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# OCEANA COUNTY ROAD COMMISSION

IN CO-OPERATION WITH  
**PENTWATER TOWNSHIP**

## PLAN OF PROPOSED PEDESTRIAN BRIDGE REHABILITATION LONGBRIDGE ROAD OVER PENTWATER RIVER SECTION 24, PENTWATER TOWNSHIP, T16N, R18W

FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CONTACT MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG, A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.



UTILITIES	
<b>GAS - DTE</b>	LARRY BOURKE 609 BJORNSON RD BIG RAPIDS, MI 49307 PHONE: 231-349-2364 lawrence.bourke@dteenergy.com
<b>TELEPHONE - FRONTIER</b>	CHRIS STANTON 303 S. MAIN ST. MT. PLEASANT, MI 48858 PHONE: 989-580-9149 christopher.stanton1@fr.com
<b>CABLE - SPECTRUM</b>	ZACHARY VANSICKLE 590 S PERE MARQUETTE HWY LUDINGTON, MI 49431 PHONE: 616-460-1003 zachary.vansickle@charter.com

**GENERAL NOTES**

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE ACCORDING TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2020 EDITION.

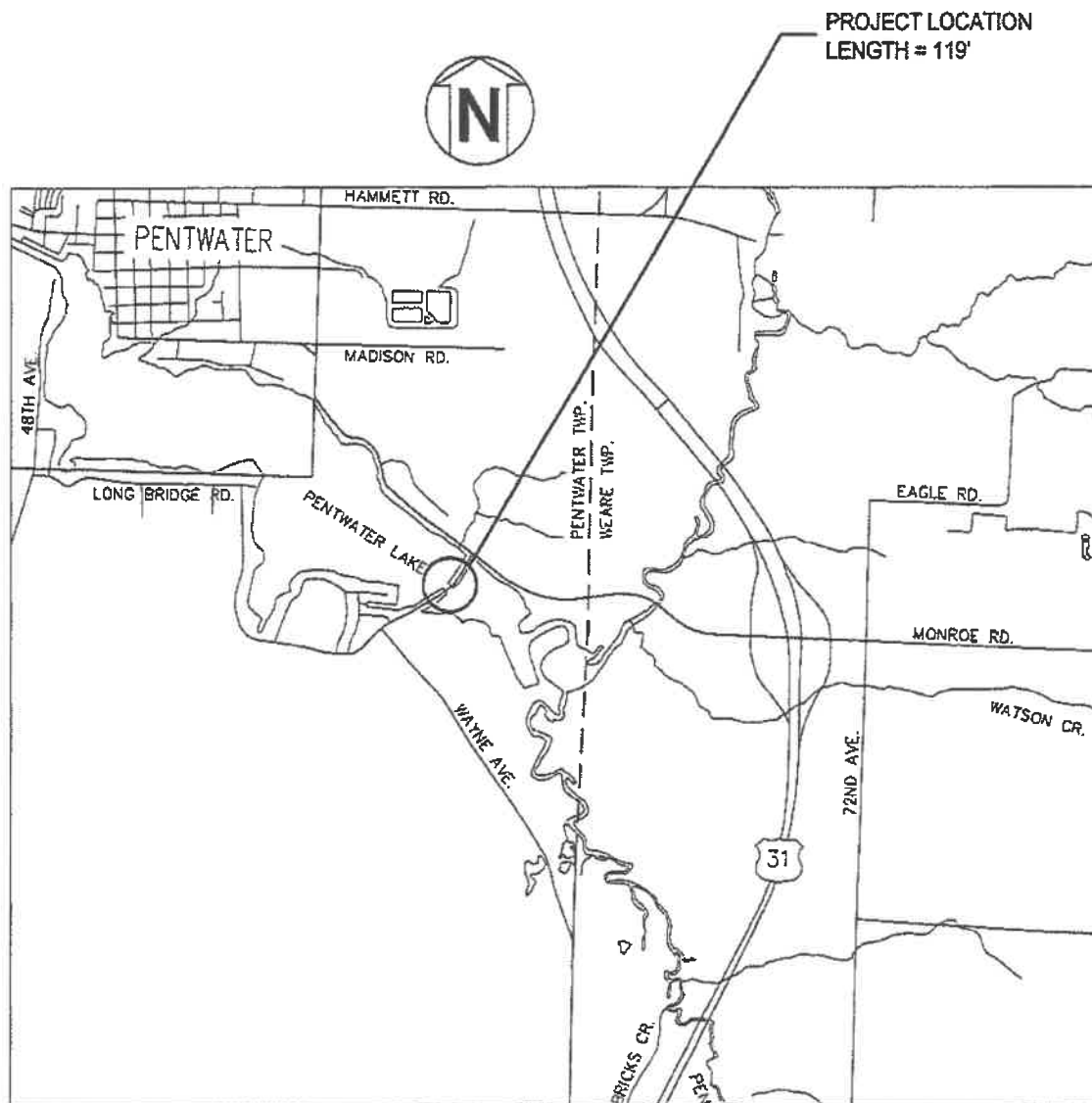
THE DESIGN OF THE STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING STRESSES:

STRUCTURAL STEEL:  
AASHTO M270  
GRADE 36  
Fy = 36,000 psi

THE DESIGN OF THE STRUCTURE REHABILITATION IS BASED ON THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS WITH A PEDESTRIAN LOADING OF 25 PSF. LIVE LOAD DEFLECTION DOES NOT EXCEED 1/360 OF SPAN LENGTH.

OLD PLANS DO NOT EXIST FOR THIS STRUCTURE.

THE BRIDGE PAINT MAY CONTAIN LEAD.



THE REGULATED WASTE ACTIVITY IDENTIFICATION NUMBERS FOR THIS PROJECT ARE AS FOLLOWS:

CONTROL SECTION NUMBER  
64000 MIK952958580

CONTRACT FOR: PEDESTRIAN BRIDGE REHABILITATION	
OCEANA COUNTY ROAD COMMISSION	
<i>Mark Timmer</i> MARK TIMMER - MANAGING DIRECTOR	4/21/26 DATE
PENTWATER TOWNSHIP	
<i>Lynne Cavazos</i> LYNNE CAVAZOS - SUPERVISOR	4/21/26 DATE

**SCCO**  
SCOTT CIVIL ENGINEERING COMPANY  
1345 MONROE AVENUE, SUITE 106  
GRAND RAPIDS, MICHIGAN 49505

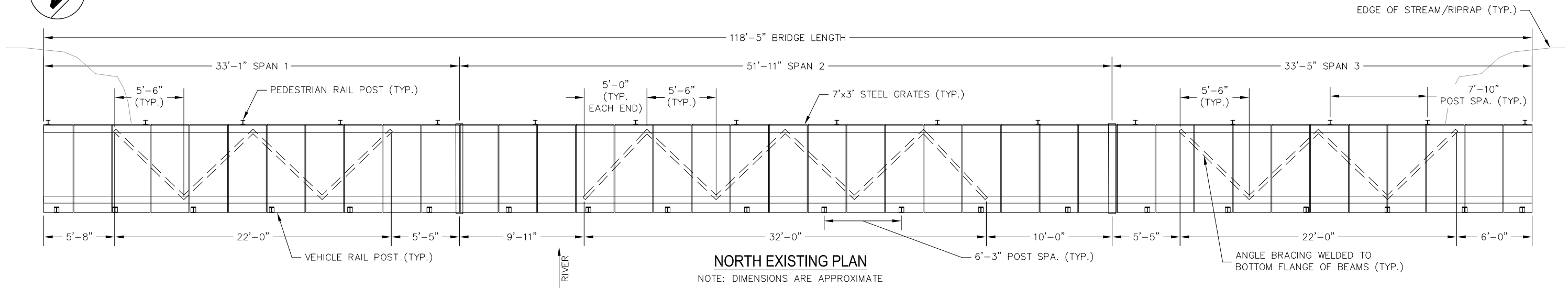
PREPARED UNDER THE SUPERVISION OF:



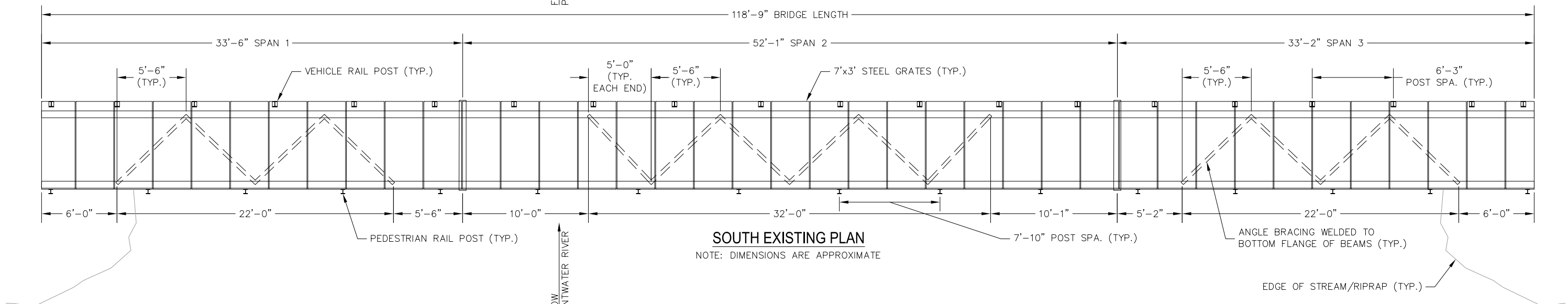
*Robert W. Lothschutz*  
ROBERT W. LOTHSCHUTZ, P.E.  
REGISTERED PROFESSIONAL ENGINEER, NO. 62004  
4/21/26  
DATE

LONGBRIDGE ROAD OVER PENTWATER RIVER  
PEDESTRIAN BRIDGE REHABILITATION

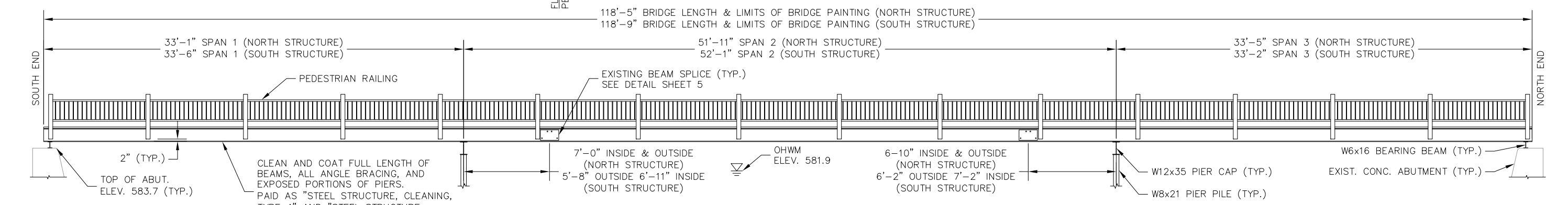




**NORTH EXISTING PLAN**  
NOTE: DIMENSIONS ARE APPROXIMATE

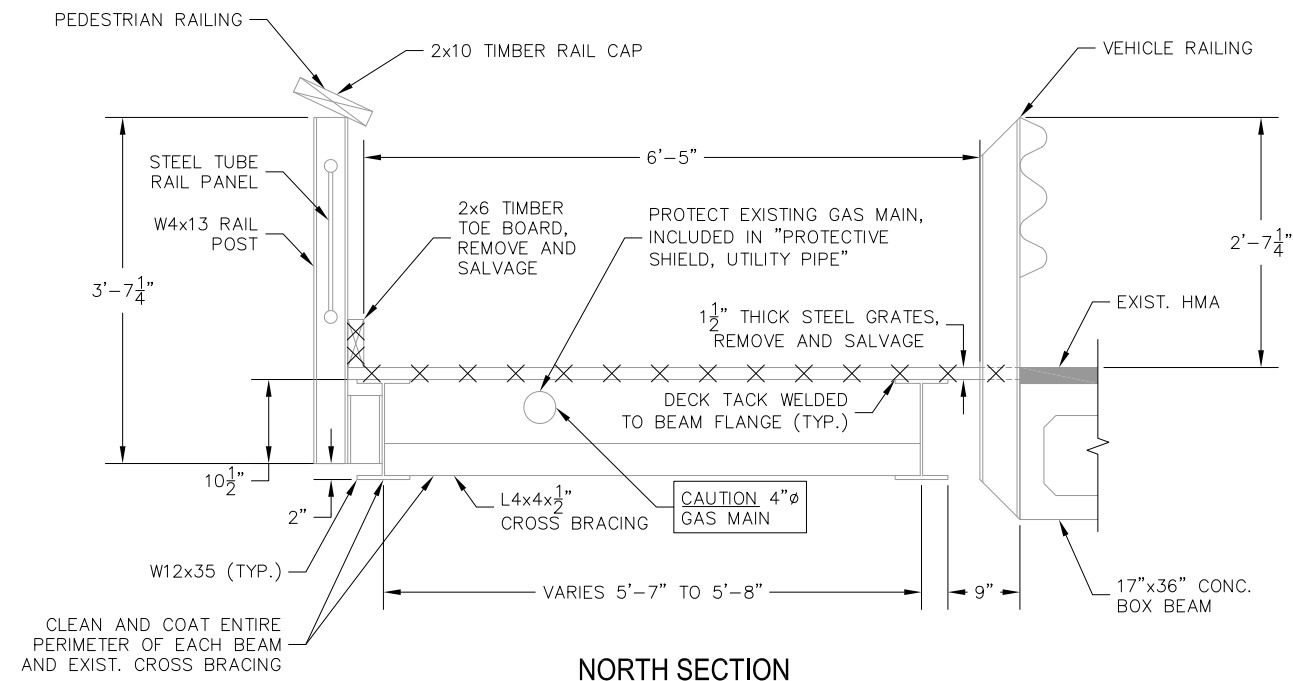


**SOUTH EXISTING PLAN**  
NOTE: DIMENSIONS ARE APPROXIMATE

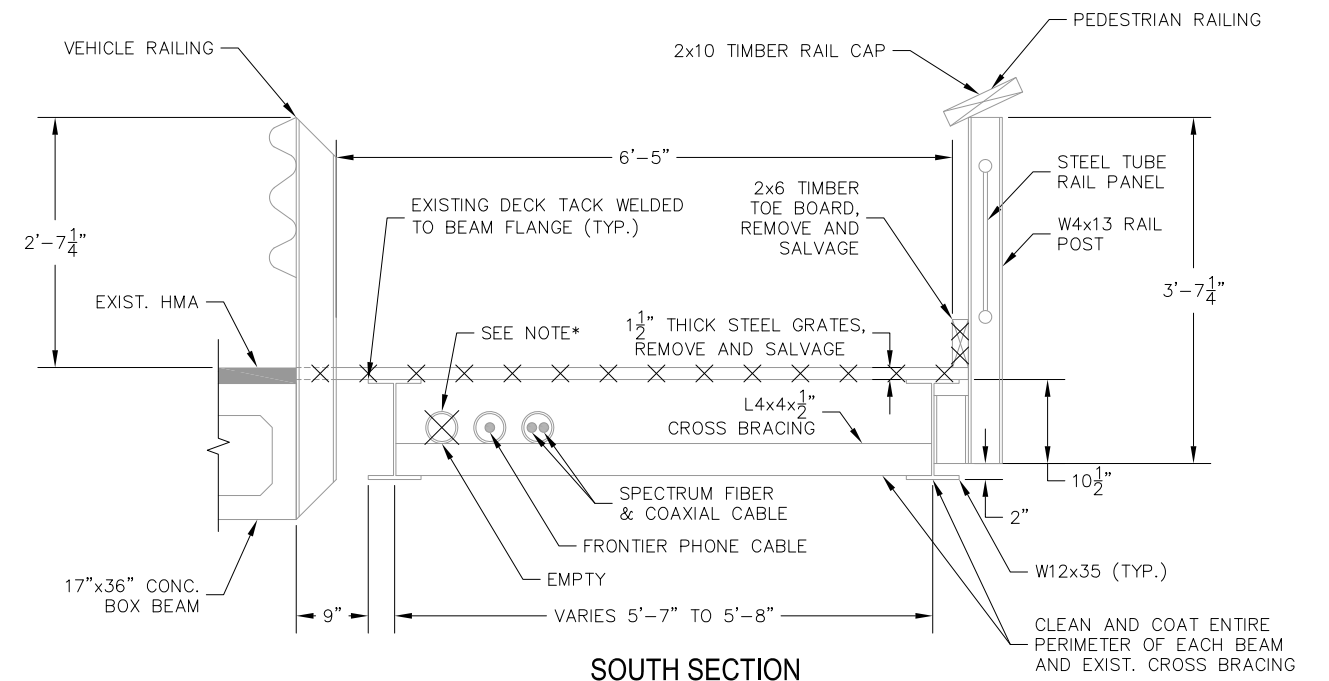


**EXISTING ELEVATION**  
NOTE: DIMENSIONS ARE APPROXIMATE  
VEHICLE RAILING NOT SHOWN

<b>EXISTING PLAN AND ELEVATION</b>			
<b>SCECO</b>			2
SCOTT CIVIL ENGINEERING COMPANY			6
GRAND RAPIDS, MICHIGAN			
DRAWN	CR	CHECKED	RWL DATE 4/16/26



**NORTH SECTION**



**SOUTH SECTION**

\*NOTE: REMOVE EMPTY CONDUIT, PAYMENT INCLUDED IN OTHER ITEMS. PROTECT EXISTING CONDUITS, INCLUDED IN "PROTECTIVE SHIELD, UTILITY PIPE".

**GENERAL NOTES:**

WATER LEVEL IS SUBJECT TO CHANGE. MAKE A DETERMINATION OF WATER LEVELS THAT MAY EXIST DURING CONSTRUCTION.

IMPLEMENT MEASURES TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. IF DEBRIS FALLS INTO THE WATERWAY, REMOVE IT WITHIN 24 HOURS. SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF, THE PREVENTIVE MEASURES MUST BE EFFECTIVE.

"FALSE DECKING" INCLUDES THE AREA BETWEEN THE FACE OF EACH ABUTMENT AND THE OUTSIDE OF THE STEEL GRID DECK, THE ESTIMATED AREA IS 1625 SFT.

THIS BRIDGE IS COATED WITH LEAD BASED PAINT.

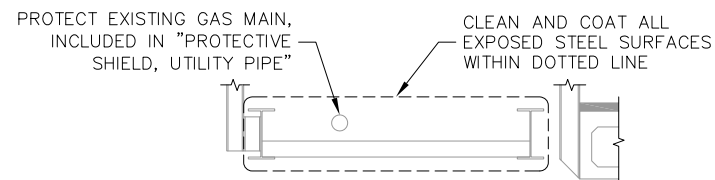
THE ENGINEER WILL INSPECT THE STRUCTURAL STEEL PARTS THAT HAVE BEEN BLAST CLEANED FOR EVIDENCE OF CRACKS OR LOSS OF SECTION DUE TO CORROSION OF MORE THAN 25 PERCENT.

THE ESTIMATED AREA OF STRUCTURAL STEEL TO BE COATED IS 2700 SQUARE FEET (INCLUDES FULL LENGTH OF EACH BEAM, ALL CROSS BRACING, NEW BEARING BEAMS, TOP FLANGE OF CHANNEL BRACES, AND PIERS ABOVE THE WATER SURFACE).

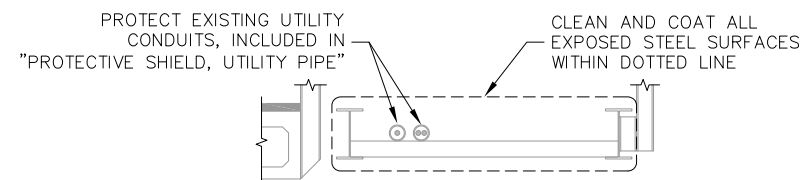
USE LIGHT GRAY URETHANE PROTECTIVE COAT, AMS-STD-595 COLOR NUMBER 16440.

PROTECT PORTIONS OF THE STRUCTURE, INCLUDING RAILINGS, CONC. BEAMS, PIERS, ABUTMENTS, SLOPE PROTECTION, AND HIGHWAY APPURTENANCES FROM SPATTER AND OVERSPRAY OF COATING MATERIAL. INCLUDED IN THE BID ITEM "STEEL STRUCTURE, COATING, TYPE 4".

STENCIL THE COMPLETION DATE AND COATING TYPE AT ONE LOCATION ON THE INSIDE FACE OF THE OUTER BEAM FOR BOTH STRUCTURES.

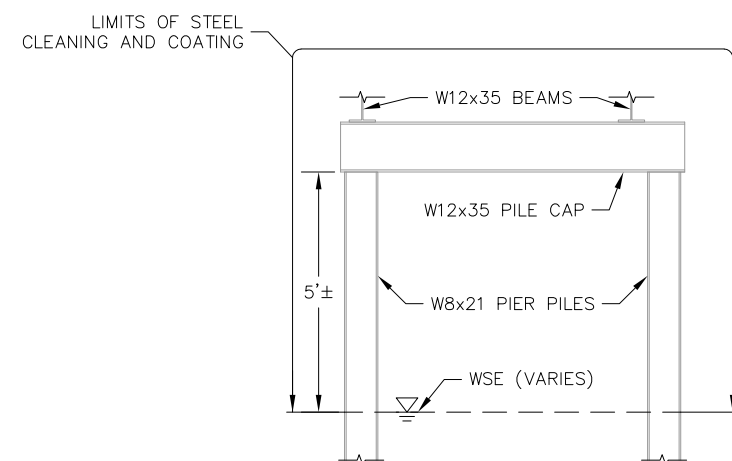


**NORTH STRUCTURE**



**SOUTH STRUCTURE**

**LIMITS OF STEEL CLEANING AND COATING**



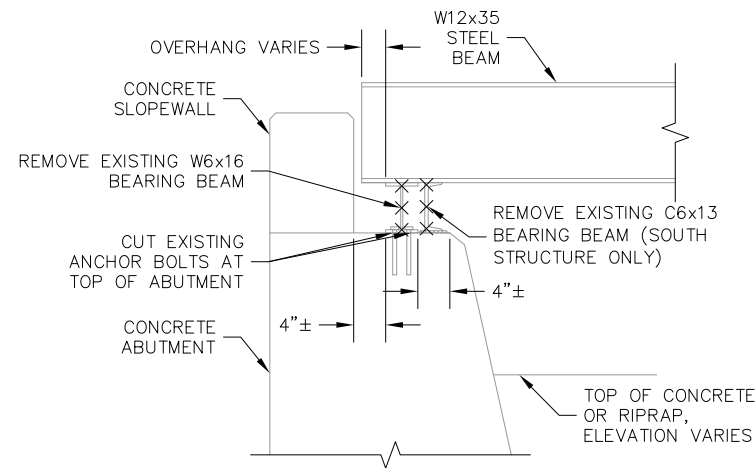
**PIER ELEVATION**

TRAFFIC CONTROL AND MISCELLANEOUS QUANTITIES			
PAY ITEM NO.	ITEM OF WORK	UNIT	TOTAL
1100001	Mobilization, Max	LSUM	1
8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	642
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	25
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	25
8120170	Minor Traf Devices	LSUM	1
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	642
8120245	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	Ft	642
8120265	Pavt Mrkg, Wet Reflective, Type R, Tape, 24 inch, Stop Bar	Ft	30
8120272	PTS, Temp, Furn	Ea	1
8120273	PTS, Temp, Oper	Ea	1
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	215
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	215

STRUCTURE QUANTITIES			
PAY ITEM NO.	ITEM OF WORK	UNIT	TOTAL
2040061	Structures, Rem Portions	LSUM	1
7060060	False Decking	Sft	1625
7120041	Bolt, Adhesive Anchored, 5/8 inch	Ea	16
7130010	Beam Plate, Seal Perimeter	Ft	114
7130071	Structural Steel, Retrofit, Furn, Fab, and Erect	Lb	1736
7137050	Temporary Support	Ea	12
7137051	Steel Grate Decking, Salv and Reinstall	LSUM	1
7150025	Protective Shield, Utility Pipe	Ft	240
7150045	Steel Structure, Cleaning, Type 4	LSUM	1
7150046	Steel Structure, Coating, Type 4	LSUM	1

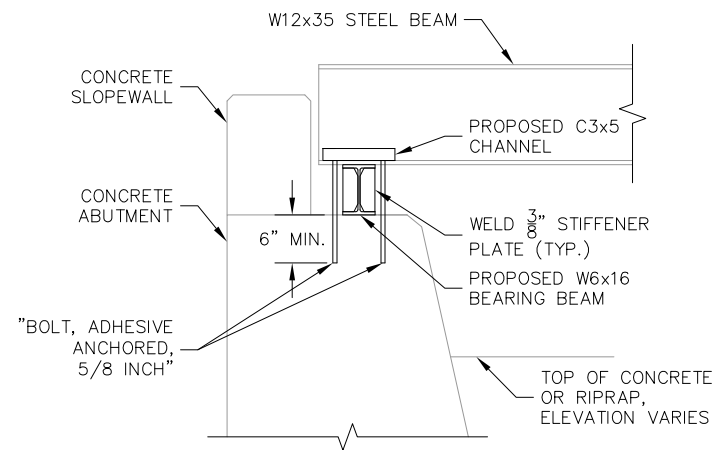
**BRIDGE SECTIONS**

<b>SCECO</b>		<b>3</b>
SCOTT CIVIL ENGINEERING COMPANY		
GRAND RAPIDS, MICHIGAN		<b>6</b>
DRAWN	CR	
CHECKED	RWL	DATE 4/16/26



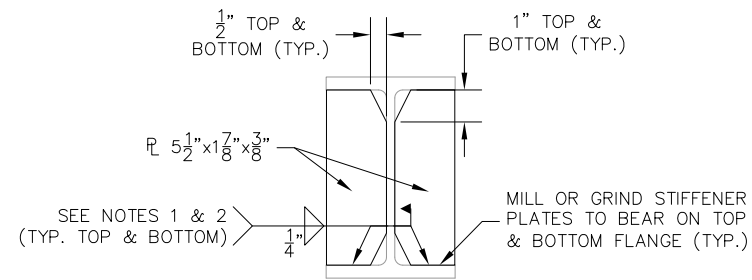
**EXISTING BEARING SECTION**

SCALE: 1" = 1'



**PROPOSED BEARING SECTION**

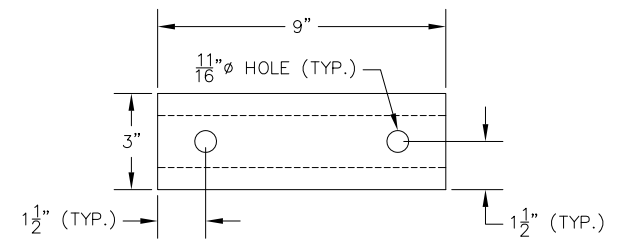
SCALE: 1" = 1'



**STIFFENER PLATE DETAIL**

SCALE: 1" = 3"

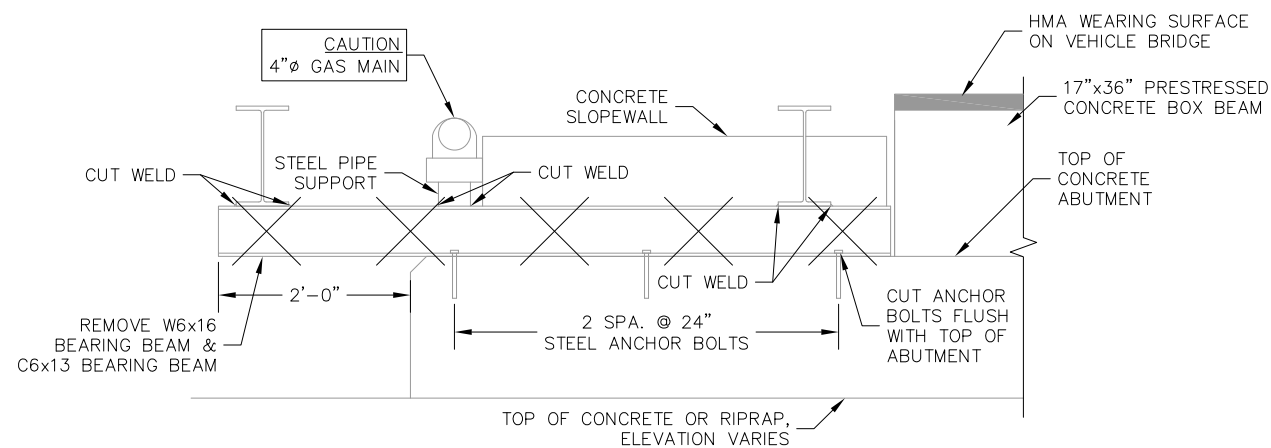
NOTE 1: STOP WELD 1/4" SHORT OF CORNER CLIPS  
NOTE 2: WRAP WELD AROUND OUTSIDE EDGE  
80 PLATES REQUIRED



**C3x5 CHANNEL DETAIL**

SCALE: 1" = 3"

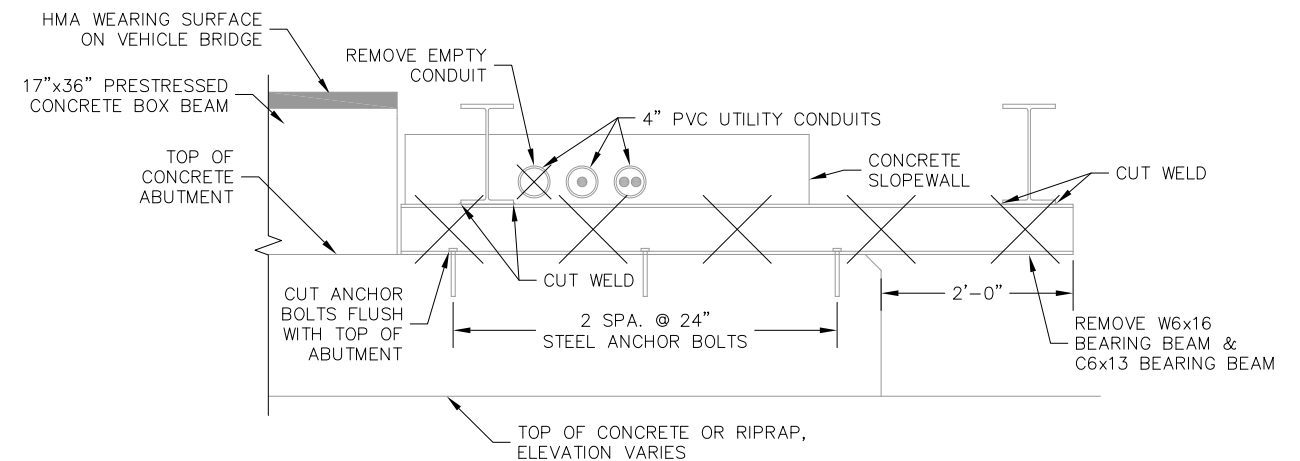
8 REQUIRED



**EXISTING NW & NE BEARING ELEVATION**

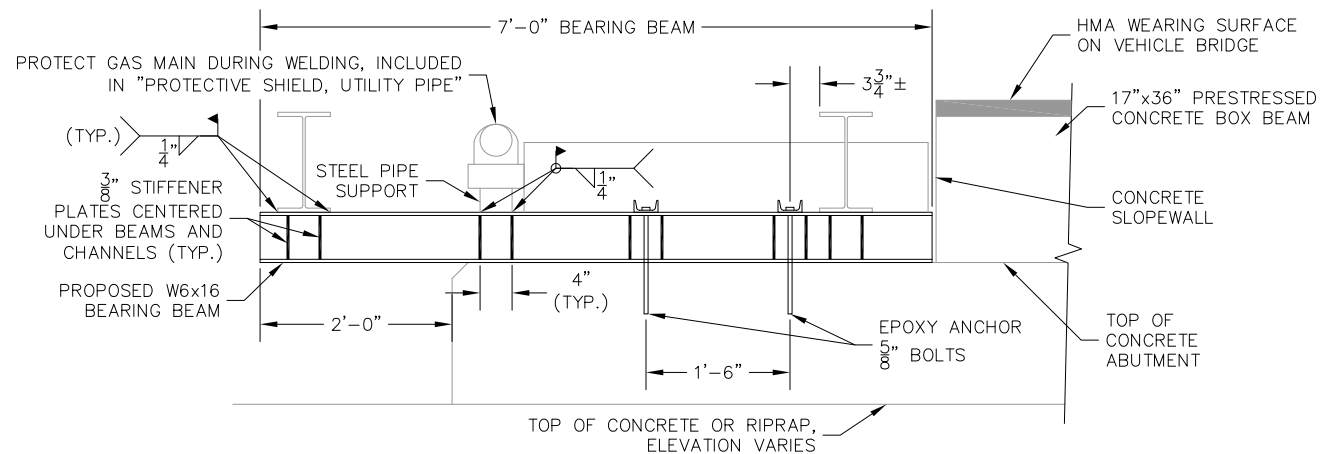
SCALE: 1" = 1'

NOTE: TEMPORARILY SUPPORT GAS MAIN AS NEEDED DURING BEARING BEAM REPLACEMENT, NOT TO BE PAID SEPARATELY BUT INCLUDED IN PAYMENT FOR TEMPORARY SUPPORT OF THE BEAMS.



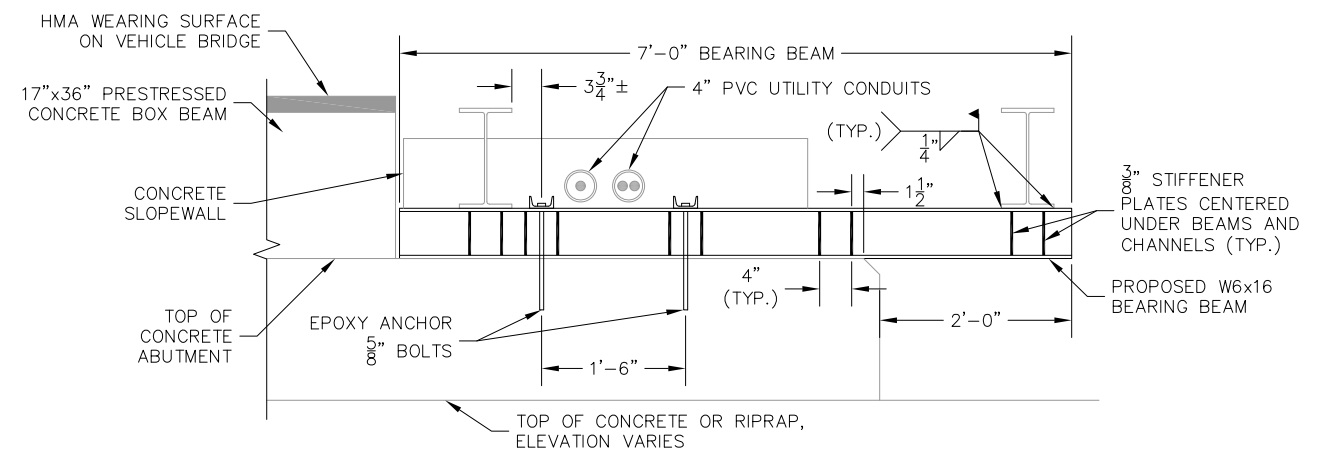
**EXISTING SW & SE BEARING ELEVATION**

SCALE: 1" = 1'



**PROPOSED NW & NE BEARING ELEVATION**

SCALE: 1" = 1'



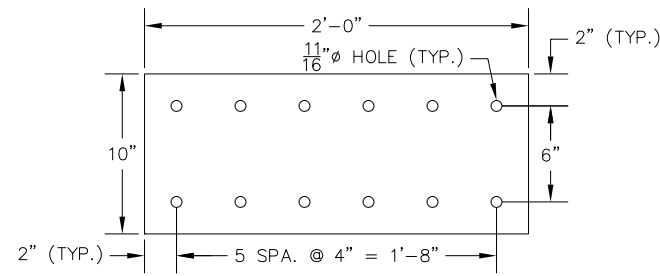
**PROPOSED SW & SE BEARING ELEVATION**

SCALE: 1" = 1'

NOTE: WELD STIFFENER PLATES AND APPLY COMPLETE COATING SYSTEM TO ALL NEW BEARING BEAMS PRIOR TO INSTALLATION, EXCEPT FOR TOP SURFACE WHICH IS TO BE PRIME COATED ONLY. APPLY INTERMEDIATE AND TOP COAT TO TOP SURFACE AFTER INSTALLATION AND WELDING.

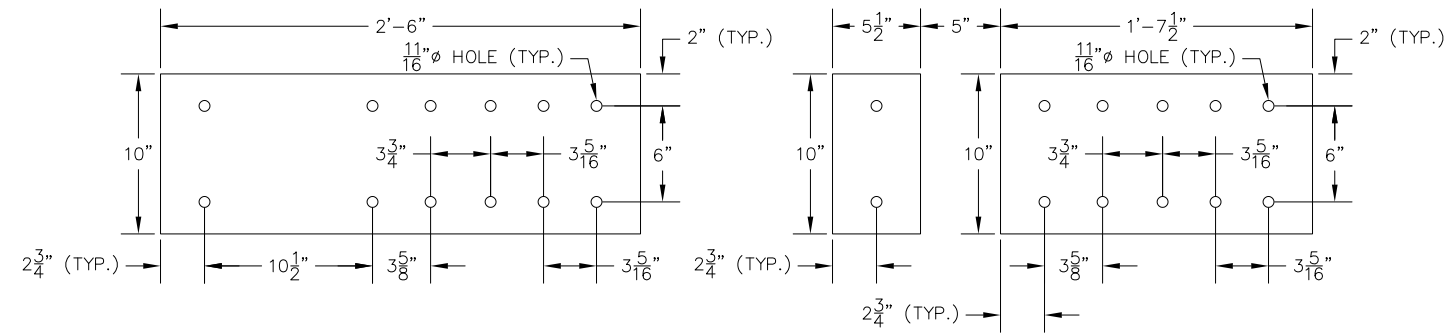
**BEARING DETAILS**

<b>SCCO</b>				4
SCOTT CIVIL ENGINEERING COMPANY				
GRAND RAPIDS, MICHIGAN				6
DRAWN	CR	CHECKED	RWL	



**SPLICE PLATE DETAIL "1"**

SCALE: 1" = 6"  
 3/8" THICK PLATE  
 SEE LOCATION TABLE  
 4 REQUIRED



**INSIDE PLATE DETAIL**

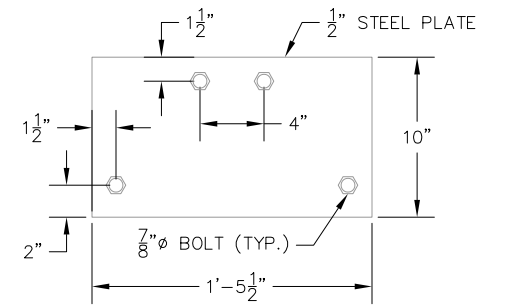
1 REQUIRED

**SPLICE PLATE DETAIL "2"**

SCALE: 1" = 6"  
 3/8" THICK PLATE  
 SEE LOCATION TABLE

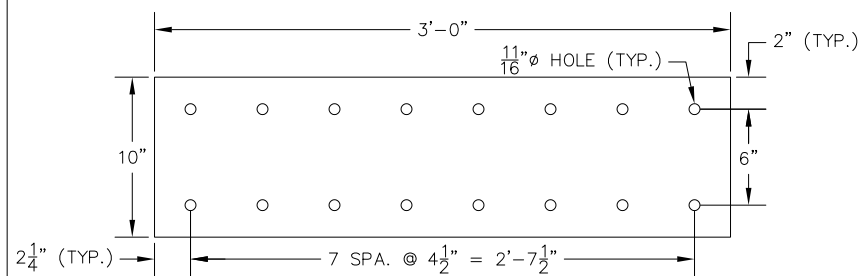
**OUTSIDE PLATE DETAIL**

1 REQUIRED



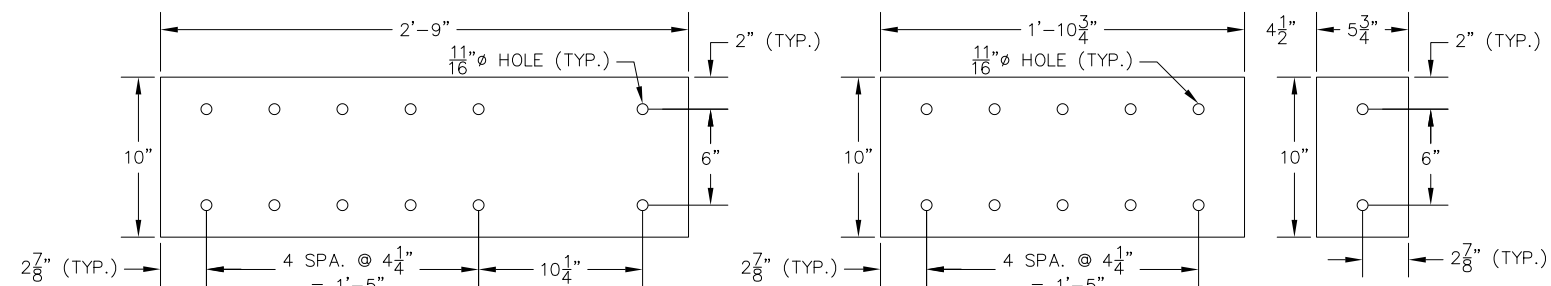
**EXISTING SPLICE DETAIL**

REMOVE ALL EXISTING SPLICE PLATES AND BOLTS WITHOUT DAMAGING BEAMS. INCLUDED IN "STRUCTURES, REM PORTIONS"



**SPLICE PLATE DETAIL "3"**

SCALE: 1" = 6"  
 3/8" THICK PLATE  
 SEE LOCATION TABLE  
 8 REQUIRED



**INSIDE PLATE DETAIL**

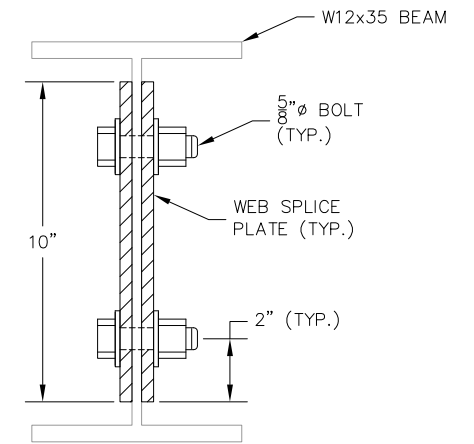
1 REQUIRED

**SPLICE PLATE DETAIL "4"**

SCALE: 1" = 6"  
 3/8" THICK PLATE  
 SEE LOCATION TABLE

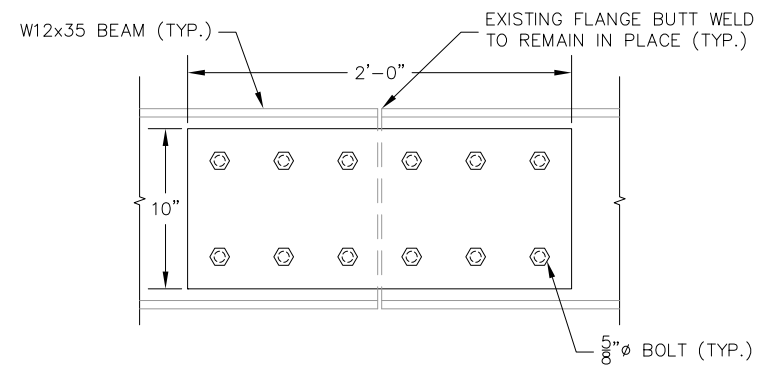
**OUTSIDE PLATE DETAIL**

1 REQUIRED



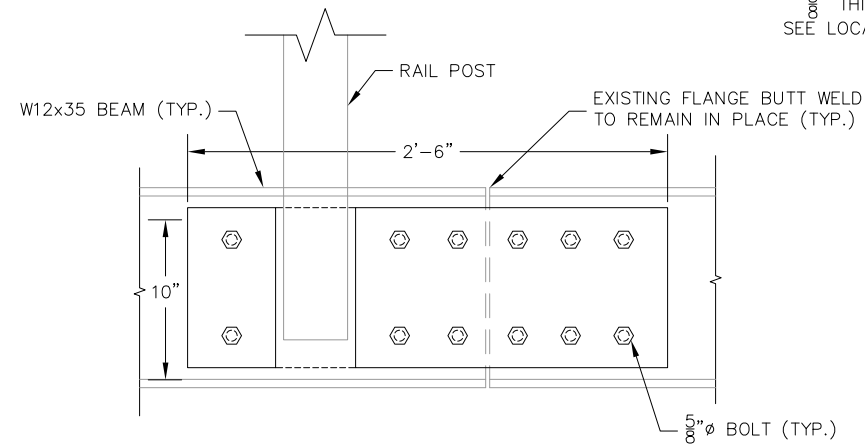
**BEAM SPLICE SECTION**

SCALE: 1" = 3"  
 ON FASCIA BEAMS, INSTALL BOLTS WITH HEAD FACING OUT



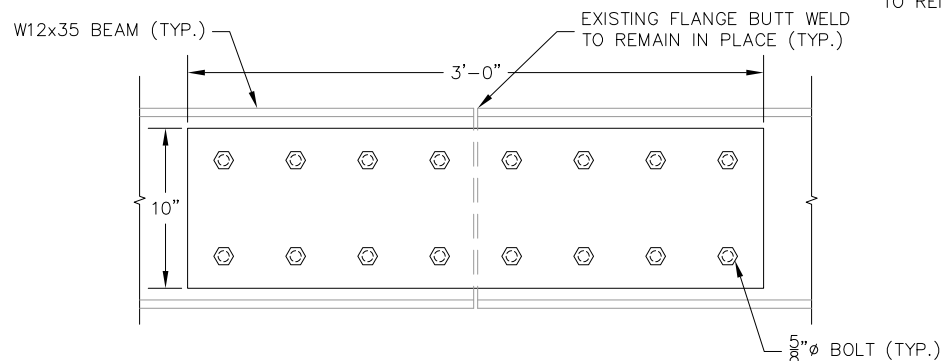
**BEAM SPLICE DETAIL "1"**

SCALE: 1" = 6"



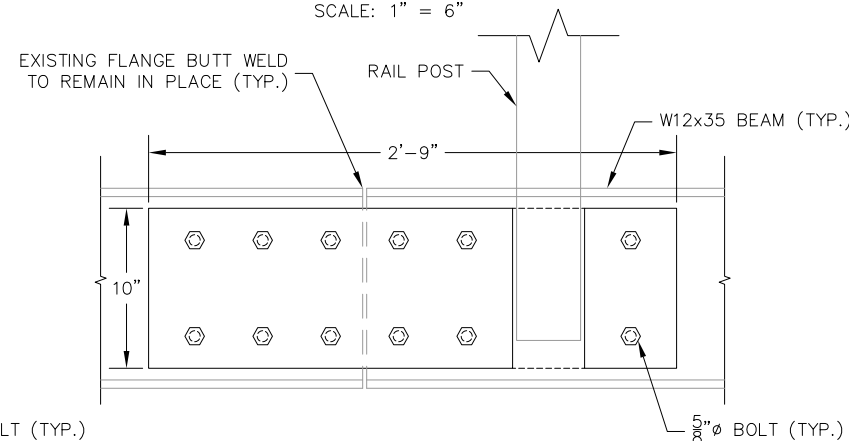
**BEAM SPLICE DETAIL "2"**

SCALE: 1" = 6"



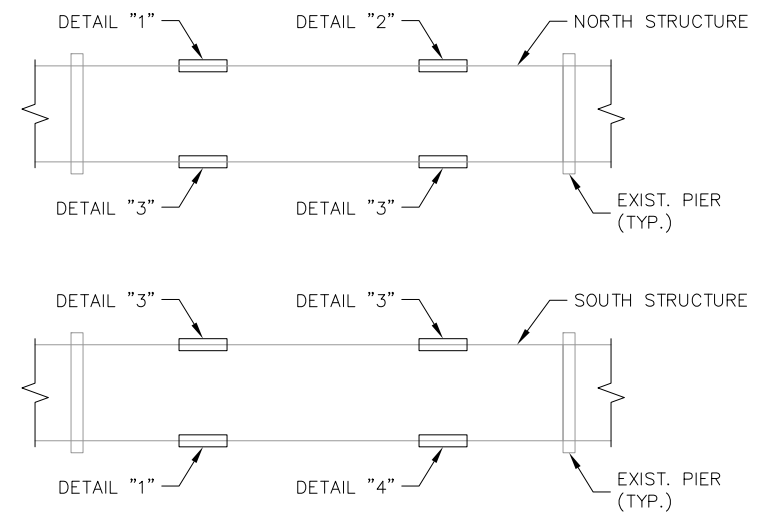
**BEAM SPLICE DETAIL "3"**

SCALE: 1" = 6"



**BEAM SPLICE DETAIL "4"**

SCALE: 1" = 6"



**BEAM SPLICE LOCATIONS**

NOT TO SCALE

**NOTES:**

TEMPORARILY SUPPORT STRUCTURE DURING REMOVAL OF EXISTING SPLICE PLATES AND INSTALLATION OF PROPOSED SPLICE PLATES, PAID AS "TEMPORARY SUPPORT".

CLEAN AND PRIME COAT FAYING SURFACES PRIOR TO INSTALLATION. APPLY COMPLETE COATING SYSTEM TO EXPOSED SURFACES AFTER INSTALLATION.

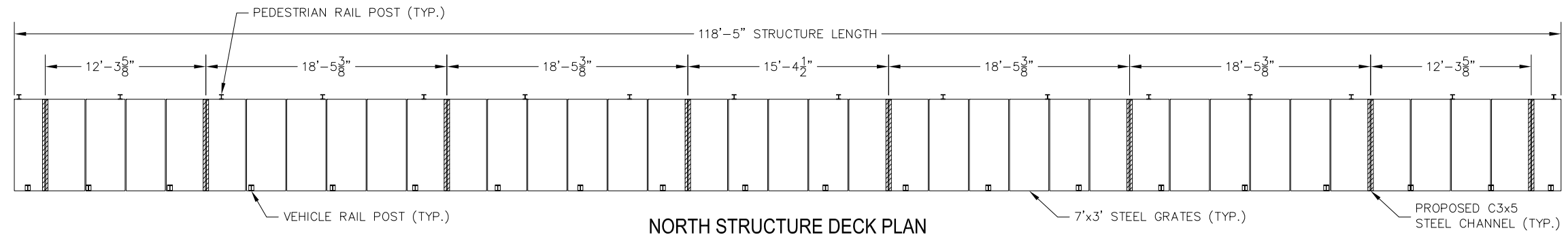
SEAL PERIMETER OF SPLICE PLATES AFTER INSTALLATION, PAID AS "BEAM PLATE, SEAL PERIMETER".

THE BEAM SPLICES ARE CONSIDERED SLIP CRITICAL CONNECTIONS.

**SPLICE DETAILS**

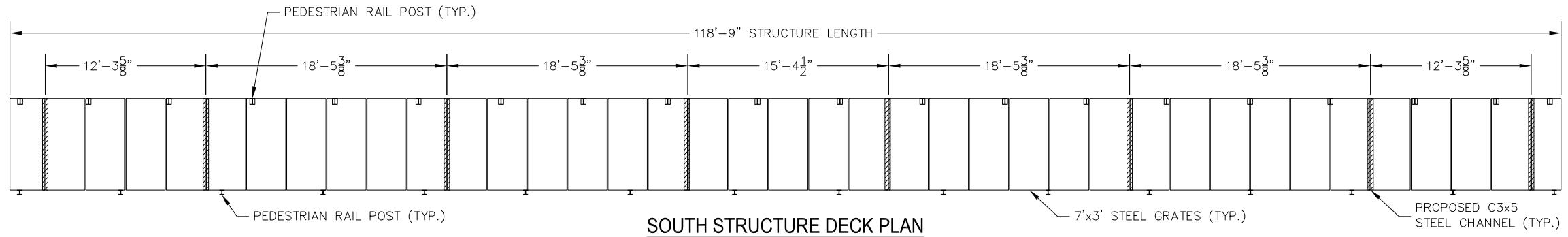
**SCCO**  
 SCOTT CIVIL ENGINEERING COMPANY  
 GRAND RAPIDS, MICHIGAN

DRAWN *CR* CHECKED *RWL* DATE 4/16/26



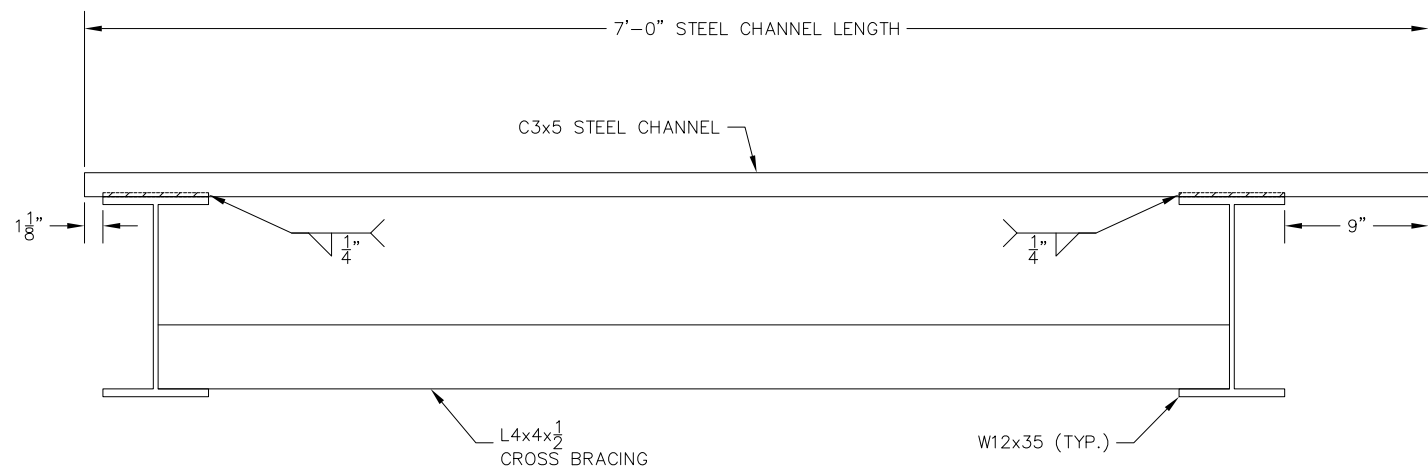
**NORTH STRUCTURE DECK PLAN**

SCALE: 1" = 5'  
 NOTE: DIMENSIONS ARE APPROXIMATE. ADJUST LOCATION OF TOP FLANGE BRACES AS DIRECTED BY THE ENGINEER



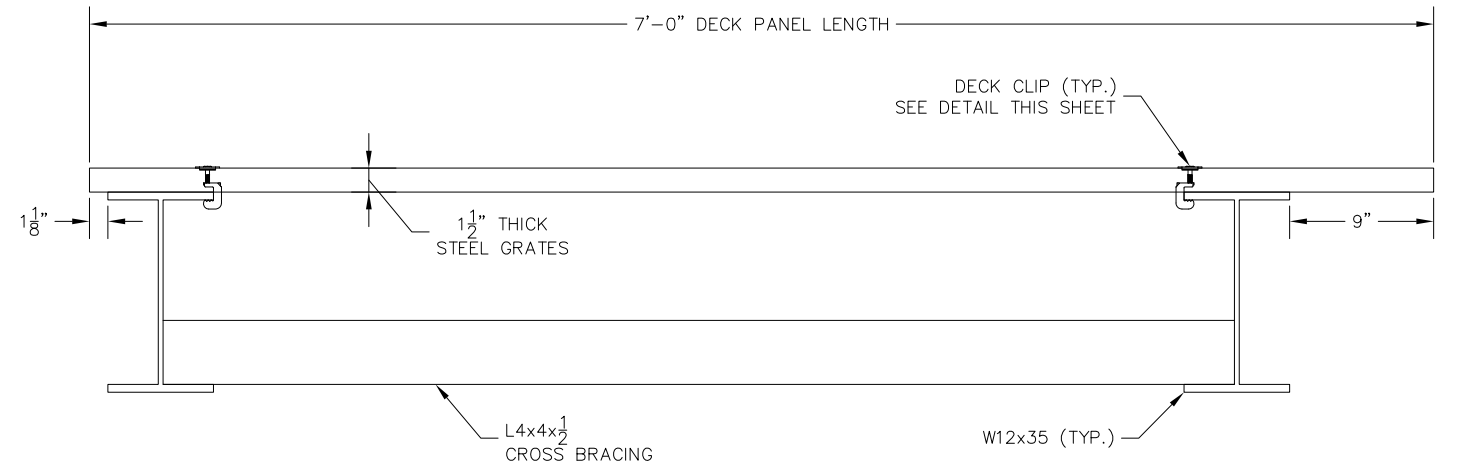
**SOUTH STRUCTURE DECK PLAN**

SCALE: 1" = 5'  
 NOTE: DIMENSIONS ARE APPROXIMATE. ADJUST LOCATION OF TOP FLANGE BRACES AS DIRECTED BY THE ENGINEER



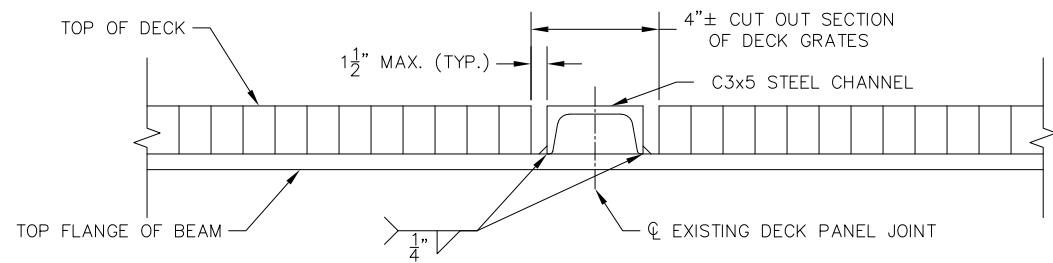
**TOP FLANGE BRACE ELEVATION**

SCALE: 1" = 6"



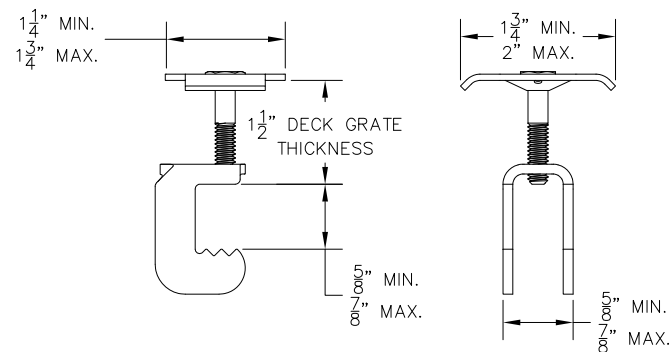
**DECK ATTACHMENT SECTION**

SCALE: 1" = 6"  
 NOTE: INSTALL (4) CLIPS PER GRATE PANEL. LOCATE CLIPS WITHIN 6" OF PANEL EDGE



**TOP FLANGE BRACE DETAIL**

SCALE: 1" = 3"  
 NOTE: INSTALL TOP FLANGE BRACES AT EXISTING DECK PANEL JOINTS. CUT OFF THE EDGE OF ADJACENT PANELS TO FIT. DO NOT LEAVE ANY PROTRUDING BARS ALONG CUT EDGE.



**DECK CLIP DETAILS**

312 REQUIRED

**NOTES:**

LABEL OR TAG EXISTING DECK PANELS PRIOR TO REMOVAL AND REINSTALL DECK PANELS IN THE SAME LOCATION. REMOVE LABELS/TAGS AFTER REINSTALLING PANELS. REPAIR ANY DAMAGE CAUSED BY REMOVAL OR REINSTALLATION AS DIRECTED BY THE ENGINEER, INCLUDED IN "STEEL GRATE DECKING, SALV AND REINSTALL".

INCLUDE TOP FLANGE CHANNEL BRACES IN STEEL STRUCTURE CLEANING AND COATING.

**DECK DETAILS**

<b>SCECO</b>				6
SCOTT CIVIL ENGINEERING COMPANY				
GRAND RAPIDS, MICHIGAN				6
DRAWN	CR	CHECKED	RWL	