GENERAL NOTES

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 DATED 2004, SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2015 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO-2012) AND 2013 INTERIM REVISION, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL - 2003 AND 2015 INTERIM REVISION.

ALLOWABLE DESIGN STRESSES:
STRUCTURAL STEEL - AASHTO M270, GRADE 50 T2, BASED ON FY = 50,000 PSI

CLASS "F" CONCRETE: BASED ON F.' = 4,400 PSI
CLASS "S" CONCRETE: BASED ON F.' = 4,000 PSI
CONCRETE FOR LINK-SLAB: BASED ON FC' = 4,500 PSI
REINFORCEMENT - ASTM A615: BASED ON FY = 60,000 PSI

THE SPECIFIED CONCRETE STRENGTH USED IN DESIGN, F.', OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 'SECTION 6.01 CONCRETE FOR STRUCTURES'.

LIVE LOAD: HL 93

FUTURE PAVING ALLOWANCE: NONE

STRUCTURAL STEEL: 1
KNOWN QUANTITIES OF STEEL MEMBERS SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL (SITE NO. 1)" INCLUDING: NEW STIFFENERS, ANGLES, BOLSTERS, W-SHAPE MEMBERS AND CHANNELS FOR THE PURPOSE OF STRENGTHENING BEAMS AND GIRDERS, REPLACING CROSS FRAME MEMBERS AND LATERAL BRACING. ALSO INCLUDING SOLE PLATES AND MASONRY PLATES, AS APPLICABLE, FOR THE PURPOSE OF REPLACING EXPANSION AND FIXED BEARINGS AS SHOWN ON THE PLANS.

REPAIR PLATES AND ANY ADDITIONAL STEEL REPAIRS THAT REQUIRES FIELD MEASUREMENT SHALL BE PAID FOR UNDER ITEM "STRUCTURAL STEEL". SEE STRUCTURAL STEEL NOTES ON S-40

PAINT: PAINT SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIAL PROVISION "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF STRUCTURE (SITE NO. 1)"
THE COLOR OF THE TOPCOAT MATERIAL ON THE STRUCTURAL STEEL SHALL CONFORM TO FEDERAL STANDARD COLOR NO. 26329 (BLUE)

SITE NO.	BRIDGE NO.	TOWN	ROUTE/LOCATION	FED. STD. COLOR NO.	LEAD PRESENT IN EXIST. COATING
1	00608	LITCHFIELD	ROUTE 8 NB	26329	Y

HOT MIX ASPHALT: SEE THE CROSS SECTION SHEET IN THIS SUBSET

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.

COMPOSITE CONSTRUCTION:
CONSTRUCTION LOADS AND DEAD LOADS (INCLUDING PARAPETS) WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONCRETE HAS REACHED A STRENGTH OF F.' = 3500 PSI. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONCRETE HAS REACHED A STRENGTH OF F_c'=4400 PSI

CLASS "F" CONCRETE: CLASS "F" CONCRETE SHALL BE USED FOR THE DECK SLAB EXCLUDING THE LINK-SLAB REGIONS, SUPERSTRUCTURE PARAPETS, RECONSTRUCTED WINGWALL PARAPETS, BACKWALL, AND RECONSTRUCTION OF CONCRETE PAVEMENT APPROACH SLABS.

CLASS "S" CONCRETE: CLASS "S" CONCRETE SHALL BE USED FOR REPAIR OF CONCRETE SUBSTRUCTURE (SOUTH AND NORTH ABUTMENTS AND PIERS 1-6).

CONCRETE FOR LINK-SLAB: CONCRETE FOR LINK-SLAB SHALL BE USED FOR THE CONSTRUCTION OF THE LINK-SLAB, AND SUPERSTRUCTURE PARAPETS WITHIN THE LINK-SLAB REGIONS OVER PIERS 1, 2 AND 3.

REMAIN-IN-PLACE FORMS:
THE USE OF REMAIN-IN-PLACE FORMS ON THIS STRUCTURE IS NOT ALLOWED DUE TO WEIGHT RESTRICTIONS.

JOINT SEAL: SEE SPECIAL PROVISIONS

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE PLANS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS OTHERWISE NOTED

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE

REINFORCEMENT: ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60

REINFORCING BARS: ALL REINFORCEMENT IN THE SUPERSTRUCTURE INCLUDING THE CONCRETE DECK SLAB, THE PARAPETS, AND THE NEW APPROACH SLABS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.
THESE BARS SHALL BE INCLUDED IN THE PAY ITEM FOR "DEFORMED STEEL BARS-GALVANIZED".
ALL REINFORCEMENT IN THE SUBSTRUCTURE REPAIR AND KEEPER BLOCKS SHALL BE UNCOATED BLACK BAR.

MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC): COLD LIQUID ELASTOMERIC SHALL BE PLACED ON THE BRIDGE DECK AND APPROACH SLABS AFTER THEY HAVE BEEN POURED AND CURED. THE COLD LIQUID ELASTOMERIC SHALL EXTEND 2"± UP THE CURBS.

ANALYSIS OF BRIDGE FOR CONTAINMENT STRUCTURE: SEE NOTES ON THIS SHEET.

SEQUENCE OF OPERATIONS FOR BRIDGE NO. 00608

1. CONSTRUCT CROSS-OVER AND DETOUR ROUTE 8 NB TRAFFIC TO BRIDGE 00609. CLOSE BRIDGE 00608 TO TRAFFIC.
2. REMOVE HMA WEARING SURFACE AND HALF OF EXISTING CONCRETE DECK. USE REMAINING HALF FOR CONSTRUCTION ACCESS. REFER TO S-05. 2
3. INSTALL CONTAINMENT PLATFORM/SCAFFOLDING UNDER BRIDGE BUT WITHOUT THE SIDE WALLS FULLY ERECTED TO MINIMIZE WIND LOAD EFFECTS ON THE BRIDGE. NOTE THAT CONTAINMENT WILL STILL BE NECESSARY FOR PAINT AND DEBRIS REMOVAL AND COLLECTION AT THE STEEL REPAIR LOCATIONS. REFER TO SPECIAL PROVISIONS "LOCALIZED PAINT REMOVAL AND FIELD PAINTING OF EXISTING STEEL" AND "LEAD COMPLIANCE FOR MISCELLANEOUS EXTERIOR TASKS". 1
4. REPAIR SUBSTRUCTURE WITH CLASS "S" CONCRETE (SOUTH ABUTMENT, NORTH ABUTMENT AND PIERS 1-6.)
5. REPAIR THE STRUCTURAL STEEL IN EXPOSED BAYS AFTER DECK REMOVAL:

   GIRDER SPANS:

   REPLACE THE PREVIOUSLY RETROFITTED SPLICES WITH CONTINUOUS STEEL.
   REPLACE THE PIN & HANGERS WITH A BOLTED SPLICE.
   REPLACE EXISTING ROCKER BEARINGS IN THE GIRDER SPANS WITH (ROUND) STEEL-LAMINATED ELASTOMERIC BEARINGS AT THE FOLLOWING LOCATIONS: PIER 4, PIER 6 AND AT THE NORTH ABUTMENT.
   INSTALL LATERAL RESTRAINT SYSTEM FOR THE GIRDERS AT PIER 4, PIER 6 AND THE NORTH ABUTMENT.
   LEAVE IN FIXED LINE OF BEARINGS AT PIER 5.
   DECK TO BE JOINTLESS (EXCEPT AT PIER 4).

   ROLLED BEAM SPANS:

   REMOVE EXPANSION AND FIXED BEARINGS IN ROLLED BEAM SPANS AND REPLACE THE BEARINGS WITH NEW SOLE PLATES AND ELASTOMERIC BEARINGS.
   JACK UP BEAM ENDS AT PIER 4 AND REPLACE BOLSTERS, LATERAL ANGLES, CONCRETE PEDESTALS AND REPLACE THE BEARING WITH ELASTOMERIC BEARINGS.
   AT PIER 2, INSTALL A "FIX-FIX"CONDITION, USING ELASTOMERIC PADS WITH SHEAR PINS.
   INSTALL LATERAL RESTRAINT SYSTEM FOR THE ROLLED BEAM SPANS AT THE SOUTH ABUTMENT, PIER 1, AND PIER 3.
   DECK TO BE JOINTLESS, BY MEANS OF "LINK SLABS"(EXCEPT AT PIER 4)
6. POUR CONCRETE DECK. REPEAT STEPS 2-6 FOR SECOND HALF OF CONCRETE DECK. REFER TO S-05. 2
7. ERECT FULL CONTAINMENT ENCLOSURE
8. CLEAN AND PAINT SUPERSTRUCTURE STEEL BY ABRASIVE BLAST CLEANING METHODS. IF ADDITIONAL DETERIORATED STEEL IS ENCOUNTERED DURING THE BLAST CLEANING OPERATIONS NEW REPLACEMENT STEEL SHALL BE OBTAINED AS REQUIRED TO DO THE REPAIRS. THIS ADDITIONAL STRUCTURAL STEEL SHALL BE DELIVERED WITH THE PRIMER COAT ALREADY APPLIED TO IT. METHOD OF PAYMENT FOR THIS WORK TO BE PAID FOR UNDER ITEM "STRUCTURAL STEEL"
9. UPGRADE GUIDE RAIL SYSTEMS TO MODERN STANDARDS (R-B 350).
10. REMOVAL OF DRAINAGE SYSTEM AND REPLACEMENT WITH FREE FALL SCUPPERS.
11. CONSTRUCT APPROACH SLABS AT BOTH ENDS OF THE BRIDGE.
12. INSTALL SPRAY APPLIED MEMBRANE TO THE CONCRETE DECK TO SEAL TENSION CRACKS AND PROTECT THE DECK AGAINST FUTURE DETERIORATION. THIS WOULD BE FOLLOWED BY PLACEMENT OF 3" HOT MIX ASPHALT.
13. INSTALL EXPANSION JOINT OVER SOUTH ABUTMENT, PIER 4 AND NORTH ABUTMENT.
14. INSTALL APPROACH GUIDE RAIL
15. RESTRIPE ROADWAY (TRAFFIC ITEMS)
16. REOPEN BRIDGE TO TRAFFIC

ANALYSIS OF BRIDGE:

THE BRIDGE NEED NOT BE ANALYZED FOR THE LOAD EFFECTS OF THE CONTAINMENT STRUCTURE ON THE BRIDGE PROVIDED THE FOLLOWING CONDITIONS ARE MET DURING CONSTRUCTION:

1. PRIOR TO ERECTION OF THE CONTAINMENT/SCAFFOLDING STRUCTURE THE EXISTING HMA WEARING SURFACE SHALL BE REMOVED. ALSO, PRIOR TO PLACING THE FINAL HMA OVERLAY, THE CONTAINMENT/SCAFFOLDING STRUCTURE MUST BE REMOVED
2. LIVE LOAD TRAFFIC WILL NOT BE ON THE BRIDGE WHILE THE CONTAINMENT/SCAFFOLDING STRUCTURE IS IN PLACE. 2 EXCLUDED FROM THIS ARE CONSTRUCTION EQUIPMENT WITH WEIGHT NO GREATER THAN THE LEGAL LOADS.
3. ESTIMATED WEIGHT OF CONTAINMENT SYSTEM DOES NOT EXCEED 75 PSF. VACUUMING OF BLAST DEBRIS SHALL BE DONE IN ACCORDANCE WITH OSHA STANDARDS OR AS OFTEN AS NECESSARY TO MEET THIS REQUIREMENT
4. UNDER NO CIRCUMSTANCES WILL HEAVY MATERIALS OR BLASTING EQUIPMENT BE STORED ON THE BRIDGE. IT SHALL BE STORED OFF OF THE BRIDGE. DEBRIS FROM THE VARIOUS WORK OPERATIONS, FOR EXAMPLE, REMNANTS OF THE REMOVED HMA WEARING SURFACE, SHALL BE REMOVED AS QUICKLY AS POSSIBLE FROM THE STRUCTURE
5. THE CONTAINMENT/SCAFFOLDING STRUCTURE ITSELF MUST BE PROPERLY DESIGNED TO ACCOMODATE ALL ANTICIPATED LOADS THAT WILL BE APPLIED TO IT.

NOTES:

ERECTION OF THE CONTAINMENT PLATFORM/SCAFFOLDING UNDER THE BRIDGE SHALL BE DONE IN ACCORDANCE WITH THE "SEQUENCE OF OPERATIONS" ON THIS SHEET.

ERECTION OF THE FULL CONTAINMENT STRUCTURE COMPONENTS SHALL NOT BE DONE UNTIL THE MAJOR STEEL REPAIRS HAVE BEEN COMPLETED.

ALL DEMOLITION AND CONSTRUCTION OPERATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE NAUGATUCK RAILROAD, AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER. SEE SPECIAL PROVISION "PROSECUTION AND PROGRESS" FOR LIMITATION OF CONTRACTOR'S OPERATIONS AND REQUIREMENTS FOR WORK ADJACENT TO OR OVER THE RAILROAD.

THE CONTAINMENT PLATFORM SHALL ALSO BE USED AS SCAFFOLDING DURING THE STEEL REPAIR OPERATIONS, WHICH WILL TAKE PLACE PRIOR TO THE PAINTING. SCAFFOLDING USED FOR THE STEEL REPAIR WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCLUDED FOR PAYMENT UNDER ITEM "CLASS 1 CONTAINMENT AND COLLECTION OF SURFACE PREPARATION DEBRIS (SITE NO. 1)".

BOTTOM OF SCAFFOLDING/CONTAINMENT PLATFORM SHALL BE ABOVE THE 100 YEAR FLOOD ELEVATION.

NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE). THE FREQUENCY OF INSPECTION OF THESE STRUCTURES SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE

COMPONENT OR DETAIL	BRIDGE SHEET REFERENCE
Follow normal inspection procedure	———

THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

Rabih M. Barakat P.E.

Digitally signed by Rabih M. Barakat P.E.
DN: CN=Rabih M. Barakat P.E., O=State of Connecticut, E=rabih.barakat@ct.gov, OU=Department of Transportation, OU= Transportation Principal Engineer of Bridge Design, OU=Division of Bridges and Facilities, L=Newington, S=Connecticut, C=US
Date: 2015.06.26 14:02:42-04'00'

TRANSPORTATION PRINCIPAL ENGINEER

ADDENDUM NO. 2

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
1	06/23/2015	REVISED SEQUENCE OF OPERATIONS AND PAYMENTS	-
2	06/26/2015	REVISED SEQUENCE OF OPS. AND ANALYSIS OF BRIDGE	-

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 Date: 6/26/2015

DESIGNER/DRAFTER: SAB
CHECKED BY: JWP
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\0073-0182_S-02A2_General Notes - Copy.dgn

SIGNATURE/BLOCK: OFFICE OF ENGINEERING
APPROVED BY:

PROJECT TITLE: REHABILITATION OF BRIDGE NO. 00608 ROUTE 8 NB

TOWN: LITCHFIELD/HARWINTON

DRAWING TITLE: GENERAL NOTES

PROJECT NO. 73-182
DRAWING NO. S-02
SHEET NO. 04.02.A2