# CONNECTICUT DEPARTMENT OF TRANSPORTATION

*Plans For*

## REHABILITATION OF FOUR HOUSATONIC RAILROAD BRIDGES

*Towns of*

## CANAAN, KENT, NEW MILFORD

**BRIDGE NO. 09200R OVER**

**UNNAMED BROOK (M.P. 15.00) IN NEW MILFORD, CT**

**BRIDGE NO. 09204R OVER**

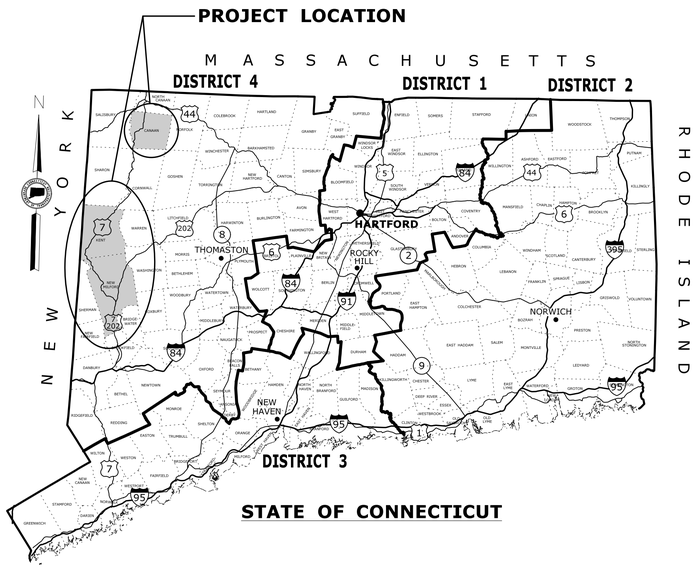
**WOMENSHENUK BROOK (M.P. 21.62) IN KENT, CT**

**BRIDGE NO. 09206R OVER**

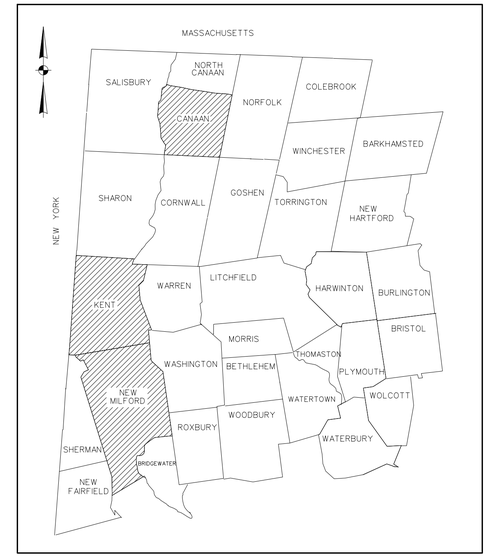
**COBBLE BROOK (M.P. 25.80) IN KENT, CT**

**BRIDGE NO. 09223R OVER**

**THE HOLLENBECK RIVER (M.P. 44.50) IN CANAAN, CT**




**STATE OF CONNECTICUT**




**LOCATION PLAN**

0 10 MILES

0 5 10 15 KM

| F.A.P. # | MAINTENANCE RESPONSIBILITY | PROJECT # |
|---|---|---|
| N.A. | HOUSATONIC RAILROAD COMPANY | 170-3192 |

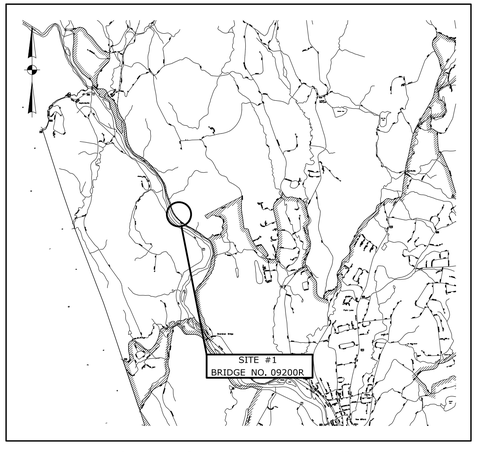
### GENERAL NOTES:

1. CONSTRUCTION SPECIFICATIONS:
   CONNECTICUT DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 817, DATED 2016; SUPPLEMENTAL SPECIFICATIONS, DATED JANUARY 2018, AND SPECIAL PROVISIONS.
2. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1927
3. VERTICAL DATUM BASED ON NGVD 1929

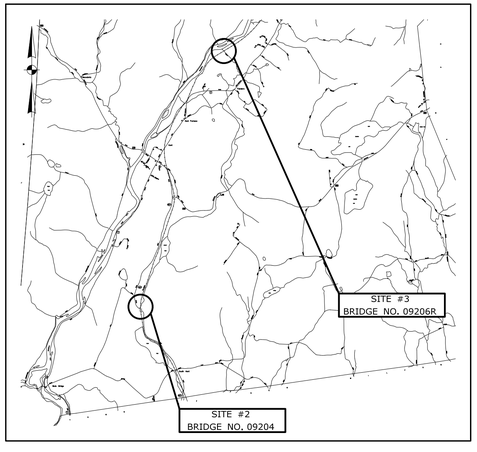
### DISCLAIMER

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICAL SOURCES WITHIN THE DEPARTMENT.

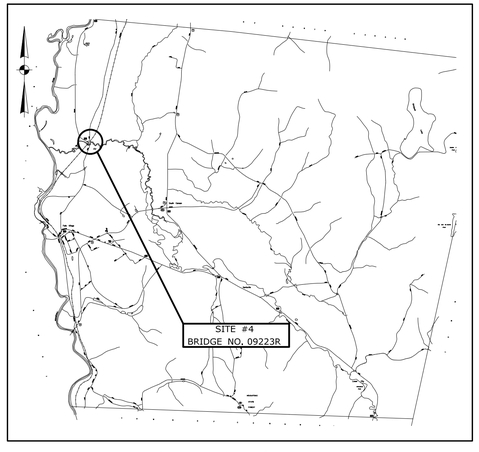
PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE DEPARTMENT TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICAL, INCOMPLETE AND/OR INACCURATE INFORMATION.




**TOWN OF NEW MILFORD**




**TOWN OF KENT**




**TOWN OF CANAAN**

### LIST OF SUBSETS

| SUBSET NO. | SUBSET TITLE | *SUBSET SHEET COUNT |
|---|---|---|
| | VOLUME 1 | |
| 01 | GENERAL | 3 |
| 02 | REVISIONS | 1 |
| | VOLUME 2 | |
| 01 | TRAFFIC | 9 |
| 02 | DETOUR | 2 |
| 03 | LANDSCAPE DESIGN | 5 |
| 04 | ENVIRONMENTAL | 5 |
| 05 | MISCELLANEOUS DETAIL SHEETS | 6 |
| | VOLUME 3 | |
| 01 | BRIDGE NO. 09200R | 13 |
| 02 | BRIDGE NO. 09204R | 13 |
| 03 | BRIDGE NO. 09206R | 13 |
| 04 | BRIDGE NO. 09223R | 21 |
| | | |
| | CTDOT HIGHWAY STANDARD DETAILS | 3 |
| | CTDOT TRAFFIC STANDARD DETAILS | 3 |

*THE INITIAL SUBSET SHEET COUNT DOES NOT INCLUDE ADDENDUMS AND CHANGE ORDERS

### LIST OF DRAWINGS
### SUBSET 01 - GENERAL

| DRAWING TITLE | DRAWING NO. |
|---|---|
| TITLE SHEET | G-1 |
| DETAILED ESTIMATE SHEET | DES-1 |
| DETAILED ESTIMATE SHEET | DES-2 |

STANDARD CONVENTIONS

North Arrow W/No. Coor.
Edge Of Road
Concrete Pavement
Dirt Road
B.C.L.C.
Granite Curb
Guide Rail
Concrete Median Barrier
Bit. Walk
Conc. Sidewalk
Railroad Tracks
Grid Arrow
Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Water Edge
Stream
Ditch
TOWN LINE
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall
Highway Line
Street Line
Property Line
Lot Line
Easement Line

DESIGNED BY:

**LOCHNER**
H.W. LOCHNER, INC
55 Hartland Street, Suite 401
East Hartford, CT 06108

STATE OF CONNECTICUT RICHARD A. BRAY LICENSED PROFESSIONAL ENGINEER

Richard Arthur Bray
2018.07.25
17:08:39 -04'00'

*Plans For*
REHABILITATION OF FOUR RAILROAD BRIDGES ON THE HOUSATONIC LINE

*Towns of*
CANAAN, KENT, NEW MILFORD

STATE PROJECT NO.
**170-3192**

DRAWING NO.
**G-1**

SHEET NO.
**01.01.01**

# STRUCTURE ITEMS

| ITEM NUMBER | 0020903A | 0100600A | 0101000A | 0202000 | 0202200 | 0202216A | 0202625A | 0203000 | 0203100 | 0203202 | 0204001 | 0204213A | 0204401A | 0204402A | 0204403A | 0204404A | 0211000A | 0213100 | 0213501A | 0213902A | 0213904A | 0216000 | 0219001 | 0503152A | 0503154A | 0506015A | 0512016A | 0521021A | 0601000 | 0601201 | 0601276A | 0601464A | 0601652A | 0601995A | 0602000 | 0602053 | 0602536A | 0603064A | 0606906A | 0609030A | 0651001 | 0651065 | 0651079A | 0702101 | 0702111 | 0702115 | 0702120 | 0702341 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | LEAD COMPLIANCE FOR MISCELLANEOUS EXTERIOR TASKS | CONSTRUCTION ACCESS | ENVIRONMENTAL HEALTH AND SAFETY | EARTH EXCAVATION | CHANNEL EXCAVATION - EARTH | EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL | SETTLEMENT MONITORING PROGRAM | STRUCTURE EXCAVATION - EARTH (COMPLETE) | STRUCTURE EXCAVATION - ROCK (COMPLETE) | STRUCTURE EXCAVATION - EARTH (EXCLUDING COFFERDAM AND DEWATERING) | COFFERDAM AND DEWATERING | HANDLING CONTAMINATED GROUND WATER | HANDLING WATER (SITE NO. 1) | HANDLING WATER (SITE NO. 2) | HANDLING WATER (SITE NO. 3) | HANDLING WATER (SITE NO. 4) | ANTI-TRACKING PAD | GRANULAR FILL | BALLAST | SUBBALLAST | BALLAST MAT | PERVIOUS STRUCTURE BACKFILL | SEDIMENTATION CONTROL SYSTEM | REMOVAL OF SUPERSTRUCTURE (SITE NO. 2) | REMOVAL OF SUPERSTRUCTURE (SITE NO. 4) | RESETTING STONE MASONRY | 8" HALF ROUND STEEL DRAINAGE PIPE | STEEL - LAMINATED ELASTOMERIC BEARINGS | CLASS 'A' CONCRETE | CLASS 'F' CONCRETE | PRECAST SUBSTRUCTURE ELEMENTS | 6' X 5' PRECAST CONCRETE BOX CULVERT | RETAINING WALL (SITE NO. 2) | CONCRETE FILLED BAGS | DEFORMED STEEL BARS | WELDED WIRE FABRIC | DRILLING AND GROUTING REINFORCING BARS | STRUCTURAL STEEL (SITE NO. 4) | REBUILD MASONRY WALL | REPOINT MORTAR JOINTS | BEDDING MATERIAL | 72" RC PIPE CLASS V | JACKING 72" RC PIPE CLASS V | FURNISHING STEEL PILES | DRIVING STEEL PILES | SPLICING STEEL PILES | POINT REINFORCEMENT FOR STEEL PILE | TEST PILE (STEEL HP 12 X 84 - 90' LONG) |
| UNIT | LS | LS | LS | CY | CY | CY | LS | CY | CY | CY | LF | LS | LS | LS | LS | LS | SY | CY | CY | CY | SF | CY | LF | LS | LS | LS | LF | CI | CY | CY | CY | LF | LS | CY | LB | LB | LF | LS | CY | LF | CY | LF | LF | LB | LF | EA | EA | EA |
| SITE NO. 1 | | LS | LS | | | | LS | 70 | 10 | | | | LS | | | | 100 | 20 | | | | 55 | 1000 | | | | | | 30 | | | | | | 1300 | 200 | 10 | | 2 | 70 | 10 | 8 | 56 | | | | | |
| SITE NO. 2 | | LS | LS | 40 | 125 | 110 | LS | 90 | | | | | | LS | | | 75 | 30 | 25 | 35 | | 40 | 750 | LS | | | | | | | 5 | 36 | LS | | | | | | | | | | | | | | | |
| SITE NO. 3 | | LS | LS | 15 | 4 | 4 | LS | 50 | | | | | | | LS | | 60 | | 20 | 40 | | | 1100 | | | LS | | | | | 13 | | | 3 | | | | | | 4750 | | | | | | | | |
| SITE NO. 4 | LS | LS | LS | 465 | | 48 | LS | | | 320 | 150 | | | | | LS | 560 | 70 | 45 | 35 | 1670 | 135 | 1160 | | LS | | 225 | 12000 | 160 | 3 | 25 | | | | 12000 | | | LS | | | | | | 327600 | 3900 | 5 | 60 | 2 |
| TOTAL | LS | LS | LS | 520 | 129 | 162 | LS | 210 | 10 | 320 | 150 | LS | LS | LS | LS | LS | 795 | 120 | 90 | 110 | 1670 | 230 | 4010 | LS | LS | LS | 225 | 12000 | 190 | 3 | 43 | 36 | LS | 3 | 13300 | 200 | 10 | LS | 2 | 4820 | 10 | 8 | 56 | 327600 | 3900 | 5 | 60 | 2 |

# STRUCTURE ITEMS

| ITEM NUMBER | 0702797 | 0702896A | 0703010 | 0703012 | 0703030A | 0707009A | 0708001 | 0714026A | 0751831A | 0811003A | 0906001 | 0913841 | 0974001A | 0974099A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | DYNAMIC PILE DRIVING ANALYSIS (P.D.A.) TEST | REMOVAL OF EXISTING TIMBER PILES | STANDARD RIPRAP | MODIFIED RIPRAP | PLACEMENT OF CHANNEL BOULDER | MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC) | DAMPPROOFING | TEMPORARY SHEET PILING (RAILROAD) | 6" OUTLET FOR UNDERDRAIN | PRECAST CONCRETE CURBING | WIRE FENCE WITH WOOD POSTS | SINGLE SWING GATE | REMOVAL OF EXISTING MASONRY | REMOVAL OF DETERIORATED CONCRETE |
| UNIT | EA | EA | CY | CY | EA | SY | SY | SF | LF | LF | LF | EA | CY | CF |
| SITE NO. 1 | | | | | | | | 700 | | 25 | | | 40 | |
| SITE NO. 2 | | | | | | | 90 | | | | | | 50 | |
| SITE NO. 3 | | | | | 6 | | | | | | 300 | 2 | | 150 |
| SITE NO. 4 | 2 | 42 | 235 | 20 | 8 | 270 | | 1800 | 38 | | | | | |
| TOTAL | 2 | 42 | 235 | 20 | 14 | 270 | 90 | 2500 | 38 | 25 | 300 | 2 | 90 | 150 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

PLOTTED: 7/25/2018

DESIGNER/DRAFTER: BC/CR

CHECKED BY: RB

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

FILENAME: ...\SB_MSH_170_3192_4 Sites_DES-1.dgn

LOCHNER
H.W. LOCHNER, INC
55 Hartland St
East Hartford, CT 06108

APPROVED BY: R. BRAY DATE: 12/06/17

PROJECT TITLE:
REHABILITATION OF FOUR HOUSATONIC RAILROAD BRIDGES

TOWN: VARIOUS

DRAWING TITLE: DETAILED ESTIMATE SHEET

PROJECT NO. 170-3192

DRAWING NO. DES-1

SHEET NO. 01.01.02

# LANDSCAPE ITEMS

| ITEM NUMBER | 0949000 | 0949098 | 0949099 | 0949127 | 0949129 | 0949133 | 0949138 | 0949142 | 0949149 | 0949226 | 0949237 | 0949709 | 0949710 | 0949711 | 0949828 | 0949831 | 0949896 | 0949978 | 0949986 | 0950019 | 0950040A | 0950043A | 0952002A | 0952003A | 0952004A | 0952005A | 0952051A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | WOOD CHIP MULCH | CORNUS SERICEA, REDOSIER DOGWOOD 18"-24" HT. CONTAINER | CORNUS AMOMUM, SILKY DOGWOOD 18"-24" HT. CONTAINER | CEPHALANTHUS OCCIDENTALIS, BUTTON BUSH 18" - 24" HT. C/S | CEPHALANTHUS OCCIDENTALIS, BUTTONBUSH 1 GALLON CONTAINER | VACCINIUM CORYMBOSUM, HIGHBUSH BLUEBERRY 18"-24" HT. CONTAINER | ALNUS RUGOSA, SPECKLED ALDER 18"-24" HT. B.B. | QUERCUS PALUSTRIS, PIN OAK, 24" - 36" HT. NO.3 CONTAINER | QUERCUS RUBRA, NORTHERN RED OAK, 24" - 36" HT. NO. 3 CONTAINER | ILEX VERTICILLATA COMMON WINTERBERRY 18"- 24" HT. B.B. | CORYLUS AMERICANA, AMERICAN HAZELNUT, 18"-24" HT. CONTAINER | AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY 4-5 HT. B.B. | AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY 5'-6' HT. B.B. | AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY 6'-8' HT. B.B. | ACER RUBRUM RED MAPLE 3'-4' HT. W HIPS B.R. | ACER RUBRUM RED MAPLE 1 3/4" - 2" CAL. B.B. | HAMAMELIS VIRGINIANA WITCH HAZEL 24"-36" HT. B.B. | QUERCUS PALUSTRIS PIN OAK 2"- 2 1/2" CAL. B.B. | QUERCUS RUBRA, NORTHERN RED OAK, 2 1/2" - 3" CAL. B.B. | TURF ESTABLISHMENT -LAWN | CONSERVATION SEEDING FOR SLOPES | WETLAND GRASS ESTABLISHMENT | SELECTIVE CLEARING AND THINNING (SITE NO. 1) | SELECTIVE CLEARING AND THINNING (SITE NO. 2) | SELECTIVE CLEARING AND THINNING (SITE NO. 3) | SELECTIVE CLEARING AND THINNING (SITE NO. 4) | CONTROL AND REMOVAL OF INVASIVE VEGETATION |
| UNIT | SY | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | SY | SY | SF | LS | LS | LS | LS | SY |
| SITE NO. 1 | | | | | | | | 40 | 40 | 7 | | | 7 | | 40 | 4 | 5 | 3 | 3 | | 550 | 655 | LS | | | | |
| SITE NO. 2 | 150 | | 15 | | | | 20 | | | | 20 | 20 | | | 10 | | | | | | 900 | 2000 | | LS | | | 300 |
| SITE NO. 3 | 101 | 23 | | | 16 | 10 | | | | 30 | | | | 18 | | | | | | 185 | 675 | 1813 | | | LS | | 125 |
| SITE NO. 4 | | 65 | | 22 | | 14 | | | | | | | | 8 | | | | | | | 1960 | 2890 | | | | LS | 1140 |
| TOTAL | 251 | 88 | 15 | 22 | 16 | 24 | 20 | 40 | 40 | 37 | 20 | 20 | 7 | 26 | 50 | 4 | 5 | 3 | 3 | 185 | 4085 | 7358 | LS | LS | LS | LS | 1565 |

# TRAFFIC ITEMS

| ITEM NUMBER | 0969062A | 0970007 | 0971001A | 0975004 | 0977001 | 0979003 | 0980101A | 0980102A | 0980103A | 0980104A | 1220013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | CONSTRUCTION FIELD OFFICE - MEDIUM | TRAFFICPERSON (UNIFORMED FLAGGER) | MAINTENANCE AND PROTECTION OF TRAFFIC | MOBILIZATION AND PROJECT CLOSEOUT | TRAFFIC CONE | CONSTRUCTION BARRIER TYPE III | CONSTRUCTION STAKING (SITE NO. 1) | CONSTRUCTION STAKING (SITE NO. 2) | CONSTRUCTION STAKING (SITE NO. 3) | CONSTRUCTION STAKING (SITE NO. 4) | CONSTRUCTION SIGNS-BRIGHT FLUORESCENT SHEETING |
| UNIT | MO | HR | LS | LS | EA | EA | LS | LS | LS | LS | SF |
| SITE NO. 1 | | 200 | | LS | 10 | 4 | LS | | | | 520 |
| SITE NO. 2 | | | | LS | | | | LS | | | 31 |
| SITE NO. 3 | | | | LS | | | | | LS | | 31 |
| SITE NO. 4 | 12 | | LS | LS | | | | | | LS | 74 |
| TOTAL | 12 | 200 | LS | LS | 10 | 4 | LS | LS | LS | LS | 674 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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H.W. LOCHNER, INC
55 Hartland St
East Hartford, CT 06108

APPROVED BY: R. BRAY DATE: 12/06/17

PROJECT TITLE:
REHABILITATION OF FOUR HOUSATONIC RAILROAD BRIDGES

TOWN: VARIOUS

DRAWING TITLE: DETAILED ESTIMATE SHEET

PROJECT NO. 170-3192

DRAWING NO. DES-2

SHEET NO. 01.01.03