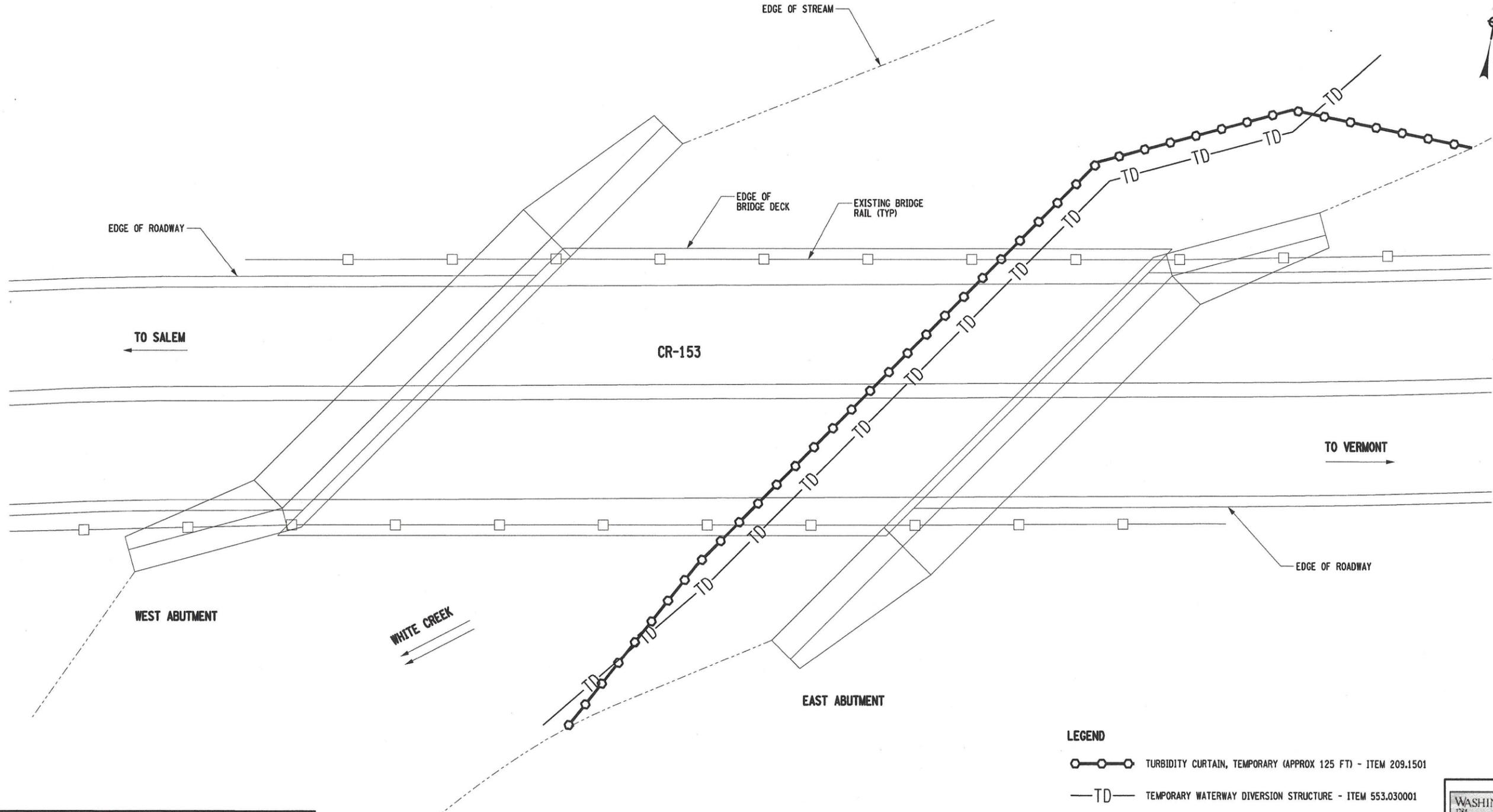


**NOTES**

PER INSPECTION NOTES A 2 3/8" GALVANIZED CONDUIT IS ON THE SOUTH FASCIA OF THE BRIDGE

GRID NORTH



**LEGEND**

- TURBIDITY CURTAIN, TEMPORARY (APPROX 125 FT) - ITEM 209.1501
- TEMPORARY WATERWAY DIVERSION STRUCTURE - ITEM 553.030001



AFFIX SEAL: XXXX  
ON: XXXX

ALTERED BY: XXXX  
ON: XXXX

**NOT PRELIMINARY  
FOR CONSTRUCTION**

AS-BUILT REVISIONS  
DESCRIPTION OF ALTERATIONS:


PIN XXXX

BRIDGES 3305810

CULVERTS

COUNTY: WASHINGTON COUNTY REGION: 1

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

CR-153 OVER WHITE CREEK  
BRIDGE PLAN

CONTRACT NUMBER XXXX

DRAWING NO. ST-01  
SHEET NO. 01

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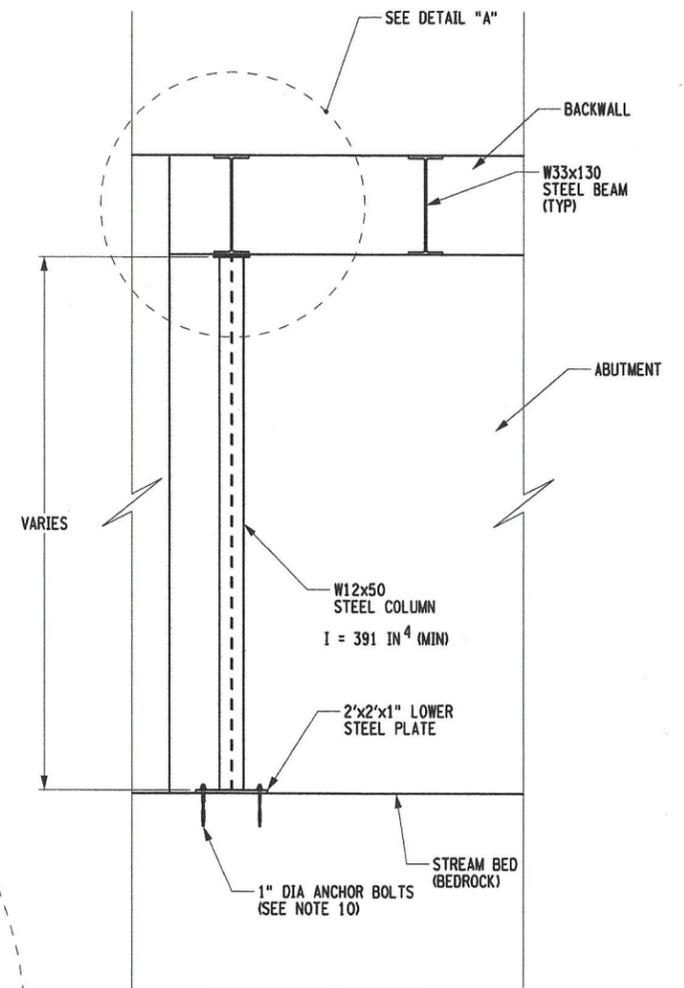
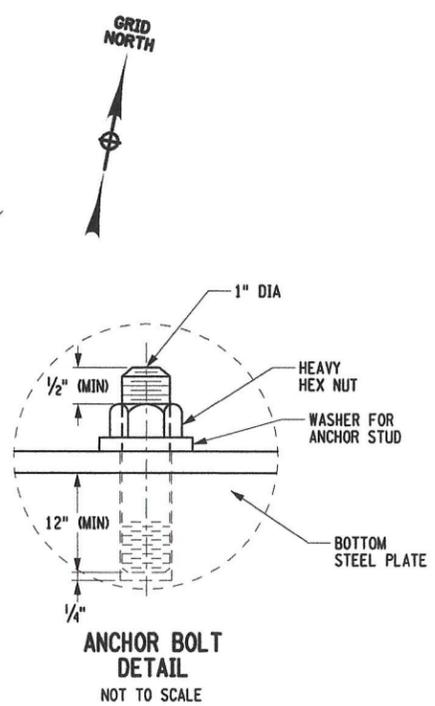
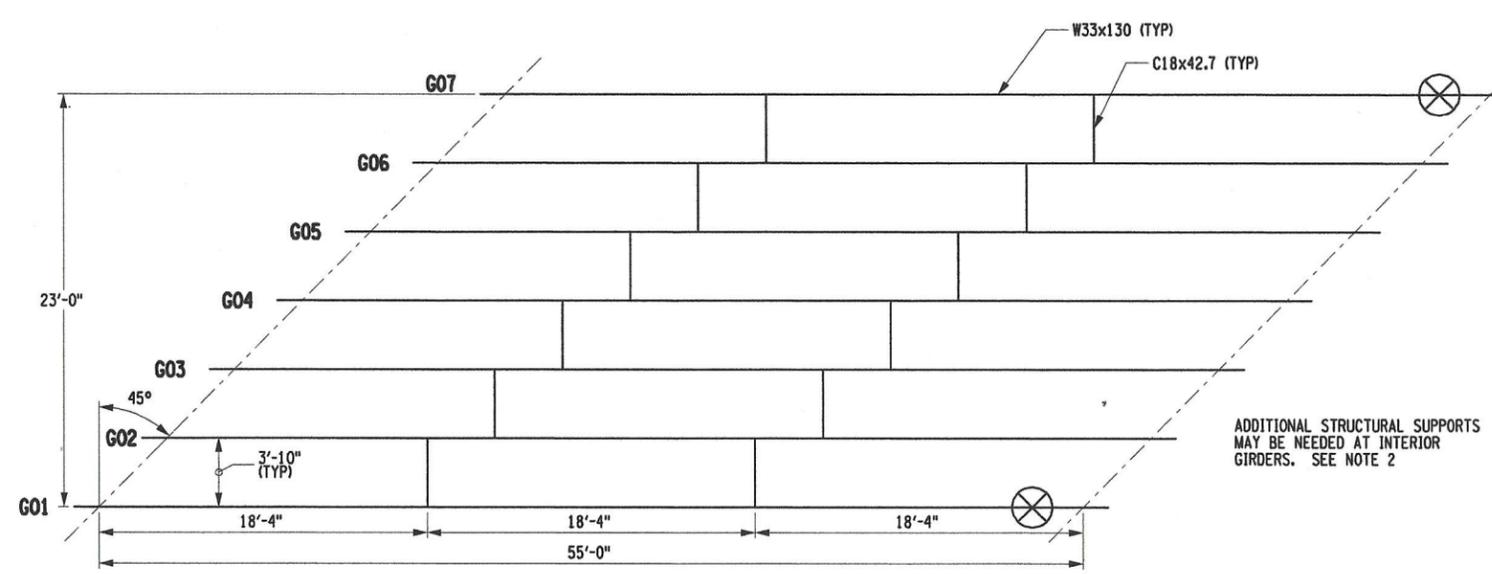
**C&S COMPANIES**  
C&S Engineers, Inc.  
499 Col. Eileen Collins Blvd.  
Syracuse, New York 13212  
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DATE/TIME =  
USER = mchaelro

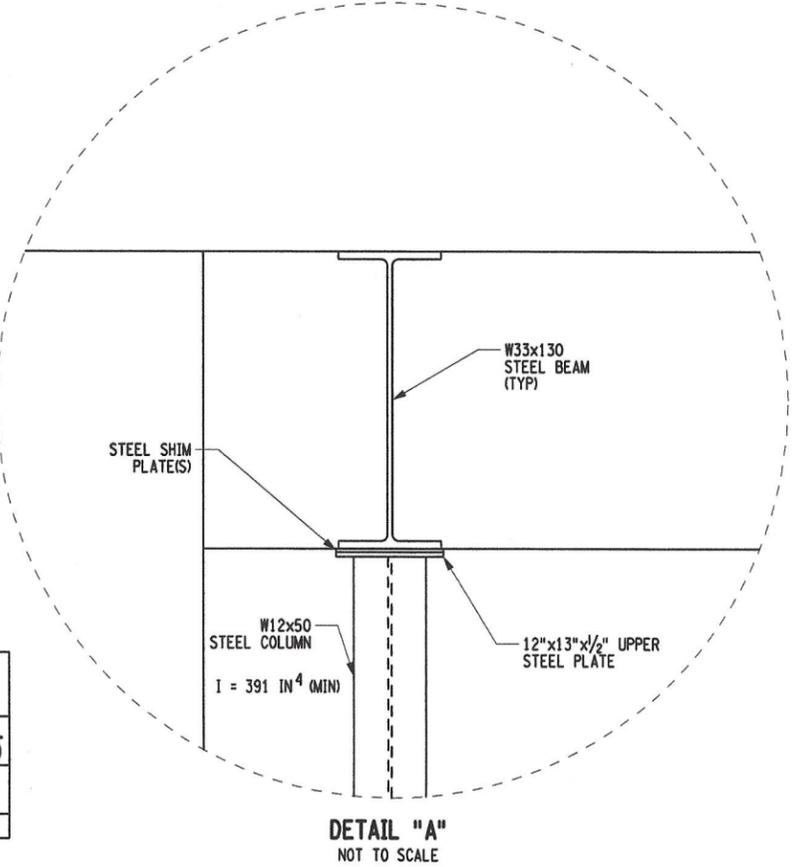
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JFC CHECK  
MAR DRAFTING  
JFC CHECK  
MAR DESIGN  
JFC JOB MANAGER  
JRF DESIGN SUPERVISOR

JFC PROJECT MANAGER  
 JFC CHECK  
 MAR DRAFTING  
 JFC CHECK  
 MAR DESIGN  
 JFC JOB MANAGER  
 JFC DESIGN SUPERVISOR



**NOTES**

1. THE MAXIMUM HEIGHT OF STRUCTURAL SUPPORT AT THE ABUTMENTS SHALL BE SUFFICIENT TO SECURELY HOLD THE W33x130 STEEL BEAM IN ITS EXISTING POSITION.
2. DURING CONCRETE ABUTMENT STEM REPAIR, THE BEARING LENGTH OF EACH BEAM SHALL NOT BE LESS THAN 5", OTHERWISE STRUCTURAL SUPPORTS SHALL BE USED.
3. VEHICULAR TRAFFIC OR CONSTRUCTION EQUIPMENT SHALL NOT BE PERMITTED ON THE SUPPORTED SPAN UNTIL SHIMS, CRIBBING, BOLSTERS OR OTHER SUITABLE SUPPORTS ARE IN THEIR REQUIRED POSITION.
4. LIFTING WITH A VERTICAL RAISE SHALL BE CONFINED TO ONE END OF A SPAN AT ANY ONE TIME.
5. NO ADDITIONAL STRUCTURAL LIFTING SHALL BE ALLOWED WITHOUT PRIOR WRITTEN CONSENT BY THE ENGINEER.
6. LOOSEN EXISTING UTILITY SUPPORT HANGER HARDWARE AS REQUIRED NOT TO DAMAGE ANY EXISTING UTILITIES DURING STRUCTURAL LIFTING. THE COSTS FOR THIS WORK SHALL BE INCLUDED IN THE STRUCTURAL LIFTING ITEMS.
7. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A709 GRADE 50.
8. THE SURFACES BETWEEN THE W12x50 STEEL BEAM, UPPER PLATE, AND LOWER PLATE SHALL BE WELDED USING 5/16" WELD.
9. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
10. A TOTAL OF FOUR (4) 1" DIA FULLY THREADED ANCHOR BOLTS SHALL BE DRILLED AND GROUTED TO A DEPTH OF 1' (MIN) INTO SOLID BEDROCK AT EACH STRUCTURAL LIFT LOCATION. SEE ANCHOR BOLT DETAIL THIS SHEET.
11. SHIMS SHALL BE APPLIED AS NEEDED BETWEEN THE UPPER PLATE AND THE W33x130 STEEL BEAM TO PROVIDE A TIGHT FIT OF THE SUPPORT BETWEEN THE GROUND AND THE BRIDGE.
12. AFTER THE APPLICATION OF THE SHIMS THE UPPER PLATE SHALL BE SECURELY FASTENED TO THE W33x130 STEEL BEAM WITH CLAMPS OR OTHER TEMPORARY FASTENERS.
13. ALL STEEL BEAMS, PLATES, ANCHOR BOLTS, HARDWARE, AND INSTALLATION TO BE PAID FOR UNDER ITEM 585.01.



STRUCTURAL SUPPORT LOAD TABLE (UNFACTORED)				
KEY	TYPE - ITEM	DEAD LOAD (KIPS)	LIVE LOAD * W/IMPACT (KIPS)	TOTAL (KIPS)
⊗	TYPE "A" ITEM 585.01	43	39	82
* - LIVE LOAD = HS-20				

AFFIX SEAL: XXXX  
ON: XXXX

ALTERED BY: XXXX  
ON: XXXX

NOT PRELIMINARY FOR CONSTRUCTION

AS-BUILT REVISIONS  
DESCRIPTION OF ALTERATIONS:


PIN XXXX	BRIDGES 3305810	CULVERTS
COUNTY: WASHINGTON COUNTY	REGION: 1	

**C&S COMPANIES**  
 C&S Engineers, Inc.  
 499 Col. Eileen Collins Blvd.  
 Syracuse, New York 13212  
 Phone: 315-455-2000  
 Fax: 315-455-9667  
 www.cscos.com



ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

CR-153 OVER WHITE CREEK  
STRUCTURAL SUPPORTING DETAILS

CONTRACT NUMBER XXXX

DRAWING NO. ST-02  
SHEET NO. 02

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FILE NAME = 2/16/2017  
DATE/TIME =  
USER = mhobello

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 JFC CHECK  
 MAR DRAFTING  
 JFC CHECK  
 MAR DESIGN  
 JFC DESIGN  
 JFC JOB MANAGER  
 JFC DESIGN SUPERVISOR

**NOTES**

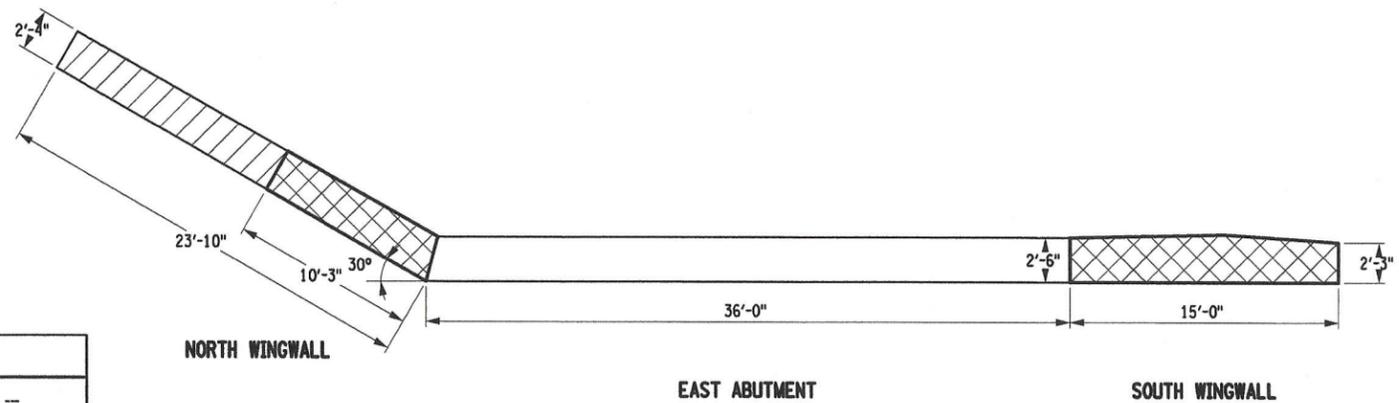
DIMENSIONS BASED ON RECORD PLANS AND FIELD OBSERVATIONS.  
 DIMENSIONS ARE APPROXIMATE.  
 FOOTING NOT SHOWN FOR CLARITY.  
 SEE DRAWING ST-04 FOR CONCRETE REPAIR DETAILS.  
 ALL CONCRETE REPAIRS TO BE SEALED - PROTECTIVE SEALING OF STRUCTURAL CONCRETE - ITEM 559.16960118

**LEGEND**

- REMOVAL OF STRUCTURAL CONCRETE, REPLACEMENT WITH CLASS A CONCRETE - ITEM 582.05
- REMOVAL OF STRUCTURAL CONCRETE, REPLACEMENT WITH CLASS D CONCRETE - ITEM 582.06

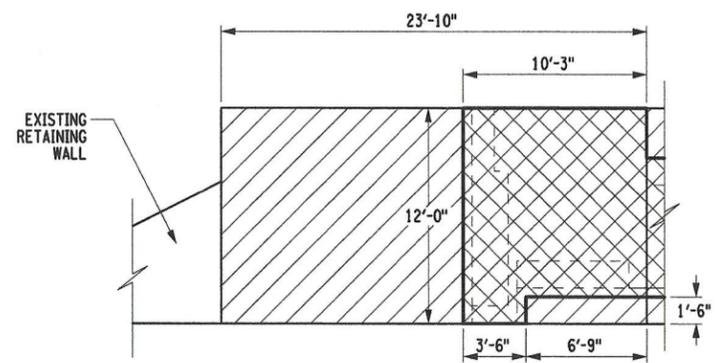
**PROPOSED REPAIR QUANTITY TABLE**

ITEM NUMBER	DESCRIPTION	QUANTITY	
559.16960118	PROTECTIVE SEALING OF STRUCTURAL CONCRETE	820 SF	--
582.05	REMOVAL OF STRUCTURAL CONCRETE, REPLACEMENT WITH CLASS A CONCRETE (ASSUME 1 FT DEPTH)	280 SF	10 CY
582.06	REMOVAL OF STRUCTURAL CONCRETE, REPLACEMENT WITH CLASS D CONCRETE (ASSUME 5 INCH DEPTH)	540 SF	8 CY

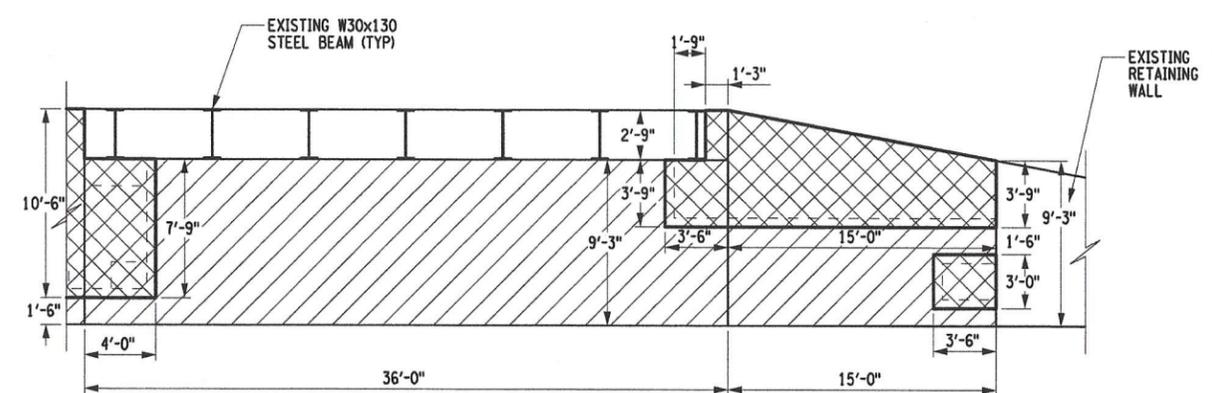


**PLAN VIEW**

NOTE: DIMENSIONS ARE APPROXIMATE.



**NORTH WINGWALL**



**ELEVATION VIEW**

NOTE: DIMENSIONS ARE APPROXIMATE.



AFFIX SEAL: XXXX ON: XXXX  
 ALTERED BY: XXXX ON: XXXX

NOT PRELIMINARY FOR CONSTRUCTION

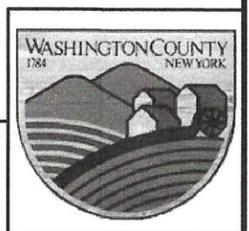
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:


COUNTY: WASHINGTON COUNTY	REGION: 1
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PIN XXXX	BRIDGES 3305810	CULVERTS
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**C&S ENGINEERS, INC.**  
 499 Col. Eileen Collins Blvd.  
 Syracuse, New York 13212  
 Phone: 315-455-0000  
 Fax: 315-455-9667  
 www.cscos.com

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED  
 CR-153 OVER WHITE CREEK  
 ABUTMENT REPAIR PLAN



CONTRACT NUMBER XXXX  
 DRAWING NO. ST-03  
 SHEET NO. 03

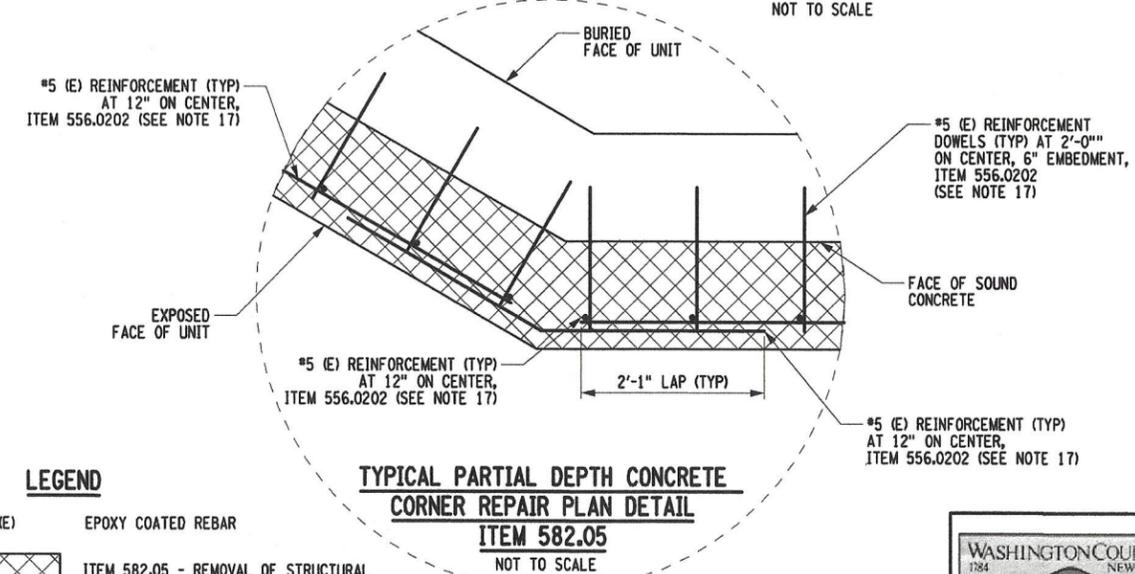
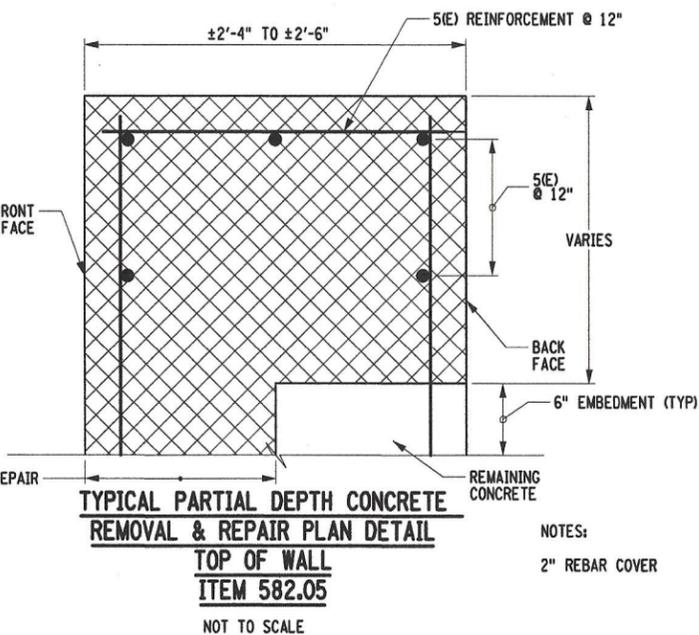
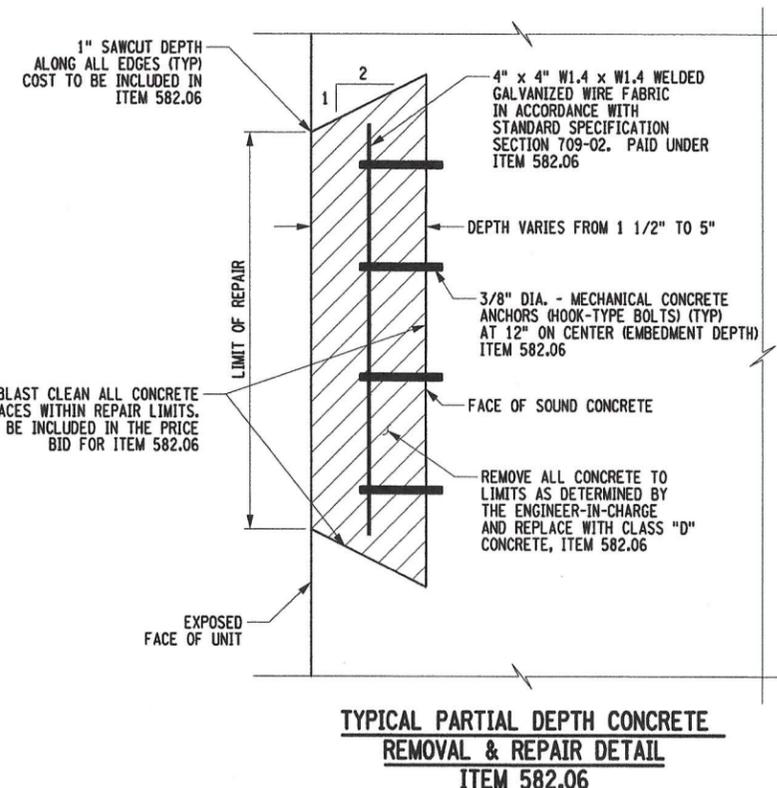
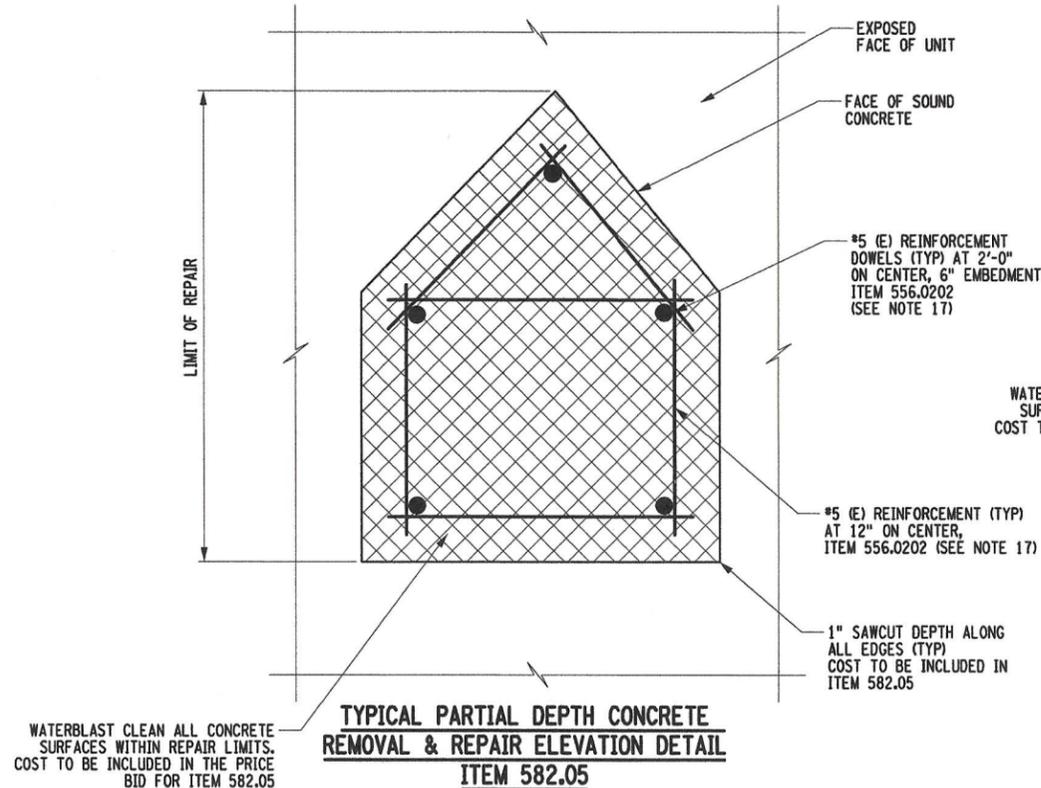
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 DATE/TIME =  
 USER = mchaelr

**CONCRETE REPAIR NOTES:**

- FOR REPAIR LOCATIONS SEE DWG. NO. ST-03.
- THE DETAILS ON THESE PLANS INDICATE THE CONCRETE DETERIORATION NOTED ON A FIELD INSPECTION. ALL OF THE MAJOR AREAS OF CONCRETE DETERIORATION KNOWN TO EXIST AT THE TIME OF CONTRACT PREPARATION HAVE BEEN SHOWN TO INDICATE THE APPROXIMATE EXTENT OF DETERIORATION THAT WILL HAVE TO BE REPAIRED BY THE COUNTY. LIMITS OF CONCRETE REMOVAL AND REPAIR WILL BE DETERMINED BY THE COUNTY'S FIELD SUPERVISOR.
- DURING REMOVAL OPERATIONS, THE COUNTY SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS AND OTHER MATERIAL TO THE AREA BELOW THE STRUCTURE EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE ITEMS OF THE CONTRACT.
- ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE STRUCTURE SHALL BE REMOVED AND DISPOSED OF BY THE COUNTY.
- THE COUNTY SHALL ADHERE TO ANY CONDITIONS OF ENVIRONMENTAL AGENCIES FOR THIS PROJECT. AGENCY COORDINATION AND ANY REQUIRED NOTIFICATIONS SHALL BE THE RESPONSIBILITY OF THE COUNTY.
- FOR VERTICAL LOCATIONS, REPAIRS SHALL BE MADE USING ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE. CLASS D CONCRETE SHALL BE PLACED AT LOCATIONS WHERE REMOVAL DEPTHS AVERAGE BETWEEN 1.5" AND 5".
- IF REMOVAL DEPTH TO SOUND CONCRETE EXCEEDS 5", PAYMENT FOR CONCRETE WILL BE MADE ON A CUBIC YARD BASIS UNDER ITEM 582.05. COST FOR CONCRETE ANCHORS AND WELDED WIRE FABRIC WILL BE INCLUDED IN THE PRICE BID FOR ITEM 582.05.
- NO PERCENTAGE SUBSTITUTION OF THE TOTAL CEMENTITIOUS MATERIAL WITH A POZZOLAN FLY ASH OR GGBFS (GROUND, GRANULATED BLAST FURNACE SLAG) SHALL BE PERMITTED WITHIN THE CLASS D CONCRETE.
- CHIPPING HAMMERS USED TO REMOVE CONCRETE FROM ALL SUBSTRUCTURES SHALL NOT EXCEED 25 POUNDS IN WEIGHT WITH THE BIT REMOVED.
- THE COUNTY'S ATTENTION IS DIRECTED TO THE FACT THAT SOUND CONCRETE MAY HAVE TO BE REMOVED TO OBTAIN THE MINIMUM DEPTH OF 1 1/2".
- ALL CONCRETE SURFACES RECEIVING NEW CONCRETE SHALL BE WATERBLASTED. JUST PRIOR TO THE APPLICATION OF NEW CONCRETE, THE SURFACES SHALL BE AIR CLEANED, AND WET DOWN. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS CONCRETE ITEMS IN THE CONTRACT.
- ALL BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60, AND SHALL CONFORM TO SECTION 556 OF THE STANDARD SPECIFICATIONS, UNLESS OTHERWISE INDICATED IN THE PLANS.
- THE COUNTY'S FIELD SUPERVISOR MAY ORDER SUPPLEMENTAL MECHANICAL CONCRETE ANCHORS AS PART OF THE CONCRETE REPLACEMENT PROCEDURE.
- THE EXTENT OF CONCRETE REMOVAL FOR ANY COMPONENT SHALL NOT JEOPARDIZE ITS STRUCTURAL INTEGRITY.
- THE EXISTING CONCRETE ABUTMENTS ARE ASSUMED TO BE UNREINFORCED.
- REINFORCEMENT DOWELS ARE TO BE DRILL AND GROUTED TO A DEPTH OF 6" (MINIMUM). WORK SHALL BE PAID FOR UNDER ITEM 586.0201, DRILLING AND GROUTING BOLTS OR REINFORCING BARS.
- DUE TO THE VARIABLE AND UNKNOWN EXTENT OF INDIVIDUAL REPAIR AREAS FOR ITEM 582.05, THERE IS NO PRE-CONSTRUCTION TABULATED BAR LIST FOR THE ASSOCIATED EPOXY-COATED BAR REINFORCEMENT. PAYMENT FOR ITEM 556.0202 FOR THE ITEM 582.05 REPAIRS WILL BE BASED ON FIELD MEASURED AND DOCUMENTED QUANTITIES OF THE INSTALLED REINFORCEMENT.
- ALL CUT EPOXY REBAR SHALL HAVE THE CUT EDGES EPOXY COATED IN THE FIELD. TO BE PAID FOR UNDER ITEM 586.0202.



**LEGEND**

- (E) EPOXY COATED REBAR
- ITEM 582.05 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE
- ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE

NOTES:  
2" REBAR COVER

AFFIX SEAL: XXXX ON: XXXX  
ALTERED BY: XXXX ON: XXXX

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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	PIN XXXX	BRIDGES 3305810	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER XXXX
COUNTY: WASHINGTON COUNTY	REGION: 1	CR-153 OVER WHITE CREEK CONCRETE REPAIR DETAILS		DRAWING NO. ST-04 SHEET NO. 04	

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