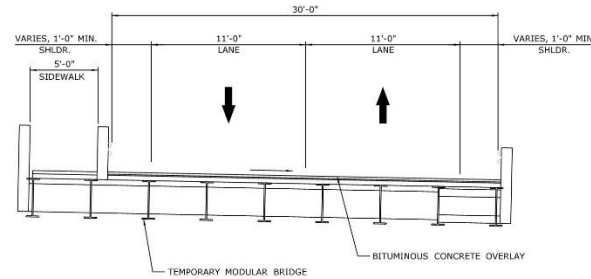




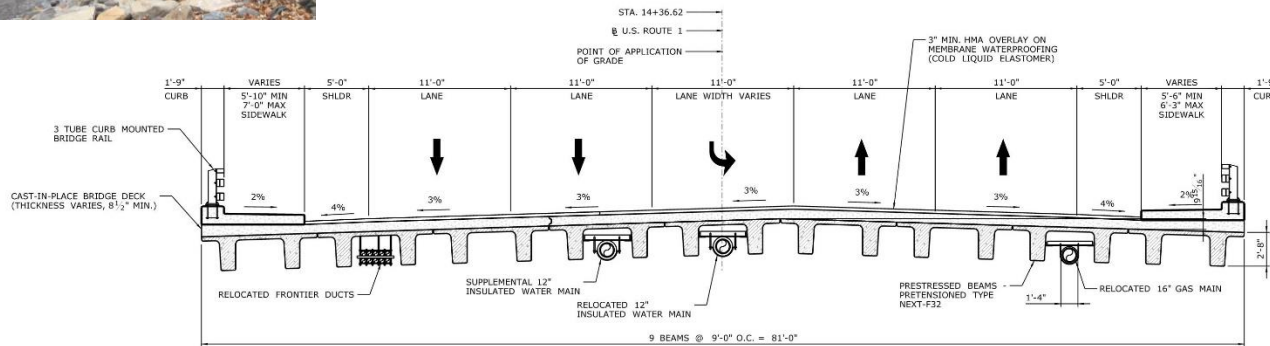
# Proposed Roadway Plan *Bridge No. 00315*

Connecticut Department of Transportation





**TEMPORARY BRIDGE  
TYPICAL SECTION**  
SCALE: 1/4" = 1'-0"



**TYPICAL SECTION**  
SCALE: 1/4" = 1'-0"

REVISION DATE REVISION DESCRIPTION SHEET NO.	THE INFORMATION CONTAINED HEREON IS BASED ON LIMITED INVESTIGATION BY THE STATE AND IS NOT A GUARANTEE OF THE ACCURACY OF THE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL INFORMATION.	PROJECT NO. 135-307 DRAWING NO. S-03 DATE 05.03 PROJECT TITLE REPLACEMENT OF BRIDGE NO. 00315 U.S. ROUTE 1 OVER NOROTON RIVER STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION SCALE AS NOTED	PROJECT TITLE REPLACEMENT OF BRIDGE NO. 00315 U.S. ROUTE 1 OVER NOROTON RIVER	PROJECT NO. 135-307 DRAWING NO. S-03 DATE 05.03 PROJECT TITLE REPLACEMENT OF BRIDGE NO. 00315 U.S. ROUTE 1 OVER NOROTON RIVER
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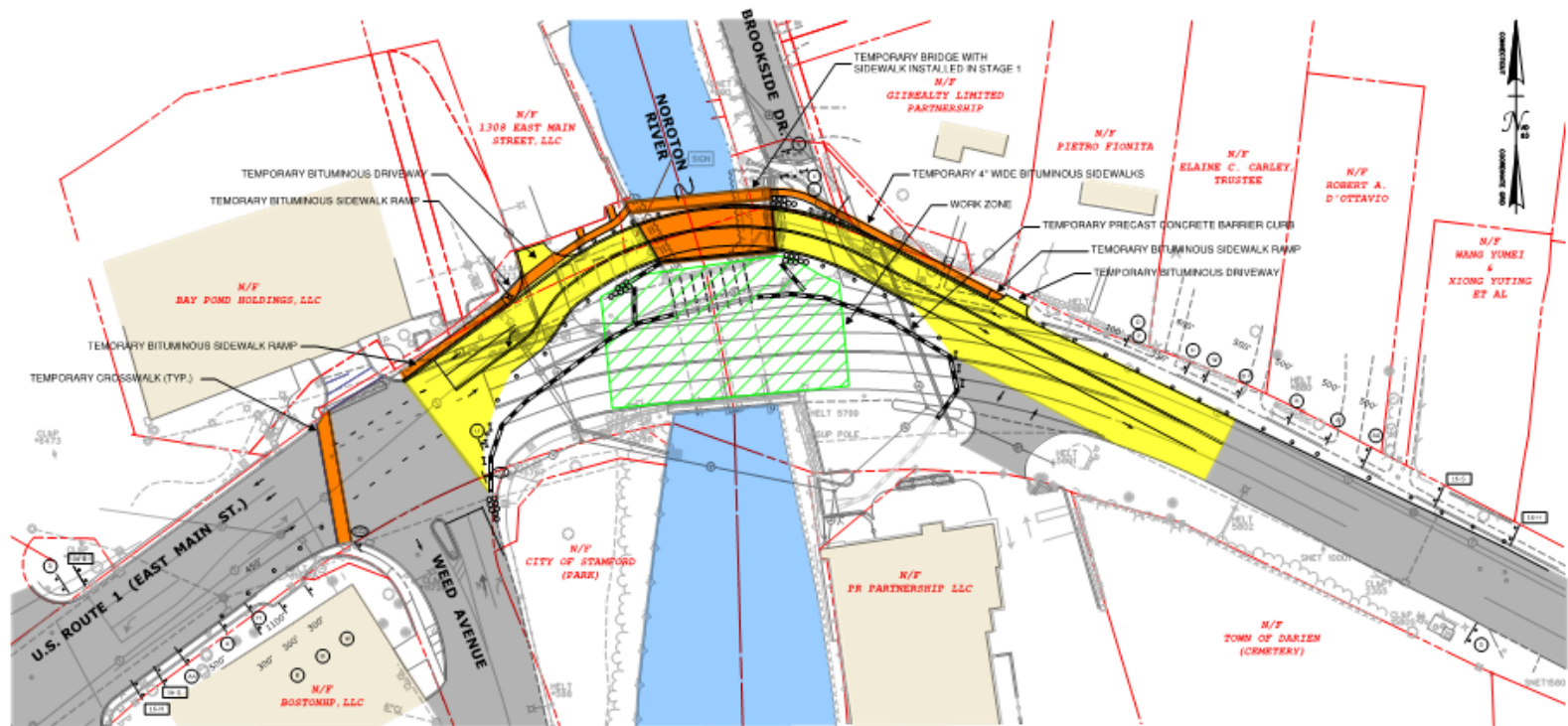
# **Proposed Bridge Plan** **Bridge No. 00315**

Connecticut Department of Transportation









## STAGE 2

<p> <span style="display: inline-block; width: 10px; height: 10px; background-color: yellow; border: 1px solid black;"></span> RECONSTRUCTED PAVEMENT  <span style="display: inline-block; width: 10px; height: 10px; background-color: gray; border: 1px solid black;"></span> BITUMINOUS CONCRETE DRIVE  <span style="display: inline-block; width: 10px; height: 10px; background-color: lightgray; border: 1px solid black;"></span> UNDISTURBED EXISTING PAVEMENT  <span style="display: inline-block; width: 10px; height: 10px; background-color: green; border: 1px solid black;"></span> FILL SLOPES  <span style="display: inline-block; width: 10px; height: 10px; background-color: orange; border: 1px solid black;"></span> CUT SLOPES  <span style="display: inline-block; width: 10px; height: 10px; background-color: brown; border: 1px solid black;"></span> BRIDGES  <span style="display: inline-block; width: 10px; height: 10px; background-color: lightblue; border: 1px solid black;"></span> SIDEWALKS         </p>		<p>           THE DESIGNER HAS REVIEWED THE RECORD DRAWINGS AND FIELD SURVEY DATA AND HAS FOUND THEM TO BE ACCURATE AND SUFFICIENT FOR THE PURPOSES OF THE PROJECT. THE DESIGNER HAS NOT CONDUCTED A FIELD SURVEY OF THE PROJECT AREA AND HAS NOT CONDUCTED A FIELD SURVEY OF THE PROJECT AREA.         </p>		<p> <b>D. LORD</b>  <b>M. ZESSIN</b>            SCALE IN FEET            SCALE 1"=30'         </p>		<p> <b>STATE OF CONNECTICUT</b>  <b>DEPARTMENT OF TRANSPORTATION</b> </p>		<p> <b>REPLACEMENT OF</b>  <b>BRIDGE NO. 00315 U.S. ROUTE 1</b>  <b>OVER NOROTON RIVER</b> </p>		<p> <b>STAMFORD</b>  <b>AND DARLEN</b>  <b>CONSTRUCTION</b>  <b>STAGE 2</b> </p>		<p> <b>135-307</b>  <b>TR-03</b> </p>
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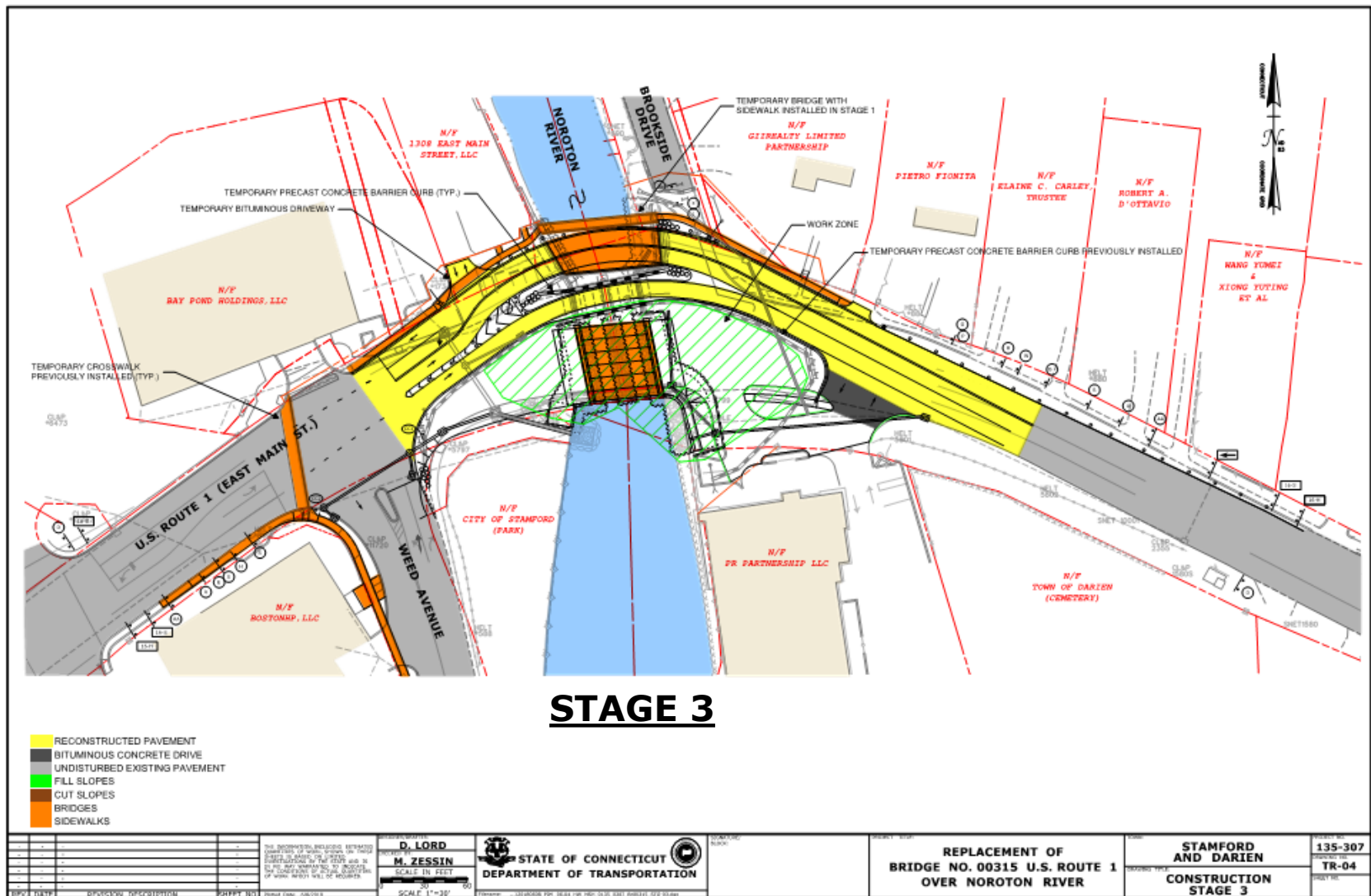
# Construction Stages

## Bridge No. 00315

Connecticut Department of Transportation



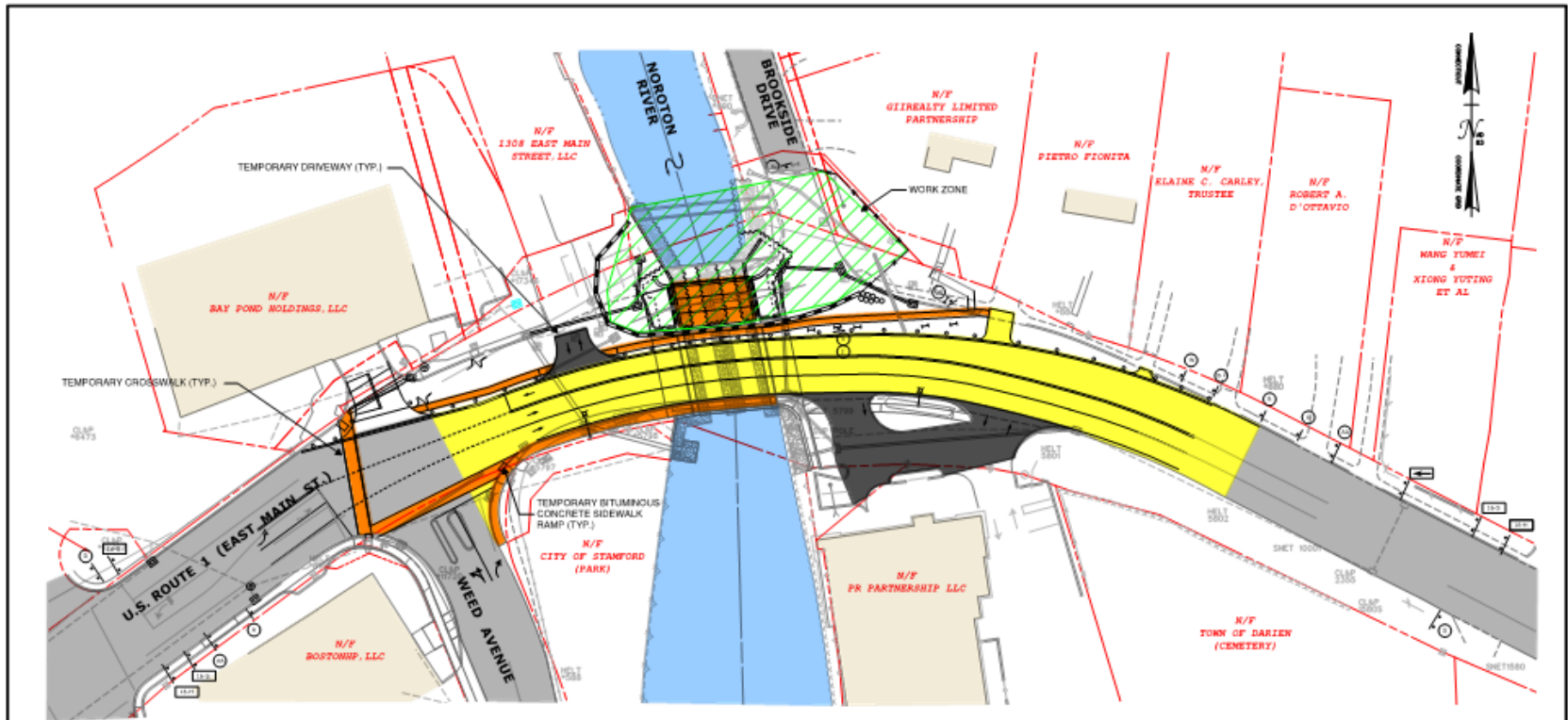




# Construction Stages Bridge No. 00315

Connecticut Department of Transportation





## STAGE 4

- RECONSTRUCTED PAVEMENT
- BITUMINOUS CONCRETE DRIVE
- UNDISTURBED EXISTING PAVEMENT
- FILL SLOPES
- CUT SLOPES
- BRIDGES
- SIDEWALKS

PROJECT NO. 135-307 TR-05 SHEET NO. 135-307	STAMFORD AND DARIEN CONSTRUCTION STAGE 4	REPLACEMENT OF BRIDGE NO. 00315 U.S. ROUTE 1 OVER NOROTON RIVER	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	D. LORD M. ZESSIN SCALE IN FEET SCALE 1"=20'	THE INFORMATION CONTAINED HEREIN IS FOR THE USE OF THE PUBLIC AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. THE INFORMATION CONTAINED HEREIN IS NOT TO BE USED FOR ANY OTHER PURPOSE.
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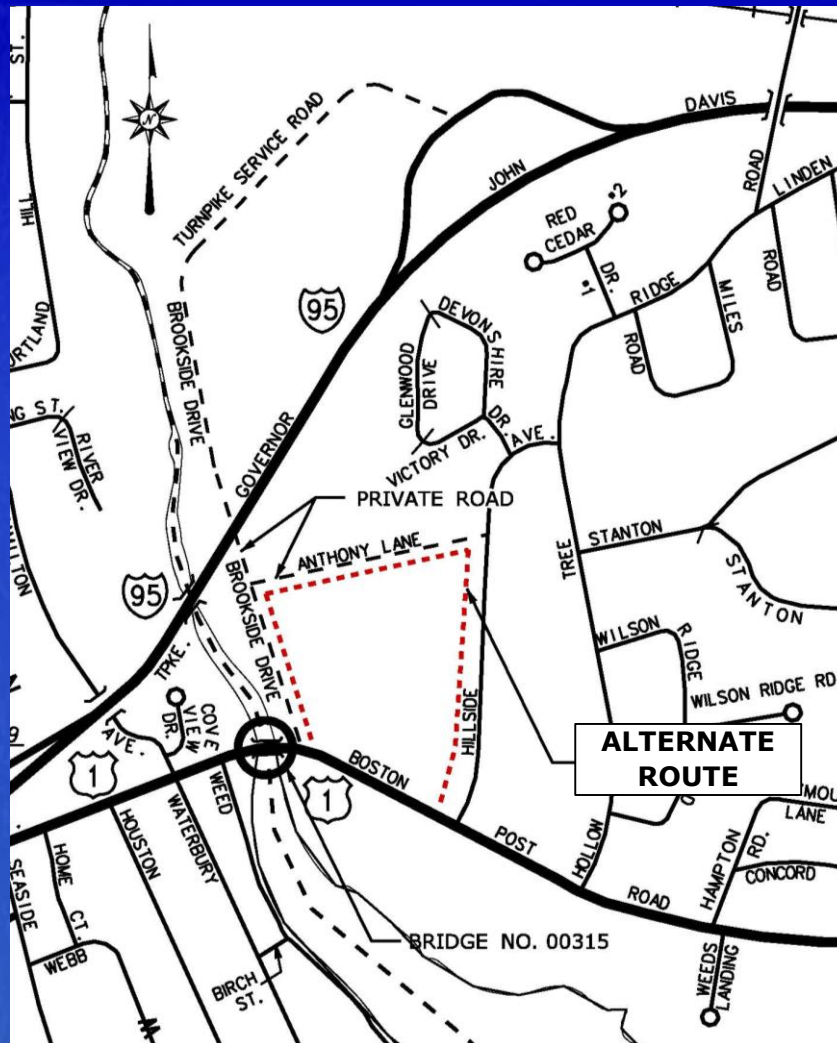
# Construction Stages

## *Bridge No. 00315*

Connecticut Department of Transportation







# **Brookside Drive**

## **Bridge No. 00315**

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# **Allowable Working Periods**

*Bridge No. 00315*

**Contractor will be permitted to work during the following periods:**

- Monday through Thursday, 6:00am – 10:00pm**
- Fridays, 6:00am – 6:00pm**
- Night Work will be permitted for limited activities from Sunday through Thursday, 10:00pm – 6:00am**

**No work will be permitted Friday from 6:00pm through Monday 6:00am, except those periods indicated for night work (Sunday nights)**





# **Project Costs & Schedule**

*Bridge No. 00315*

**Estimated CN Cost: \$8 Million - \$9 Million**

**The project is anticipated to be funded using Federal (80%) and State (20%) capital**

**Construction is anticipated to begin in the fall of 2018.**

**Anticipated construction time = 35 months  
(Construction Completion Date October 1, 2021)**

**The schedule is predicated upon the availability of funding, the issuance of the requested environmental permits and the resolution of all property impacts.**



# **THANK YOU...**

## **FOR YOUR TIME AND ATTENTION**

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# **Contact Information**

## **▪ CT DOT**

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## **▪ BL Companies**

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(860) 249-2200  
[ngiardina@blcompanies.com](mailto:ngiardina@blcompanies.com)**



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# **Anticipated Environmental Permits**

*Bridge No. 00315*

**The proposed construction will impact approximately 5,000 square feet of inland wetlands.**

**The following environmental permits will be required:**

- **CT DEEP – Inland Wetlands Watercourse Permit**
- **CT DEEP – Flood Management Certification**
- **CT DEEP – Structures, Dredging and Fill Permit**
- **ACOE General Permit (Pre-Construction Notification)**
- **CT DEEP – Stormwater Discharge Permi**



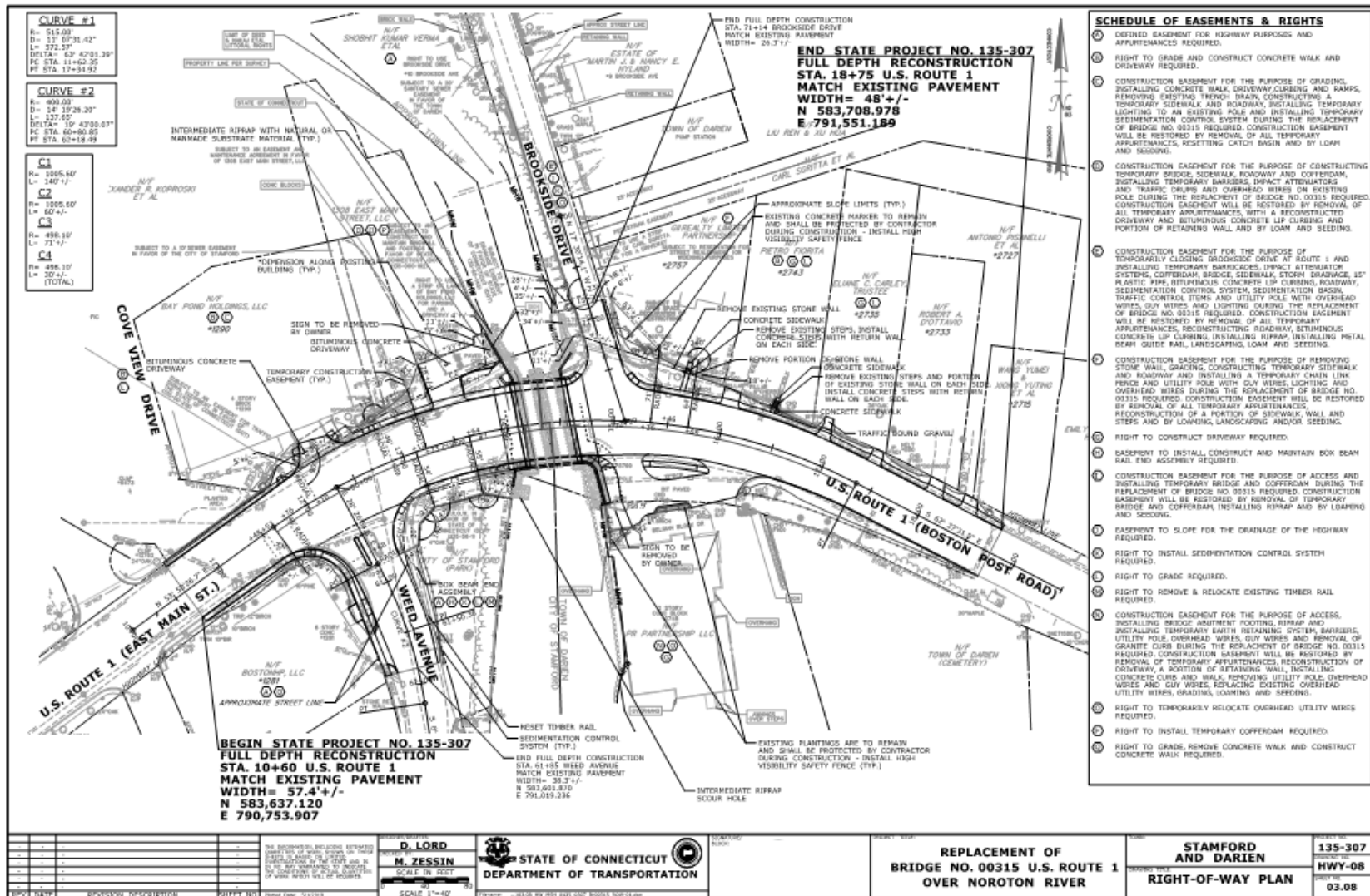
# **Rights-of-Way**

*Bridge No. 00315*

- **Based upon the State boundary map, the width of the U.S. Route 1 Right-of-Way in the vicinity of the bridge is approximately 130-feet.**
- **Anticipated impacts to private property include:**
  - Three (3) defined easements for highway purposes
  - One (1) easement to slope for the drainage of the highway
  - One (1) easement to install, construct and maintain box beam rail end assembly
  - Five (5) temporary construction easements
  - Three (3) right to construct driveways
  - Two (2) right to reconstruct sidewalks
  - Two (2) right to grade and construct concrete walk and driveways
  - One (1) right to remove stone steps and portion of stone wall and replace with concrete steps and wall
  - Four (4) right to grades
  - Three (3) right to temporarily relocate overhead utility wires
  - One (1) right to install temporary cofferdam
  - Two (2) right to install sedimentation control systems
  - One (1) right to remove and relocate existing timber rail







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# **Public Utilities**

*Bridge No. 00315*

## **Overhead utilities at the bridge site:**

- **Frontier Communications and Eversource Energy utility poles (with illumination)**

## **Underground utilities at the bridge site:**

- **Telecommunication ducts, 12" water main and 16" gas main. No impact to sanitary sewer.**

## **Anticipated utility impacts:**

- **Support in place and shift Frontier conduits**
- **Install temporary water main along temporary bridge and install two new water mains on new bridge**
- **Backfeed existing gas main and install new main**
- **Temporary street lighting to be provided during construction**







**Gas Main - South Side**  
***Bridge No. 00315***

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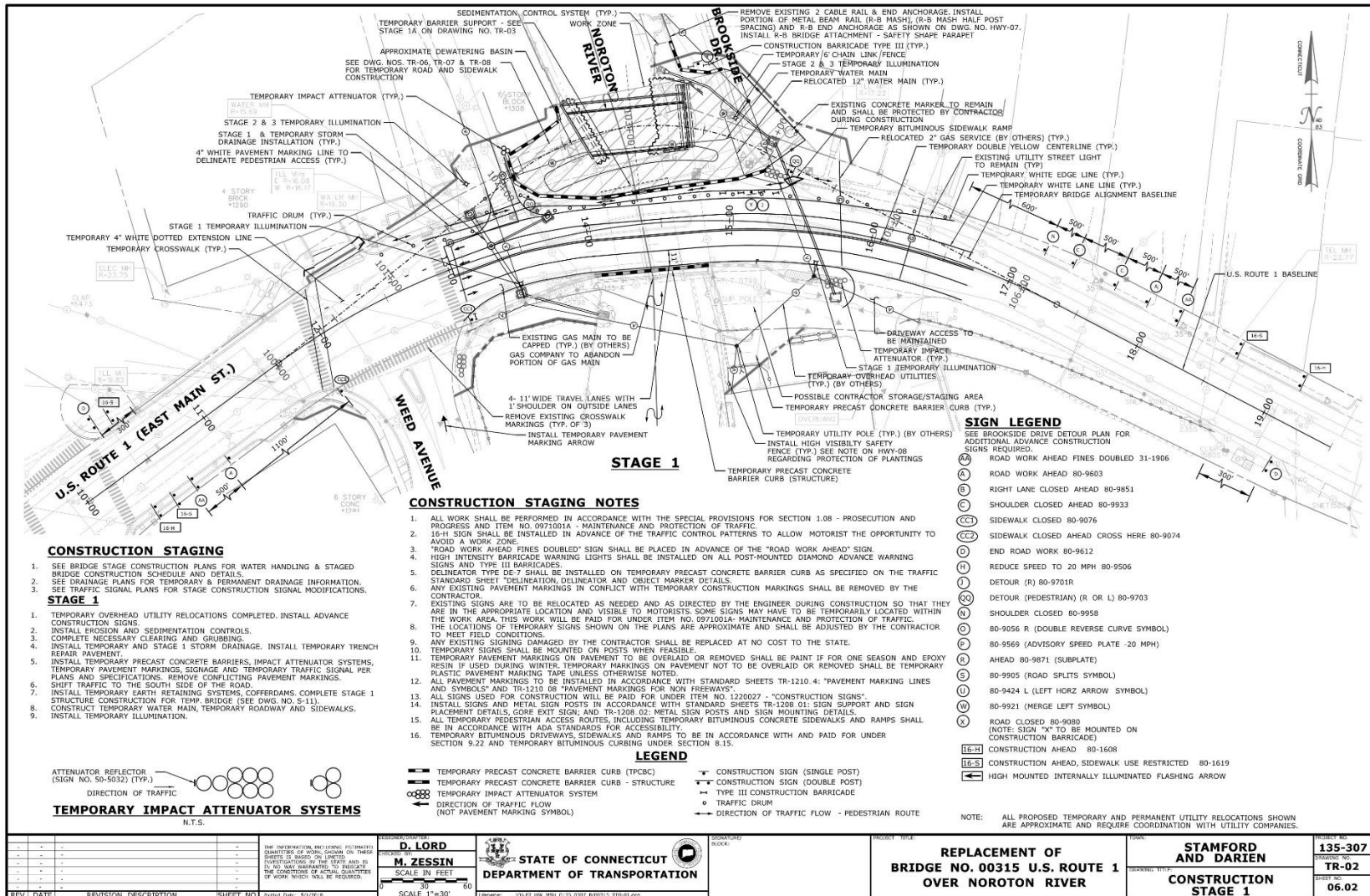
# **Overhead Utilities**

## ***Bridge No. 00315***

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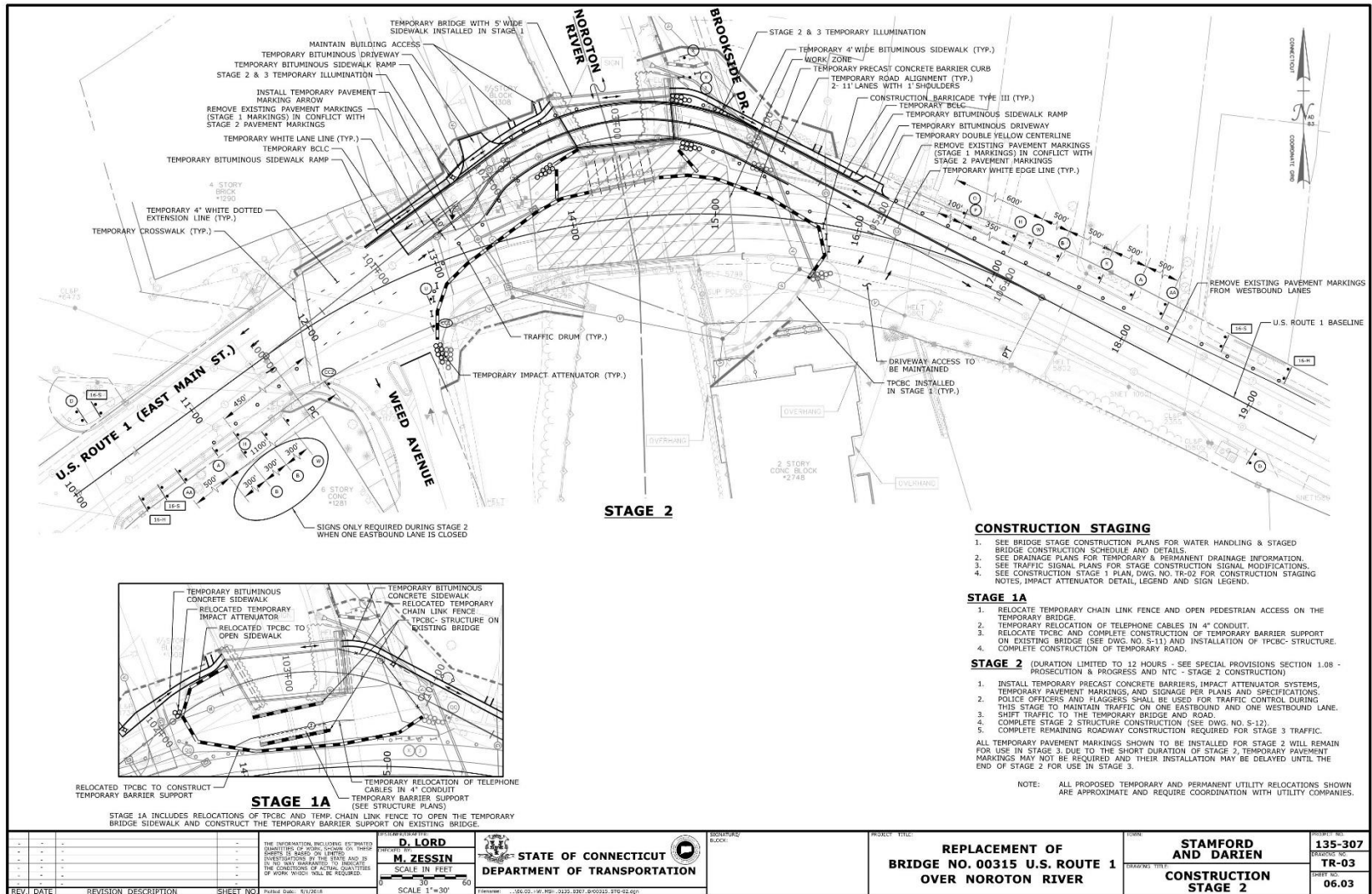


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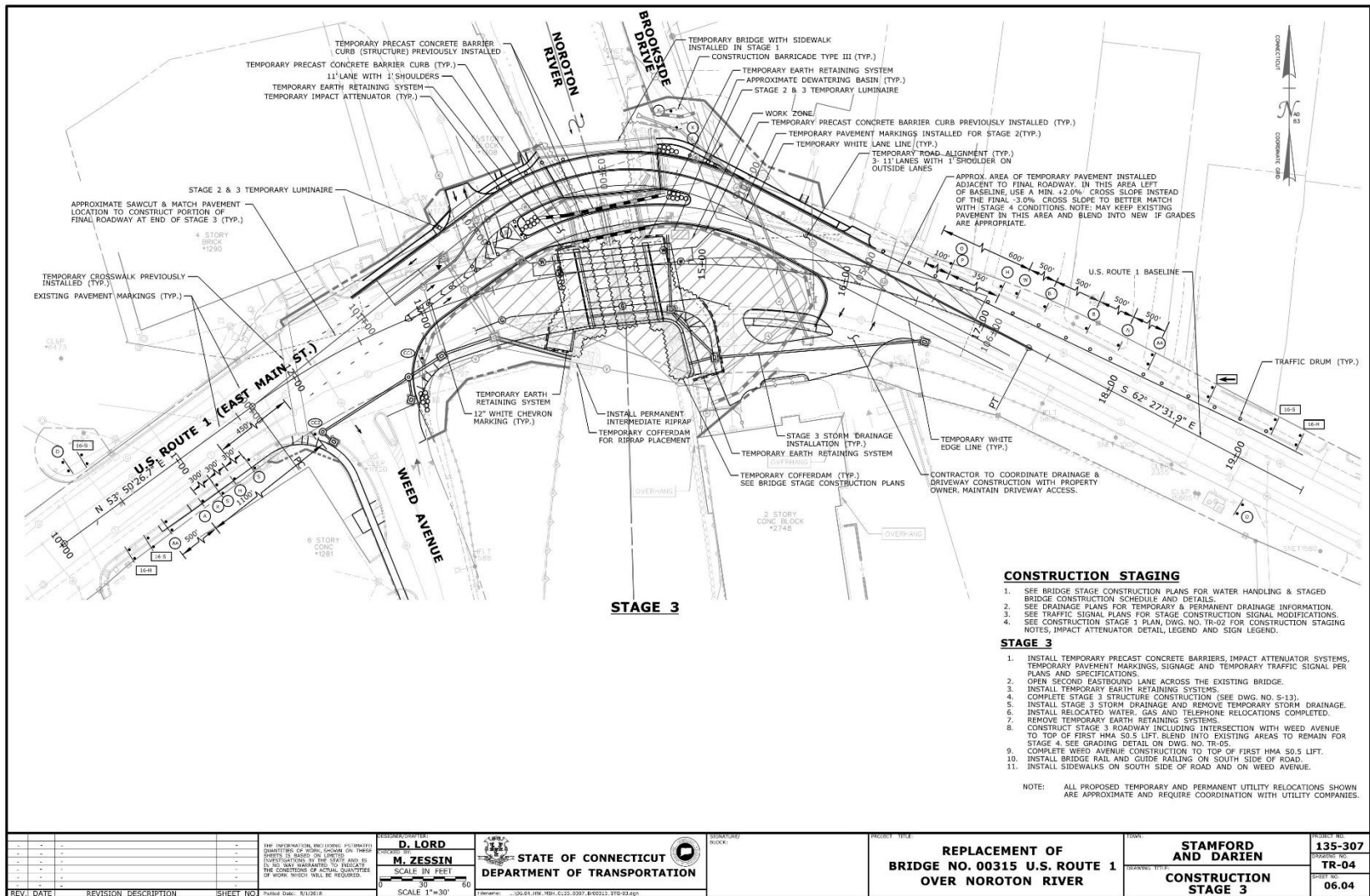
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