



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Janet T. Mills  
GOVERNOR

Dale F. Doughty  
COMMISSIONER

May 8, 2026  
Subject: Large Culvert Replacement  
WIN:022845.10  
Location: Caribou  
**Amendment No. 1**

Dear Sir/Ms.:

The following questions have been received:

**Question:** plans for Prestile hill bridge just released with only 2 weeks to bid. can additional week be provided to prepare a bid.  
also, are shop drawings available for the precast arch.?

**Response:**

- No additional bid time will be granted due to the required bid period, contract award timeline, and necessary construction window allowance.
- Shop drawings have now been made available as part of the bid package. The precast box section is being designed and fabricated by CSI concrete system. (WIN 022845.11)

9 Commercial Street, Hudson, New Hampshire 03051  
(800) 342-3374 (603) 889-4163

Consider these changes and information prior to submitting your bid on **May 20, 2026.**

Sincerely,

A handwritten signature in blue ink that reads 'George M. A. Macdougall'.

George M. A. Macdougall P.E.  
Contracts & Specifications Engineer

# PRESTILE HILL BRIDGE

CARIBOU MAINE

### DESIGN NOTES

- THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION AND INTERIM SPECIFICATIONS TO DATE. DESIGN LOADS ARE AS FOLLOWS:  
 BRIDGE UNITS: HL-93  
 DESIGN FILL HEIGHT: 3'-0" MIN. TO 13'-0" MAX.  
 HEADWALLS: EARTH PRESSURE ONLY  
 WINGWALLS: EARTH PRESSURE ONLY

- THE FOUNDATIONS FOR THIS PROJECT ARE DESIGNED IN ACCORDANCE WITH:

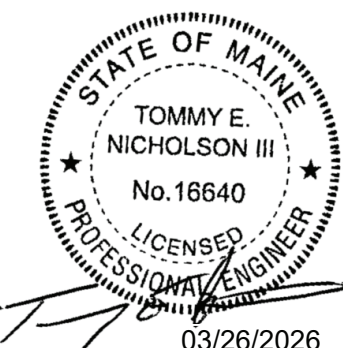
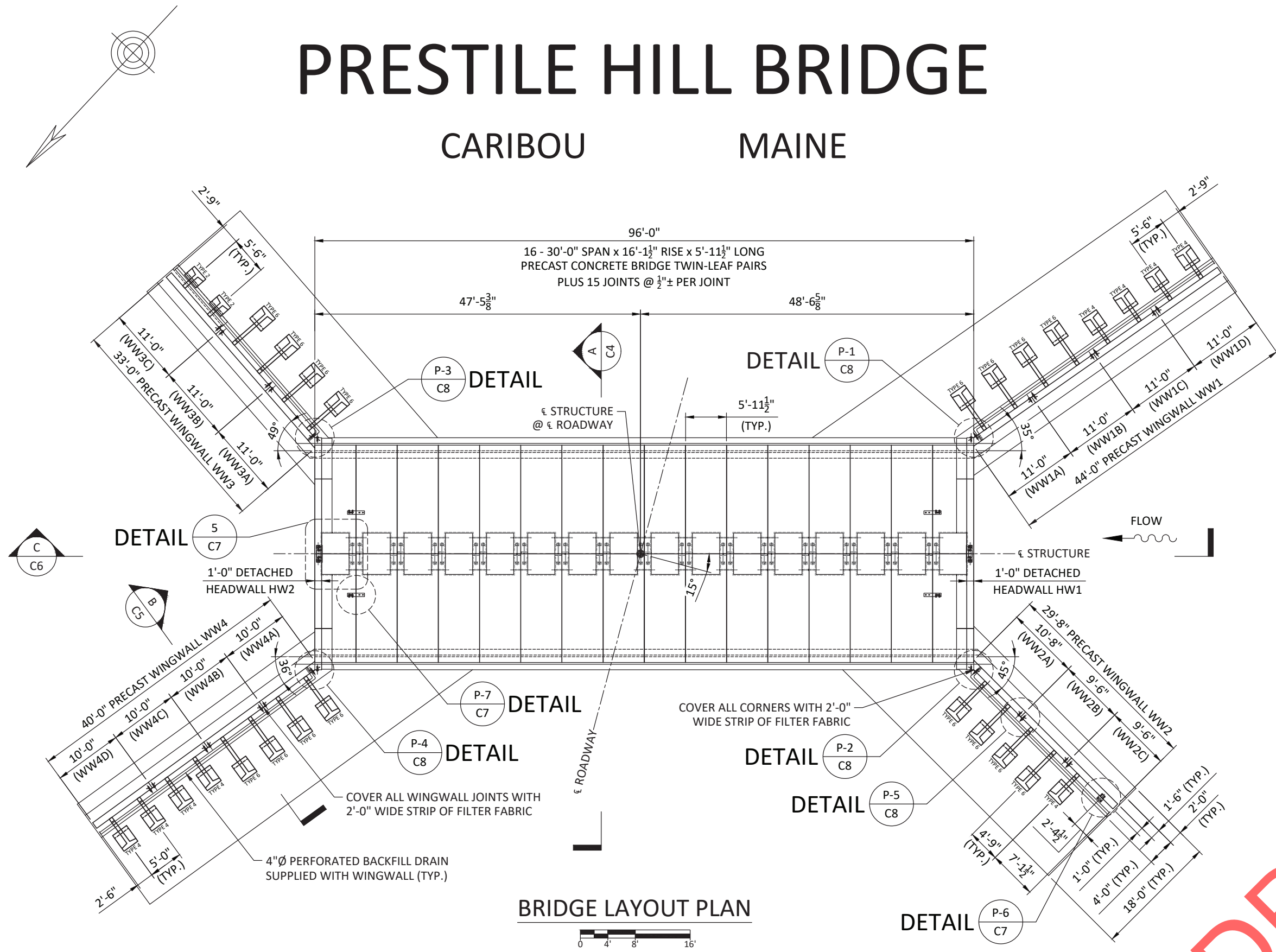
ASSUMED ALLOWABLE BEARING RESISTANCE: 4,000 PSF  
 \* AT THE TIME OF DESIGN, A GEOTECHNICAL REPORT FOR THE PROJECT WAS NOT AVAILABLE. IT IS THE ENGINEER OF RECORD'S, OWNER'S, AND/OR THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE ACTUAL SITE CONDITIONS ARE CONSISTENT WITH THE ASSUMED SOIL BEARING CAPACITY. IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER VERIFY THE ASSUMPTIONS TO VALIDATE DESIGN.

- CONFORMANCE TO THESE DRAWINGS, SPECIFICATIONS, AND EXISTING CONDITIONS, INCLUDING HYDRAULIC CAPACITY, SCOUR, GRADING AND SOIL CONDITIONS SHALL BE VERIFIED BY OTHERS.

4. THE ENGINEER HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM THE WORK. THE UNDERTAKING OF PERIODIC SITE VISITS BY THE ENGINEER SHALL NOT BE CONSTRUED AS SUPERVISION OF ACTUAL CONSTRUCTION NOR MAKE HIM RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF THE WORK BY THE CONTRACTOR, SUB-CONTRACTOR OR ANY PERSON ON THE SITE.

### CONSTRUCTION NOTES

- ALL REINFORCING AND HARDWARE SHOWN FOR CLOSURE POUR IS SUPPLIED WITH PRECAST ARCH UNITS.
- A DOUBLE-DRUM CRANE IS REQUIRED FOR ROTATING UNITS IN THE AIR.
- USE OF 2 CRANES OR TEMPORARY SHORING IS REQUIRED FOR INSTALLATION.
- HARDWOOD WEDGES ARE TO BE USED TO BLOCK ARCH LEGS AND TEMPORARY CONNECTIONS MUST BE SECURED PRIOR TO RELEASING ARCH UNITS FROM CRANE.
- ARCHES SHALL BE GROUTED IN PLACE AND CAST-IN-PLACE CLOSURE POUR CONCRETE SHALL REACH FULL DESIGN STRENGTH PRIOR TO INSTALLATION OF HEADWALLS AND WINGWALLS.



FOR APPROVAL

ARC-SPAN™

DATE	DESCRIPTION	ENG	FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
7						
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LOCALE: CARIBOU STATE: ME

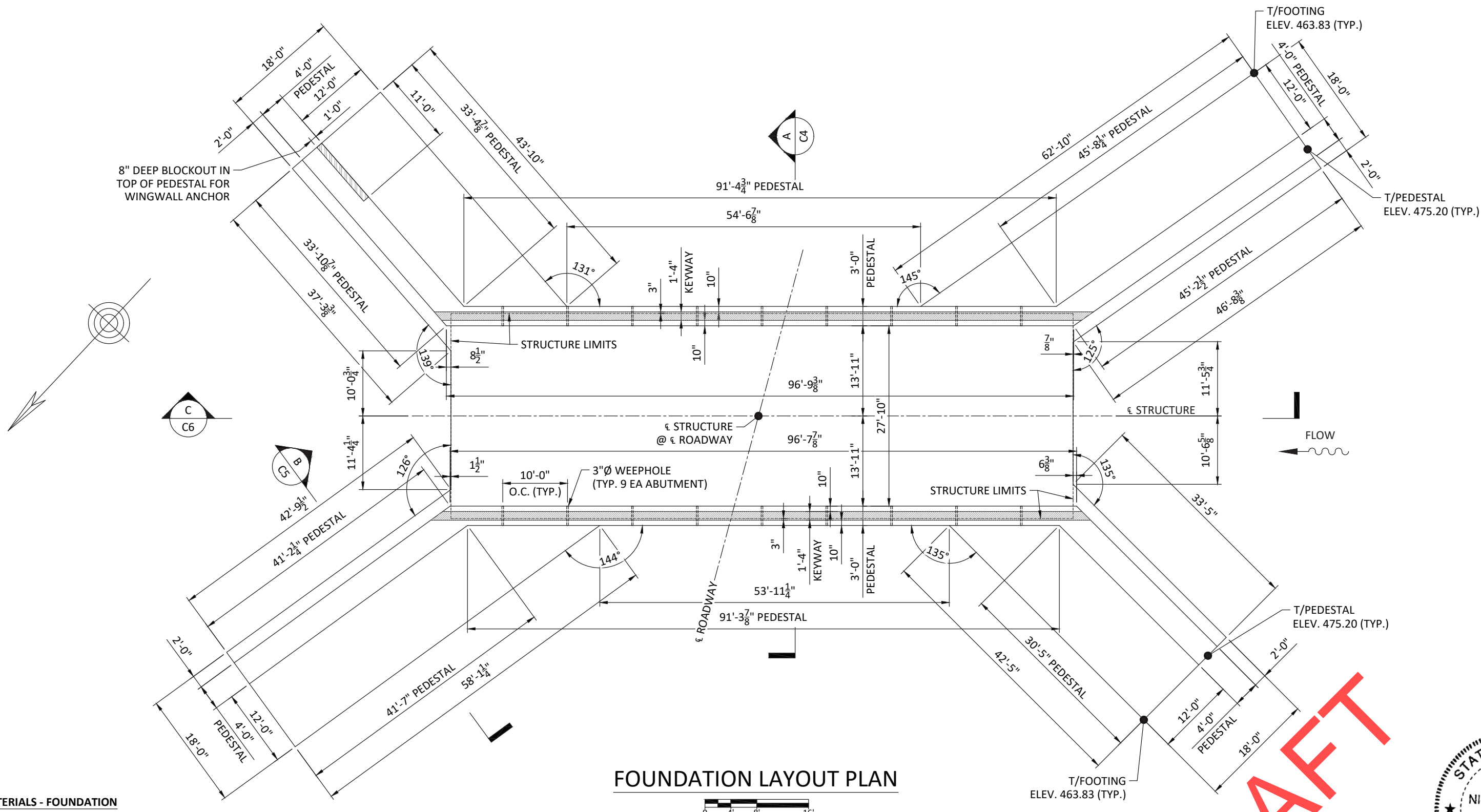
PRESTILE HILL BRIDGE

PROVIDED BY:  
**CSI**  
 CONCRETE SYSTEMS, INC.  
 9 COMMERCIAL STREET  
 HUDSON, NEW HAMPSHIRE 03051  
 800.342.3374

DESIGNED BY:  
**PRETEK GROUP**  
 P.O. BOX 351  
 BELLBROOK, OH 45305  
 800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JUV

C1



**FOUNDATION LAYOUT PLAN**



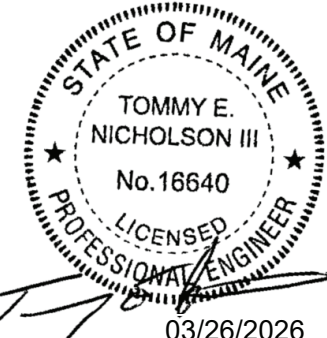
**MATERIALS - FOUNDATION**

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A996 GRADE 60

**UNCOATED**  
REINFORCING

NOTE:  
EXTEND #6 LONGITUDINAL BARS IN WINGWALL FOOTINGS 2'-6" INTO BRIDGE FOOTINGS TO MAKE CONTINUOUS

**DRAFT**



03/26/2026  
**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG
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FEDERAL PROJECT NO. 022845.11    BRIDGE NO. 6599    ROUTE 164 (MAIN STREET)    AROOSTOOK COUNTY

**PRESTILE HILL BRIDGE**

LOCALE: CARIBOU    STATE: ME

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**02**



EMBANKMENT MATERIAL PER PROJECT SPECIFICATIONS

ROADWAY OR FINISHED GRADE

DESIGN FILL HEIGHT 13'-0" MAX

2'-0" MIN. OR DESIGN FILL HEIGHT

10' WIDE MEMBRANE WATERPROOFING ALONG CENTER OF ARCH (BY CONTRACTOR)

6  
C7  
DETAIL

BACKFILL ZONE A

SEE LIFT POINT SEALING DETAIL ON THIS SHEET

PRECAST TWIN-LEAF ARC-SPAN™ UNIT

LIMITS OF EXCAVATION AS DETERMINED BY OTHERS

BACKFILL TO TOP OF PEDESTAL PRIOR TO SETTING ANY STRUCTURAL ELEMENTS (TYP. EA. SIDE)

DRAINAGE AGGREGATE WRAPPED IN FILTER FABRIC @ EA. WEEPHOLE (TYP.)

IN-SITU SOIL

BEDDING MATERIAL PER PROJECT SPECIFICATIONS

4'-0" MIN.

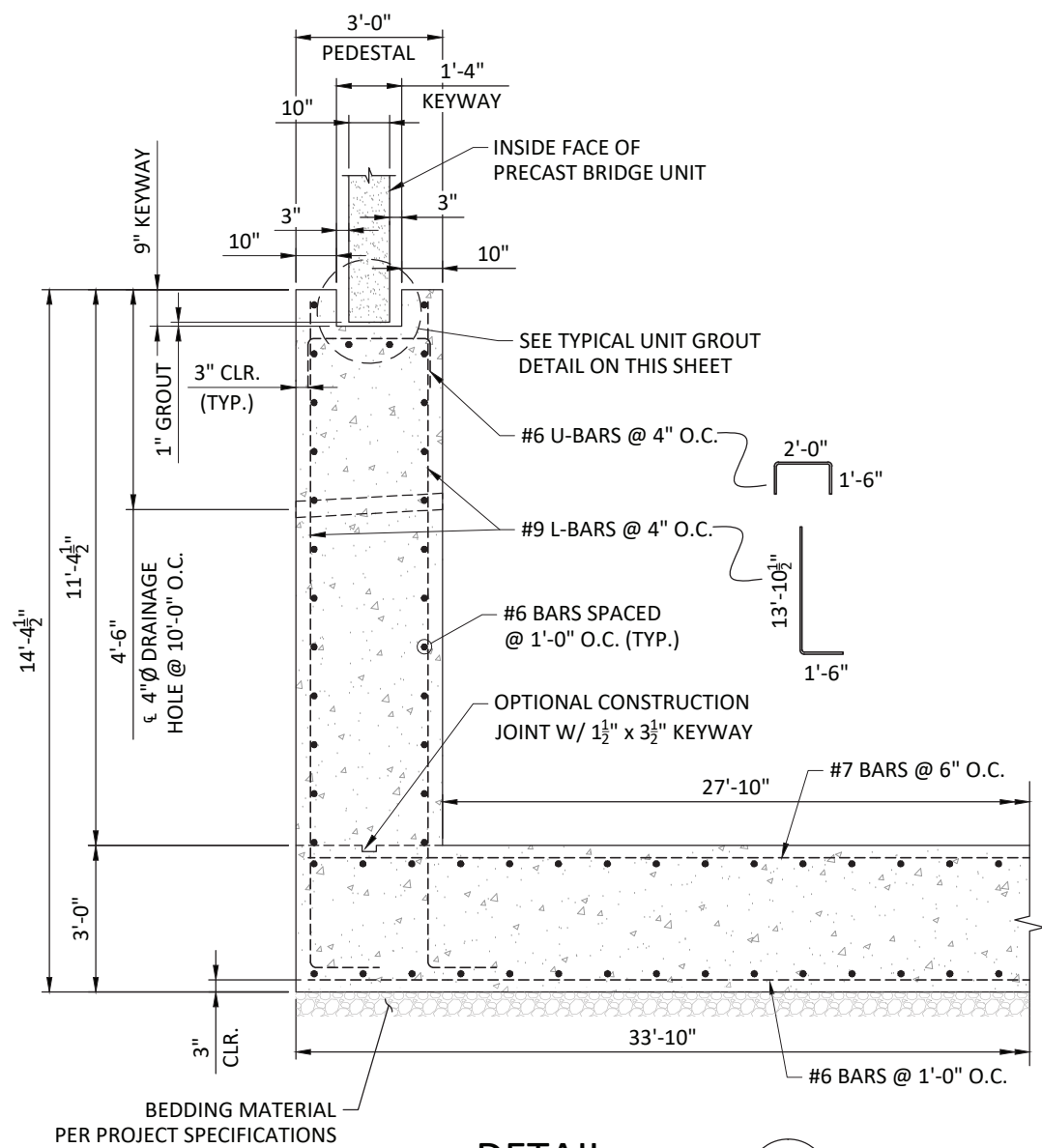
16'-1 1/2" PRECAST RISE

30'-0" SPAN

STREAMBED ELEV. VARIES

IN-SITU SOIL

DETAIL 1



DETAIL 1

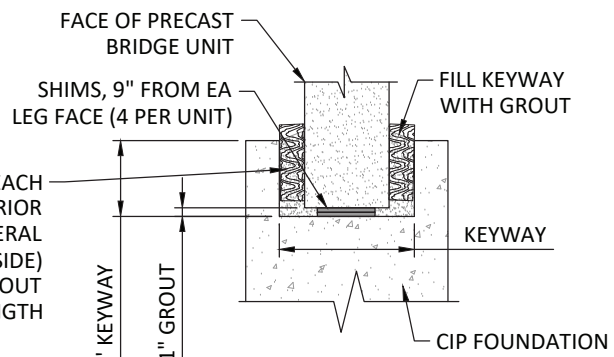


SECTION A

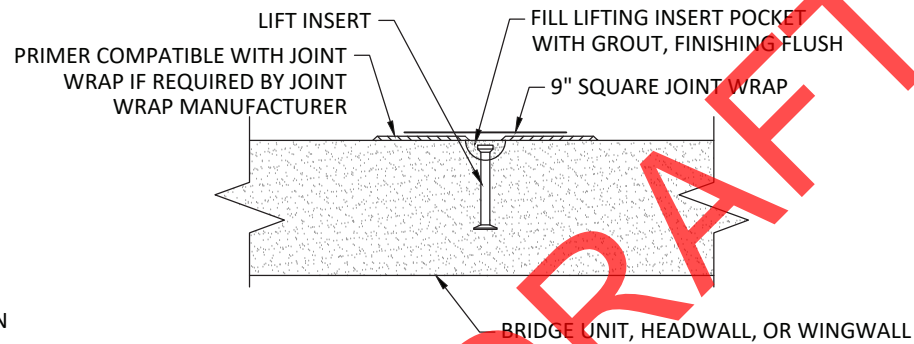


A  
C1,C2

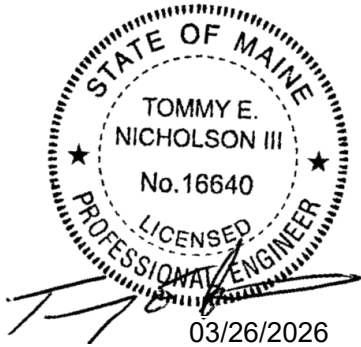
HARDWOOD WEDGES TO BE INSTALLED 9" FROM EACH CORNER OF EACH PRECAST UNIT BY CONTRACTOR PRIOR TO RELEASING CRANE TO ENSURE NO LATERAL DISPLACEMENT OF CULVERT (TYP. EACH SIDE) WEDGES MAY NOT BE REMOVED PRIOR TO GROUT REACHING FULL STRENGTH



UNIT GROUT DETAIL  
NOT TO SCALE



TYPICAL LIFT POINT SEALING DETAIL  
NOT TO SCALE



FOR APPROVAL

ARC-SPAN™

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LOCALE: CARIBOU

PRESTILE HILL BRIDGE

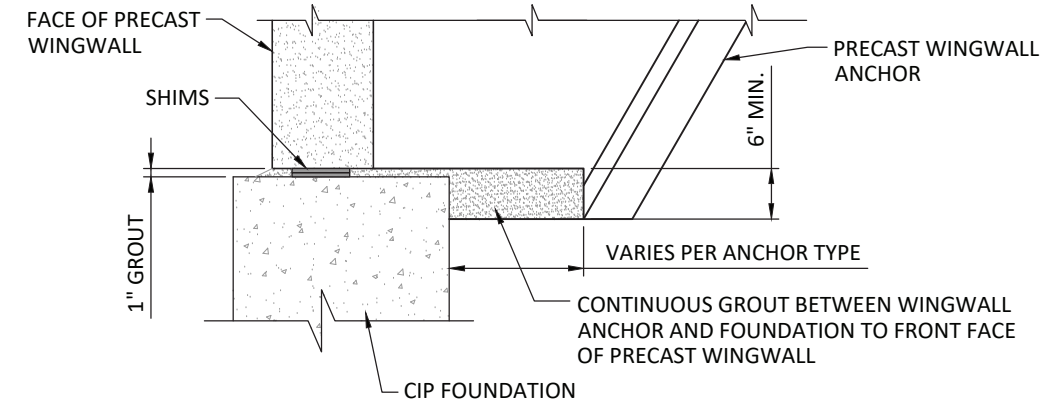
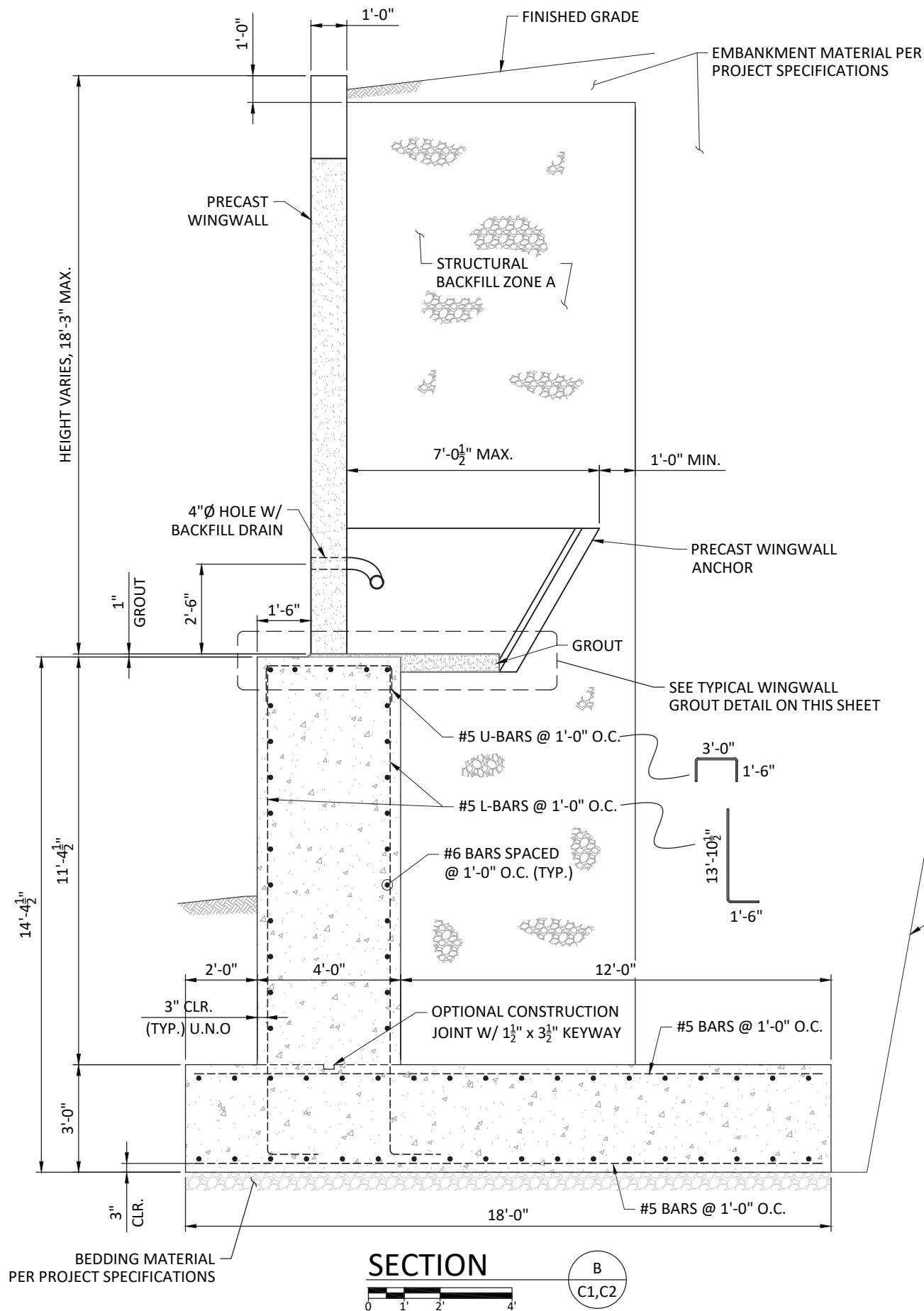
STATE: ME

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9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
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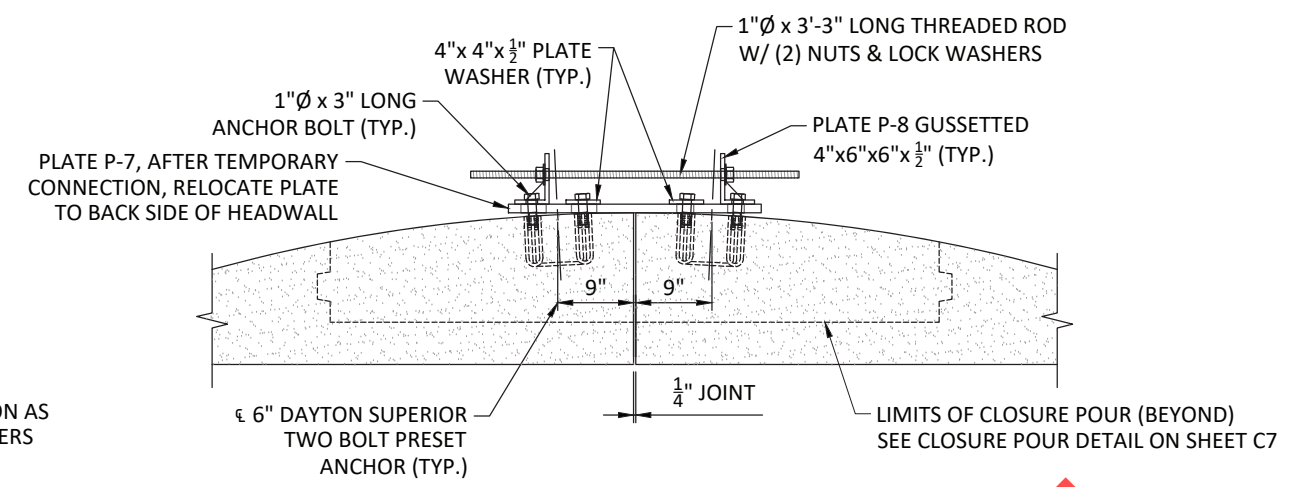
DESIGNED BY:  
**PRETEK GROUP**  
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

C4

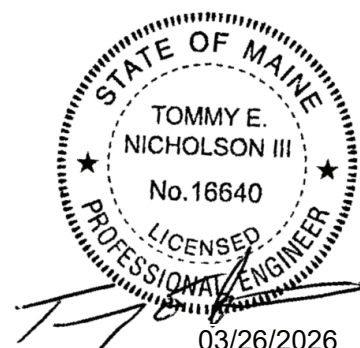


**WINGWALL GROUT DETAIL**  
NOT TO SCALE



**DETAIL @ END UNIT 2**  
TEMPORARY CONNECTION C3

NOTE:  
TEMPORARY CONNECTION SHALL BE INSTALLED BEFORE CRANE RELEASES ARCH UNITS AND SHALL REMAIN IN PLACE UNTIL CLOSURE POUR CONCRETE REACHES 2,000 PSI MIN. COMPRESSIVE STRENGTH



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**ARC-SPAN™**

DATE	DESCRIPTION	ENG
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FEDERAL PROJECT NO. 022845.11

BRIDGE NO. 6599

ROUTE 164 (MAIN STREET)

AROOSTOOK COUNTY

PROVIDED BY: **CSI CONCRETE SYSTEMS, INC.**

DESIGNED BY: **PRETEK GROUP**

PROJECT NUMBER: 26-006

DATE: 3/26/2026

DESIGNED BY: KDK

DRAWN BY: NBD

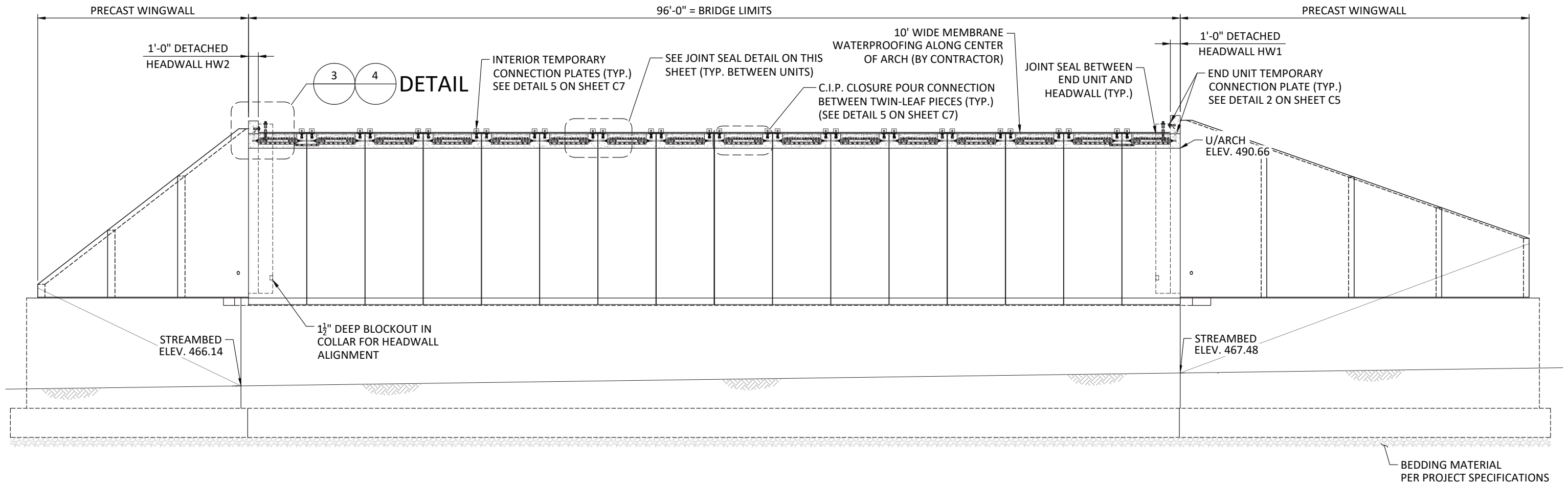
CHECKED BY: JIV

LOCALE: CARIBOU

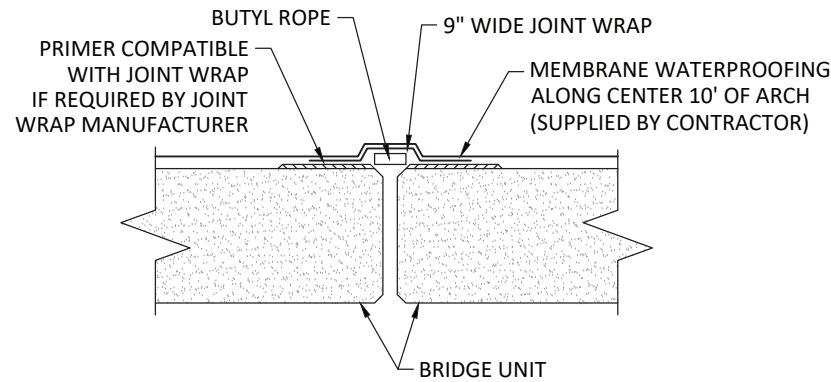
STATE: ME

**PRESTILE HILL BRIDGE**

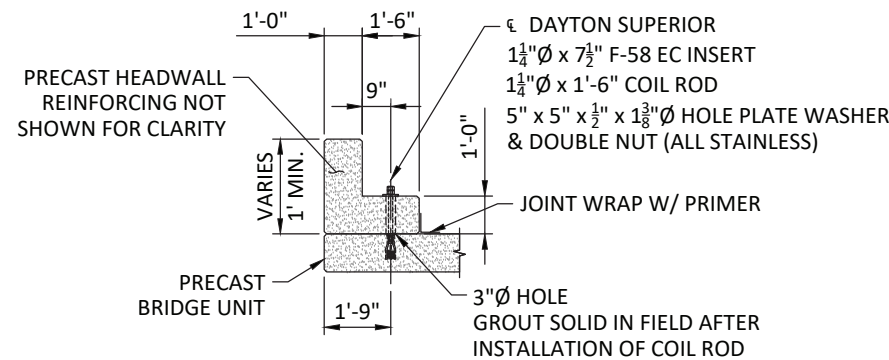
**C5**



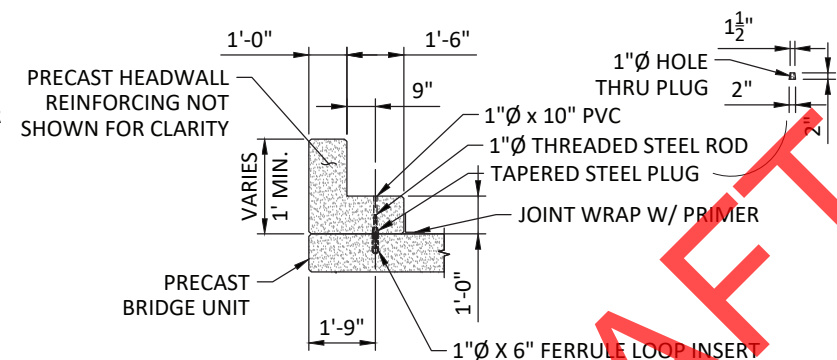
**SECTION** C  
C1, C2



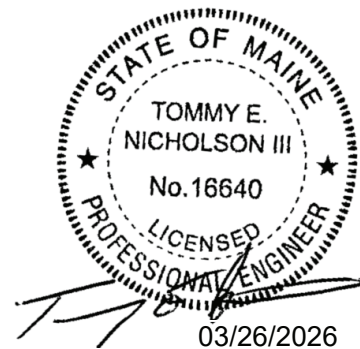
**JOINT SEAL DETAIL**  
NOT TO SCALE



**DETAIL @ HW** 3



**DETAIL @ HW** 4



**FOR APPROVAL**

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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU	STATE: ME		

PROVIDED BY:

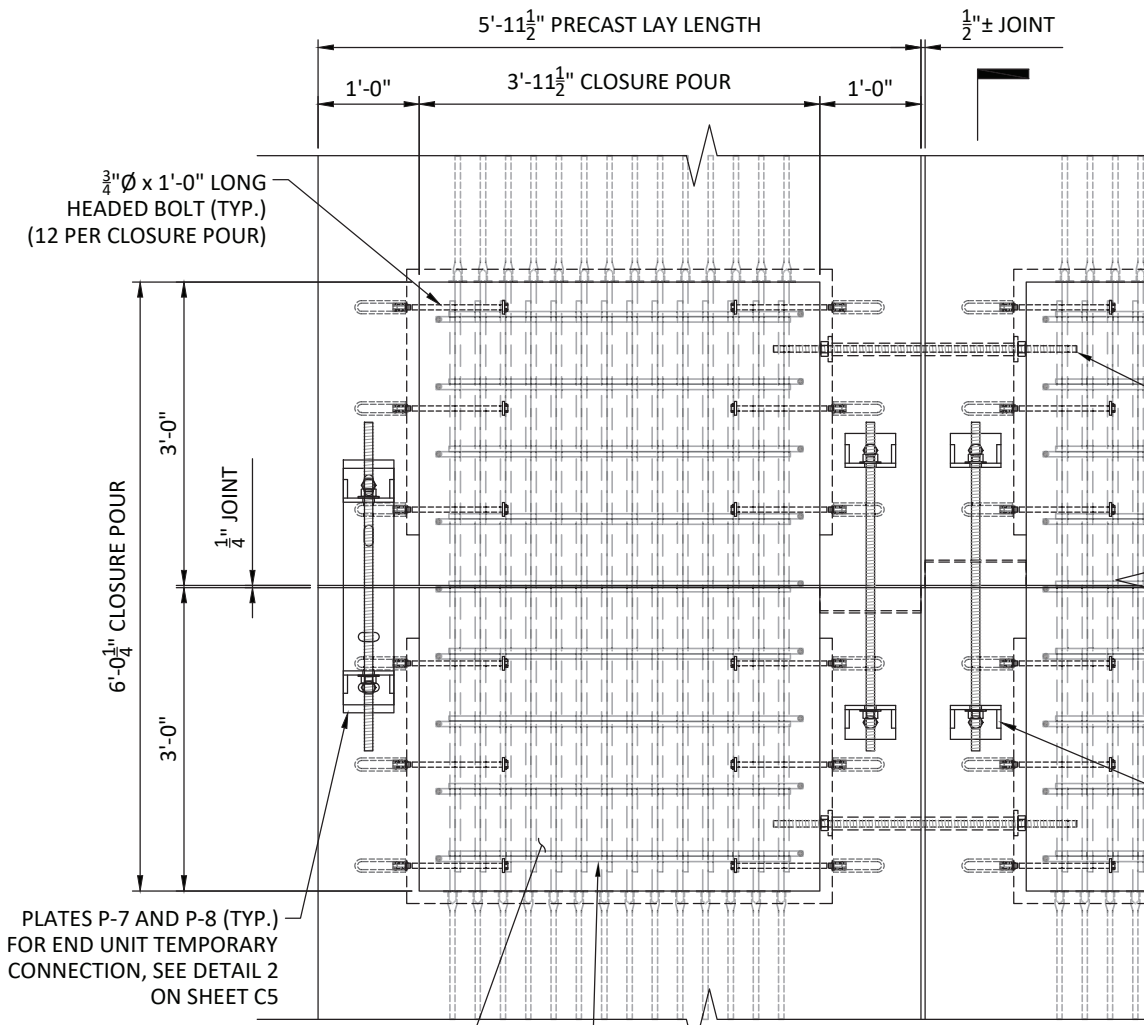
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

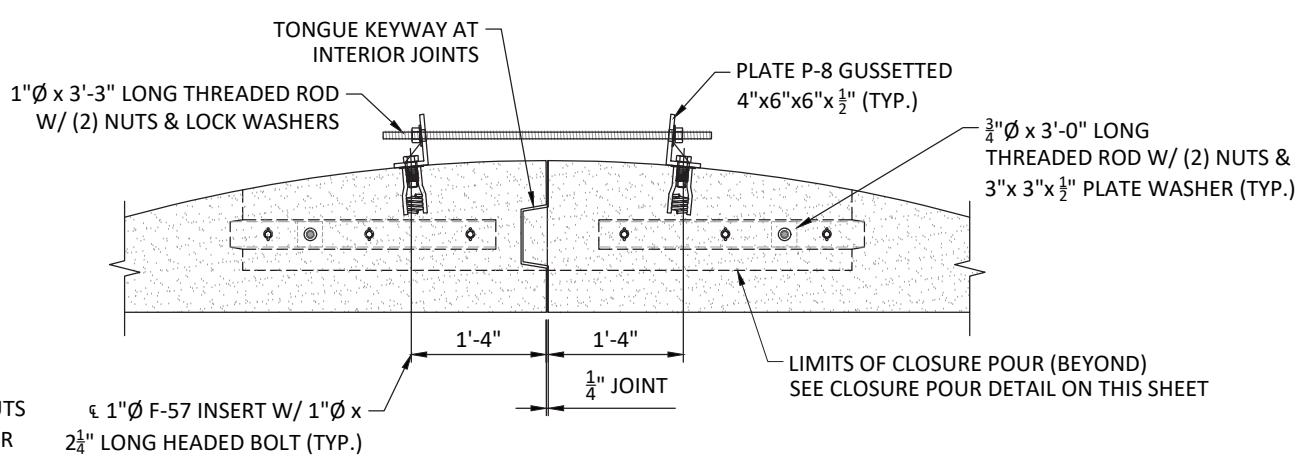
PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

**CG**



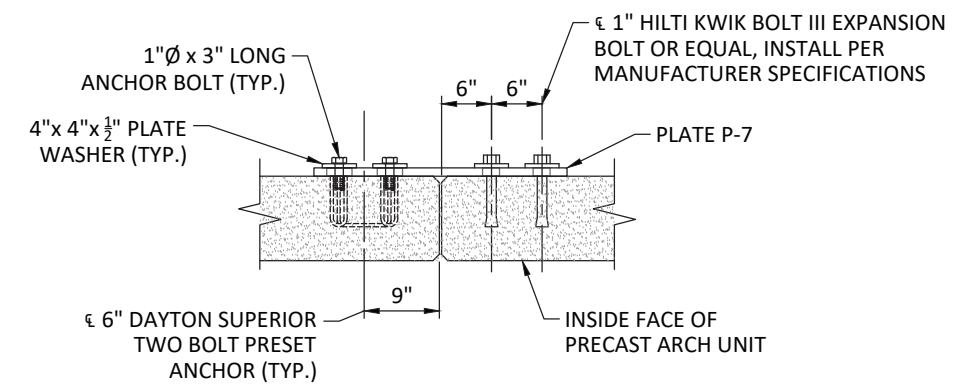
**DETAIL C.I.P.** 5  
C1  
CLOSURE POUR PLAN

NOTE:  
ALL REINFORCING AND HARDWARE SHOWN FOR CLOSURE POUR SHALL BE SUPPLIED WITH PRECAST ARCH UNITS

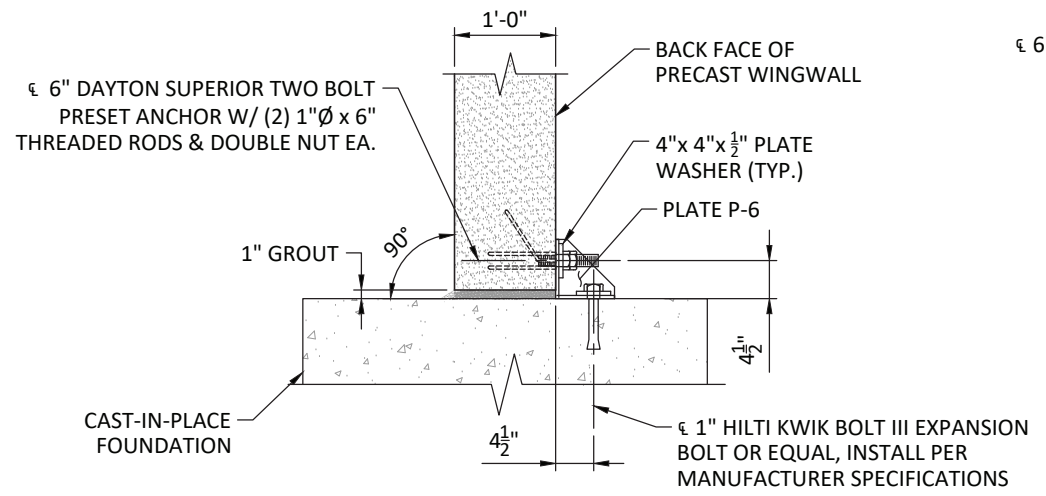


**DETAIL @ INTERIOR JOINT** 6  
TEMPORARY CONNECTION

NOTE:  
TEMPORARY CONNECTION SHALL BE INSTALLED BEFORE CRANE RELEASES ARCH UNITS AND SHALL REMAIN IN PLACE UNTIL CLOSURE POUR CONCRETE REACHES 2,000 PSI MIN. COMPRESSIVE STRENGTH

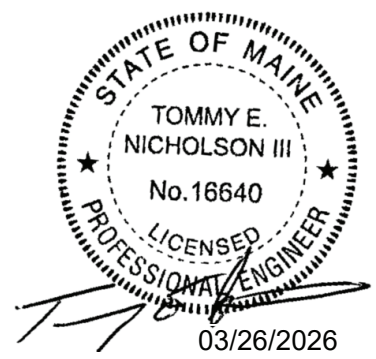


**DETAIL @ FIRST JOINT** P-7  
C1  
JOINT TIE CONNECTION



**DETAIL @ WW2C** P-6  
C1  
ANCHOR PLATE CONNECTION

DRAFT



**FOR APPROVAL**

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FEDERAL PROJECT NO. 022845.11    BRIDGE NO. 6599    ROUTE 164 (MAIN STREET)    AROOSTOOK COUNTY

**PRESTILE HILL BRIDGE**

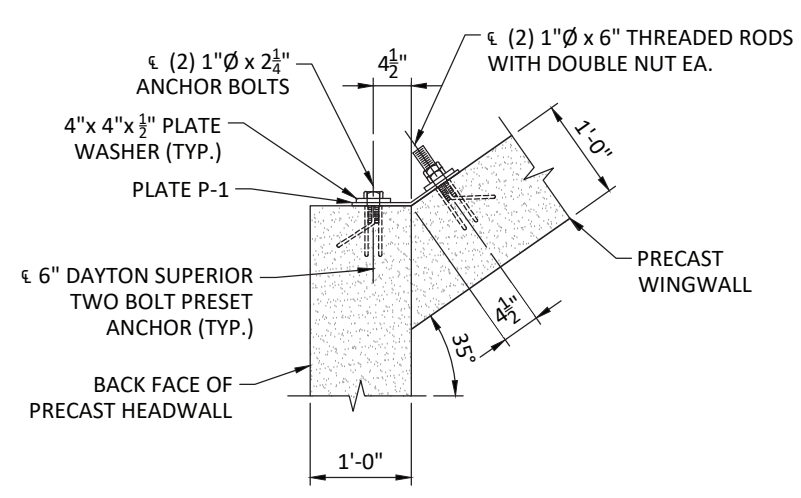
LOCALE: CARIBOU    STATE: ME

PROVIDED BY:  
**CSI**  
CONCRETE SYSTEMS, INC.  
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

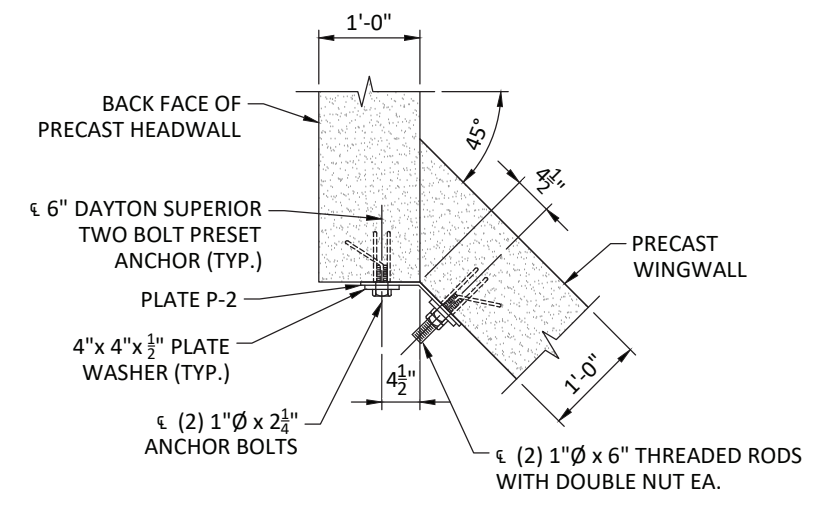
DESIGNED BY:  
**PRETEK GROUP**  
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006  
DATE: 3/26/2026  
DESIGNED BY: KDK  
DRAWN BY: NBD  
CHECKED BY: JIV

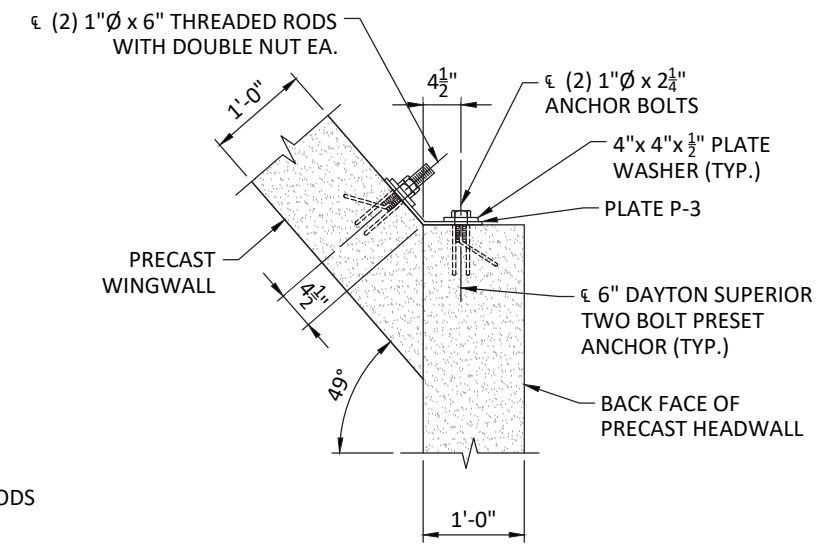
C7



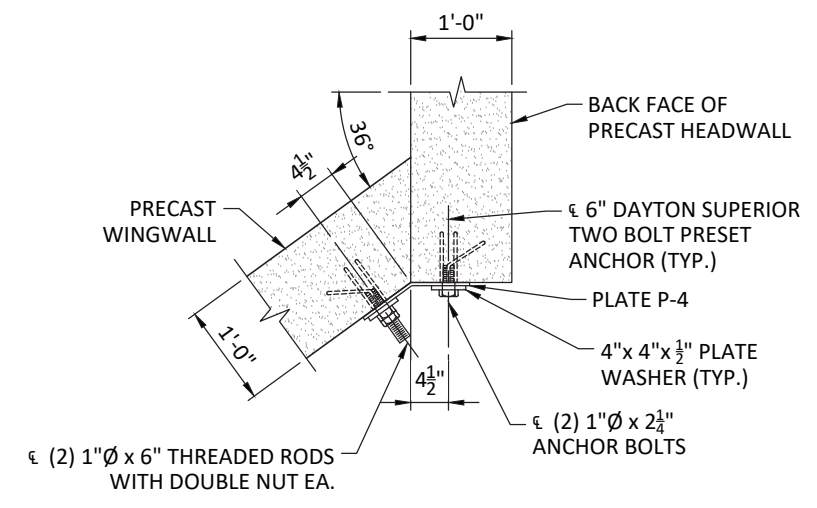
DETAIL @ WW1  
 0 1' 2'  
 P-1  
 C1



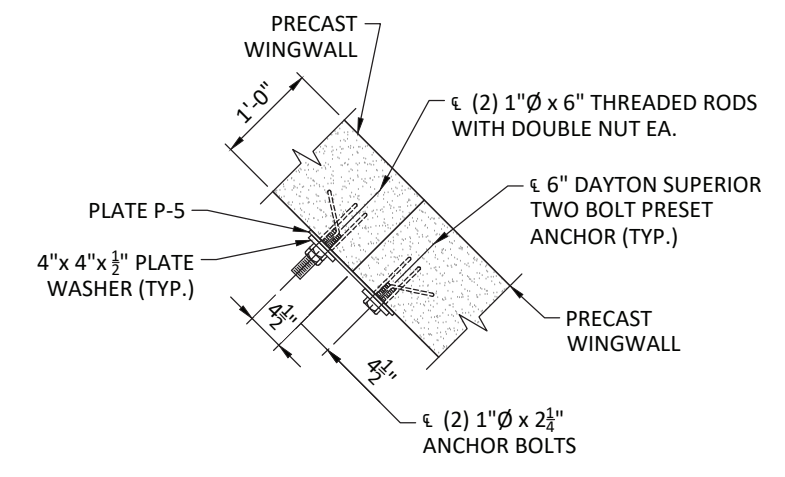
DETAIL @ WW2  
 0 1' 2'  
 P-2  
 C1



DETAIL @ WW3  
 0 1' 2'  
 P-3  
 C1

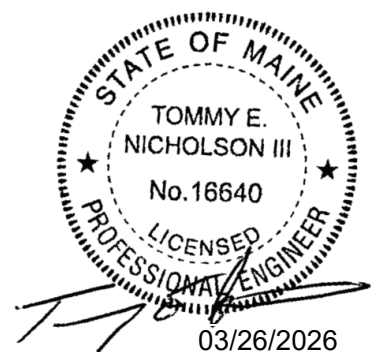


DETAIL @ WW4  
 0 1' 2'  
 P-4  
 C1



DETAIL @ WW JOINT  
 0 1' 2'  
 P-5  
 C1

DRAFT



**FOR APPROVAL**

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FEDERAL PROJECT NO. 022845.11    BRIDGE NO. 6599    ROUTE 164 (MAIN STREET)    AROOSTOOK COUNTY

**PRESTILE HILL BRIDGE**

LOCALE: CARIBOU    STATE: ME

PROVIDED BY:  
  
 9 COMMERCIAL STREET  
 HUDSON, NEW HAMPSHIRE 03051  
 800.342.3374

DESIGNED BY:  
  
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 BELLBROOK, OH 45305  
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PROJECT NUMBER: 26-006  
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SPECIFICATIONS FOR THE MANUFACTURE AND DESIGN OF PRECAST THREE SIDED ARCH STRUCTURES, WINGWALLS AND HEADWALLS

1. DESCRIPTION

THESE SPECIFICATIONS ARE FOR A PRECAST THREE SIDED ARCH STRUCTURE, HEADWALLS AND WINGWALLS. PRECAST PIECES SHALL CONFORM TO ASTM C1504-16.

2. DESIGN

THE PRECAST UNITS ARE DESIGNED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS "LRFD BRIDGE DESIGN SPECIFICATIONS", NINTH EDITION AND INTERIM SPECIFICATIONS TO DATE.

CONSTRUCTION EQUIPMENT HEAVIER THAN A D-4 DOZER IS NOT ALLOWED OVER THE ARCH STRUCTURE UNTIL BACKFILL IS PLACED TO AT LEAST 1' DEPTH OVER THE TOP OF THE ARCH. AT NO TIME SHALL HEAVY CONSTRUCTION OR BACKFILLING EQUIPMENT IN EXCESS OF 8 TONS BE PERMITTED OVER THE STRUCTURE OR WITHIN 3' OF ANY STRUCTURAL ELEMENT WITHOUT AT LEAST 2' OF COVER OVER THE STRUCTURE UNLESS THE STRUCTURE IS DESIGNED FOR LESS COVER. EQUIPMENT WITH AXLE WEIGHT OR TOTAL WEIGHT GREATER THAN THE DESIGN LOAD SHALL NOT BE OPERATED ON THE STRUCTURE WITHOUT WRITTEN APPROVAL FROM PRETEK GROUP.

3. MATERIALS - STEEL REINFORCEMENT AND HARDWARE

FERRULE LOOP AND EXPANDED COIL INSERTS SHALL BE AS MANUFACTURED BY DAYTON SUPERIOR CORPORATION OR EQUAL. STAINLESS STEEL INSERTS, RODS, NUTS AND WASHERS SHALL BE SAE 304. STRUCTURAL CONNECTIONS FOR ARCH UNIT PLATES AND PLATE WASHERS SHALL CONFORM TO ASTM A709, GRADE 36, GALVANIZED IN CONFORMANCE WITH ASTM A123. STEEL BOLTS, THREADED RODS AND NUTS FOR ARCH UNIT CONNECTION SHALL CONFORM TO ASTM A325. THREADED ITEMS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM B633, SERVICE CONDITION 1. OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

4. PRECAST ELEMENTS

STORAGE OF UNITS SHOULD BE IN A MANNER THAT PREVENTS ANY DAMAGE OR CRACKING AND IN A FASHION APPROVED BY THE ENGINEER

5. QUALITY ASSURANCE

THE PRECAST PLANT SHALL BE CERTIFIED BY THE NATIONAL PRECAST CONCRETE ASSOCIATION'S PLANT CERTIFICATION PROGRAM, PRECAST/PRESTRESSED CONCRETE INSTITUTE PLANT CERTIFICATION OR AMERICAN CONCRETE PIPE ASSOCIATION CERTIFIED PLANT DURING PRODUCTION OF ALL PRECAST ELEMENTS.

THE OWNER OR OWNER'S AGENT MAY INSPECT THE MATERIAL, MANUFACTURE AND FINISHED PRECAST ELEMENTS AT THEIR DISCRETION.

6. PERMISSIBLE VARIATIONS

WINGWALL AND HEADWALL ARE TO BE MANUFACTURED SO THAT THE LENGTH, HEIGHT AND THICKNESS DOES NOT VARY MORE THAN 1/2" FROM WHAT IS SHOWN ON THE SHOP DRAWINGS. WINGWALL ANCHOR LENGTH LONGER THAN THAT SHOWN ON THE SHOP DRAWINGS SHALL NOT BE CAUSE FOR REJECTION.

THE MAXIMUM PERMISSIBLE JOINT WIDTH AT ANY LOCATION SHALL BE 3/4"

7. WORKMANSHIP AND FINISH

PRECAST ELEMENTS ARE TO HAVE A SMOOTH STEEL FORM OR TROWELED SURFACE. THE ENDS OF BRIDGE UNITS SHALL BE NORMAL TO THE WALLS AND CENTERLINE OF THE ARCH. THE PRECAST ELEMENTS SHALL BE FREE OF ANY SUBSTANTIAL FRACTURE OR BLEMISH.

8. MARKING

IN ADDITION TO MARKINGS DESCRIBED IN ASTM C1504 AND/OR PROJECT SPECIFICATIONS, THE PIECE MARK SHOWN IN THE SHOP DRAWINGS SHALL BE INCLUDED.

ACCEPTABLE BACKFILL MATERIAL IN ZONE A		
SPAN	FILL HEIGHT	MATERIAL IN ZONE A
≤ 24'-0"	< 12'-0"	A1, A2, A3
≤ 24'-0"	≥ 12'-0"	A1, A3
> 24'-0"	ALL	A1, A3

**TABLE 1 - ACCEPTABLE BACKFILL**

9. CONSTRUCTION

THE BRIDGE UNITS AND WINGWALLS SHALL BE INSTALLED ON CAST IN PLACE FOUNDATIONS PER THE PLANS. THE PROJECT ENGINEER SHALL VERIFY THAT THE FOUNDATION SUBGRADE IS IN COMPLIANCE WITH THE GEOTECHNICAL REPORT FOR THE PROJECT.

THE FOOTINGS SHALL HAVE A SMOOTH FLOAT FINISH WITH A MINIMUM COMPRESSIVE STRENGTH AS SPECIFIED IN THE DESIGN NOTES. THE SURFACE OF THE FOUNDATION SHALL NOT VARY BY MORE THAN 1/4" WHEN MEASURED WITH A 10 FOOT STRAIGHT EDGE. THE FOOTINGS SHALL HAVE REACHED A MINIMUM OF 2,000 PSI BEFORE INSTALLATION OF ANY PRECAST ELEMENTS. FOUNDATION DIMENSION SHALL MATCH THOSE THAT ARE SHOWN ON THE PLANS.

PRECAST ELEMENTS SHALL BE INSTALLED AS SHOWN ON THE PLANS AND SPECIAL CARE SHALL BE TAKEN TO VERIFY THAT ELEMENTS ARE PLACED TO FOLLOW THE DESIGNATED CENTERLINE OF THE STRUCTURE. BRIDGE STRUCTURES AND WINGWALLS ARE TO BE PLACED ON MASONITE SHIMS TO ALLOW A MINIMUM OF 1/2" CLEARANCE BETWEEN BOTTOM OF PRECAST ELEMENT AND TOP OF FOOTING. GAP TO BE FILLED WITH CEMENT GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI. GROUT TO BE COMPOSED OF PORTLAND CEMENT AND WATER OR CEMENT MORTAR COMPOSED OF ONE PART PORTLAND CEMENT AND THREE PARTS SAND BY VOLUME.

BUTT JOINTS BETWEEN BRIDGE UNITS SHALL BE COVERED WITH A 7/8" X 1 3/8" (1" NOMINAL) BUTYL ROPE AND A 9" (MINIMUM) WIDE STRIP OF JOINT WRAP. BUTYL ROPE SHALL BE CONSEAL (CS-101) OR EQUAL, AND WRAP SHALL BE CONSEAL (CS-212) OR EQUAL. A PRIMER COMPATIBLE WITH THE JOINT WRAP TO BE APPLIED ON EACH SIDE OF THE BUTT JOINT ON A CLEAN SURFACE IF REQUIRED BY JOINT WRAP MANUFACTURER. JOINT PROTECTION SHALL EXTEND FROM BOTTOM OF ONE LEG, UP OVER ARCH AND DOWN OPPOSITE LEG. ANY LAPS SHALL HAVE 6" OF OVERLAP AND HAVE OVERLAP RUNNING DOWN HILL.

LIFT HOLES ARE TO BE FILLED, PRIMED AND COVERED WITH JOINT WRAP. EDGES ALONG HEADWALL COLLAR AND TOP OF BRIDGE UNIT TO BE COVERED WITH JOINT WRAP INSTALLED PER MANUFACTURERS RECOMMENDATIONS. HEADWALLS THAT ARE CAST INTEGRAL WITH A BRIDGE UNIT REQUIRES NO TYPE OF JOINT PROTECTION.

JOINTS BETWEEN WINGWALL SECTIONS AND JOINTS BETWEEN A WINGWALL AND BRIDGE UNIT SHALL BE SEALED WITH EITHER A 2' WIDE STRIP OF FILTER FABRIC OR 9" WIDE (MINIMUM) JOINT WRAP.

BACKFILL IS DEFINED AS ALL REPLACED EXCAVATION AND NEW EMBANKMENT MATERIAL THAT IS ADJACENT TO THE THREE SIDED STRUCTURE, WINGWALLS AND HEADWALLS. BACKFILL MATERIAL WITHIN STRUCTURAL BACKFILL ZONE (BACKFILL ZONE A), MUST MEET THE AASHTO MATERIAL REQUIREMENTS ON THIS SHEET.

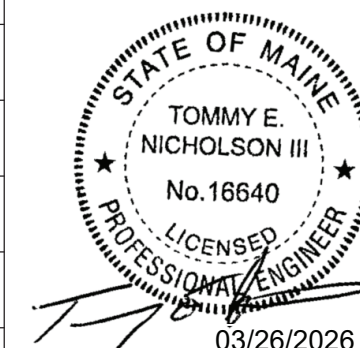
ALL BACKFILL IN ZONE A IS TO BE COMPACTED TO A MINIMUM DENSITY OF 95% STANDARD PROCTOR PER AASHTO T-99.

SPECIAL CARE IS TO BE TAKEN DURING BACKFILLING TO PROTECT THE PLACEMENT OF JOINT WRAP OR ANY WATERPROOFING MATERIAL.

MECHANICAL TAMPERS OR APPROVED COMPACTING EQUIPMENT NOT EXCEEDING 1 TON SHALL BE USED ON ALL BACKFILL MATERIAL THAT IS DIRECTLY ADJACENT TO THE STRUCTURAL ELEMENTS AND OVER THE TOP OF THE STRUCTURE UNTIL THERE IS AT LEAST 1' OF COVER OVER THE TOP. BACKFILL MATERIAL IN STRUCTURAL BACKFILL ZONE SHALL BE PLACED IN 8" LIFTS (MAXIMUM) BEFORE BEING COMPACTED. AT NO TIME SHALL HEAVY CONSTRUCTION OR BACKFILLING EQUIPMENT IN EXCESS OF 8 TON BE PERMITTED OVER THE STRUCTURE OR WITHIN 3' OF ANY STRUCTURAL ELEMENT WITHOUT AT LEAST 2' OF COVER OVER THE STRUCTURE UNLESS THE STRUCTURE IS DESIGNED FOR LESS COVER.

DURING BACKFILLING, AT NO TIME SHALL THERE BE MORE THAN 24" DIFFERENCE BETWEEN BACKFILL HEIGHT ON EACH SIDE OF THE CULVERT

BACKFILL DESCRIPTION					
AASHTO GROUP CLASSIFICATION	A-1a	A-1b	A-2-4	A-2-5	A3
TYPICAL USCS MATERIALS	GW, GP, SP	GM, SW, SP, SM	GM, SM, ML, SP, GP	SC, GC, GM	SP, SM, SW
PERCENT PASSING #10	50 MAX.				
PERCENT PASSING #40	30 MAX.	50 MAX.			51 MIN.
PERCENT PASSING #200	15 MAX.	25 MAX.	35 MAX.	35 MAX.	10 MAX.
CHARACTERISTICS OF FRACTION PASSING #40, LIQUID LIMIT			40 MAX.	41 MIN.	
CHARACTERISTIC OF FRACTION PASSING #40, PLASTICITY INDEX	6 MAX.	6 MAX.	10 MAX.	10 MAX.	
DESCRIPTION OF MATERIAL	MOSTLY GRAVEL WITH SOME SANDS AND FINES	GRAVELLY SAND OR GRADED SAND	SILTY OR CLAYEY GRAVEL AND SAND	SILTY OR CLAYEY GRAVEL AND SAND	FINE SAND



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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU			
STATE: ME			

PROVIDED BY:

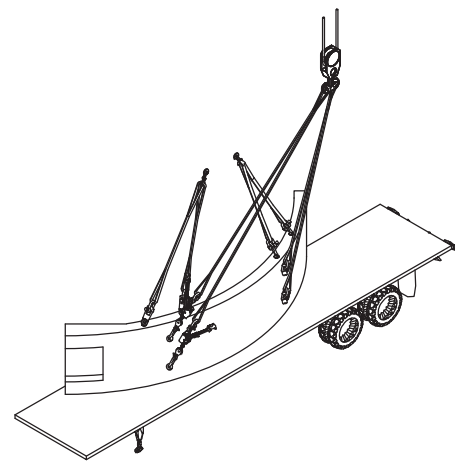
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JJV

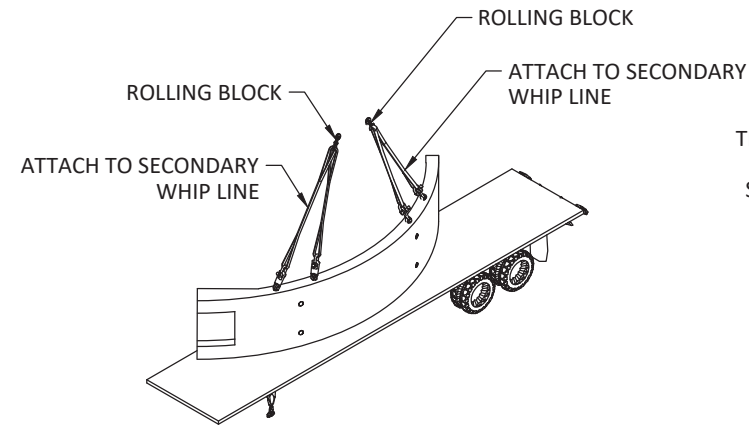




COMPLETED CRANE LINE ATTACHMENT

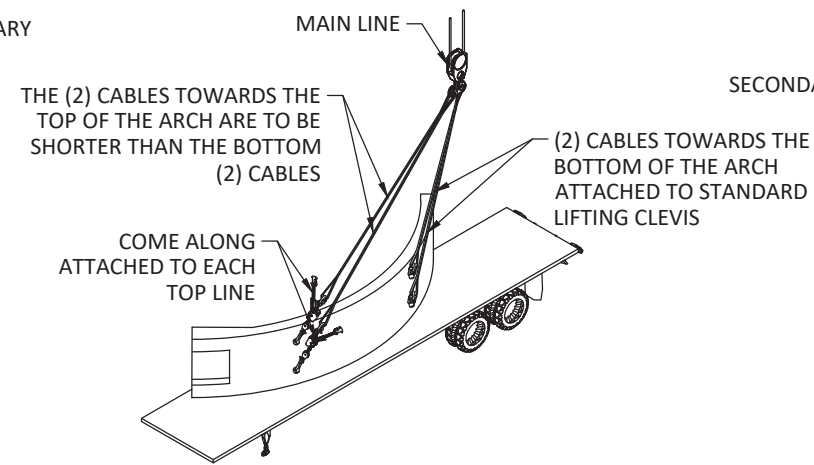
**ARCH HANDLING NOTES:**

- TWO CRANES ARE REQUIRED. BOTH CRANES MUST BE EQUIPPED WITH AN AUXILIARY OR (WHIP LINE).
- ALL LIFTING CABLES ARE NOT TO EXCEED A 60° ANGLE.
- THIS IS A SUGGESTED LIFTING PLAN ONLY. ACTUAL ERECTION DETAILS SHALL BE PROVIDED BY CONTRACTOR.
- ALL SAFETY PRACTICES ARE THE RESPONSIBILITY OF THE CRANE OPERATOR AND CONTRACTOR.
- ALL CABLES & RIGGING SHALL BE DESIGNED AND SUPPLIED BY OTHERS.
- LIFTING SHACKLES TO BE SUPPLIED BY THE CONTRACTOR.



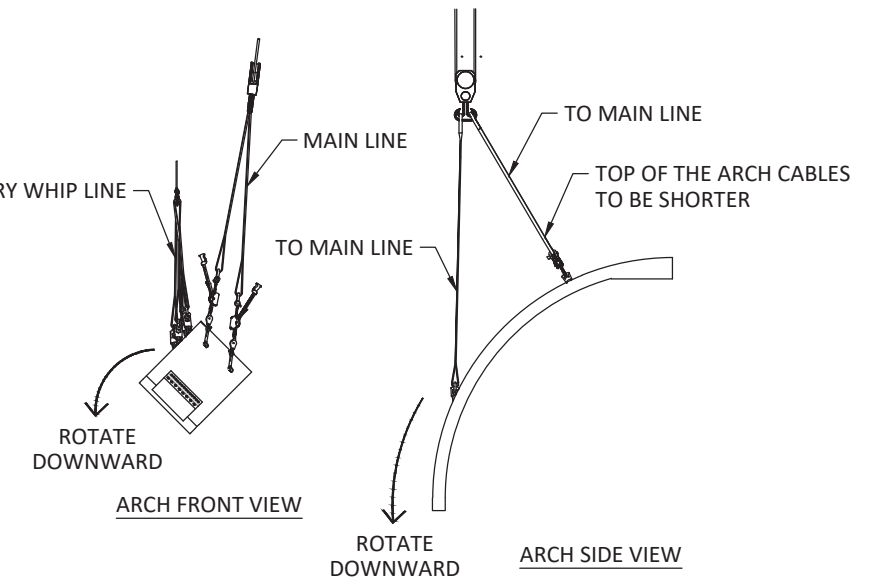
**STEP 1:**

CONNECT SECONDARY WHIP LINE TO ALL (4) LIFTERS SUPPLIED IN THE EDGE OF THE ARCH. THE USE OF ROLLING BLOCKS IS RECOMMENDED.



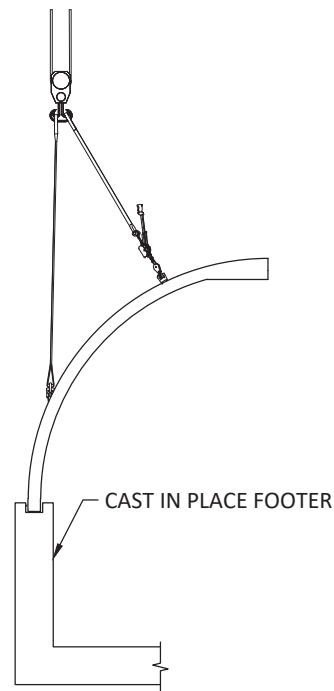
**STEP 2:**

CONNECT THE MAIN LINE TO ALL (4) LIFTERS SUPPLIED IN THE TOP SLAB OF THE ARCH. THE (2) CABLES TOWARDS THE TOP OF THE ARCH ARE TO BE SHORTER THAN THE BOTTOM (2) CABLES TO ALLOW THE ARCH TO ROTATE IN THE AIR TO THE UPRIGHT POSITION (APPROXIMATELY 7'-6" SHORTER). EACH OF THE (2) CABLES TOWARDS THE TOP OF THE ARCH ARE TO BE ATTACHED TO A 10 TON COME ALONG. THIS IS TO EASE THE ARCH DOWN INTO PLACE BY HAND AND HELP TO PREVENT SPALLING. LIFT ARCH UNIT OFF OF TRUCK.



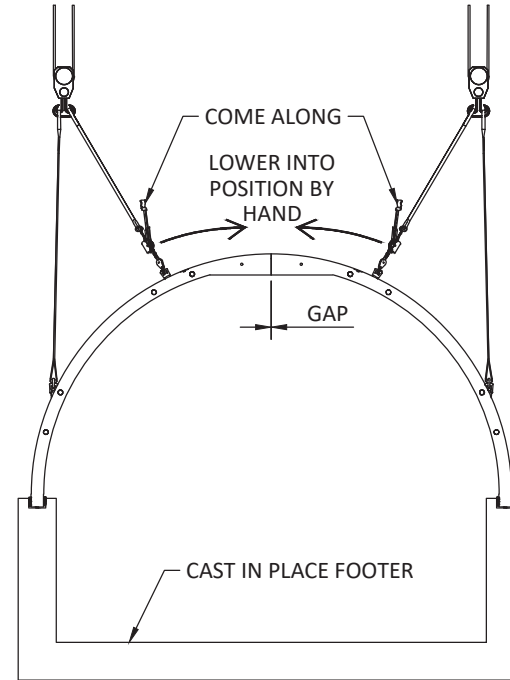
**STEP 3:**

LOWER SECONDARY WHIP LINE TO ROTATE ARCH DOWNWARD. AS SECONDARY WHIP LINE IS BEING LOWERED THE ARCH WILL ALSO ROTATE DOWNWARD IN THE OTHER DIRECTION.



**STEP 4:**

PREPARE FOOTING, MAKE SURE IT IS CLEAN OF DEBRIS AND ADD THE 1" TALL SHIMS UNDER THE ARCH LEG. THEN SET ARCH SECTION INTO POSITION IN THE PROVIDED KEYWAY ON THE CAST IN PLACE FOOTING. HOLD POSITION WITH THE CRANE IN PLACE. REPEAT PROCEDURES #1 THROUGH #4 FOR NEXT SECTION ON OPPOSITE SIDE.



**STEP 5:**

WHEN BOTH ARCH SECTIONS ARE SET INTO POSITION USE COME ALONGS TO SLOWLY LOWER EACH SECTION INTO THE CORRECT POSITION. THERE IS TO BE A 1/4" GAP BETWEEN THE UNITS AT THE TOP WHERE THEY MEET AT THE INTERLOCKING JOINT. DO NOT RELEASE FROM CRANES AT THIS POINT.

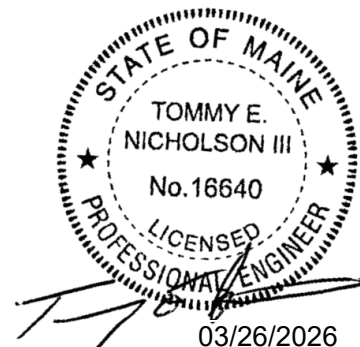
HARDWOOD WEDGES TO BE INSTALLED 9" FROM EACH CORNER OF EACH PRECAST UNIT BY CONTRACTOR PRIOR TO RELEASING CRANE TO ENSURE NO LATERAL DISPLACEMENT OF CULVERT (TYP. EACH SIDE) WEDGES MAY NOT BE REMOVED PRIOR TO GROUT REACHING FULL STRENGTH

**STEP 6:**

AFTER SECTIONS ARE IN PLACE, WHILE PIECES ARE STILL ATTACHED TO CRANES, INSTALL TEMPORARY CONNECTION HARDWARE AND HARDWOOD WEDGES AS DETAILED ELSEWHERE IN THESE PLANS.

**STEP 7:**

RELEASE BOTH CRANES ONLY AFTER ALL TEMPORARY CONNECTION HARDWARE AND HARDWOOD WEDGES ARE FULLY SECURED.



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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU	STATE: ME		

PROVIDED BY:

9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

**C10**



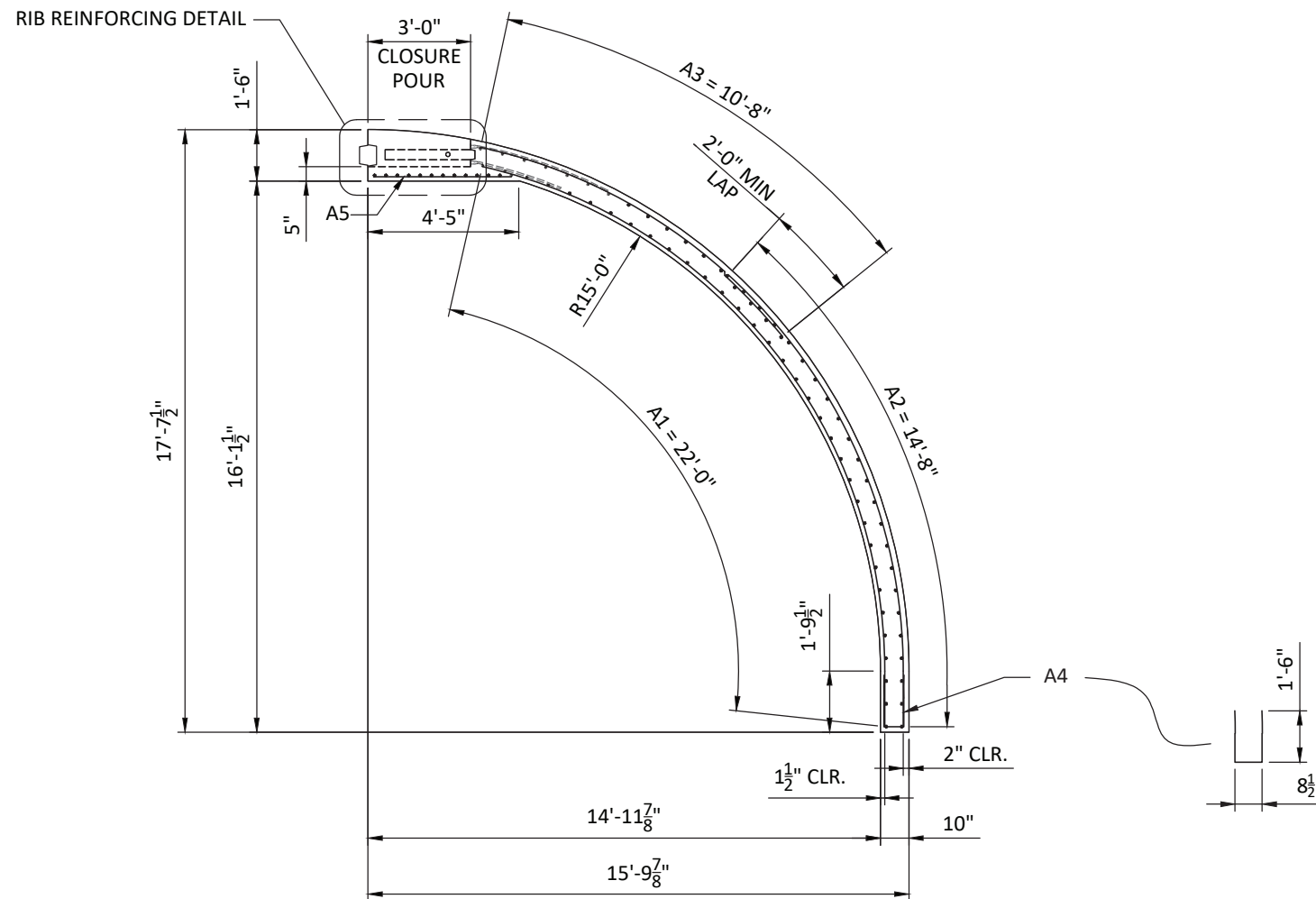
DESIGN LOAD: HL-93 F'c = 5,000 PSI COVER: 3'-0" MIN. TO 13'-0" MAX.

ZONE	CIR. AREA	CIR. LENGTH	LONG. AREA	MESH SUPPLIED
A1	0.36 in <sup>2</sup> /ft	22'-0"	0.24 in <sup>2</sup> /ft	
A2	0.36 in <sup>2</sup> /ft	14'-8"	0.24 in <sup>2</sup> /ft	
A3	0.72 in <sup>2</sup> /ft	10'-8"	0.24 in <sup>2</sup> /ft	
A4	0.36 in <sup>2</sup> /ft	3'-8 1/2"	0.24 in <sup>2</sup> /ft	
A5	0.18 in <sup>2</sup> /ft	4'-0"	0.18 in <sup>2</sup> /ft	

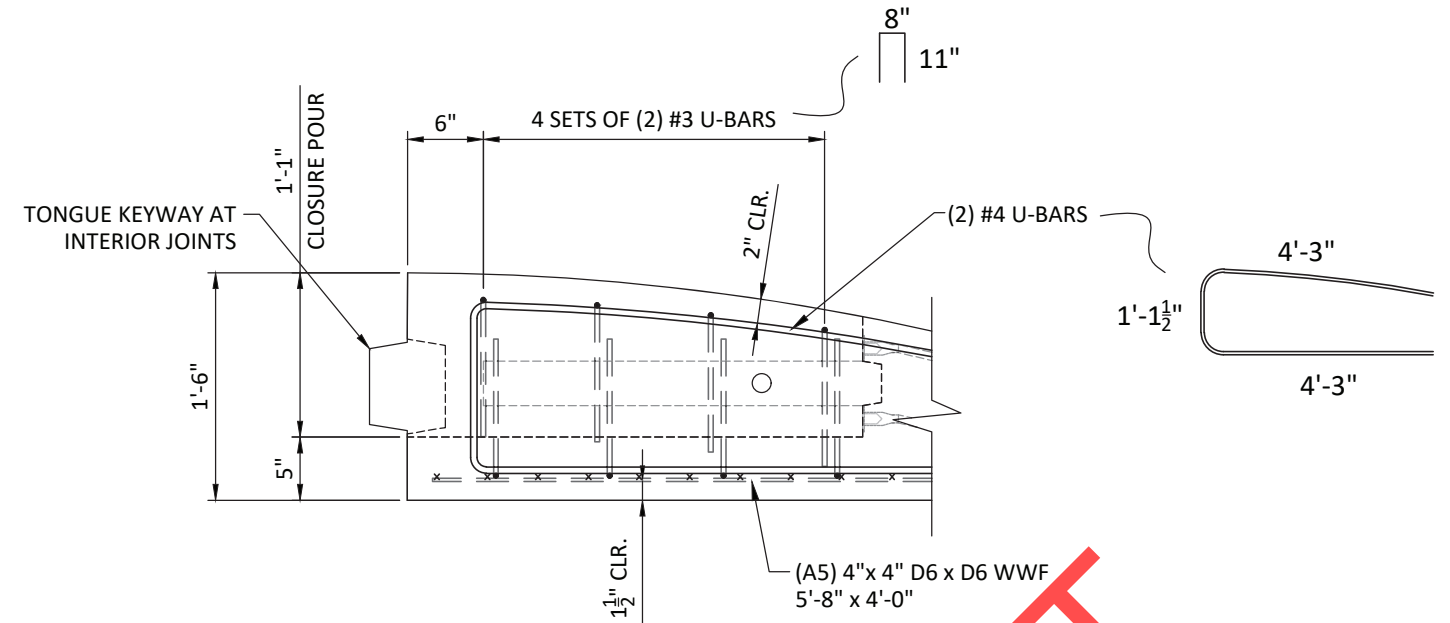
NOTE: CLOSURE POUR REINFORCING NOT SHOWN FOR CLARITY, SEE DETAILS ON SHEET P20 FOR ADDITIONAL REINFORCING REQUIREMENTS.

**DESIGN NOTES**

1. STEEL AREAS FOR EACH REINFORCING ZONE MAY BE MADE UP FROM A MAXIMUM OF THREE LAYERS OF WELDED WIRE FABRIC
2. LONGITUDINAL STEEL AREA TO HAVE MAXIMUM SPACING OF 8" CIRCUMFERENTIAL STEEL AREA TO HAVE A MAXIMUM SPACING OF 4"
3. ALL PRECAST UNITS TO HAVE A 3/8" CHAMFER AROUND ALL EDGES
4. MINIMUM OF 24" OVERLAP FOR TRANSITION BETWEEN REINFORCING ZONES IS MEASURED FROM LAST CROSS WIRE ON MESH. IF REINFORCING BARS ARE USED, OVERLAP LENGTH SHALL BE CALCULATED BASED ON BAR SIZE.
5. WELDED WIRE FABRIC CAN BE CUT TO ACCOMMODATE EMBEDDED INSERTS. CUT WIRES SHALL BE REPLACED WITH EQUIVALENT BARS ON EITHER SIDE OF INSERT. EQUIVALENT BARS SHALL BE 4'-0" IN LENGTH OR OF SUFFICIENT LENGTH TO BE FULLY DEVELOPED.
6. STEEL MESH SHALL HAVE MINIMUM YIELD STRENGTH OF 65 KSI. REINFORCING BARS SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 KSI.
7. F'c = 5,000 PSI
8. UNIT REINFORCING PER FOOT: 194 LBS/FT\*  
\*DOES NOT INCLUDE DB-SAE SPLICERS OR C.I.P. CLOSURE POUR REINFORCING.



**TYPICAL BRIDGE UNIT REINFORCING**

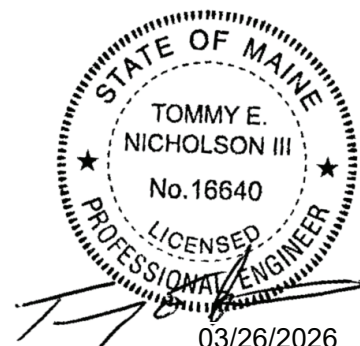


**RIB REINFORCING DETAIL**

NOTE: REINFORCING SHOWN FOR A SINGLE RIB (2 RIBS PER PIECE). REINFORCING SHOWN IS PART OF MONOLITHIC POUR AND DOES NOT EXTEND THROUGH COLD JOINT.

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REINFORCING



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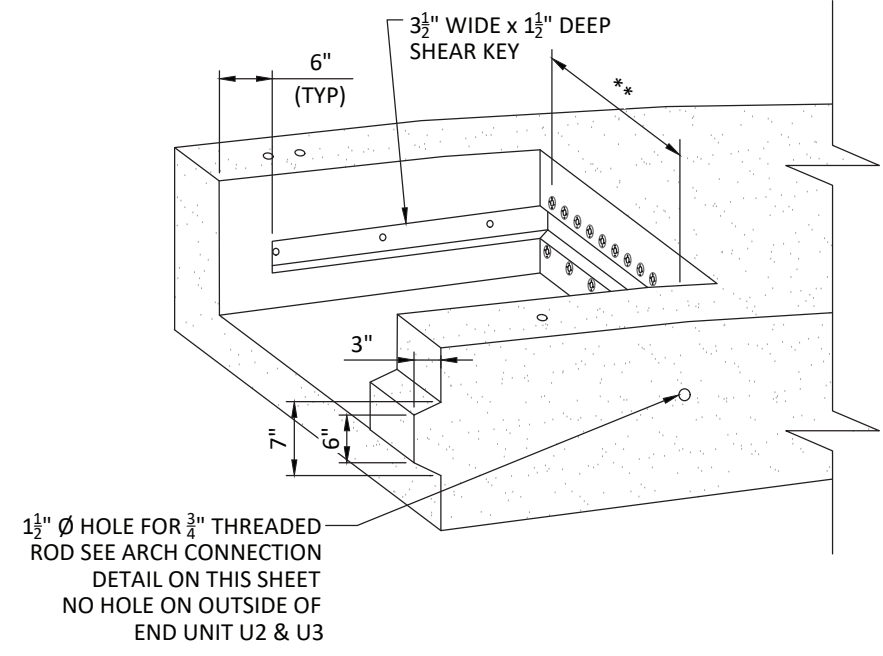
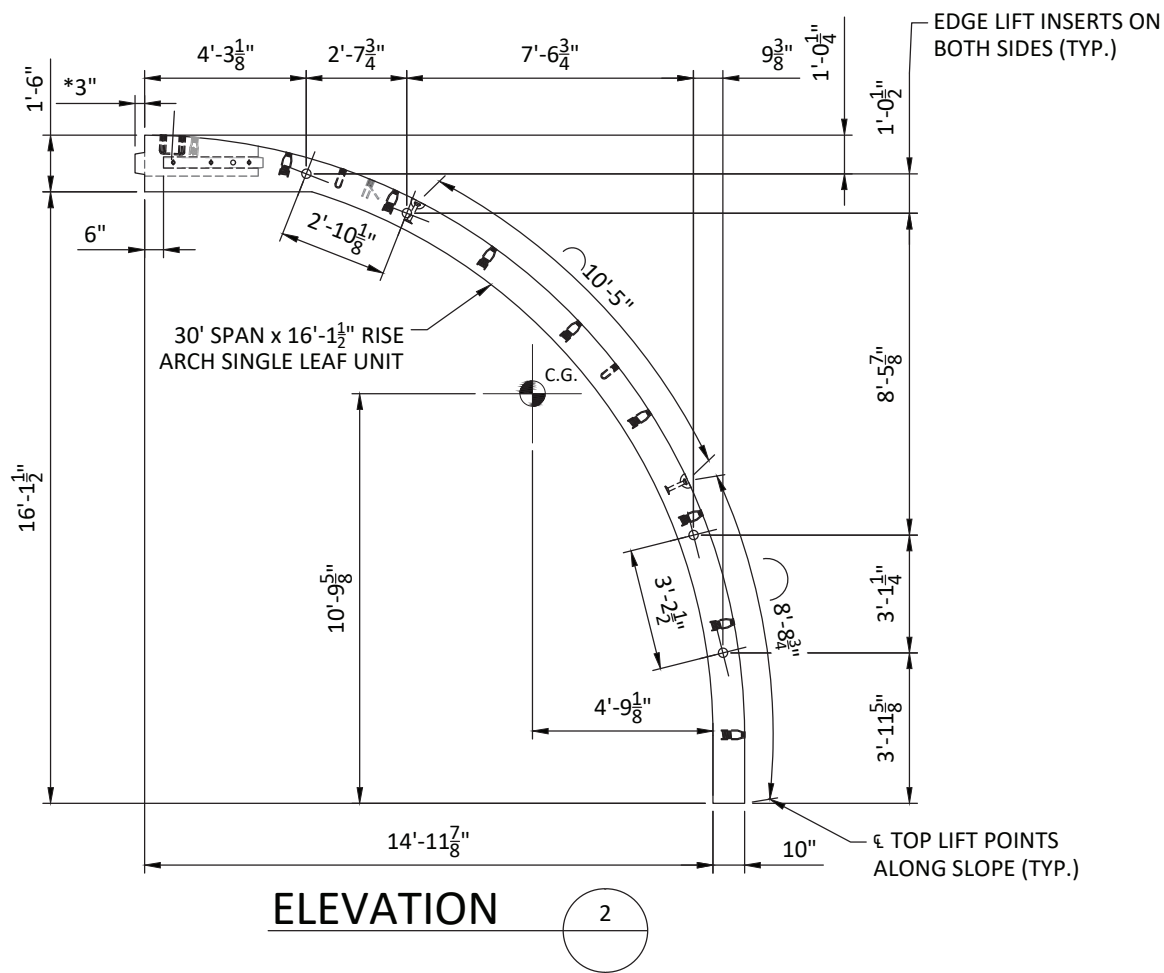
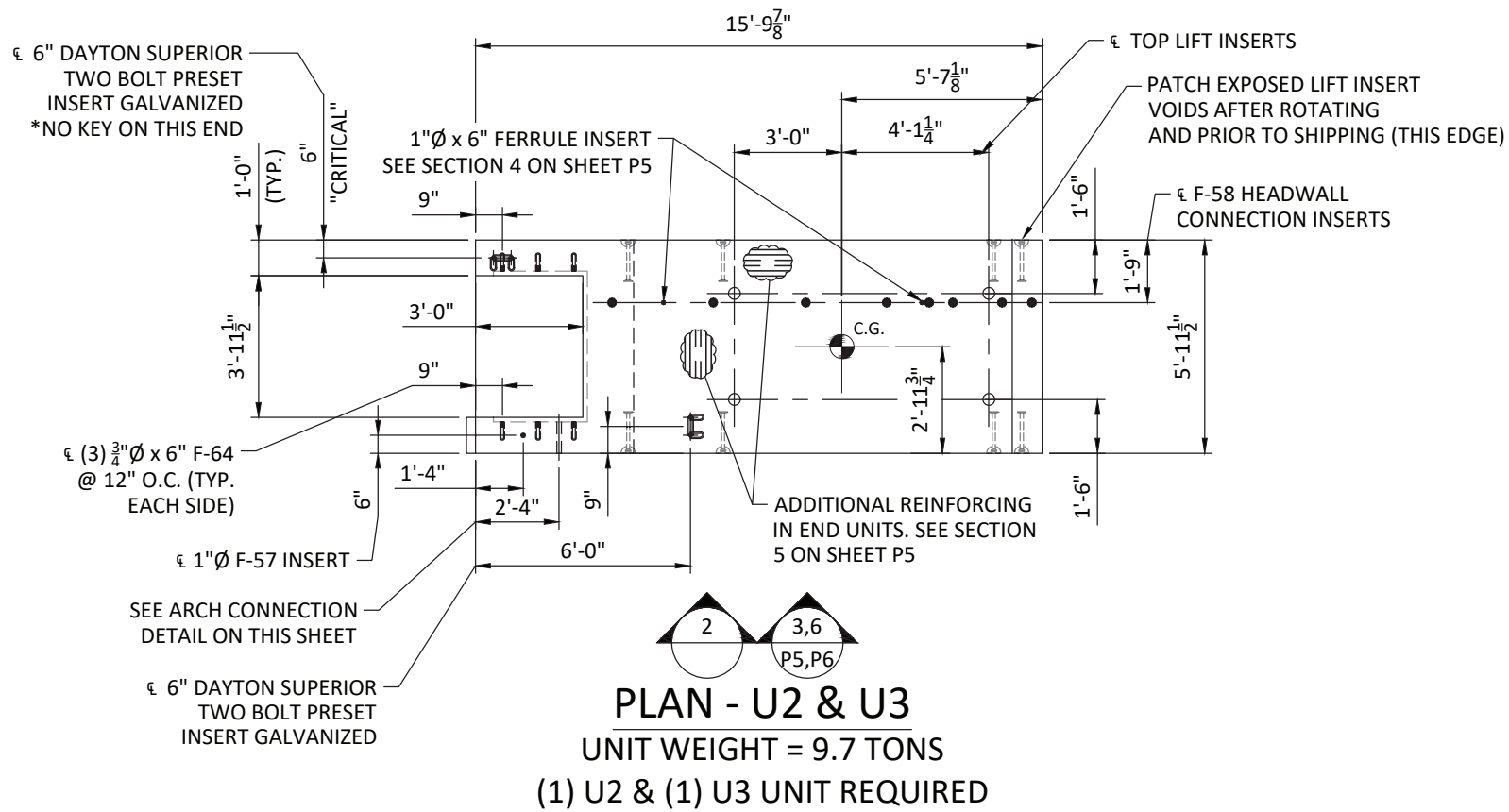
FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU	STATE: ME		

PROVIDED BY:	DESIGNED BY:
9 COMMERCIAL STREET HUDSON, NEW HAMPSHIRE 03051 800.342.3374	P.O. BOX 351 BELLBROOK, OH 45305 800.241.0925

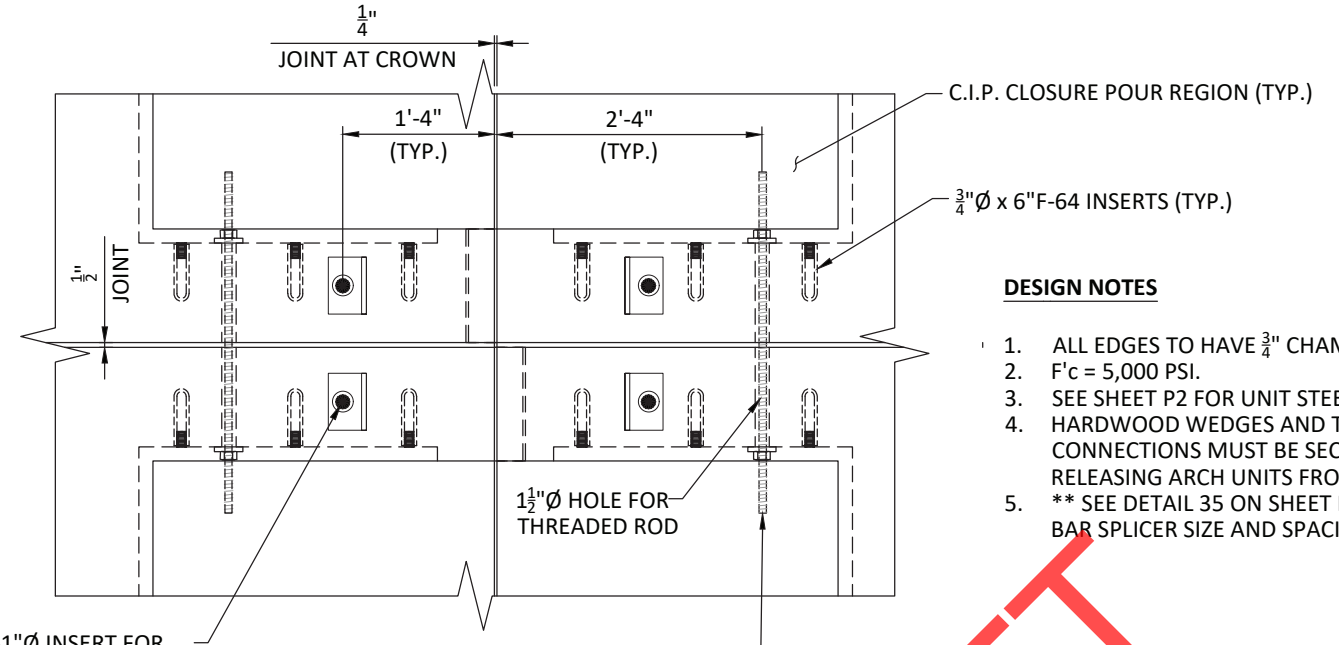
PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

P2





**\*KEYWAY AND CLOSURE POUR DETAIL**  
 NOT TO SCALE

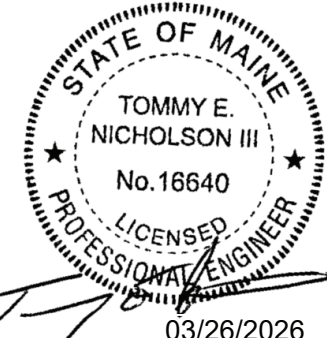


**DESIGN NOTES**

1. ALL EDGES TO HAVE 3/4" CHAMFER.
2. F'c = 5,000 PSI.
3. SEE SHEET P2 FOR UNIT STEEL REINFORCING.
4. HARDWOOD WEDGES AND TEMPORARY CONNECTIONS MUST BE SECURED PRIOR TO RELEASING ARCH UNITS FROM CRANE.
5. \*\* SEE DETAIL 35 ON SHEET P20 FOR DOWEL BAR SPLICER SIZE AND SPACING.

**ARCH CONNECTION DETAIL**  
 NOT TO SCALE

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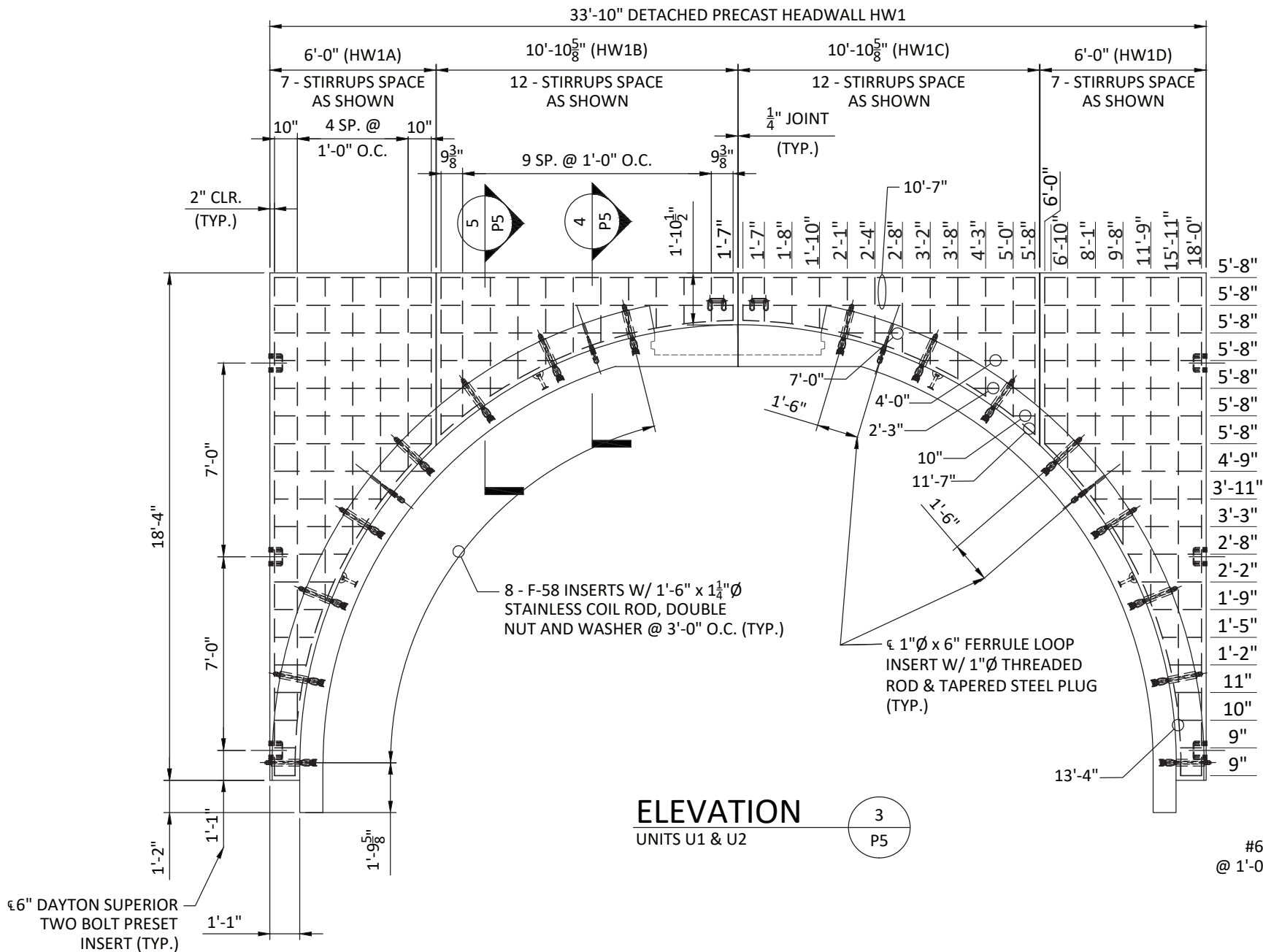
FEDERAL PROJECT NO. 022845.11  
 BRIDGE NO. 6599  
 ROUTE 164 (MAIN STREET)  
 AROOSTOOK COUNTY  
**PRESTILE HILL BRIDGE**  
 LOCALE: CARIBOU  
 STATE: ME

PROVIDED BY:  
  
 9 COMMERCIAL STREET  
 HUDSON, NEW HAMPSHIRE 03051  
 800.342.3374

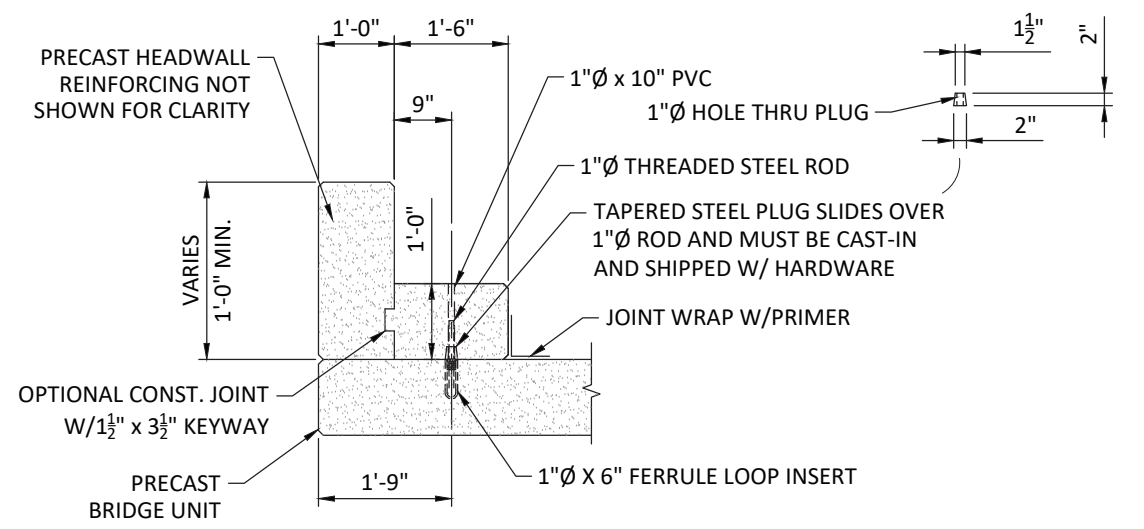
DESIGNED BY:  
  
 P.O. BOX 351  
 BELLBROOK, OH 45305  
 800.241.0925

PROJECT NUMBER: 26-006  
 DATE: 3/26/2026  
 DESIGNED BY: KDK  
 DRAWN BY: NBD  
 CHECKED BY: JUV

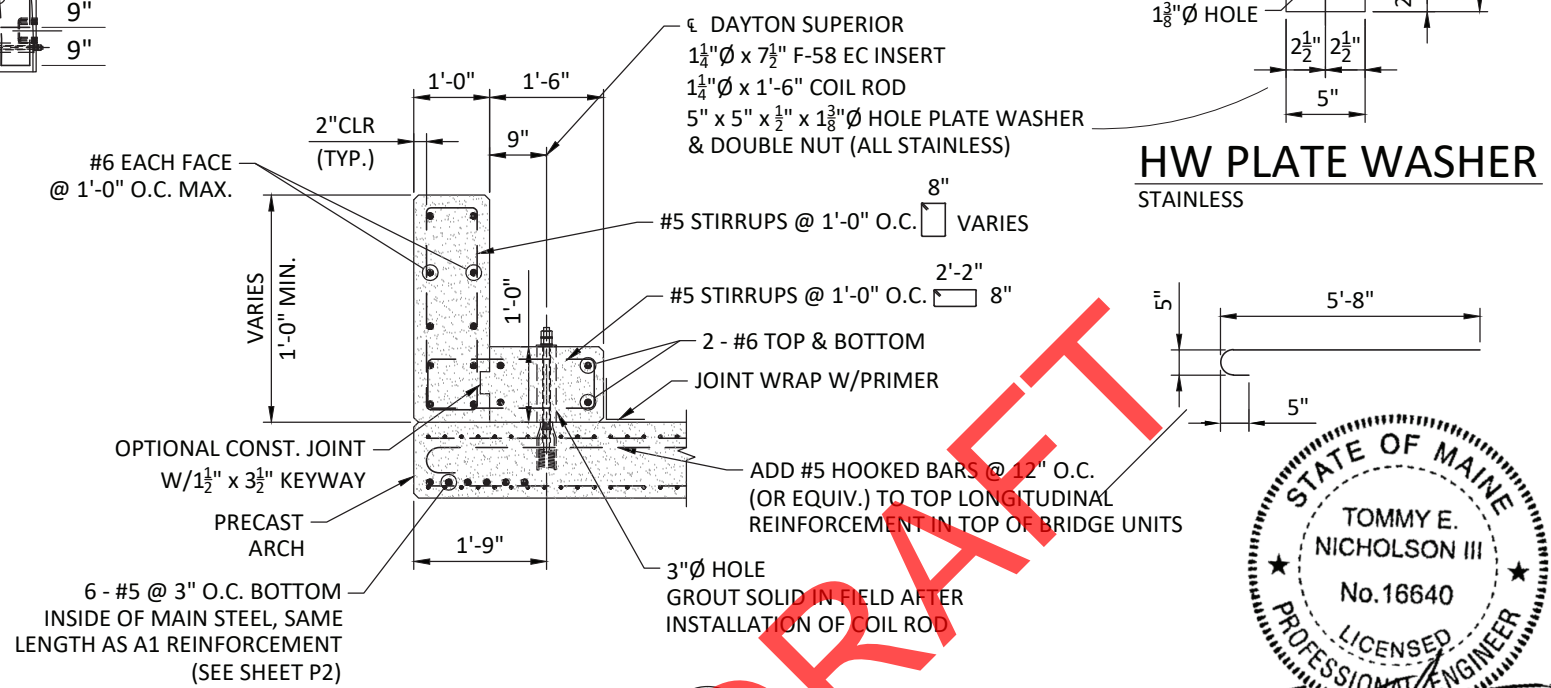
**P4**



**ELEVATION 3**  
UNITS U1 & U2  
P5



**ELEVATION 4**  
P5

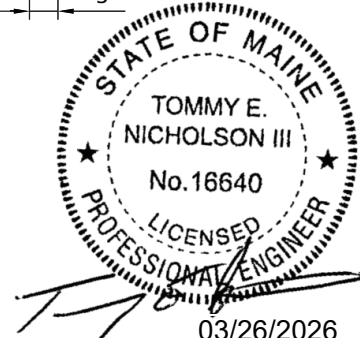


**ELEVATION 5**  
P5

- DESIGN NOTES**
1. ALL EDGES TO HAVE  $\frac{3}{4}$ " CHAMFER
  2. F'c CULVERT = 5,000 PSI  
F'c HEADWALL = 5,000 PSI
  3. ELEVATION LOOKING AT BACK FACE OF HEADWALL
  4. SEE SHEET P2 FOR CULVERT STEEL REINFORCING

**UNCOATED REINFORCING**

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FEDERAL PROJECT NO. 022845.11

BRIDGE NO. 6599

ROUTE 164 (MAIN STREET)

AROOSTOOK COUNTY

**PRESTILE HILL BRIDGE**

LOCALE: CARIBOU

STATE: ME

PROVIDED BY:

**CSI**  
CONCRETE SYSTEMS, INC.

9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

**PRETEK GROUP**

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006

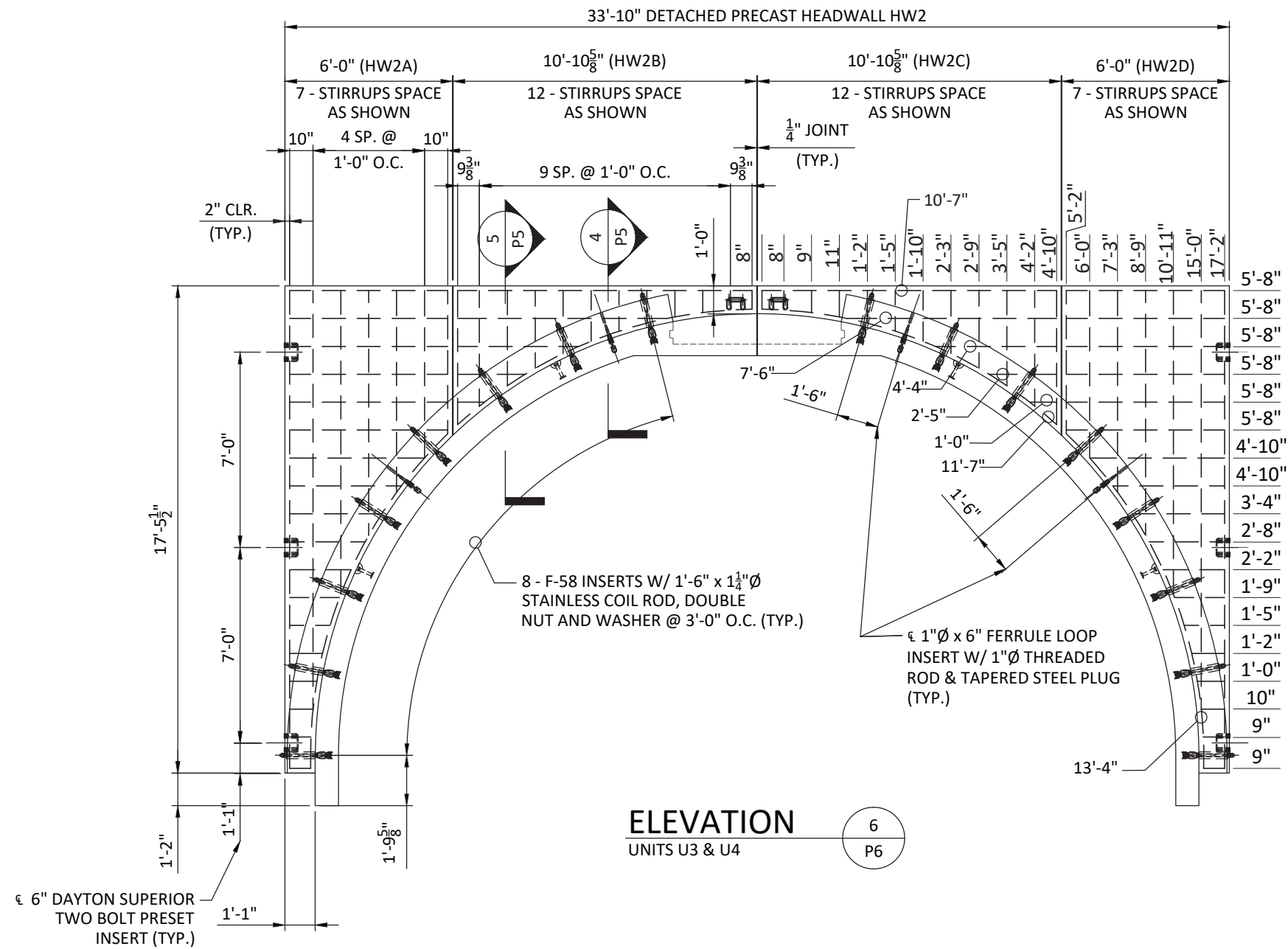
DATE: 3/26/2026

DESIGNED BY: KDK

DRAWN BY: NBD

CHECKED BY: JIV

**P5**

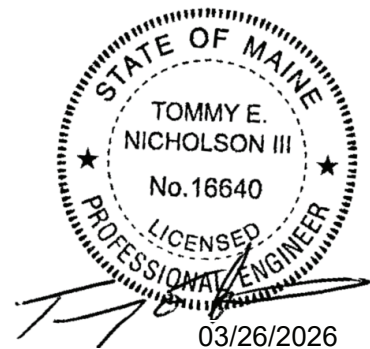


**DESIGN NOTES**

1. ALL EDGES TO HAVE  $\frac{3}{4}$ " CHAMFER
2. F'c CULVERT = 5,000 PSI  
F'c HEADWALL = 5,000 PSI
3. ELEVATION LOOKING AT BACK FACE OF HEADWALL
4. SEE SHEET P2 FOR CULVERT STEEL REINFORCING

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REINFORCING



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DATE	DESCRIPTION	ENG	FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
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**PRESTILE HILL BRIDGE**

LOCALE: CARIBOU STATE: ME

PROVIDED BY:

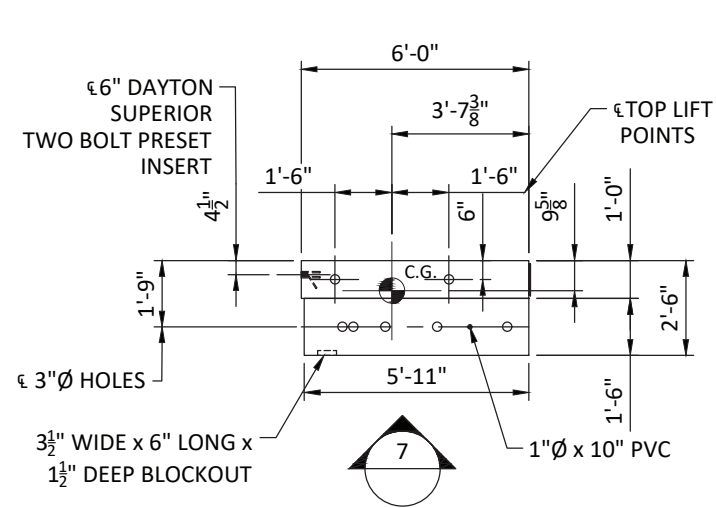
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

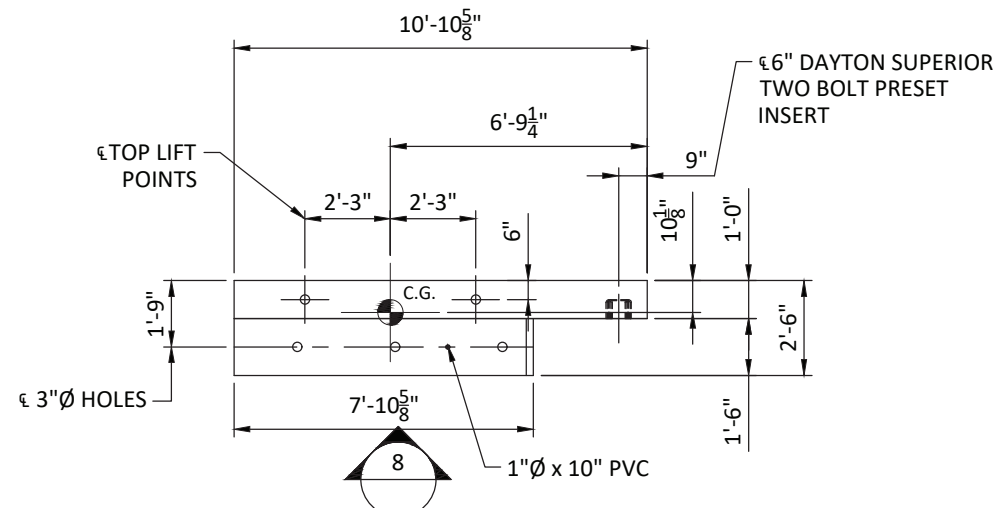
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

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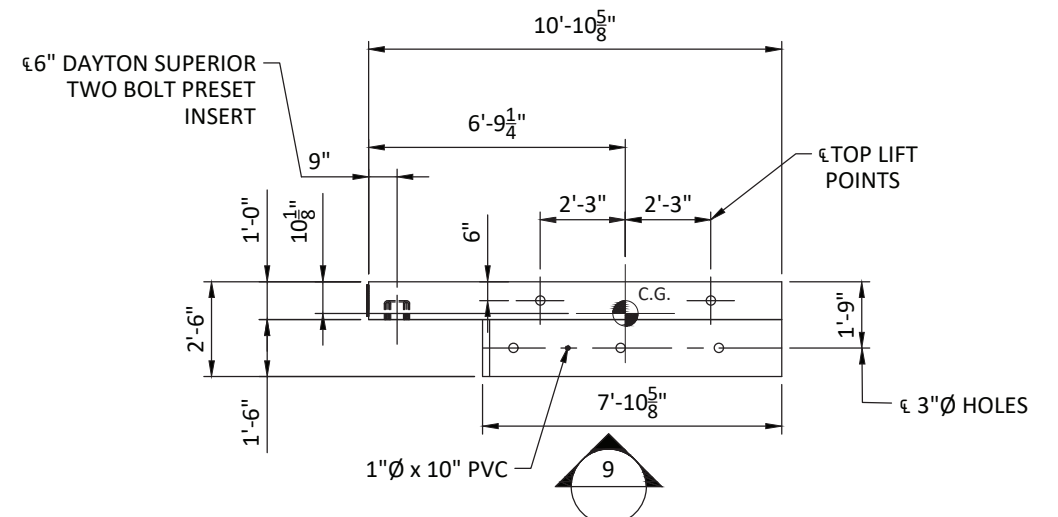
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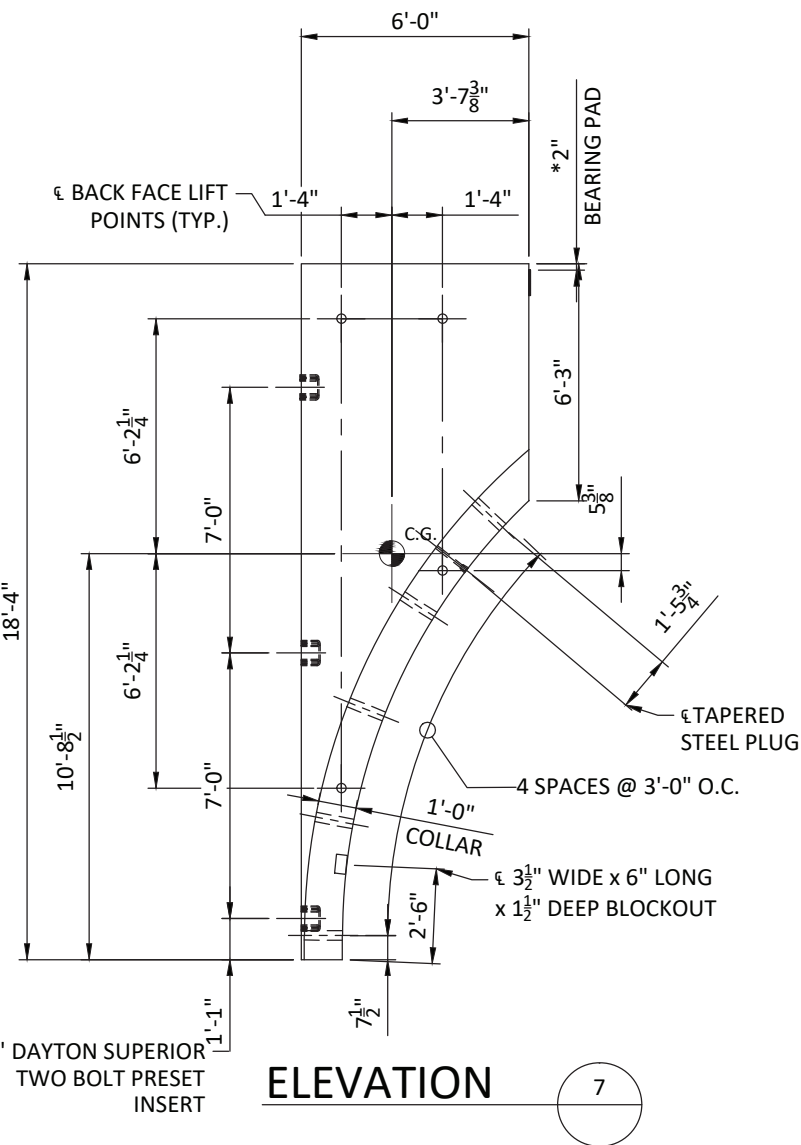
**PLAN - HW1A**  
TOTAL WEIGHT = 6.7 TONS



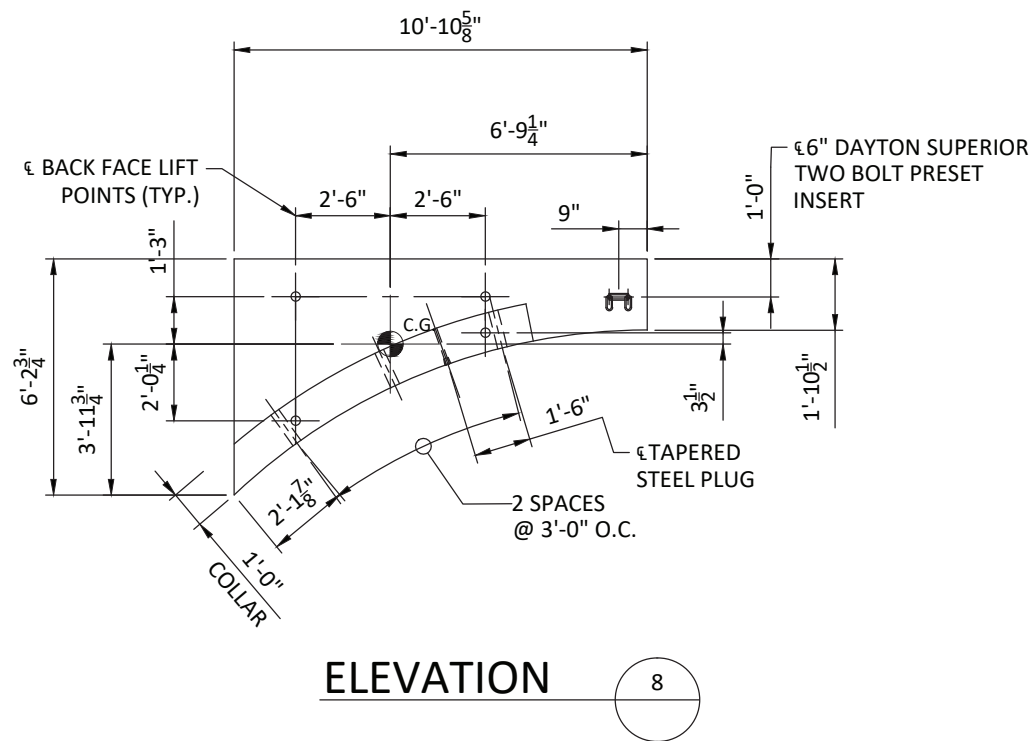
**PLAN - HW1B**  
TOTAL WEIGHT = 3.6 TONS



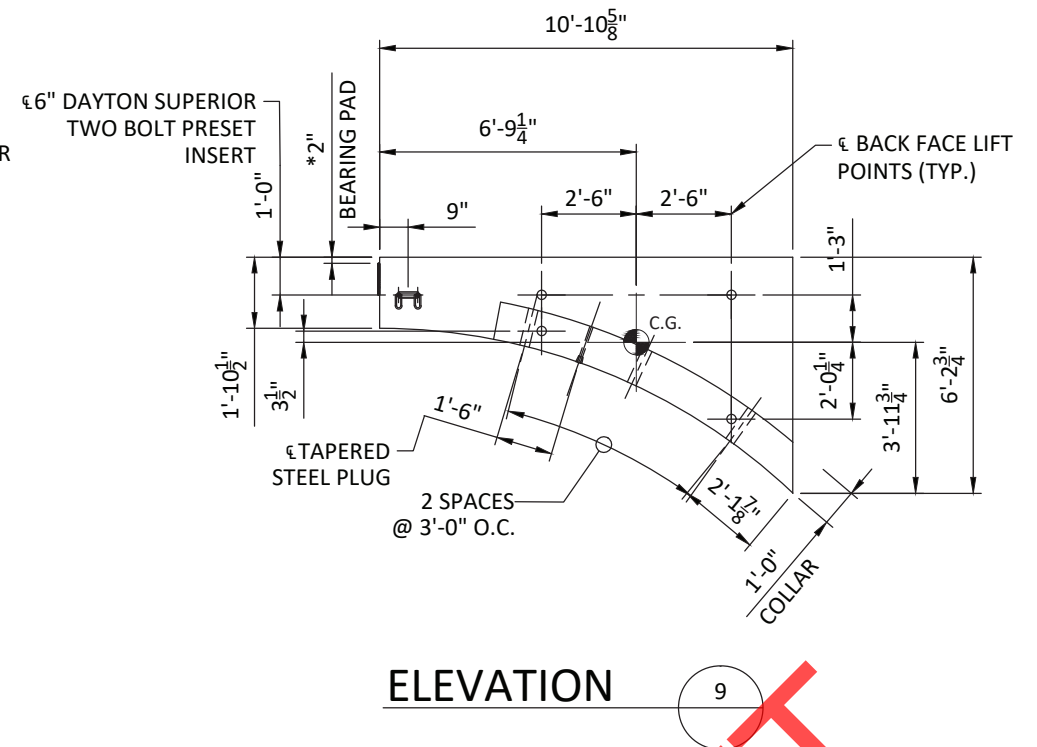
**PLAN - HW1C**  
TOTAL WEIGHT = 3.6 TONS



**ELEVATION 7**



**ELEVATION 8**



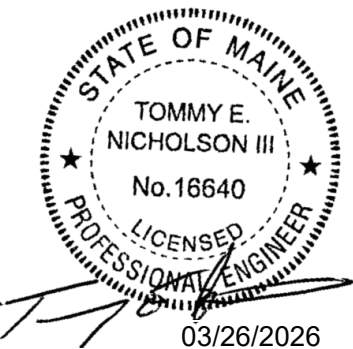
**ELEVATION 9**

**DESIGN NOTES**

1. ALL EDGES TO HAVE 3/4" CHAMFER
2. F'c = 5,000 PSI
3. HEADWALL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS NECESSARY
4. ELEVATION LOOKING AT BACK FACE OF HEADWALL

\*NOTE:  
8" x 8" x 1/4" ELASTOMERIC BEARING PAD, DUROMETER 45 (MIN.) BY HANNA RUBBER COMPANY OR EQUAL.

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**FOR APPROVAL**

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DATE	DESCRIPTION	ENG
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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU STATE: ME			

PROVIDED BY:

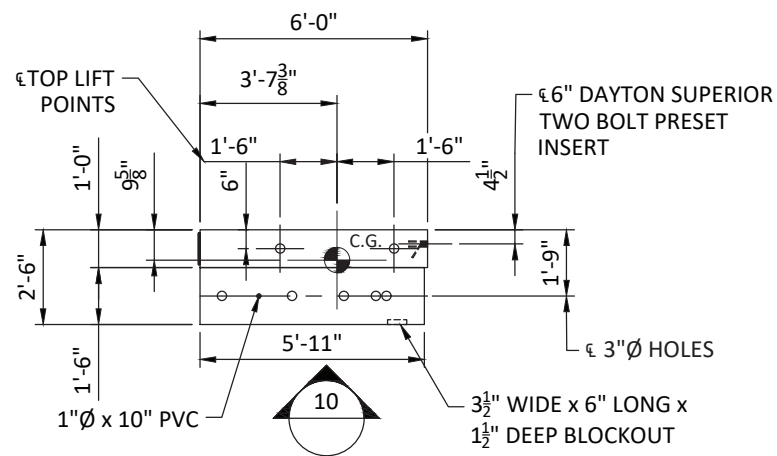
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

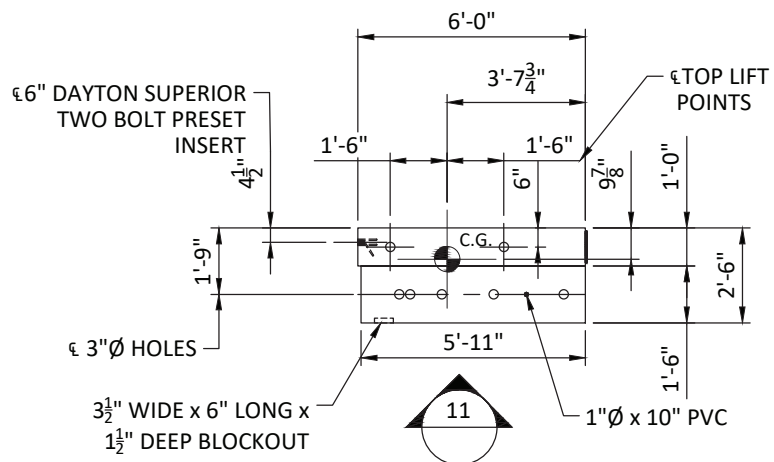
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
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DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JUV

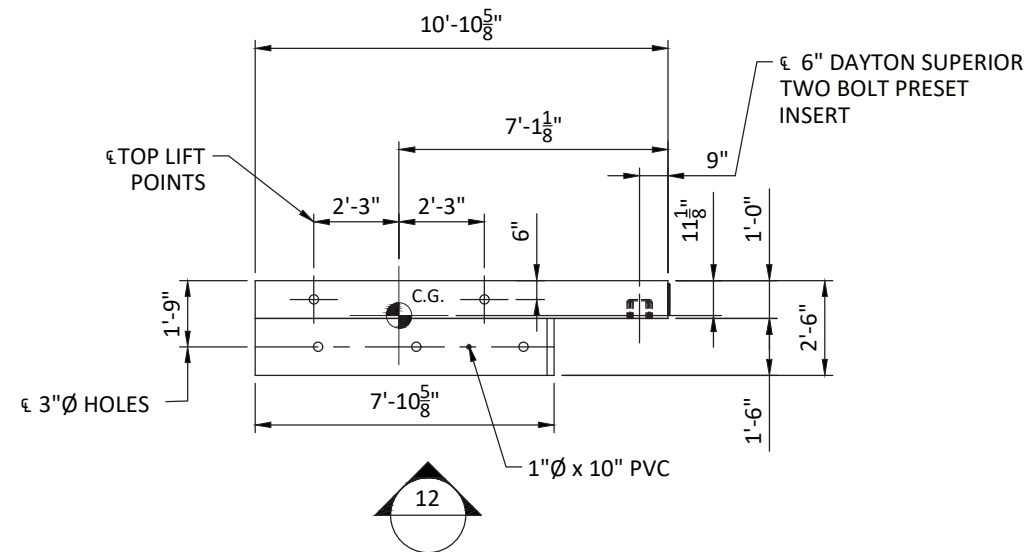
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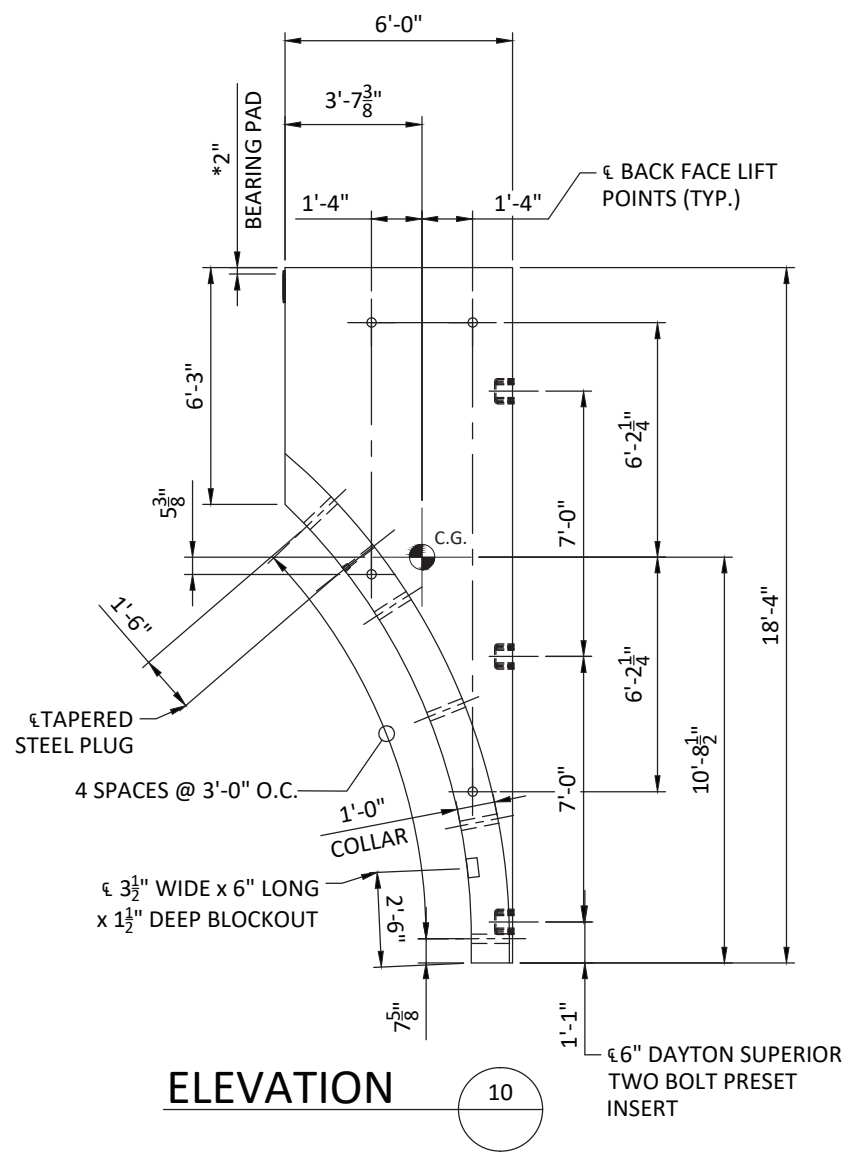
**PLAN - HW1D**  
TOTAL WEIGHT = 6.7 TONS



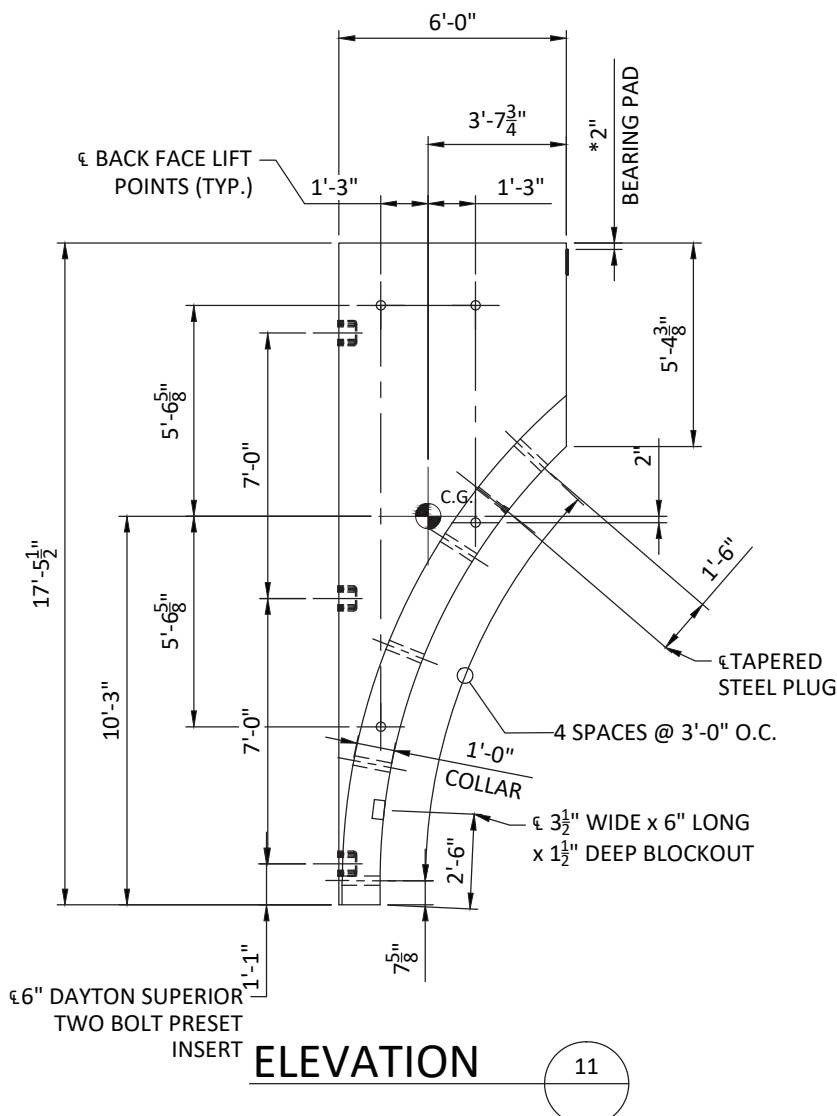
**PLAN - HW2A**  
TOTAL WEIGHT = 6.3 TONS



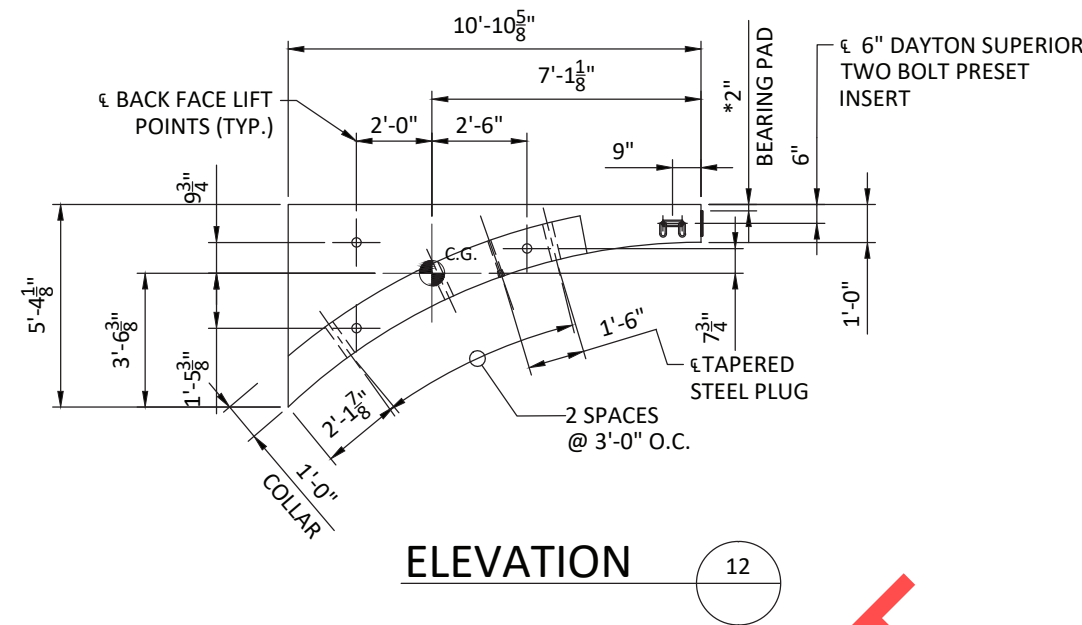
**PLAN - HW2B**  
TOTAL WEIGHT = 2.9 TONS



**ELEVATION 10**



**ELEVATION 11**



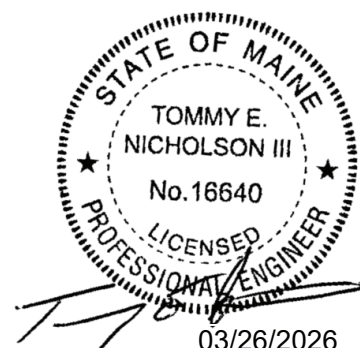
**ELEVATION 12**

**DESIGN NOTES**

1. ALL EDGES TO HAVE  $\frac{3}{4}$ " CHAMFER
2. F'c = 5,000 PSI
3. HEADWALL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS NECESSARY
4. ELEVATION LOOKING AT BACK FACE OF HEADWALL

\*NOTE:  
8" x 8" x  $\frac{1}{4}$ " ELASTOMERIC BEARING PAD, DUROMETER 45 (MIN.) BY HANNA RUBBER COMPANY OR EQUAL.

**UNCOATED**  
REINFORCING



03/26/2026  
**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG
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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU STATE: ME			

PROVIDED BY:

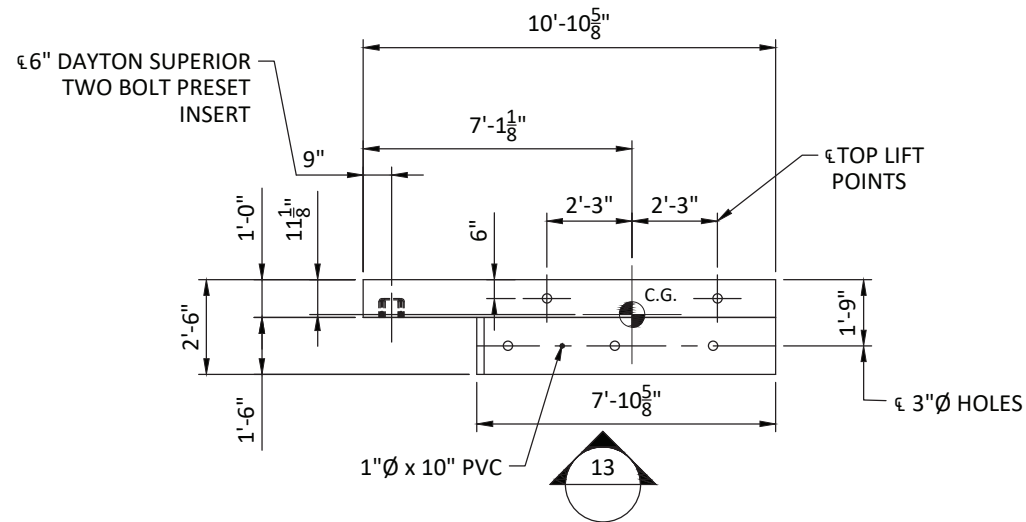
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

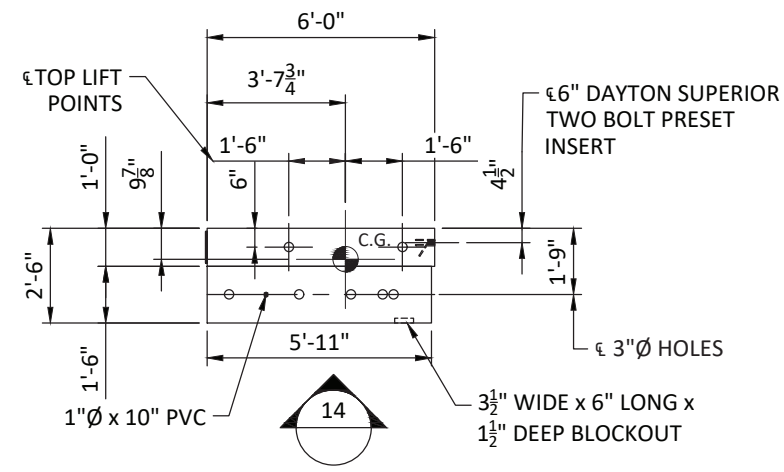
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JUV

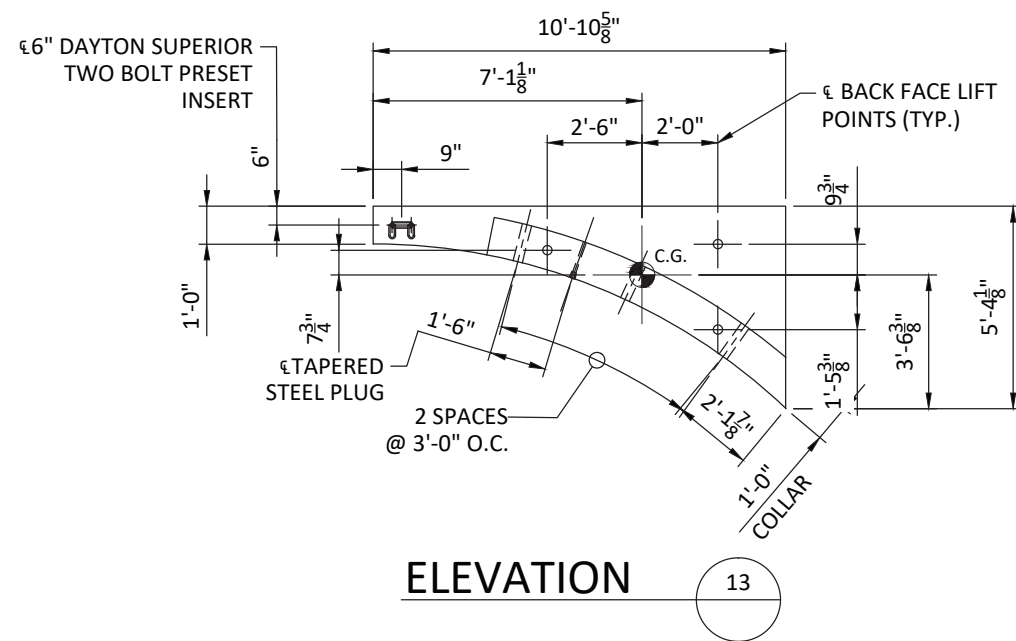
**P8**



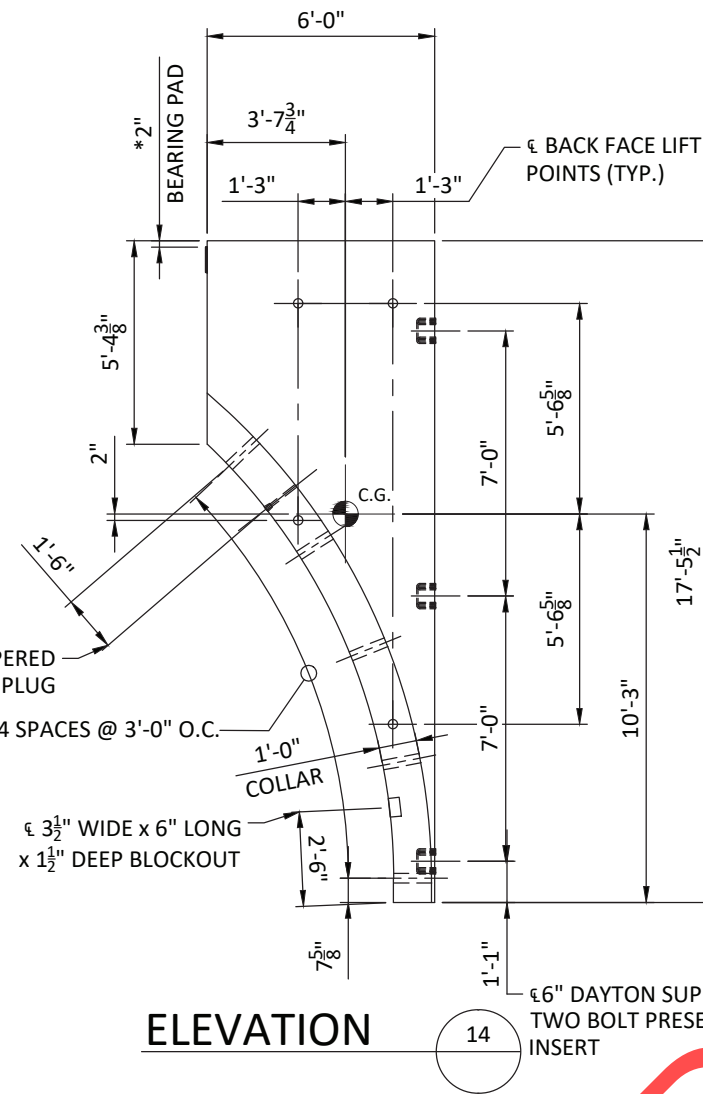
**PLAN - HW2C**  
TOTAL WEIGHT = 2.9 TONS



**PLAN - HW2D**  
TOTAL WEIGHT = 6.3 TONS



**ELEVATION**  
13



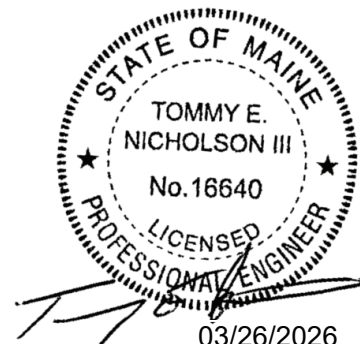
**ELEVATION**  
14

**DESIGN NOTES**

1. ALL EDGES TO HAVE 3/4" CHAMFER
2. F'c = 5,000 PSI
3. HEADWALL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS NECESSARY
4. ELEVATION LOOKING AT BACK FACE OF HEADWALL

\*NOTE:  
8" x 8" x 1/4" ELASTOMERIC BEARING PAD, DUROMETER 45 (MIN.) BY HANNA RUBBER COMPANY OR EQUAL.

DRAFT



**UNCOATED**  
REINFORCING

**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG	FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
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**PRESTILE HILL BRIDGE**

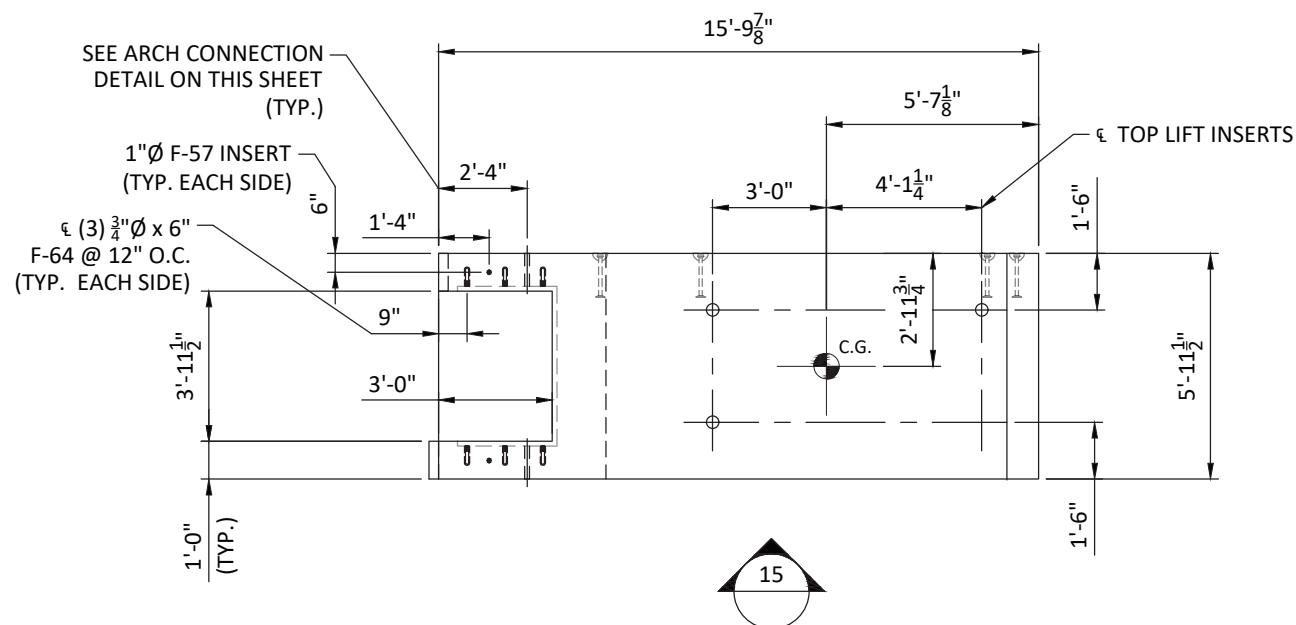
LOCALE: CARIBOU STATE: ME

PROVIDED BY:  
**CSI**  
CONCRETE SYSTEMS, INC.  
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

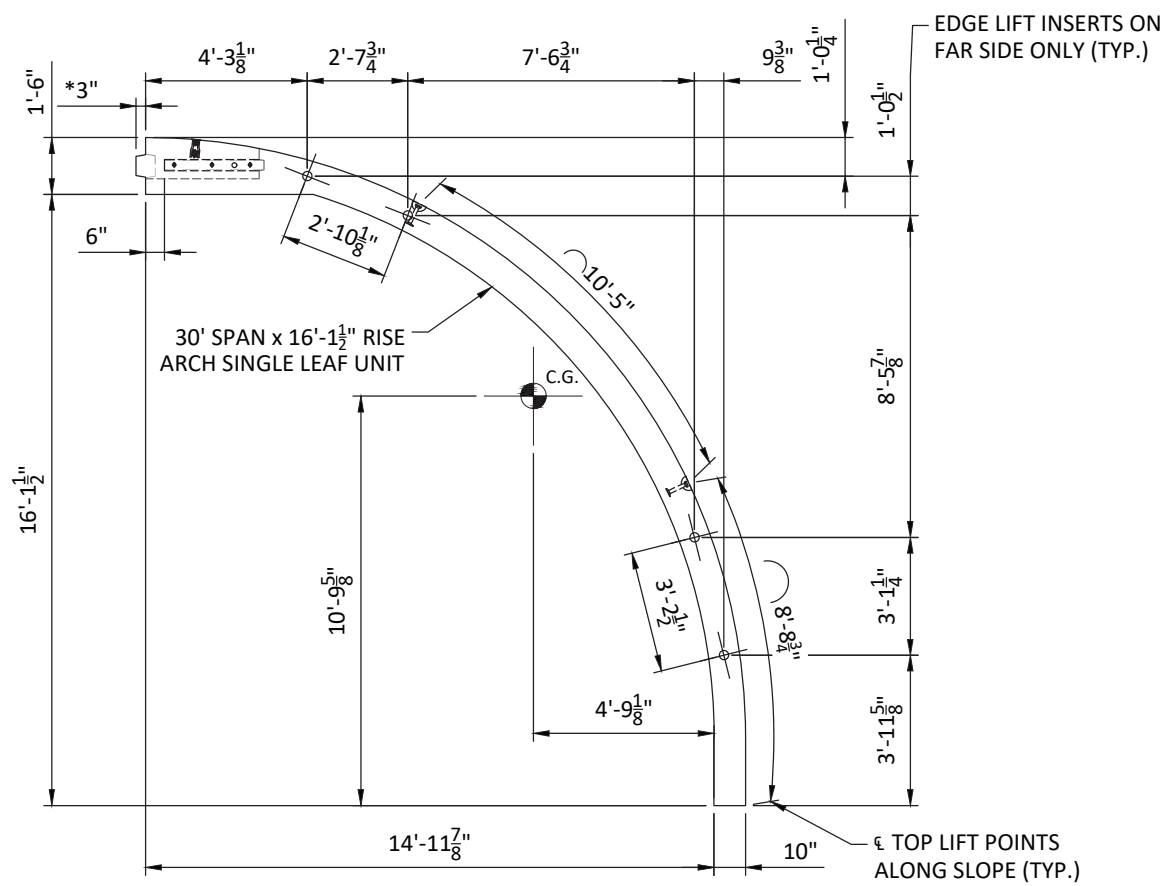
DESIGNED BY:  
**PRETEK GROUP**  
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JUV

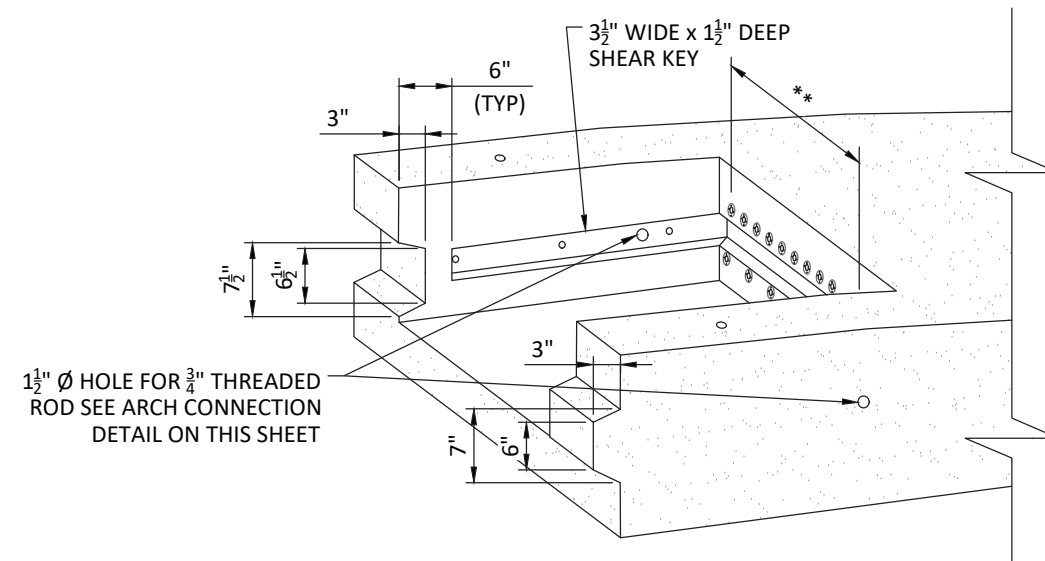
P9



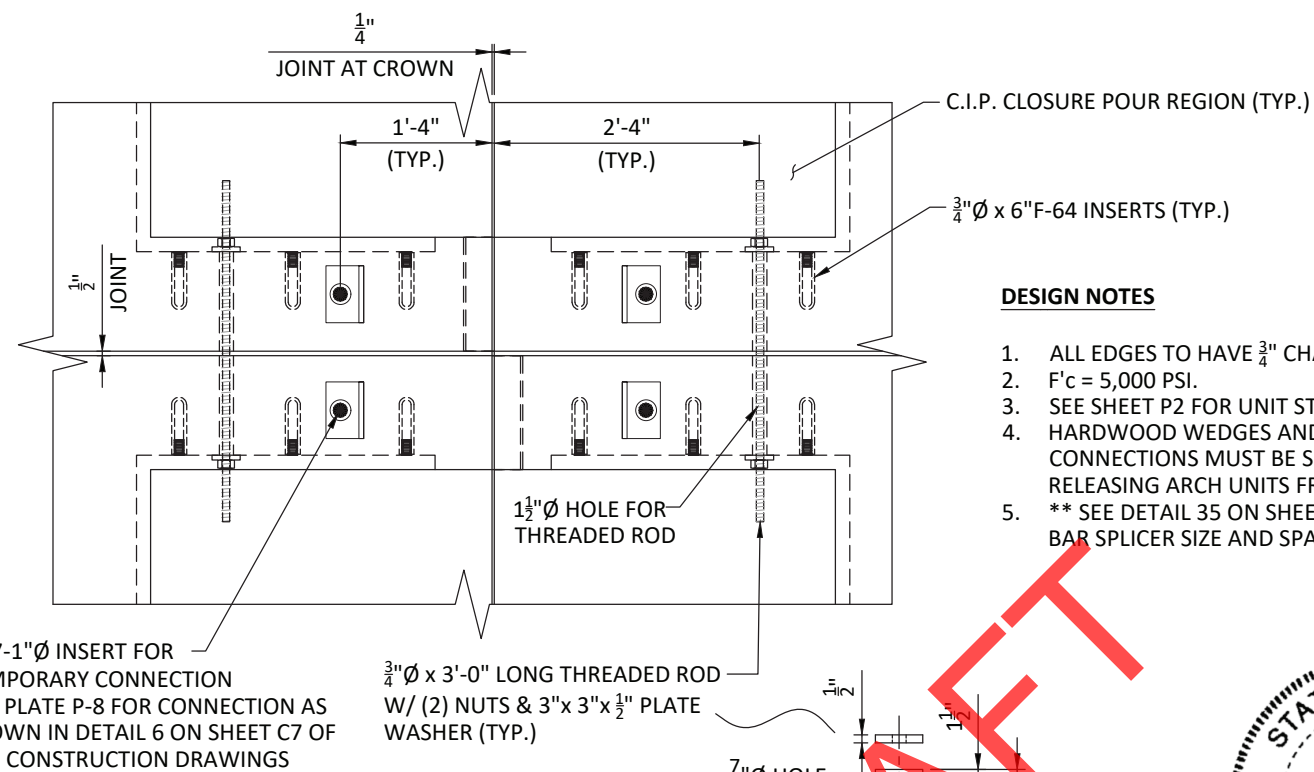
**PLAN - U5**  
 UNIT WEIGHT = 9.7 TONS  
 (28) U5 UNITS REQUIRED



**ELEVATION**



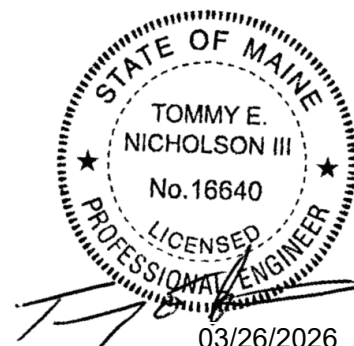
**\*KEYWAY AND CLOSURE POUR DETAIL**  
 NOT TO SCALE



**DESIGN NOTES**

1. ALL EDGES TO HAVE 3/4" CHAMFER.
2. F'c = 5,000 PSI.
3. SEE SHEET P2 FOR UNIT STEEL REINFORCING.
4. HARDWOOD WEDGES AND TEMPORARY CONNECTIONS MUST BE SECURED PRIOR TO RELEASING ARCH UNITS FROM CRANE.
5. \*\* SEE DETAIL 35 ON SHEET P20 FOR DOWEL BAR SPLICER SIZE AND SPACING.

**ARCH CONNECTION DETAIL**  
 NOT TO SCALE



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**FOR APPROVAL**

**ARC-SPAN™**

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FEDERAL PROJECT NO. 022845.11    BRIDGE NO. 6599    ROUTE 164 (MAIN STREET)    AROOSTOOK COUNTY

**PRESTILE HILL BRIDGE**

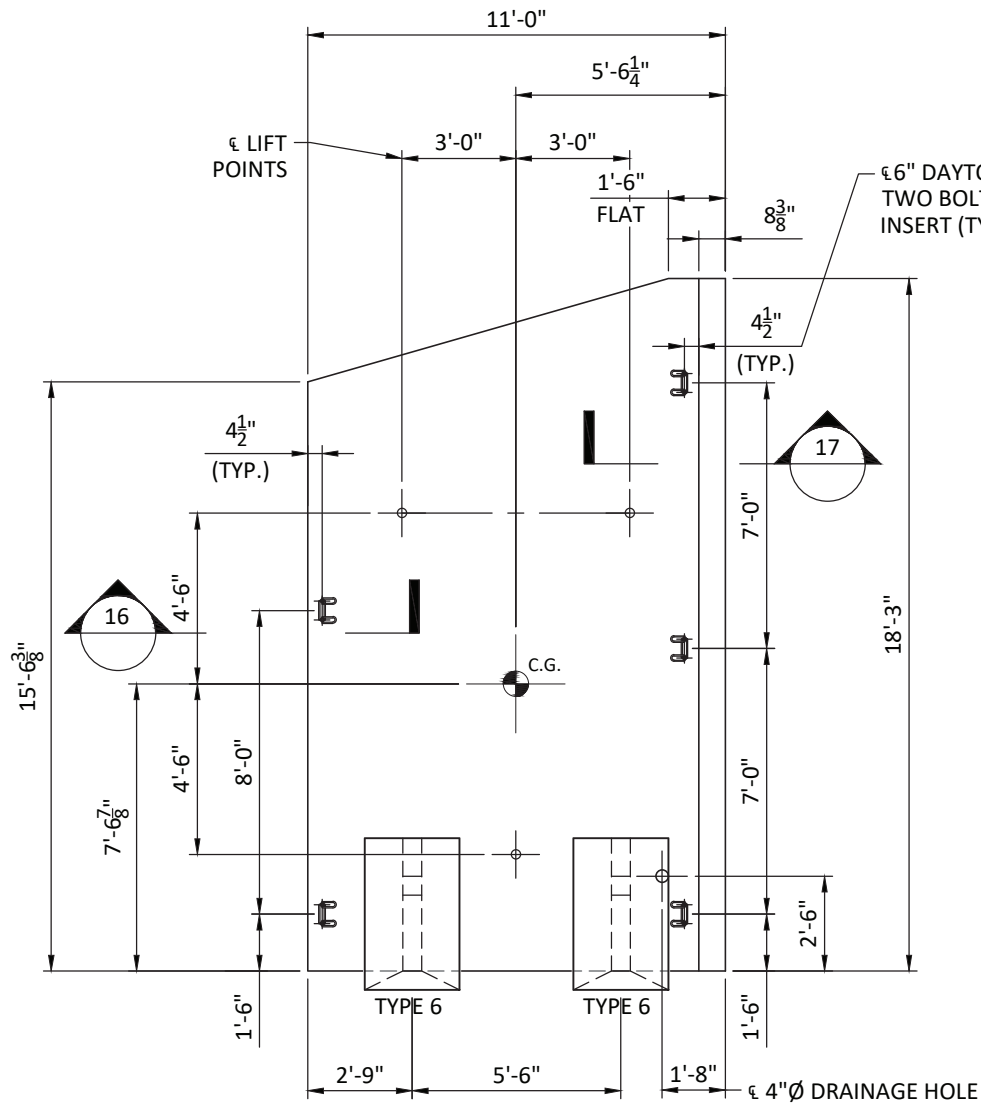
LOCALE: CARIBOU    STATE: ME

PROVIDED BY:  
**CSI**  
 CONCRETE SYSTEMS, INC.  
 9 COMMERCIAL STREET  
 HUDSON, NEW HAMPSHIRE 03051  
 800.342.3374

DESIGNED BY:  
**PRETEK GROUP**  
 P.O. BOX 351  
 BELLBROOK, OH 45305  
 800.241.0925

PROJECT NUMBER: 26-006  
 DATE: 3/26/2026  
 DESIGNED BY: KDK  
 DRAWN BY: NBD  
 CHECKED BY: JUV

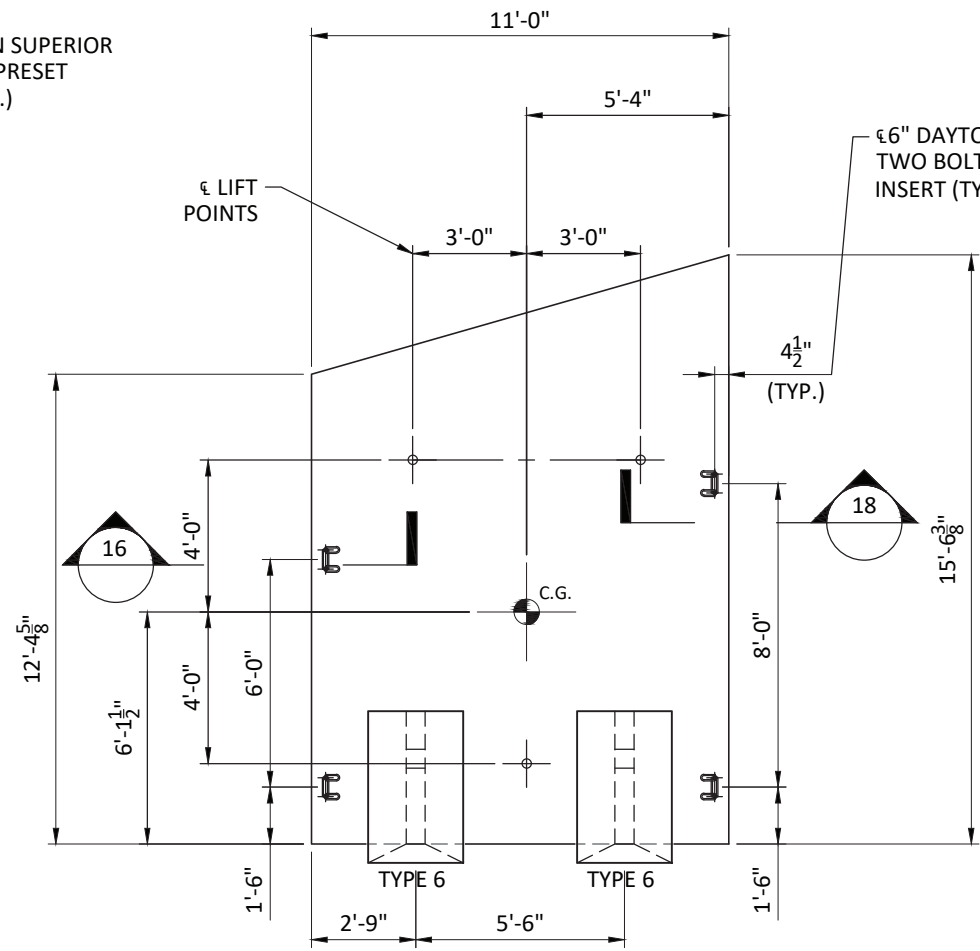
**P10**



**ELEVATION - WINGWALL WW1A**

TOTAL WEIGHT = 16.0 TONS

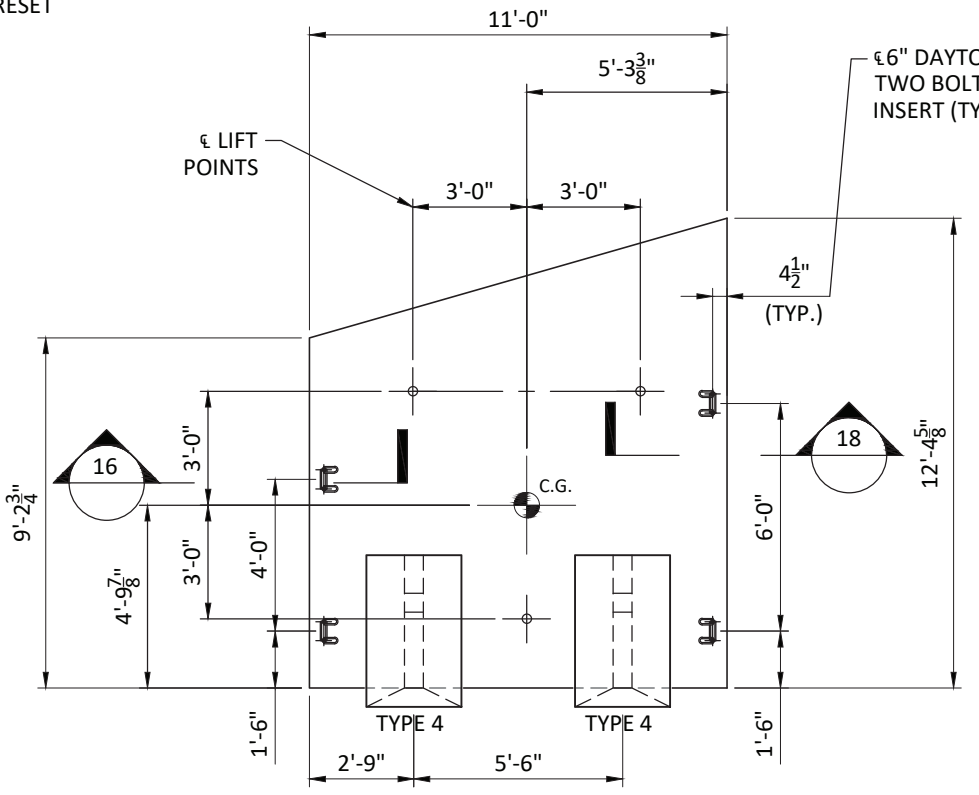
PROVIDE 4"Ø x 44' PERFORATED DRAIN W/ELBOW, END CAP AND FILTER FABRIC SOCK  
PROVIDE (1) 19' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW1B**

TOTAL WEIGHT = 13.8 TONS

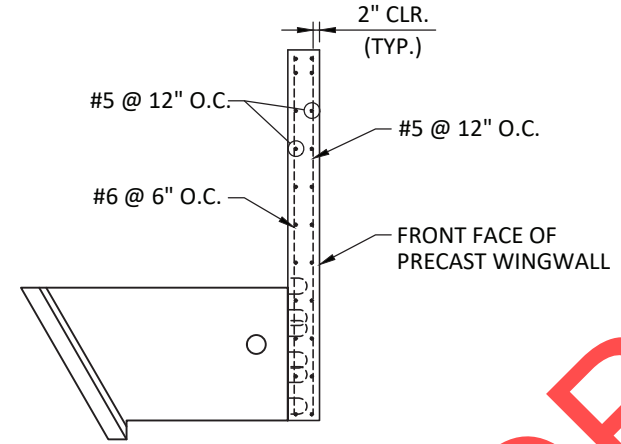
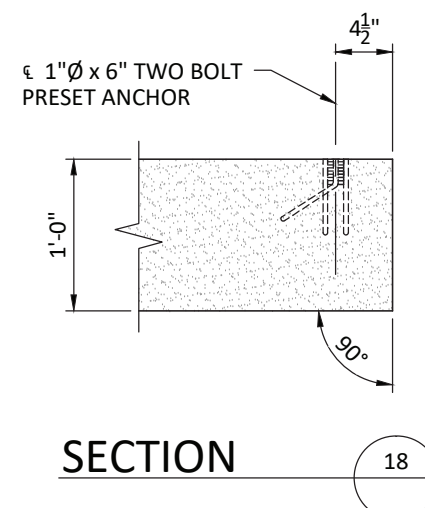
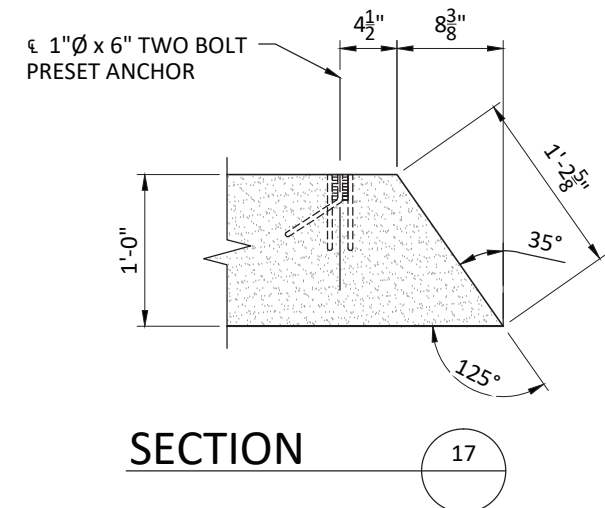
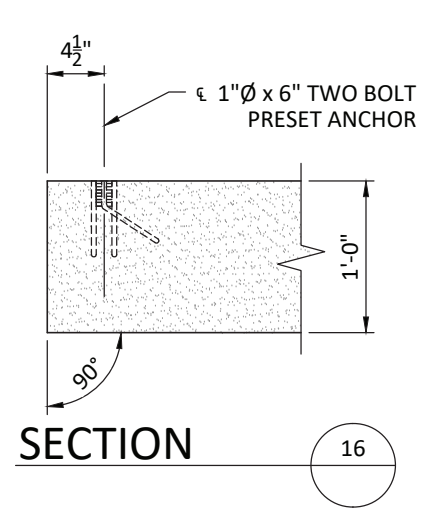
PROVIDE (1) 16' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW1C**

TOTAL WEIGHT = 10.7 TONS

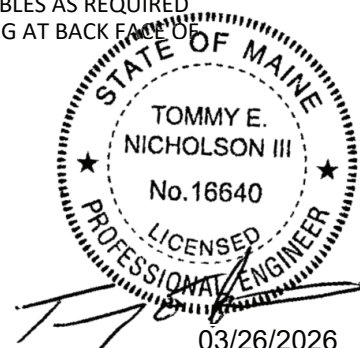
PROVIDE (1) 13' LONG x 2' WIDE STRIP OF FILTER FABRIC



**REINFORCING SECTION**  
NOT TO SCALE

**DESIGN NOTES**

- ALL EDGES TO HAVE 3/4" CHAMFER
- F'c = 5,000 PSI
- WALL PANEL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS REQUIRED
- ELEVATION LOOKING AT BACK FACE OF WINGWALL



**UNCOATED**  
REINFORCING

**FOR APPROVAL**

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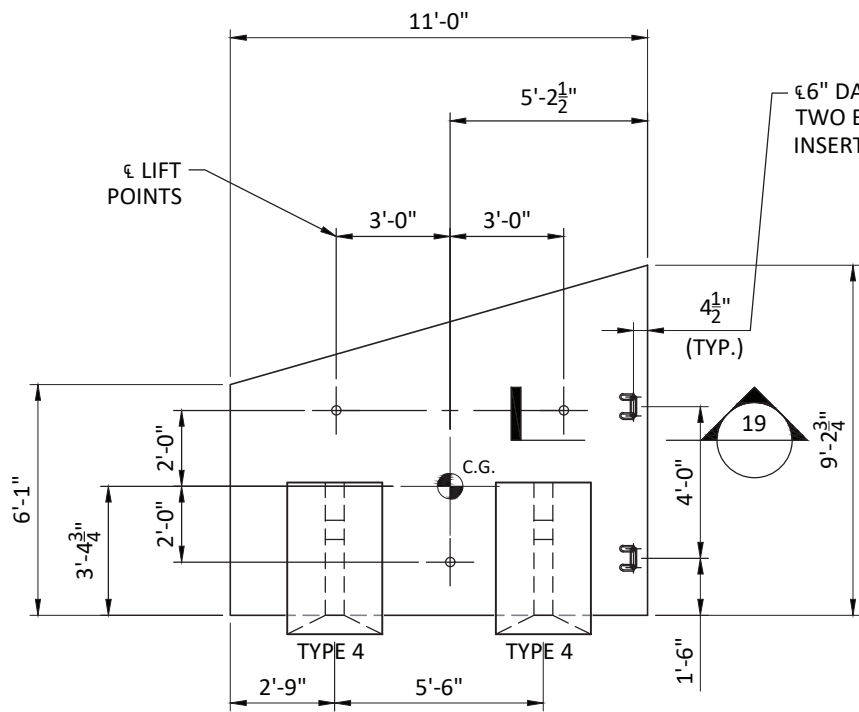
FEDERAL PROJECT NO. 022845.11 BRIDGE NO. 6599 ROUTE 164 (MAIN STREET) AROOSTOOK COUNTY  
**PRESTILE HILL BRIDGE**  
LOCALE: CARIBOU STATE: ME

PROVIDED BY:  
**CSI CONCRETE SYSTEMS, INC.**  
9 COMMERCIAL STREET HUDSON, NEW HAMPSHIRE 03051 800.342.3374

DESIGNED BY:  
**PRETEK GROUP**  
P.O. BOX 351 BELLBROOK, OH 45305 800.241.0925

PROJECT NUMBER: 26-006  
DATE: 3/26/2026  
DESIGNED BY: KDK  
DRAWN BY: NBD  
CHECKED BY: JUV

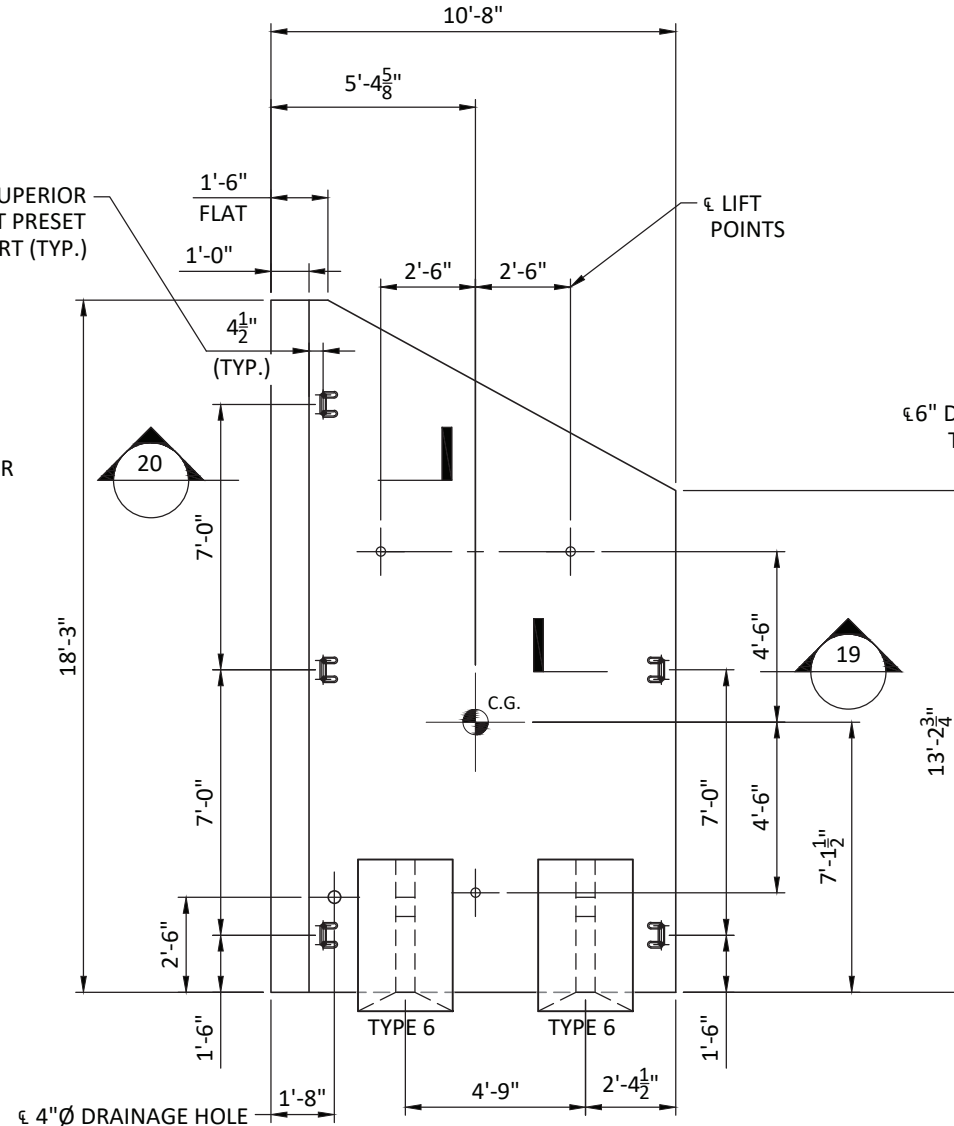
**P111**



**ELEVATION - WINGWALL WW1D**

TOTAL WEIGHT = 8.1 TONS

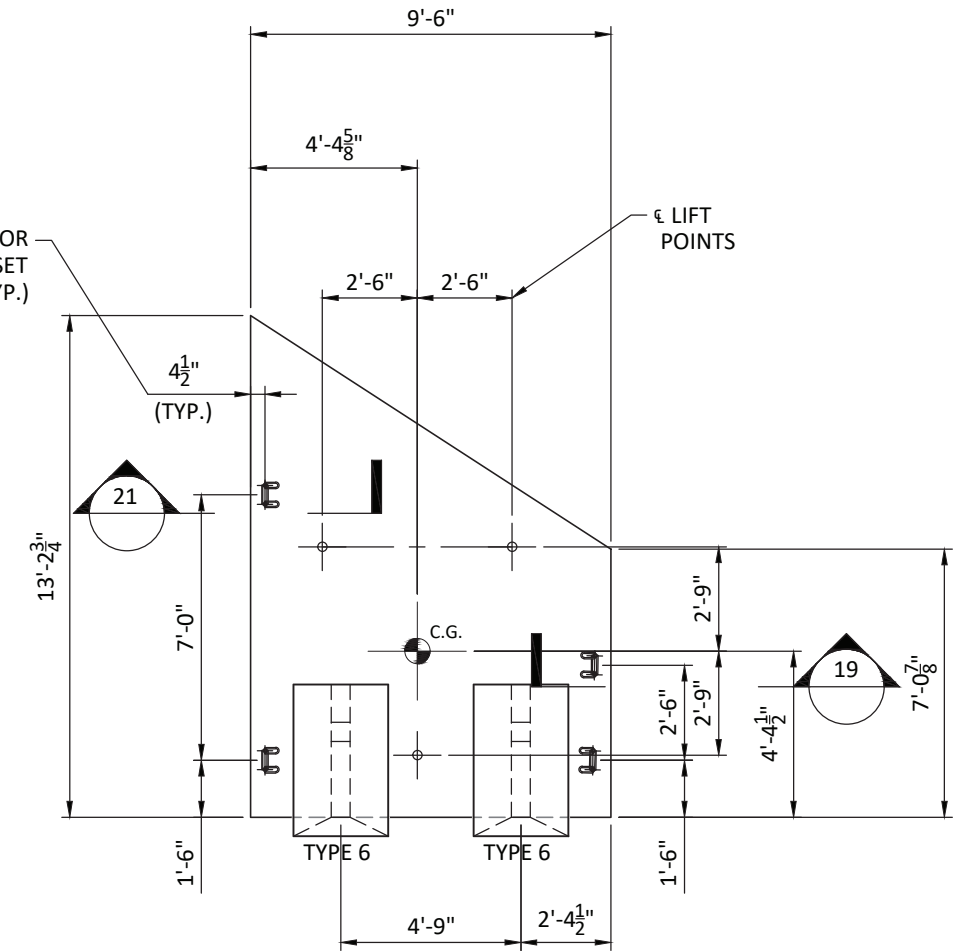
PROVIDE (1) 10' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW2A**

TOTAL WEIGHT = 14.6 TONS

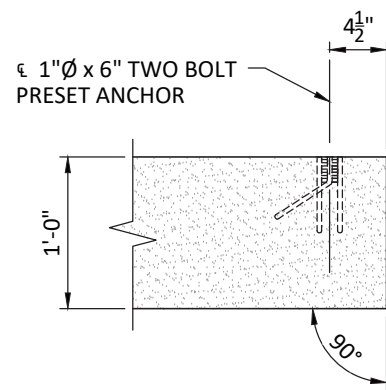
PROVIDE 4"Ø x 30' PERFORATED DRAIN W/ELBOW, END CAP AND FILTER FABRIC SOCK  
PROVIDE (1) 19' LONG x 2' WIDE STRIP OF FILTER FABRIC



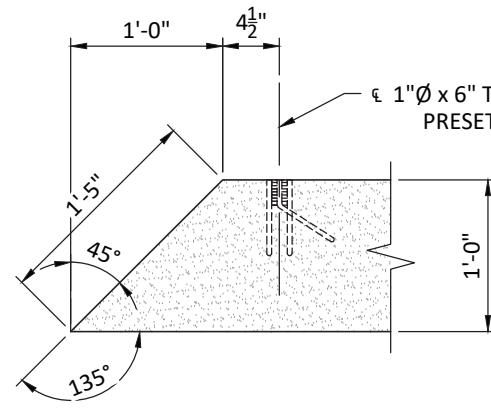
**ELEVATION - WINGWALL WW2B**

TOTAL WEIGHT = 9.6 TONS

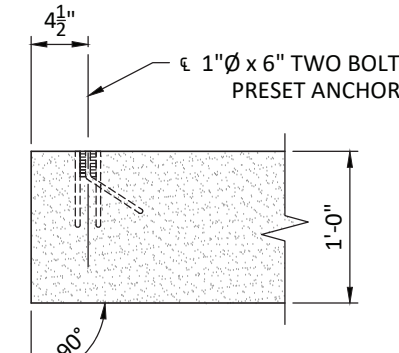
PROVIDE (1) 14' LONG x 2' WIDE STRIP OF FILTER FABRIC



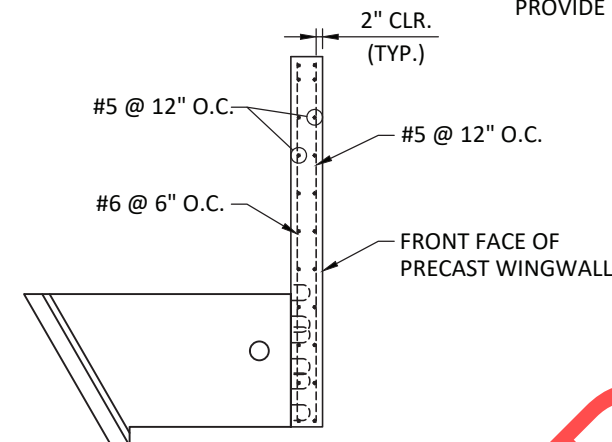
SECTION 19



SECTION 20



SECTION 21

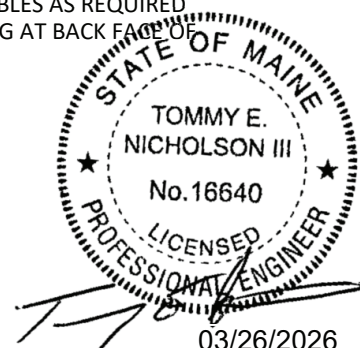


REINFORCING SECTION

NOT TO SCALE

**DESIGN NOTES**

- ALL EDGES TO HAVE 3/4" CHAMFER
- F'c = 5,000 PSI
- WALL PANEL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS REQUIRED
- ELEVATION LOOKING AT BACK FACE OF WINGWALL



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REINFORCING

**FOR APPROVAL**

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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU	STATE: ME		

PROVIDED BY:

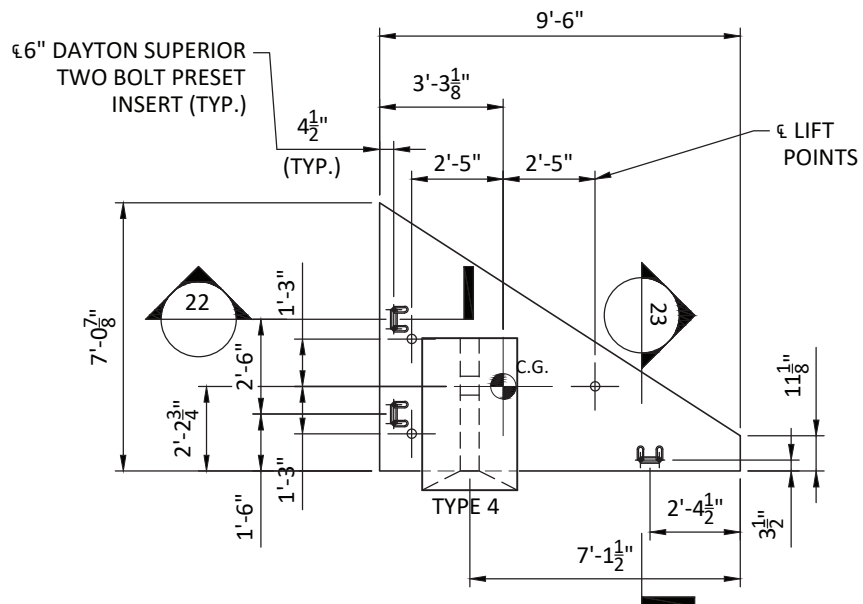
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

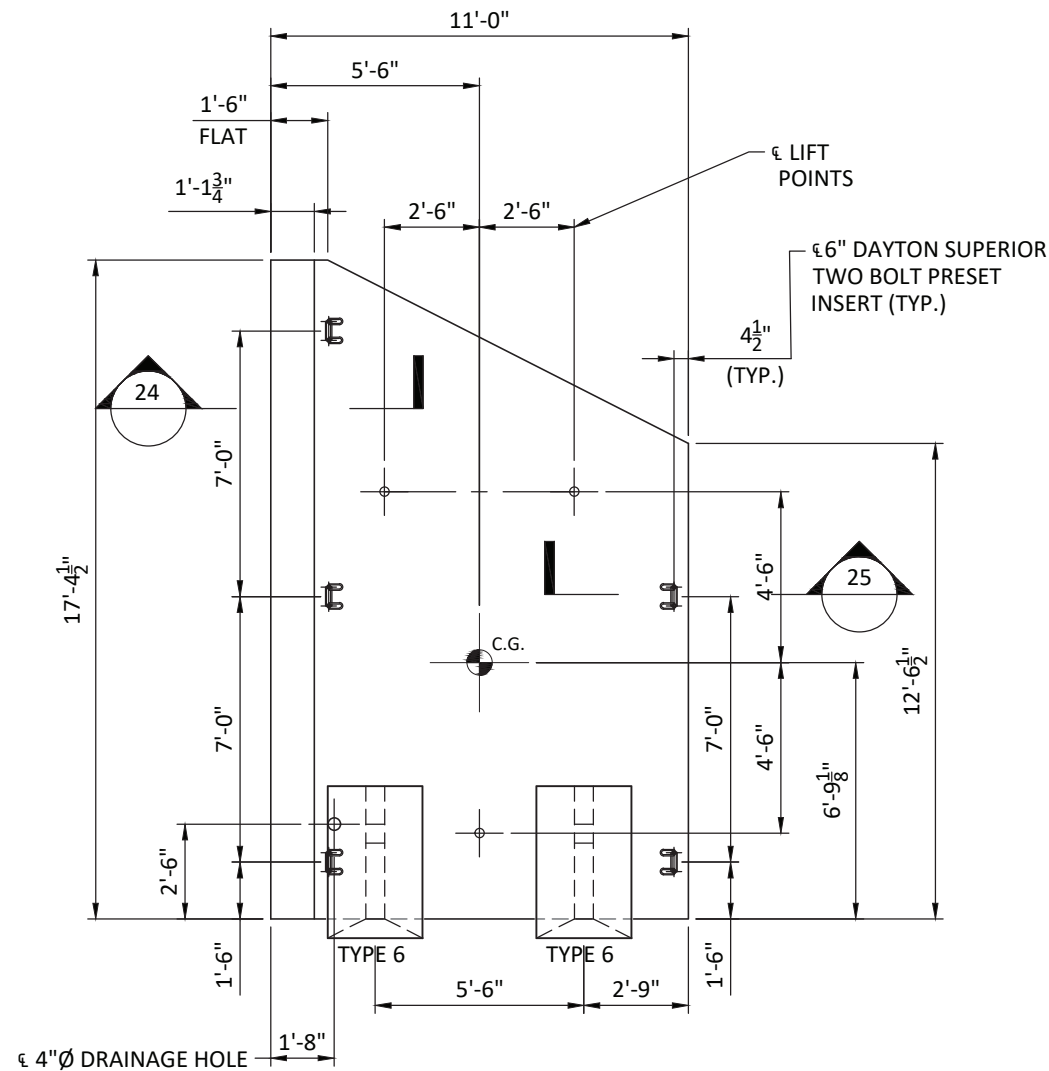
**P12**



**ELEVATION - WINGWALL WW2C**

TOTAL WEIGHT = 3.7 TONS

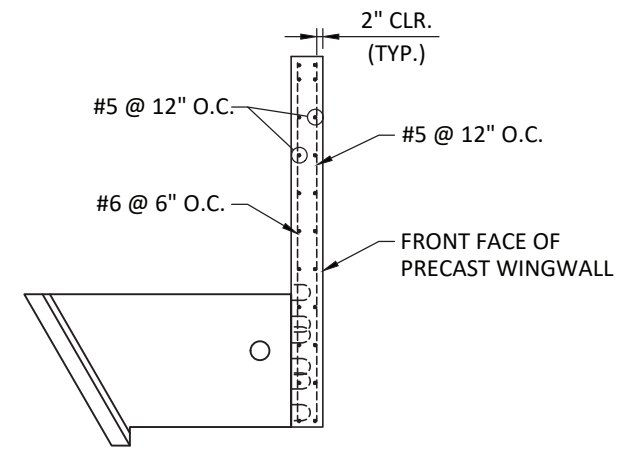
PROVIDE (1) 8' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW3A**

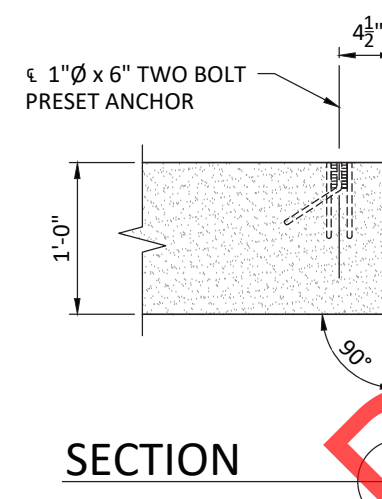
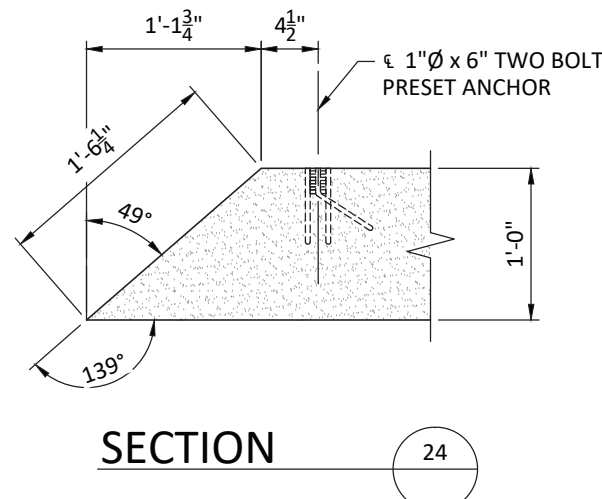
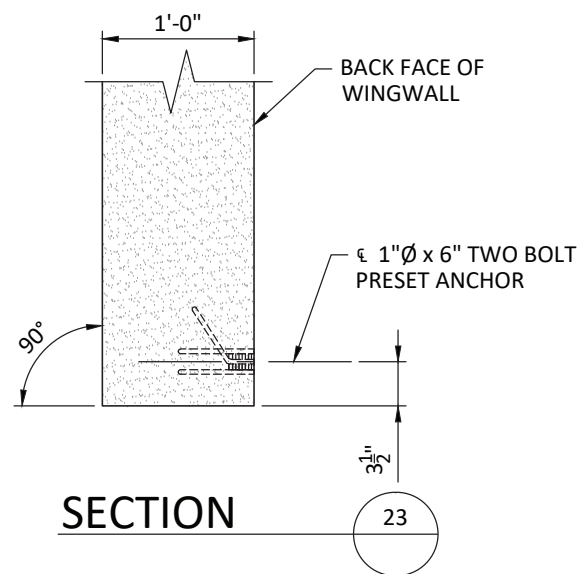
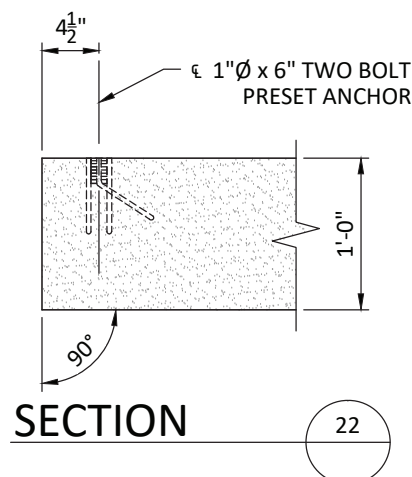
TOTAL WEIGHT = 14.3 TONS

PROVIDE 4" Ø x 33' PERFORATED DRAIN W/ELBOW, END CAP AND FILTER FABRIC SOCK  
PROVIDE (1) 18' LONG x 2' WIDE STRIP OF FILTER FABRIC



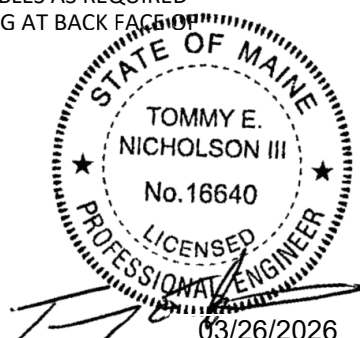
**REINFORCING SECTION**

NOT TO SCALE



**DESIGN NOTES**

- ALL EDGES TO HAVE 3/4" CHAMFER
- F'c = 5,000 PSI
- WALL PANEL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS REQUIRED
- ELEVATION LOOKING AT BACK FACE OF WINGWALL



DRAFT

**UNCOATED**  
REINFORCING

**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG
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FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
<b>PRESTILE HILL BRIDGE</b>			
LOCALE: CARIBOU	STATE: ME		

PROVIDED BY:

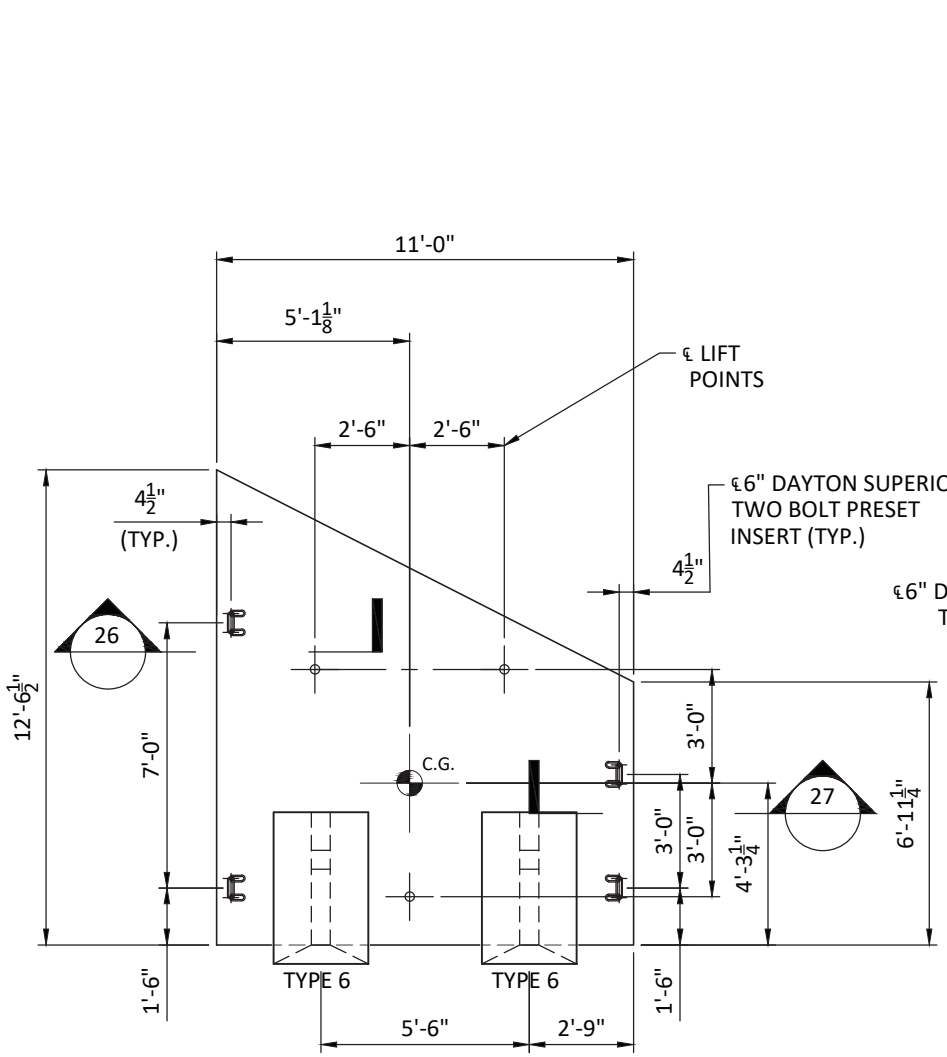
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

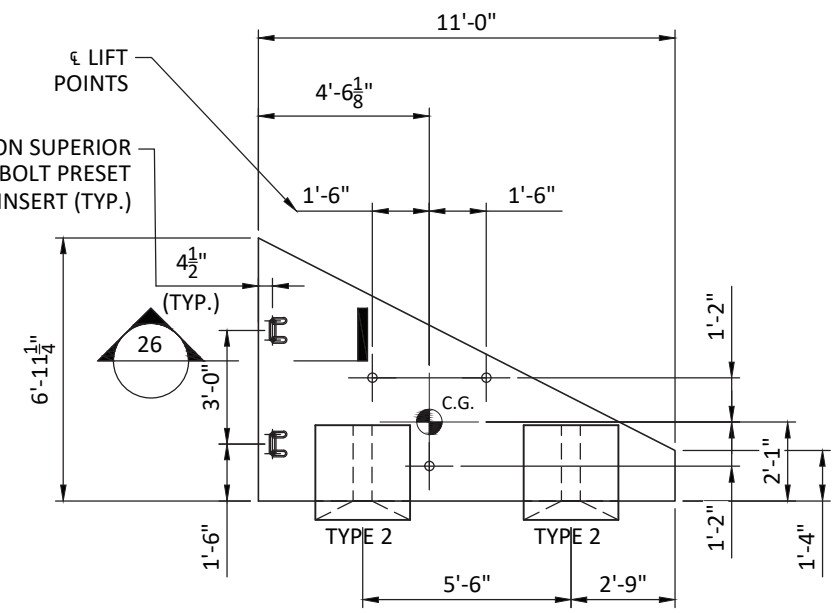
P13



**ELEVATION - WINGWALL WW3B**

TOTAL WEIGHT = 10.4 TONS

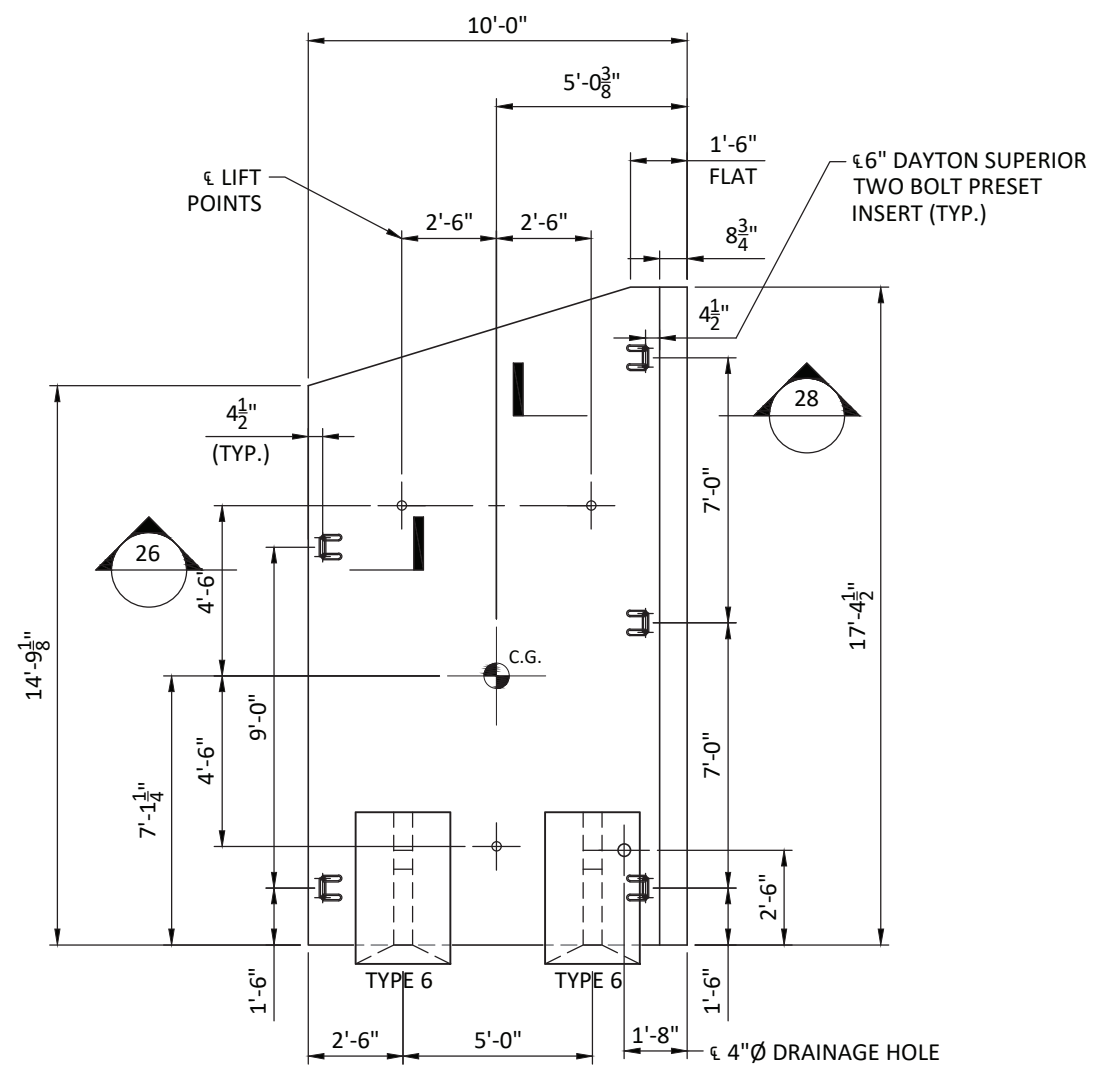
PROVIDE (1) 13' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW3C**

TOTAL WEIGHT = 4.3 TONS

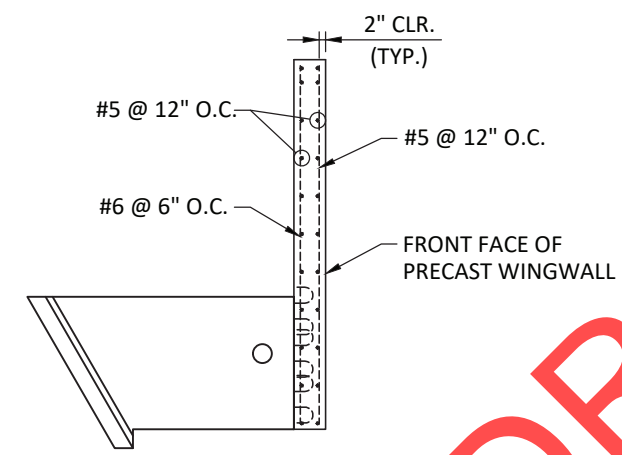
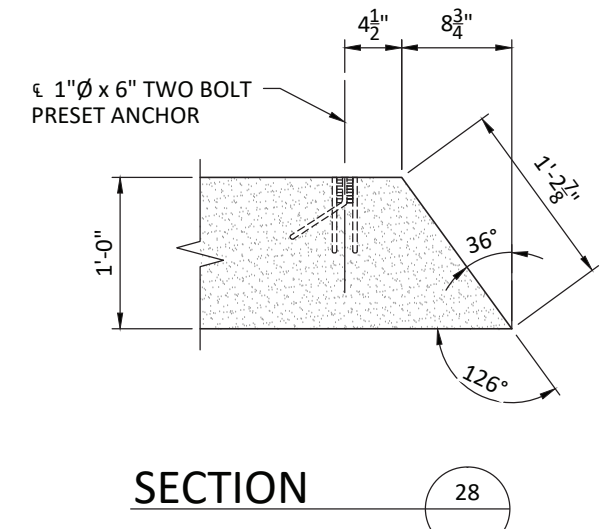
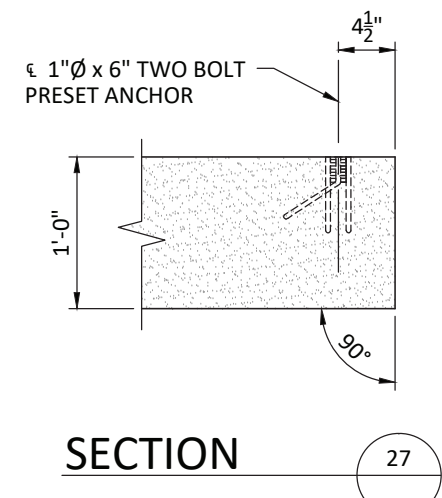
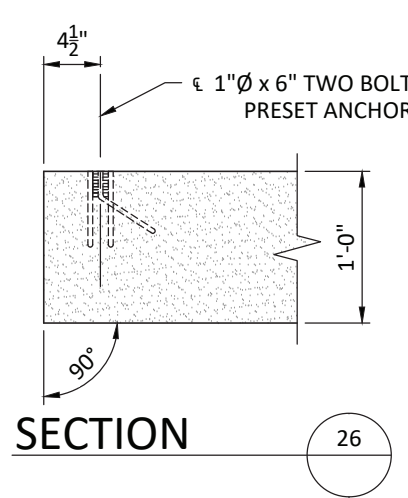
PROVIDE (1) 7' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW4A**

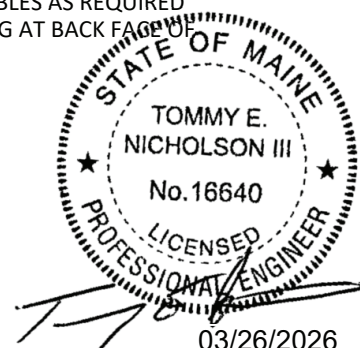
TOTAL WEIGHT = 14.1 TONS

PROVIDE 4"Ø x 40' PERFORATED DRAIN W/ELBOW, END CAP AND FILTER FABRIC SOCK  
PROVIDE (1) 18' LONG x 2' WIDE STRIP OF FILTER FABRIC



**DESIGN NOTES**

- ALL EDGES TO HAVE 3/4" CHAMFER
- F'c = 5,000 PSI
- WALL PANEL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS REQUIRED
- ELEVATION LOOKING AT BACK FACE OF WINGWALL



**REINFORCING SECTION**  
NOT TO SCALE

**UNCOATED**  
REINFORCING

**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG	FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
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**PRESTILE HILL BRIDGE**

LOCALE: CARIBOU STATE: ME

PROVIDED BY:

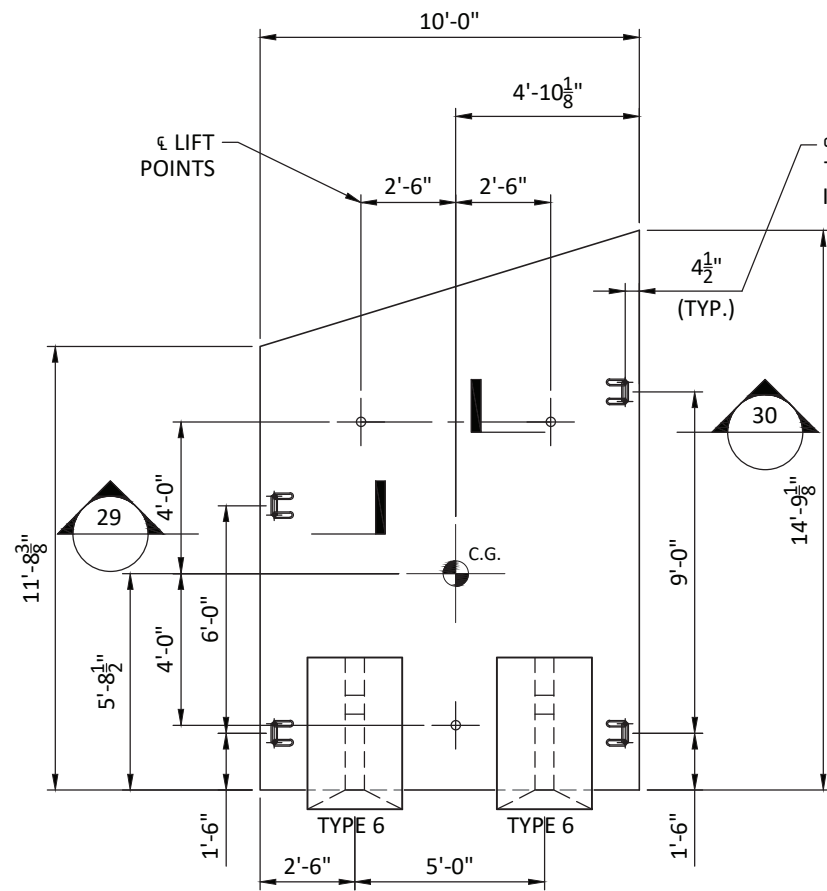
9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:

P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006
DATE: 3/26/2026
DESIGNED BY: KDK
DRAWN BY: NBD
CHECKED BY: JIV

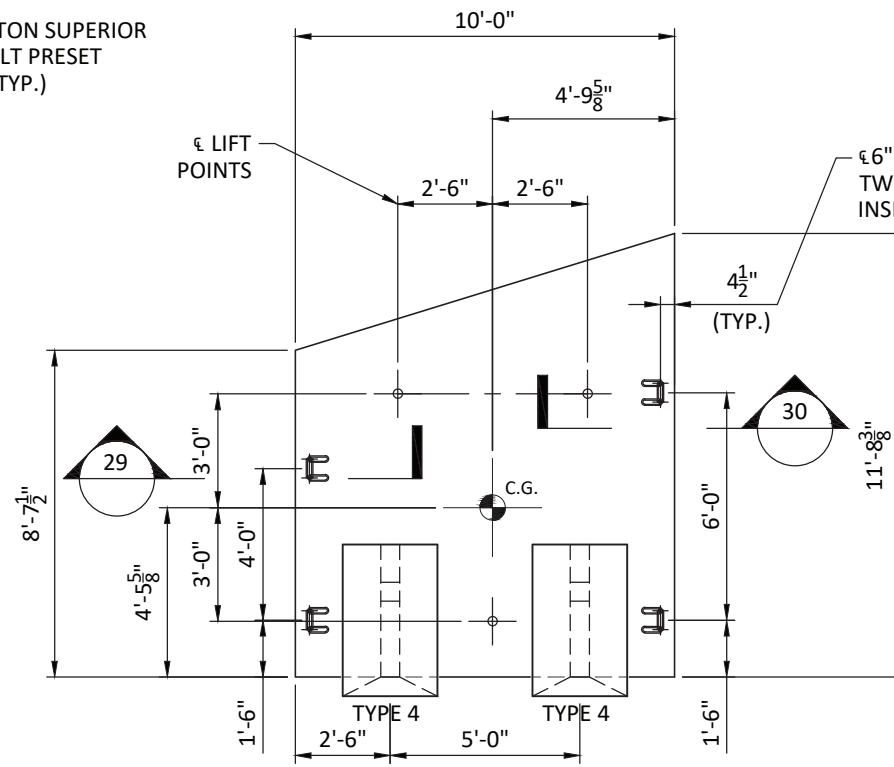
**P14**



**ELEVATION - WINGWALL WW4B**

TOTAL WEIGHT = 12.2 TONS

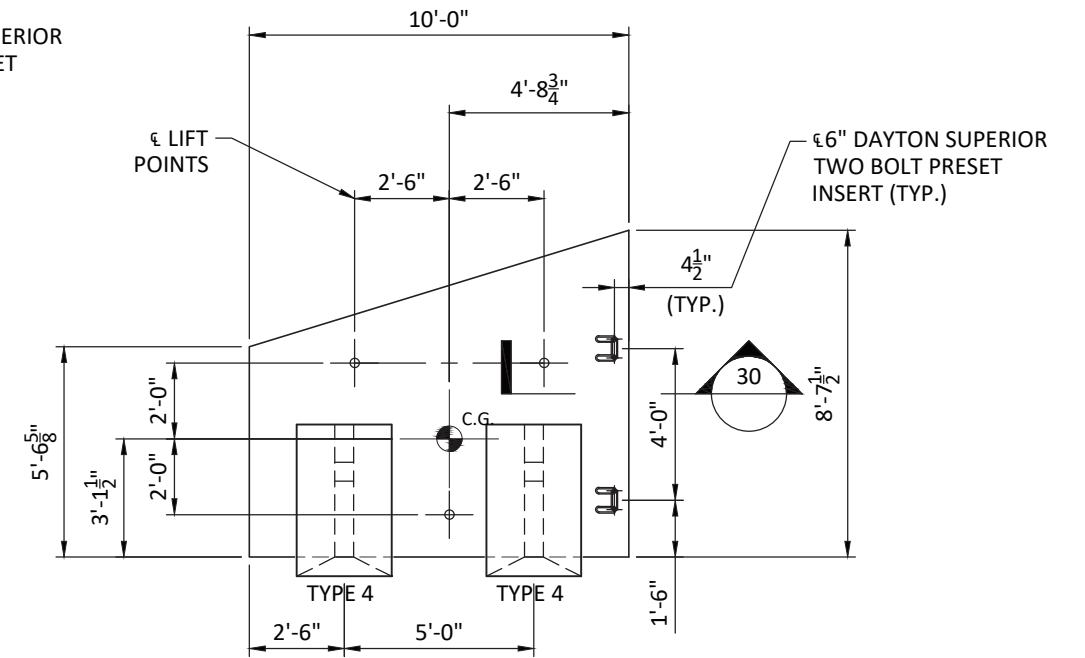
PROVIDE (1) 15' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW4C**

TOTAL WEIGHT = 9.4 TONS

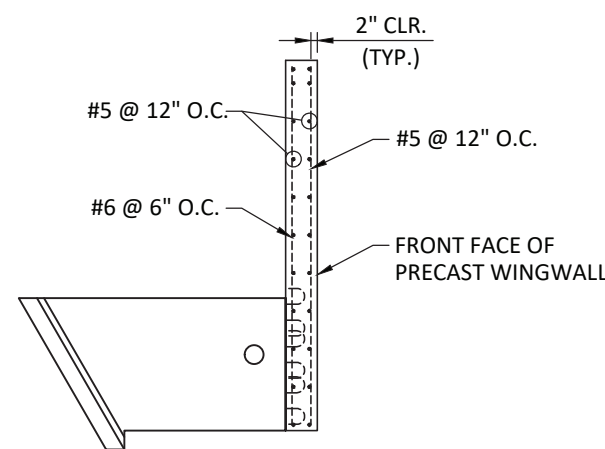
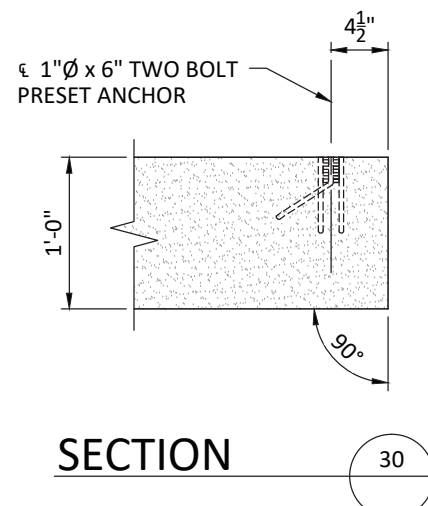
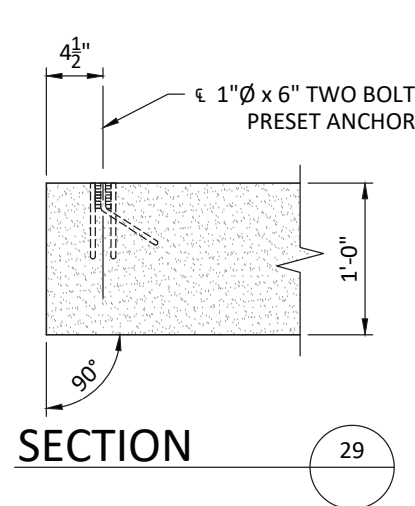
PROVIDE (1) 12' LONG x 2' WIDE STRIP OF FILTER FABRIC



**ELEVATION - WINGWALL WW4D**

TOTAL WEIGHT = 7.1 TONS

PROVIDE (1) 9' LONG x 2' WIDE STRIP OF FILTER FABRIC

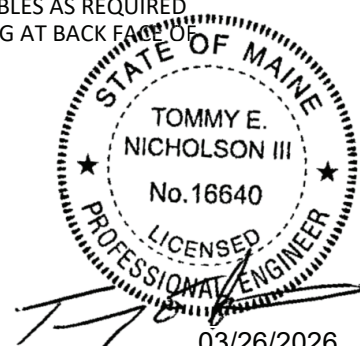


**REINFORCING SECTION**  
NOT TO SCALE

**DESIGN NOTES**

- ALL EDGES TO HAVE 3/4" CHAMFER
- F'c = 5,000 PSI
- WALL PANEL WILL NOT HANG LEVEL, ADJUST LIFTING CABLES AS REQUIRED
- ELEVATION LOOKING AT BACK FACE OF WINGWALL

DRAFT



03/26/2026

**UNCOATED**  
REINFORCING

**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG	FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
7						
6						
5						
4						
3						
2						
1						

LOCALE: CARIBOU STATE: ME

**PRESTILE HILL BRIDGE**



9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374



P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006

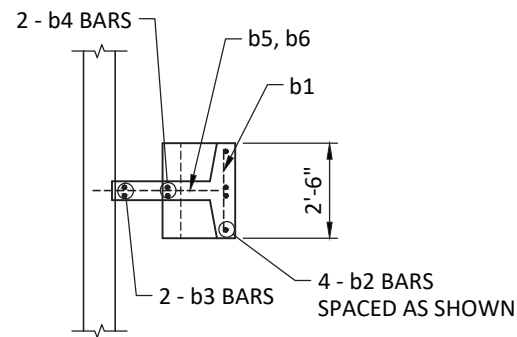
DATE: 3/26/2026

DESIGNED BY: KDK

DRAWN BY: NBD

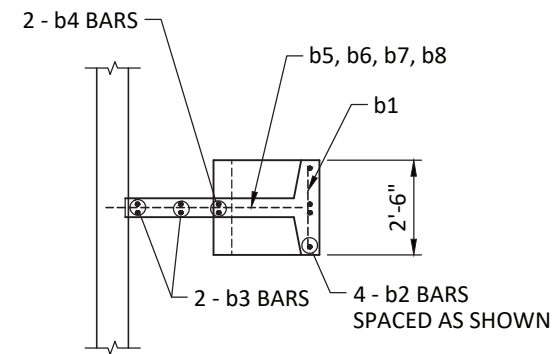
CHECKED BY: JUV

P15



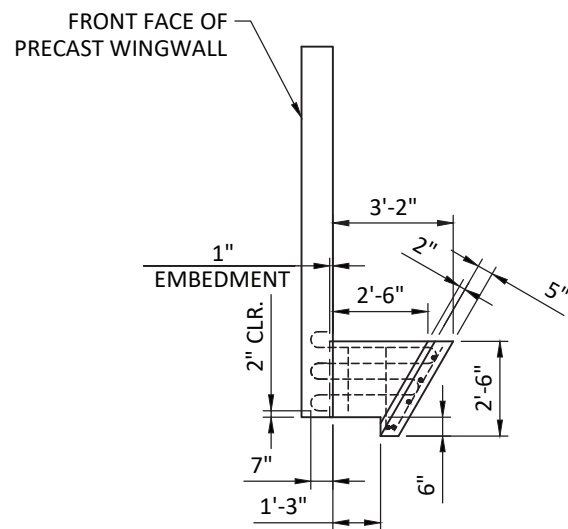
PLAN - TYPE 2

BAR LIST - TYPE 2					
MARK	SIZE	QTY.	TYPE	LENGTH	EPOXY COATED
b1	#5	4	STRAIGHT	2'-2"	N
b2	#5	4	STRAIGHT	2'-6"	N
b3	#5	2	STRAIGHT	1'-8"	N
b4	#5	2	TYPE A	2'-2"	N
b5	#5	1	TYPE B	3'-4"	Y
b6	#5	1	TYPE B	2'-10"	Y

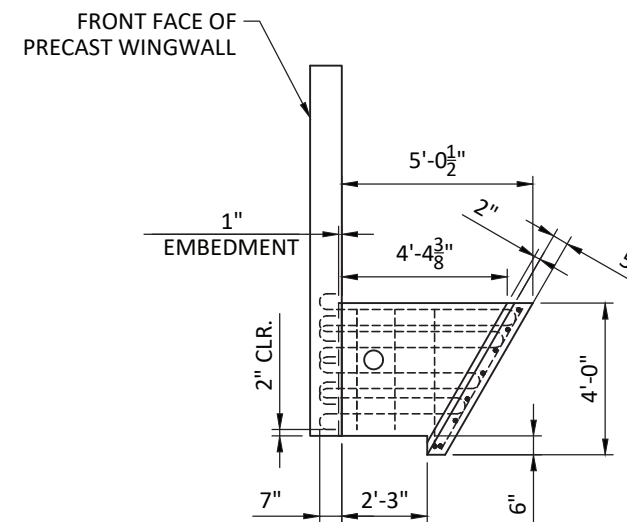
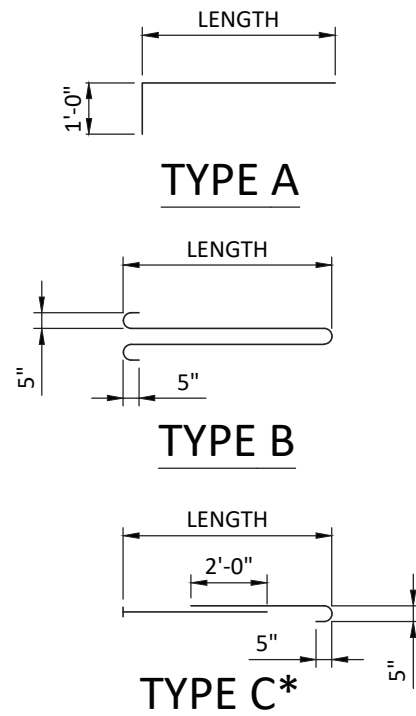


PLAN - TYPE 4

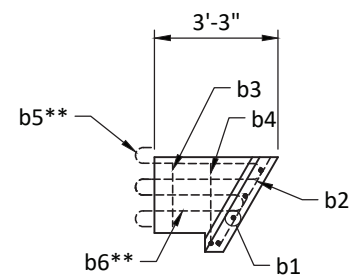
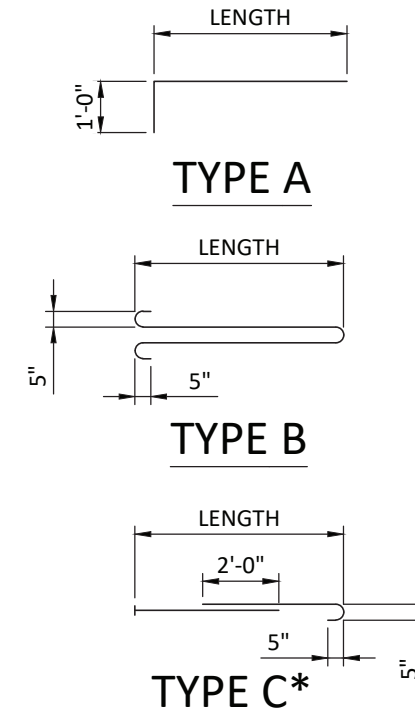
BAR LIST - TYPE 4					
MARK	SIZE	QTY.	TYPE	LENGTH	EPOXY COATED
b1	#5	7	STRAIGHT	2'-2"	N
b2	#5	4	STRAIGHT	4'-2"	N
b3	#5	4	STRAIGHT	3'-2"	N
b4	#5	2	TYPE A	3'-8"	N
b5	#5	1	TYPE B	5'-2"	Y
b6	#5	1	TYPE B	4'-10"	Y
b7	#5	1	TYPE B	4'-2"	Y
b8	#5	1	TYPE B	3'-10"	Y



SECTION - TYPE 2



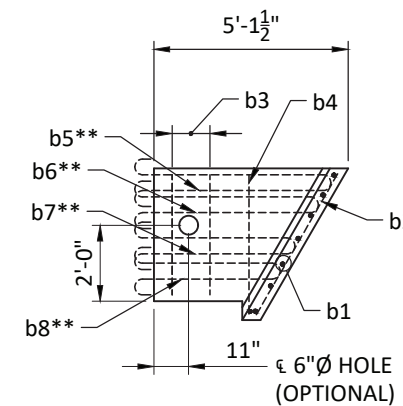
SECTION - TYPE 4



ANCHOR TYPE 2

\* #6 BAR WITH HRC (HEADED REBAR CORP.) TYPE 150 OR HRC TYPE 120 HEAD, OR EQUAL MAY BE SUBSTITUTED FOR TYPE B. BAR SHALL BE EPOXY COATED. EPOXY COATING IS NOT REQUIRED ON HEAD, BUT IS PERMITTED.

\*\*NOTE: 3" MAX SPACING BETWEEN BOTTOM AND TOP OF SUCCESSIVE BARS

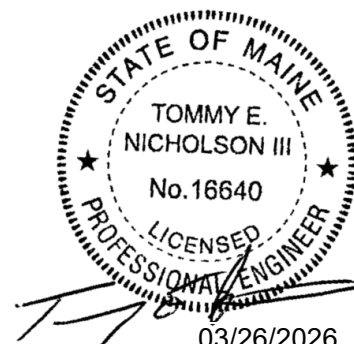


ANCHOR TYPE 4

\* #6 BAR WITH HRC (HEADED REBAR CORP.) TYPE 150 OR HRC TYPE 120 HEAD, OR EQUAL MAY BE SUBSTITUTED FOR TYPE B. BAR SHALL BE EPOXY COATED. EPOXY COATING IS NOT REQUIRED ON HEAD, BUT IS PERMITTED.

\*\*NOTE: 3" MAX SPACING BETWEEN BOTTOM AND TOP OF SUCCESSIVE BARS

DRAFT



**UNCOATED**  
U.N.O. SEE REINF. TABLE

**FOR APPROVAL**

ARC-SPAN™

DATE	DESCRIPTION	ENG	FEDERAL PROJECT NO. 022845.11	BRIDGE NO. 6599	ROUTE 164 (MAIN STREET)	AROOSTOOK COUNTY
7						
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2						
1						

PRESTILE HILL BRIDGE

LOCALE: CARIBOU

STATE: ME

PROVIDED BY:



9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:



P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 26-006

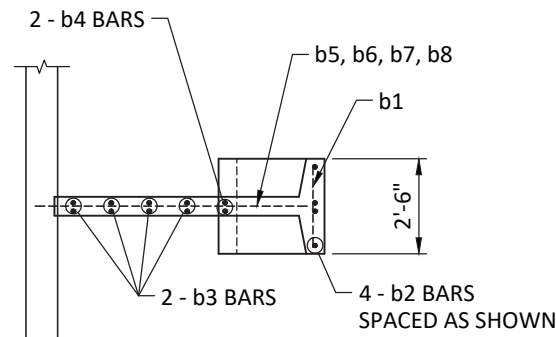
DATE: 3/26/2026

DESIGNED BY: KDK

DRAWN BY: NBD

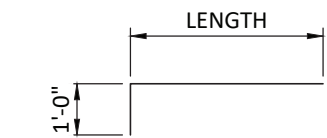
CHECKED BY: JIV

P16

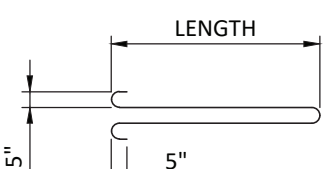


**PLAN - TYPE 6**

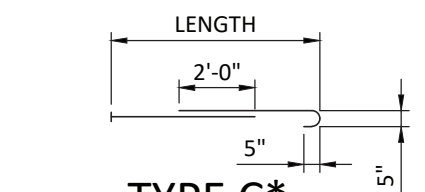
BAR LIST - TYPE 6					
MARK	SIZE	QTY.	TYPE	LENGTH	EPOXY COATED
b1	#5	7	STRAIGHT	2'-2"	N
b2	#5	4	STRAIGHT	4'-2"	N
b3	#5	8	STRAIGHT	3'-2"	N
b4	#5	2	TYPE A	3'-8"	N
b5	#5	1	TYPE B	7'-2"	Y
b6	#5	1	TYPE B	6'-10"	Y
b7	#5	1	TYPE B	6'-2"	Y
b8	#5	1	TYPE B	5'-10"	Y



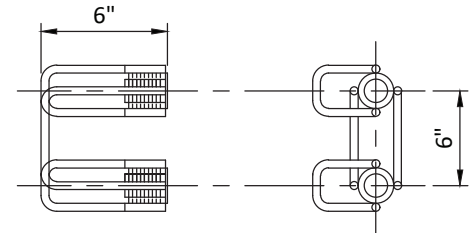
**TYPE A**



**TYPE B**



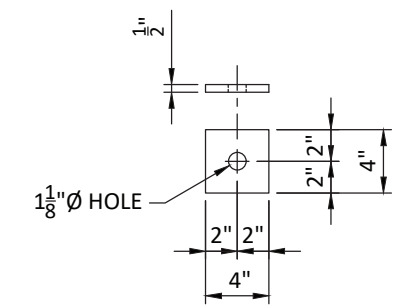
**TYPE C\***



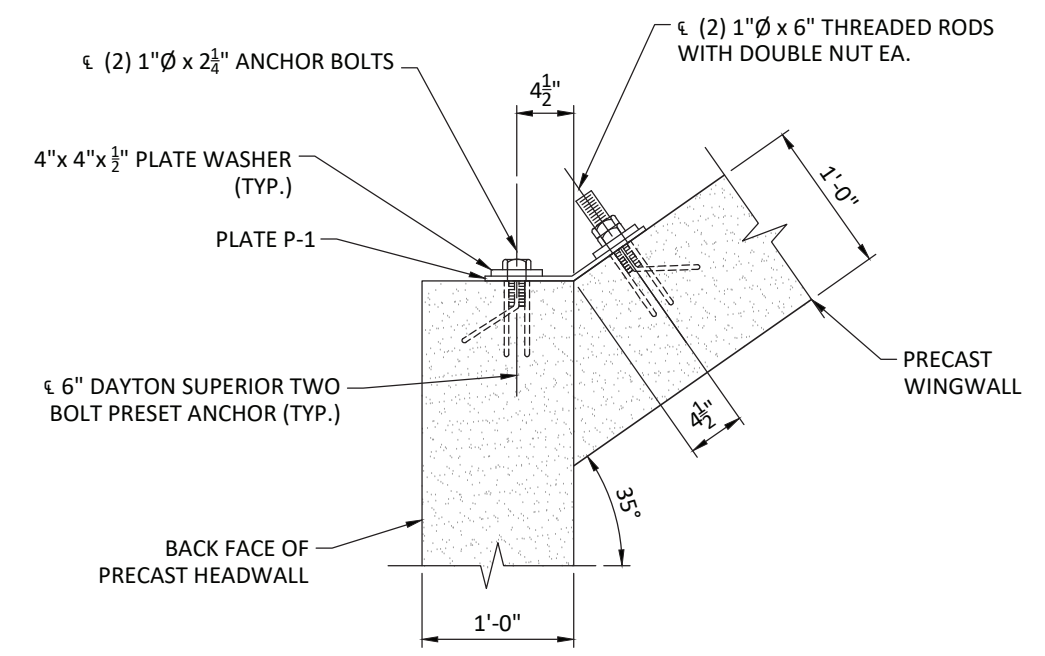
**SIDE VIEW FRONT VIEW**

**DAYTON SUPERIOR TWO BOLT PRESET ANCHOR**

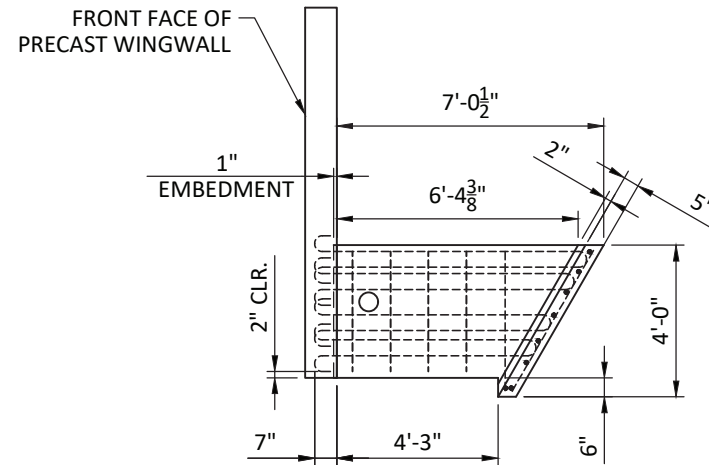
NOTE: TWO-BOLT PRESET ANCHOR MAY BE REPLACED BY (2) 1"Ø x 6" HILTI KWIKBOLT 3 ANCHORS



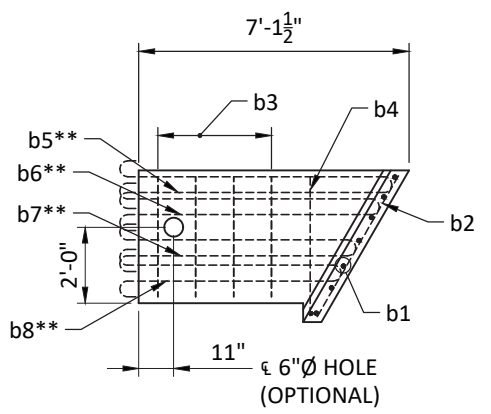
**WW PLATE WASHER GALVANIZED**



**PLAN VIEW TYPICAL CONNECTION DETAIL P-1**



**SECTION - TYPE 6**

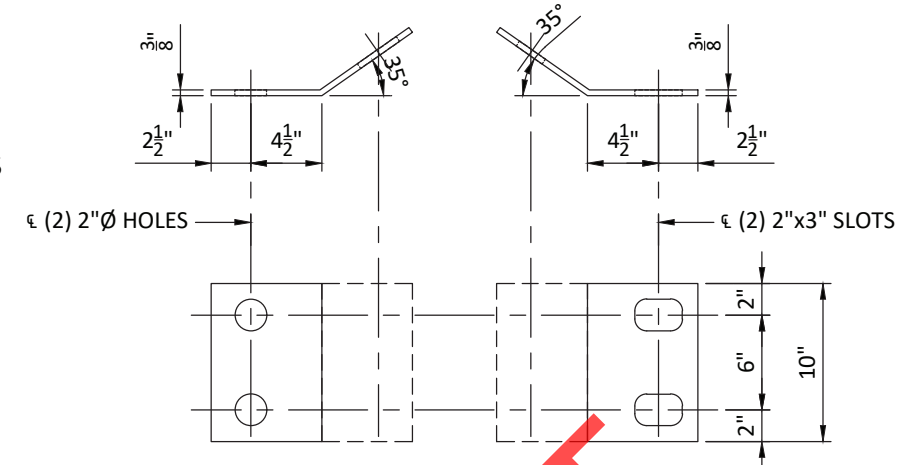


**ANCHOR TYPE 6**

\*\*NOTE: 3" MAX SPACING BETWEEN BOTTOM AND TOP OF SUCCESSIVE BARS

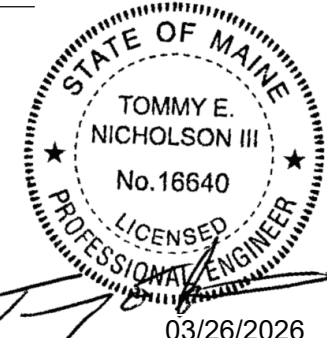
\* #6 BAR WITH HRC (HEADED REBAR CORP.) TYPE 150 OR HRC TYPE 120 HEAD, OR EQUAL MAY BE SUBSTITUTED FOR TYPE B. BAR SHALL BE EPOXY COATED. EPOXY COATING IS NOT REQUIRED ON HEAD, BUT IS PERMITTED.

**UNCOATED**  
U.N.O. SEE REINF. TABLE



**HW LEG WINGWALL LEG**

**PLATE - P-1**  
(PLATE 3/8" x 14" x 10")  
(GALVANIZED AS PER ASTM A123)  
TOTAL P-1 PLATES REQUIRED (3)



**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG
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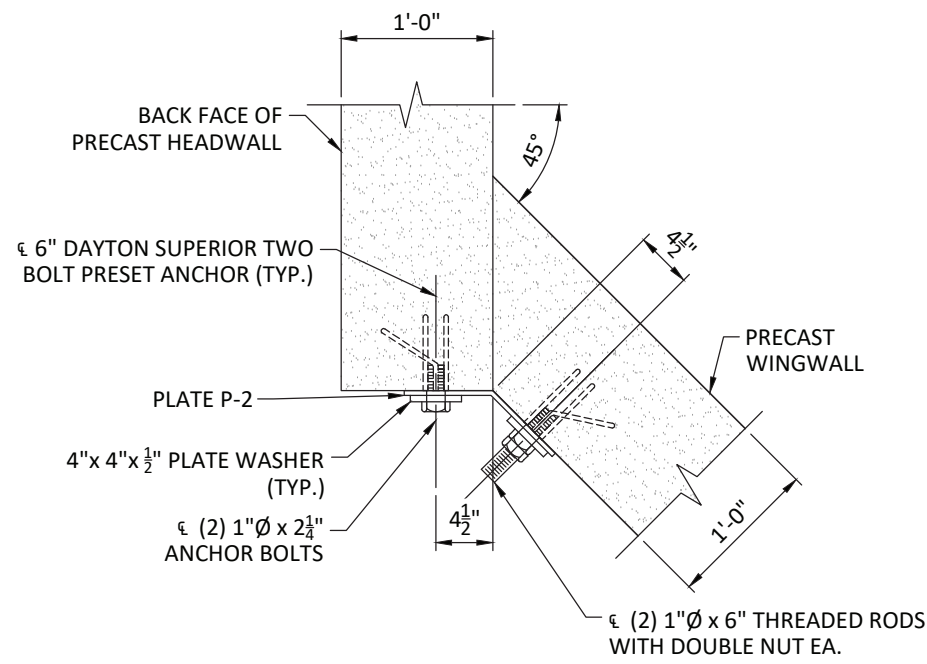
FEDERAL PROJECT NO. 022845.11 BRIDGE NO. 6599 ROUTE 164 (MAIN STREET) AROOSTOOK COUNTY  
**PRESTILE HILL BRIDGE**  
LOCALE: CARIBOU STATE: ME

PROVIDED BY: **CSI CONCRETE SYSTEMS, INC.**  
9 COMMERCIAL STREET HUDSON, NEW HAMPSHIRE 03051 800.342.3374

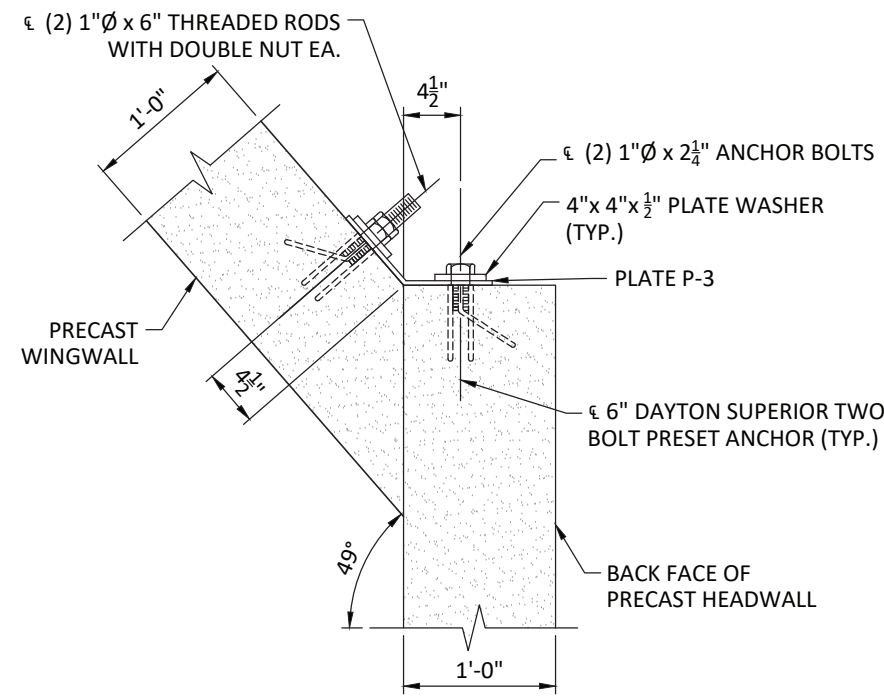
DESIGNED BY: **PRETEK GROUP**  
P.O. BOX 351 BELLBROOK, OH 45305 800.241.0925

PROJECT NUMBER: 26-006  
DATE: 3/26/2026  
DESIGNED BY: KDK  
DRAWN BY: NBD  
CHECKED BY: JIV

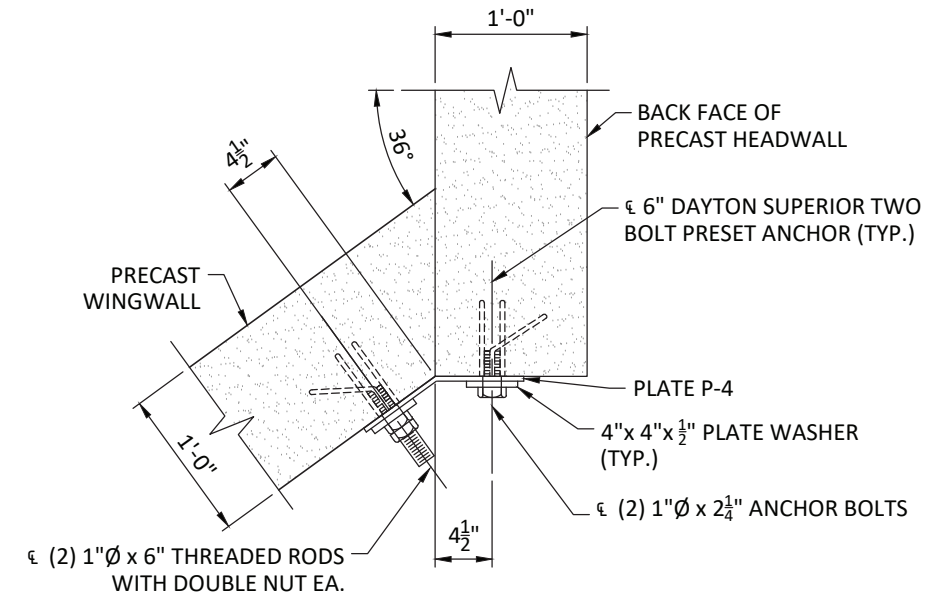
**P17**



PLAN VIEW  
TYPICAL CONNECTION DETAIL P-2



PLAN VIEW  
TYPICAL CONNECTION DETAIL P-3



PLAN VIEW  
TYPICAL CONNECTION DETAIL P-4

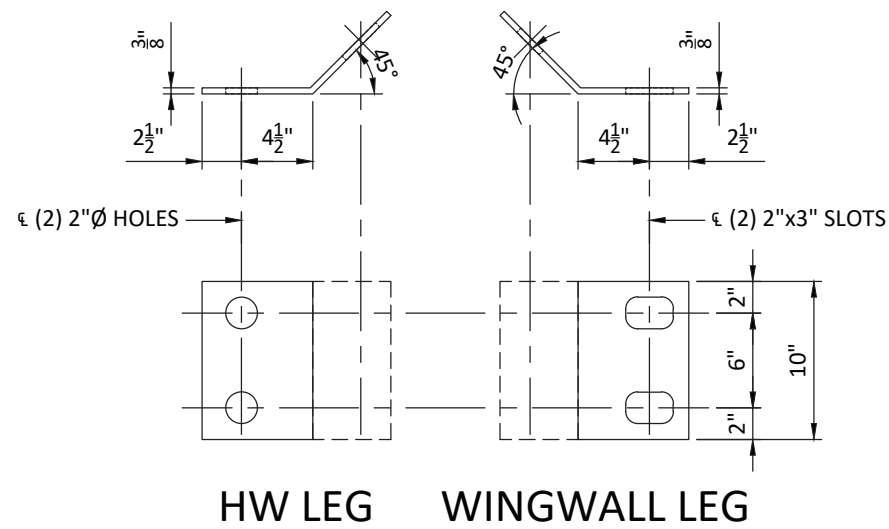


PLATE - P-2  
(PLATE - 3/8" x 14" x 10")  
(GALVANIZED AS PER ASTM A123)  
TOTAL P-2 PLATES REQUIRED (3)

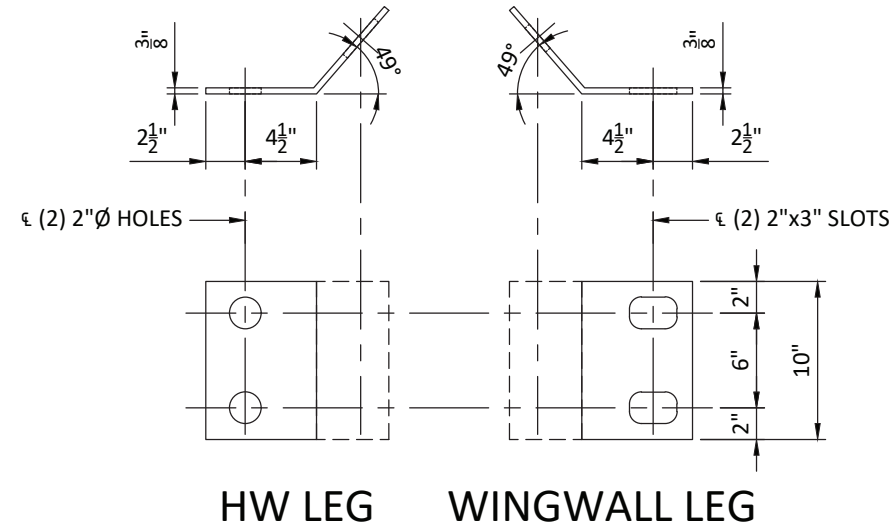


PLATE - P-3  
(PLATE - 3/8" x 14" x 10")  
(GALVANIZED AS PER ASTM A123)  
TOTAL P-3 PLATES REQUIRED (3)

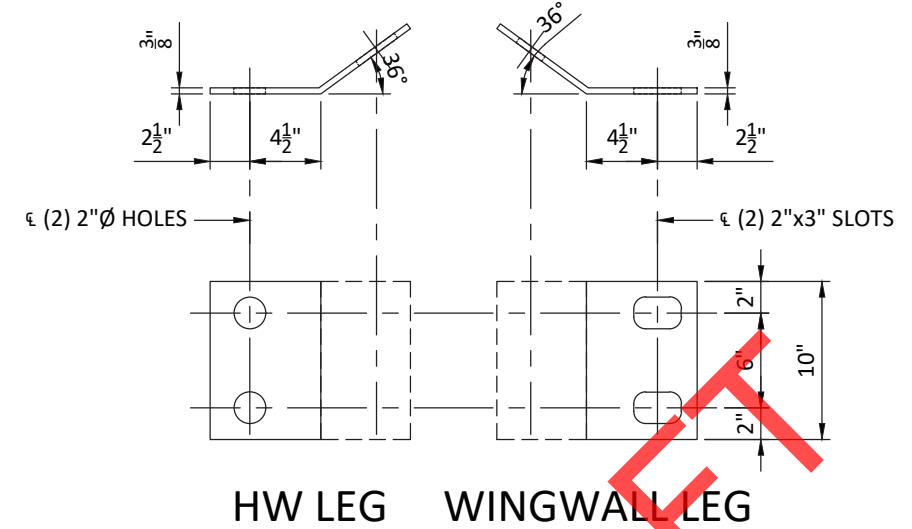
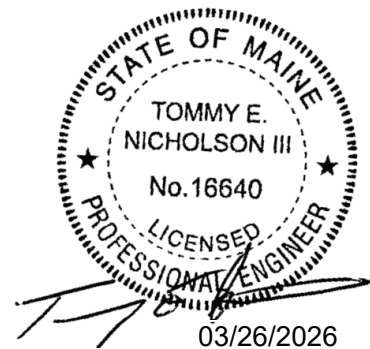


PLATE - P-4  
(PLATE - 3/8" x 14" x 10")  
(GALVANIZED AS PER ASTM A123)  
TOTAL P-4 PLATES REQUIRED (3)



FOR APPROVAL

ARC-SPAN™

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PRESTILE HILL BRIDGE

LOCALE: CARIBOU

STATE: ME

PROVIDED BY:



9 COMMERCIAL STREET  
HUDSON, NEW HAMPSHIRE 03051  
800.342.3374

DESIGNED BY:



P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

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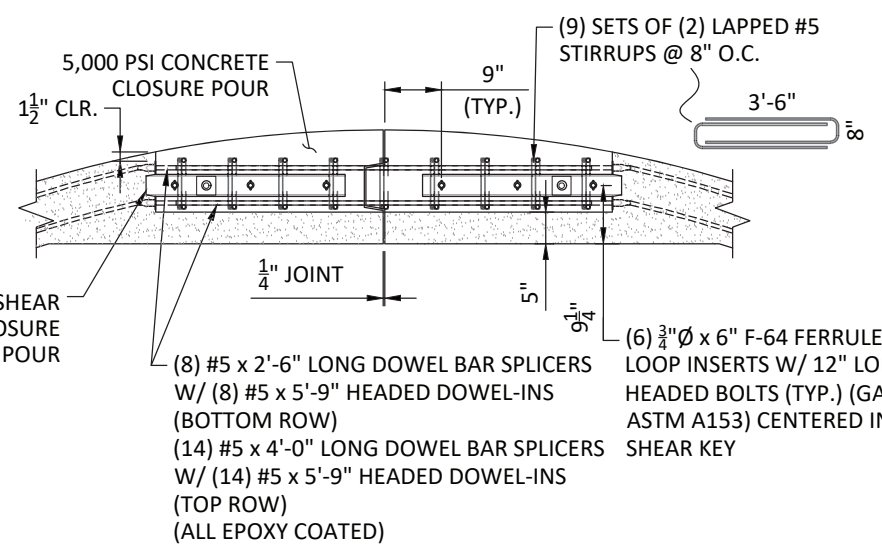
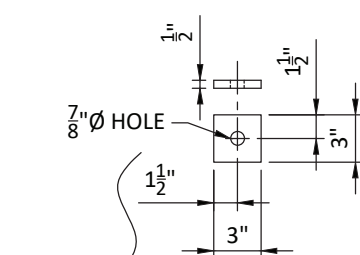
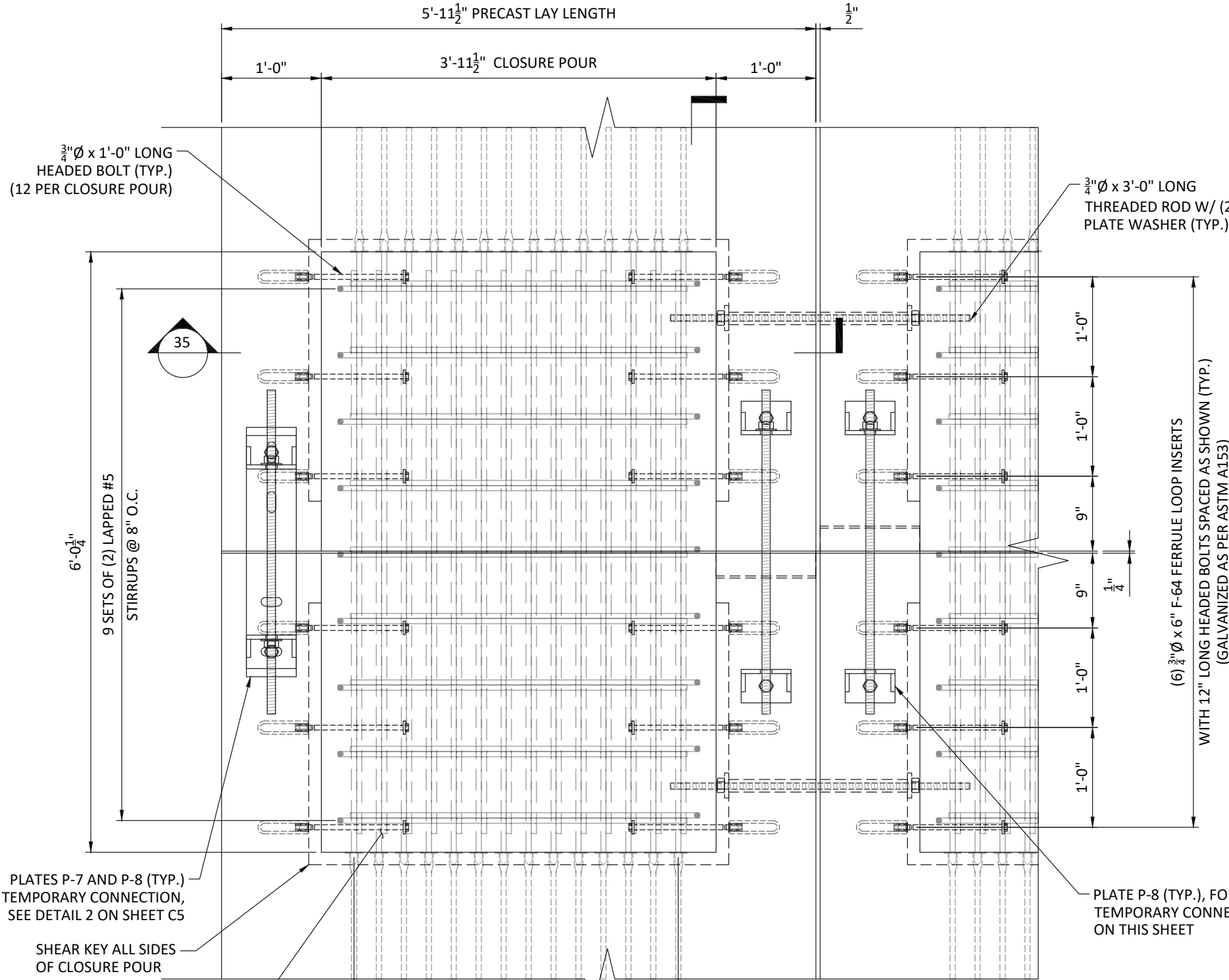
DESIGNED BY: KDK

DRAWN BY: NBD

CHECKED BY: JIV

P18



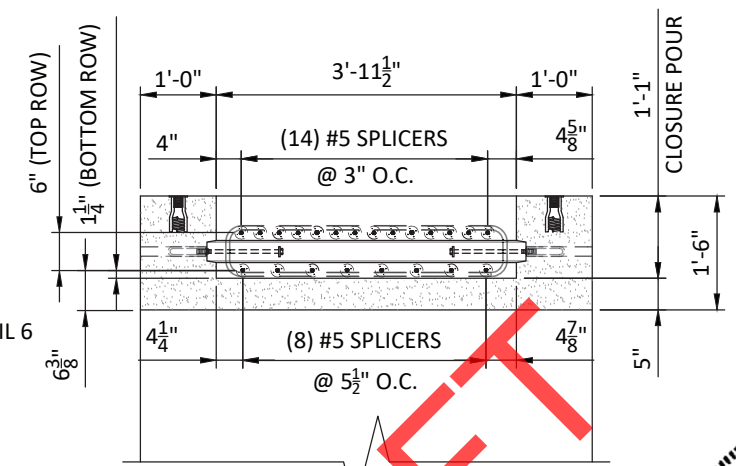


**DETAIL**

CLOSURE POUR SECTION



NOTE: APPLY JOINT WRAP AROUND EDGE OF CLOSURE POUR

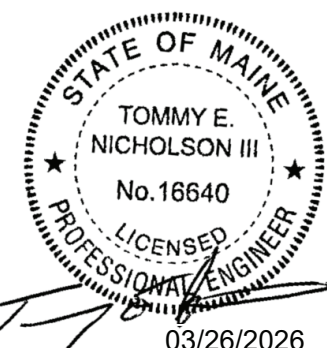
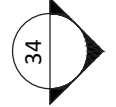


**SECTION**

CLOSURE POUR SECTION



**DETAIL** C.I.P.  
CLOSURE POUR PLAN



DRAFT

**EPOXY**  
REINFORCING

**FOR APPROVAL**

**ARC-SPAN™**

DATE	DESCRIPTION	ENG
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FEDERAL PROJECT NO. 022845.11    BRIDGE NO. 6599    ROUTE 164 (MAIN STREET)    AROOSTOOK COUNTY

**PRESTILE HILL BRIDGE**

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P20