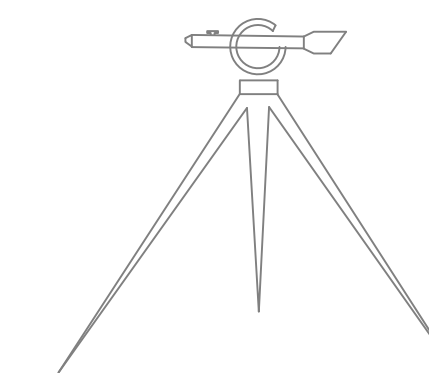


DWG#	DESCRIPTION
1	EXISTING BRIDGE
2	NEW RAILING GENERAL ARRANGEMENT
3	BRIDGE RAIL & CURB DETAILS
4	MODIFIED STANDARD DETAILS
5	DETAILS

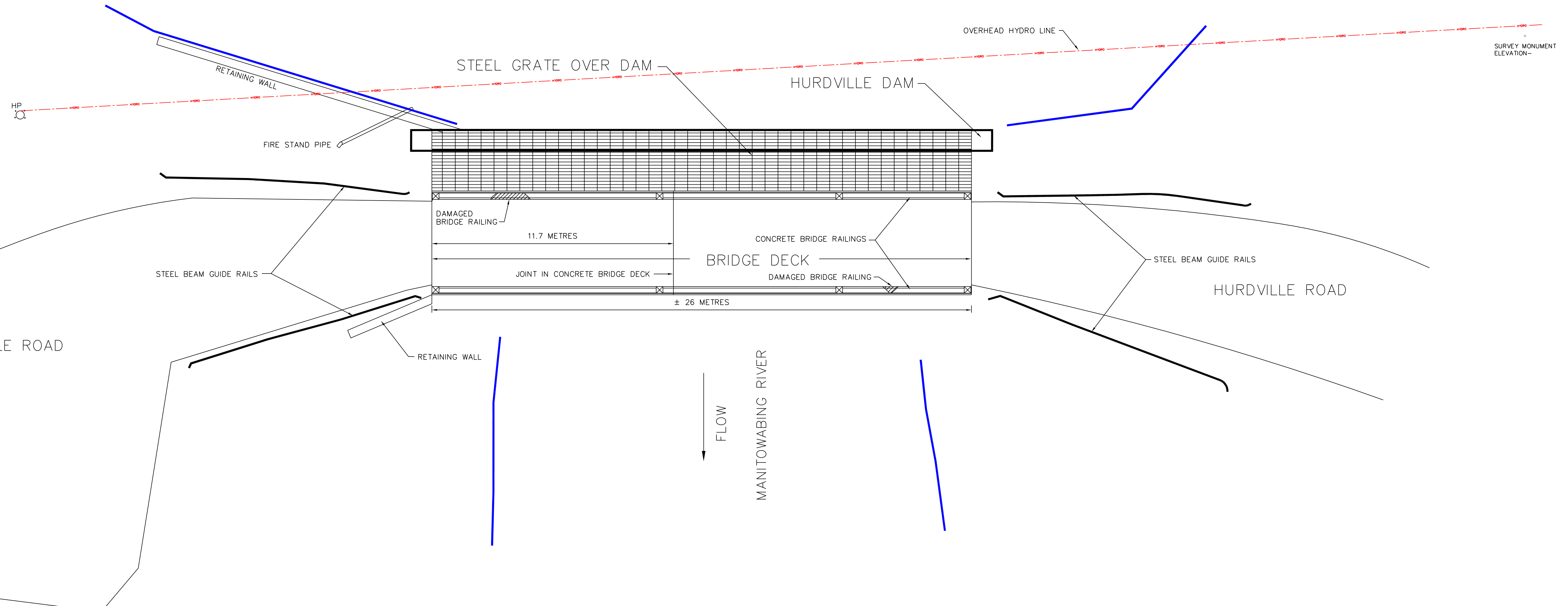
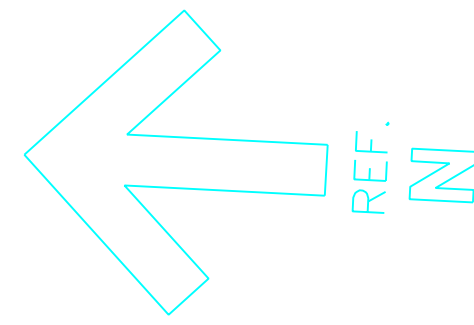
RAILING REPLACEMENT  
 HURDVILLE BRIDGE  
 TOWNSHIP OF McKELLAR  
 DISTRICT OF PARRY SOUND

TENDER CONTRACT #2025-10

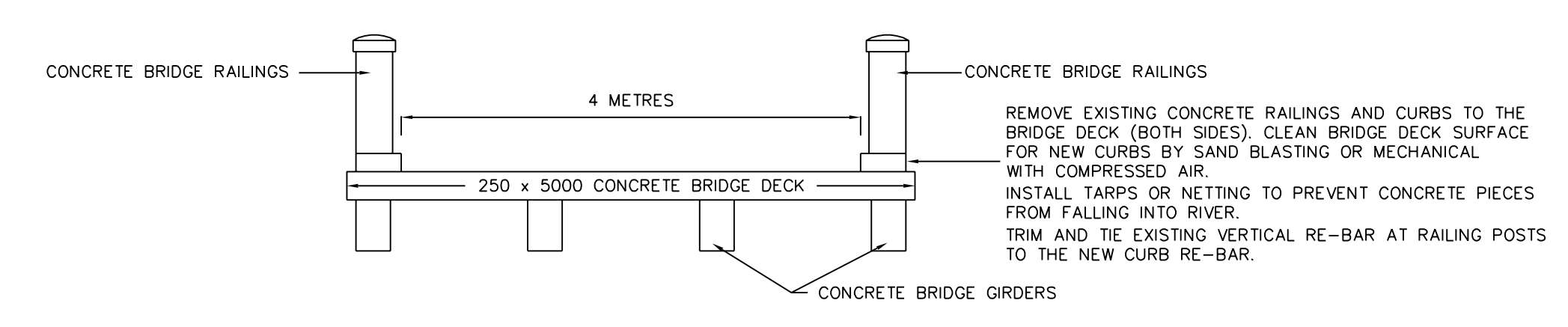


**RHH**  
**Engineering**

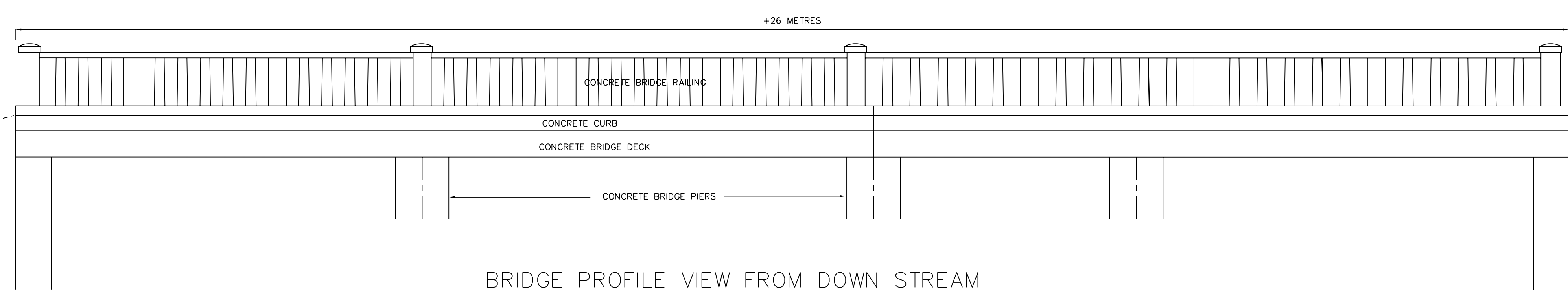
70 ISABELLA ST., UNIT 111, BOX 675 PARRY SOUND,  
 ONT P2A 2Z1 705-746-1196 PH



PLAN VIEW  
SCALE 1:100



BRIDGE CROSS SECTION  
SCALE 1:50



BRIDGE PROFILE VIEW FROM DOWN STREAM  
SCALE 1:50



TENDER

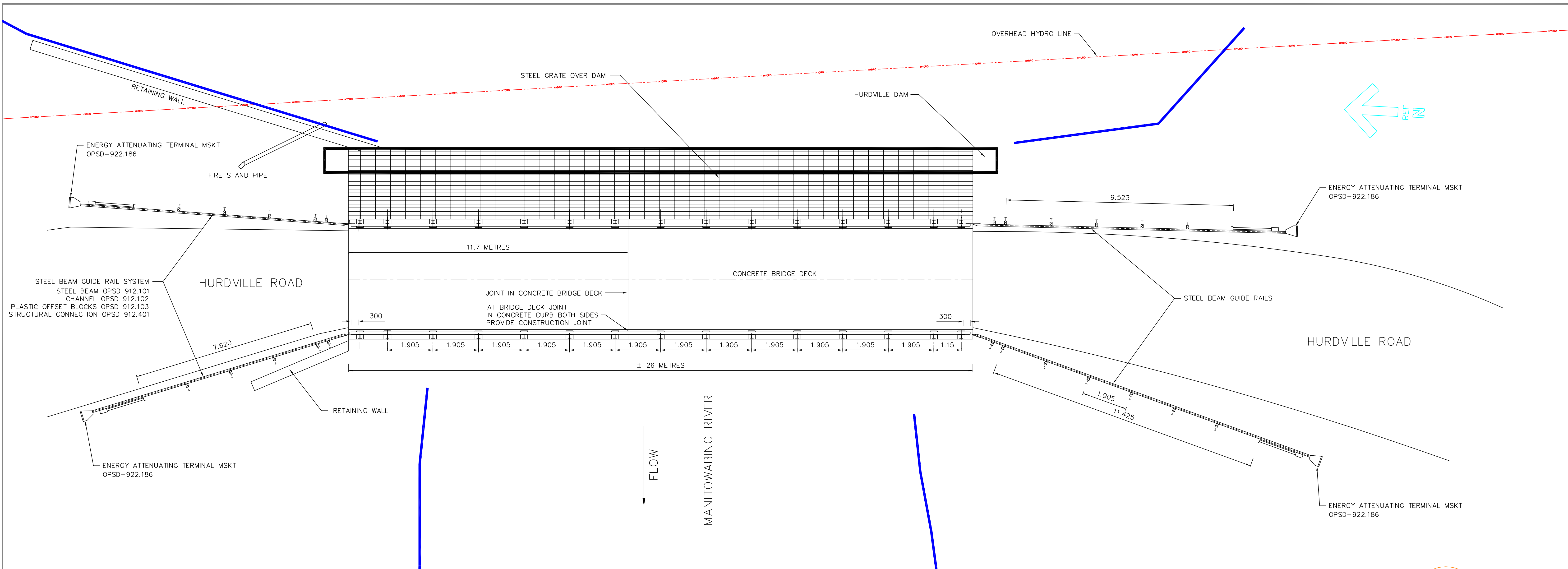
REV. NO.	DESCRIPTION	DATE

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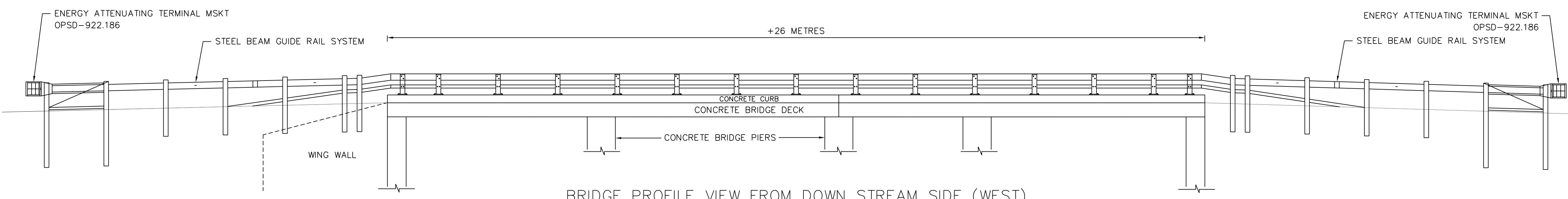
**RHH Engineering**  
 70 ISABELLA ST., UNIT 111, BOX 675 PARRY SOUND, ONT P2A 2Z1 705-746-1196 PH

RAILING REPLACEMENT  
 HURDVILLE BRIDGE  
 TOWNSHIP OF McKELLAR  
 DISTRICT OF PARRY SOUND

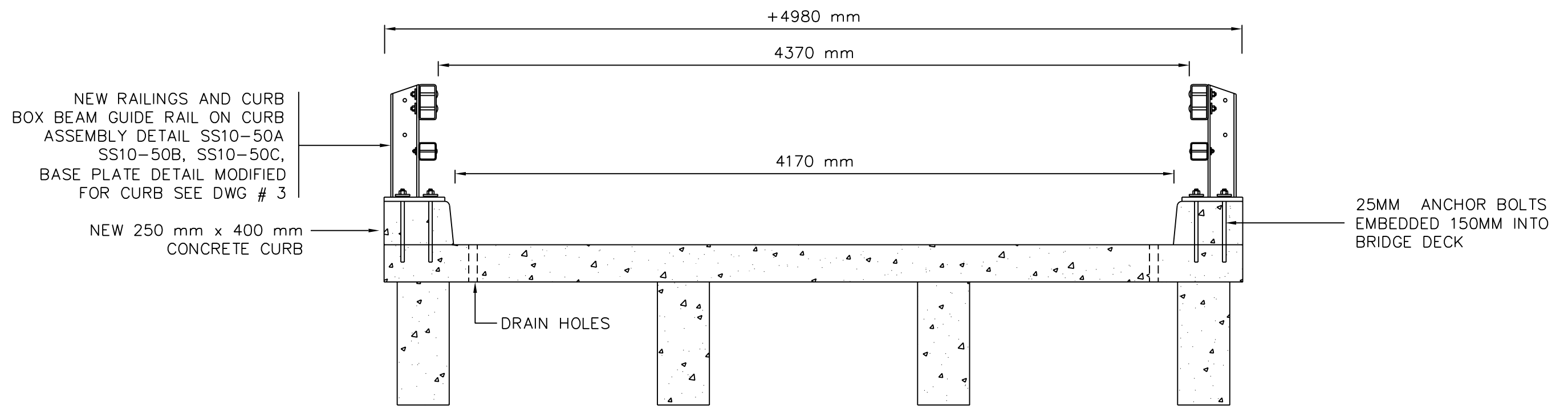
SHEET DESCRIPTION		
EXISTING BRIDGE		
SCALE	DATE	DRAWING NO.
1 = 100	MARCH / 25	1
DRAWN RH	PROJECT NO. RH25-502	



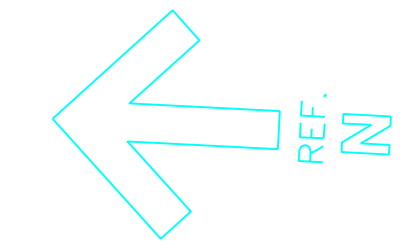
PLAN VIEW  
SCALE 1:75



BRIDGE PROFILE VIEW FROM DOWN STREAM SIDE (WEST)  
SCALE 1:75



NEW BRIDGE RAILING ARRANGEMENT  
SCALE 1:25



TENDER

REV. NO.	DESCRIPTION	DATE

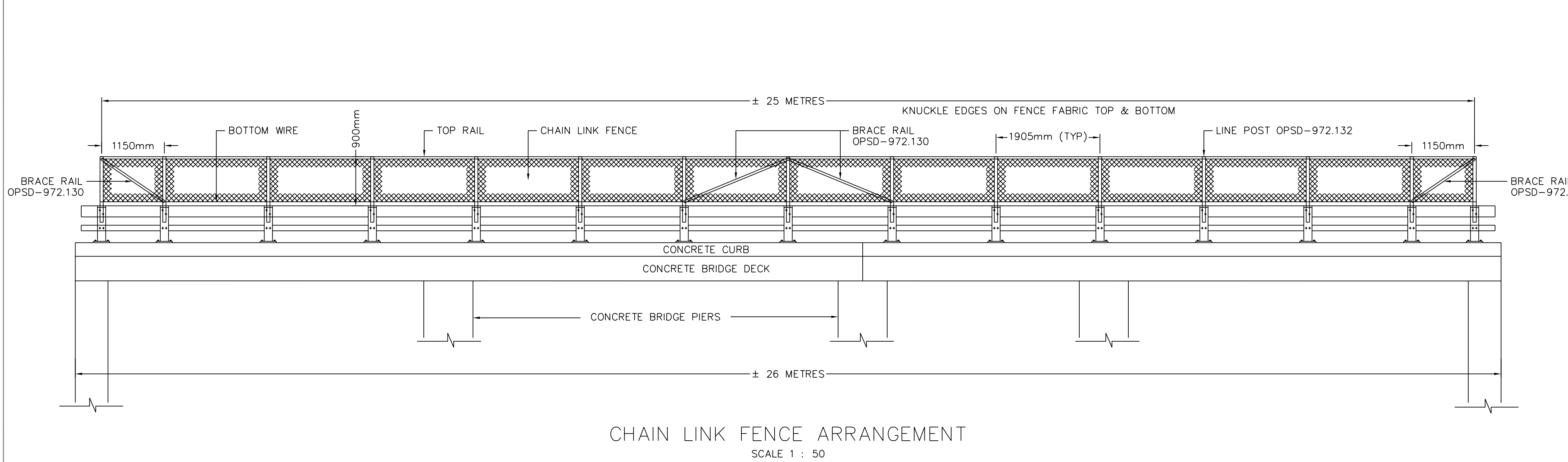
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**RHH Engineering**  
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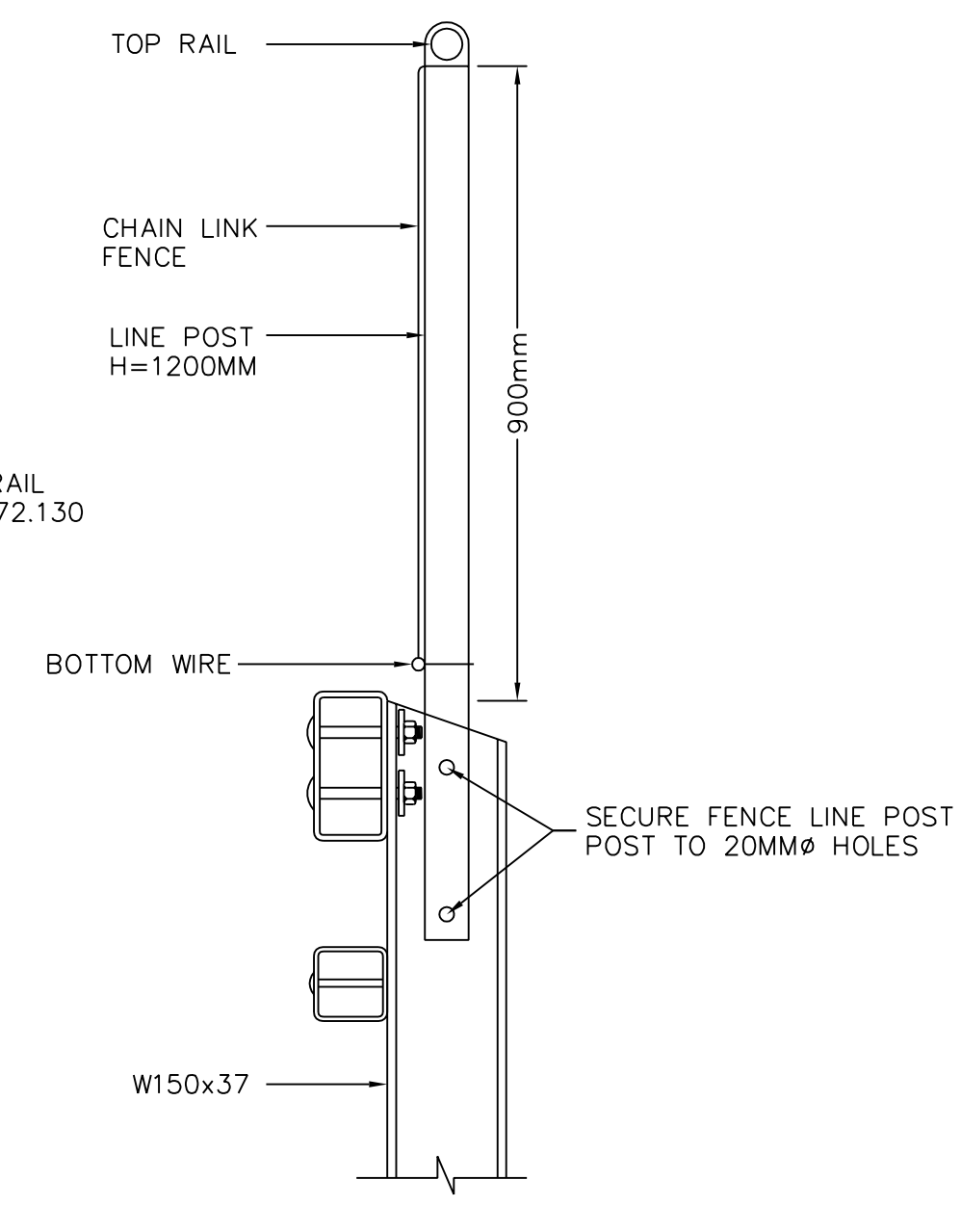
RAILING REPLACEMENT  
HURDVILLE BRIDGE  
TOWNSHIP OF McKELLAR  
DISTRICT OF PARRY SOUND

SHEET DESCRIPTION  
NEW RAILING GENERAL ARRANGEMENT

SCALE	DATE	DRAWING NO.
1 = 150	MARCH / 25	
DRAWN	PROJECT NO.	
RH	RH25-502	2



CHAIN LINK FENCE ARRANGEMENT  
SCALE 1 : 50



TYPICAL FENCE POST  
SCALE 1 : 10

CONSTRUCTION NOTES

**SPECIFICATIONS**  
OPSS.MUNI DIVISION 9 (STRUCTURAL)  
ONTARIO BRIDGE DESIGN CODE (99)

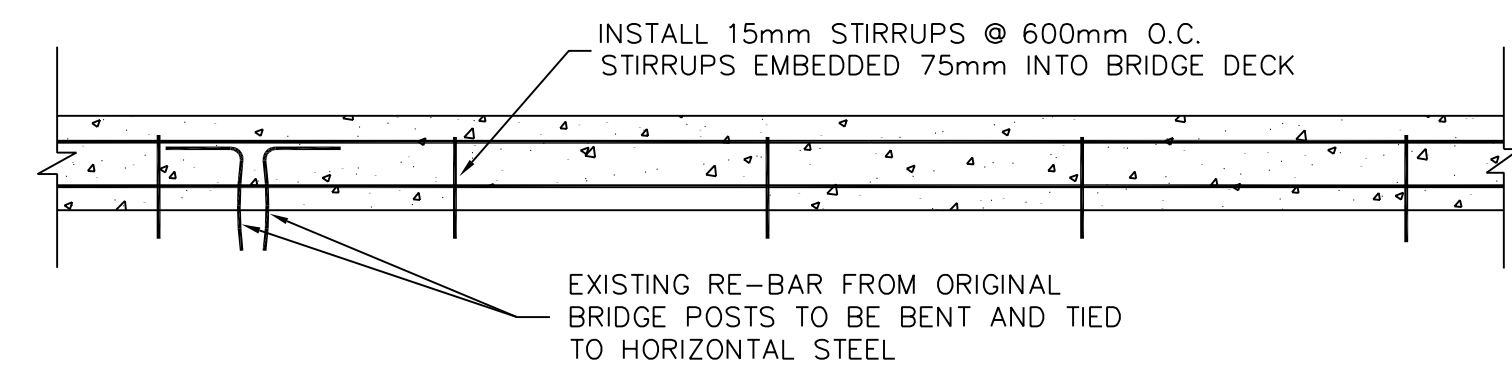
**CONCRETE**  
ALL CONCRETE 32 mpa, 7 % AIR, 50 mm SLUMP

**REINFORCING STEEL**  
ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH  
CSA STANDARD G30.18M, 1992 GRADE 400  
MIN. CONCRETE COVER TO REINFORCING STEEL 70 mm  
ALL RE-BAR TO BE EPOXY COATED

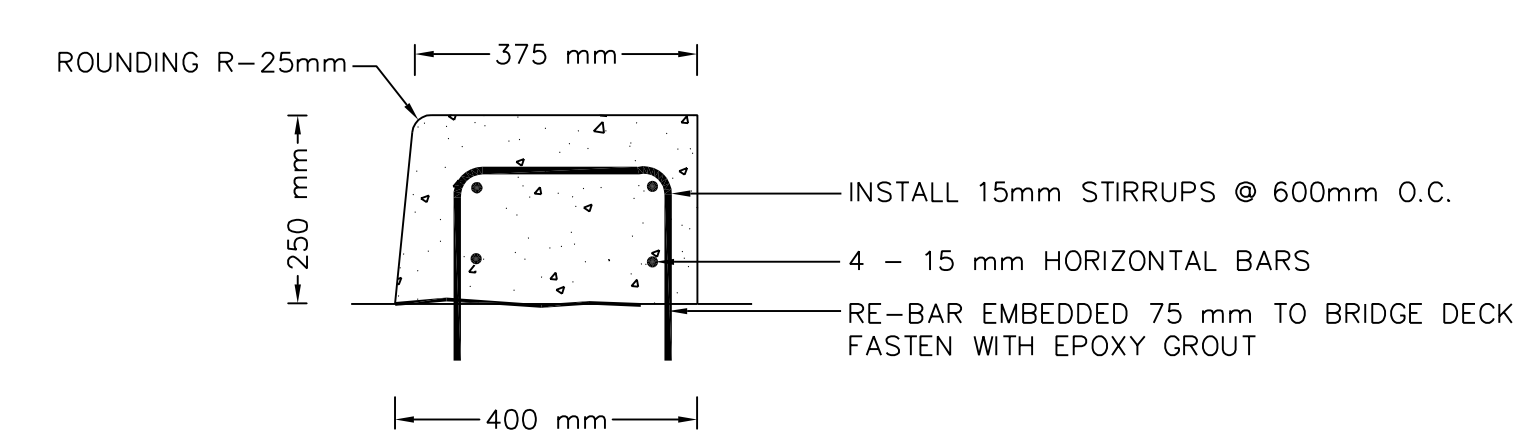
**STRUCTURAL STEEL**  
ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH  
C.S.A. 40.21, GRADE 300 W  
ALL BOLTS SHALL BE A.S.T.M. A325, HIGH STRENGTH, TYPE I, M20  
ALL STEEL RAILING COMPONENTS SHALL BE HOT DIPPED GALVANIZED  
TOUCH-UP PAINT TO BE ZINC METALIZED  
ALL WELDING TO BE IN ACCORDANCE WITH C.S.A. SPECIFICATION  
W59 AND SHALL BE PERFORMED BY A LICENSED WELDER QUALIFIED  
UNDER CSA W47

**REFER TO RELATED STANDARDS:**  
CONSTRUCTION SPECIFICATION FOR STEEL BEAM  
GUIDE RAIL SYSTEMS - OPSS.MUNI 721, APR. 2024  
STEEL BEAM RAIL COMPONENT - OPSD 912.101, NOV. 2024  
STEEL BEAM CHANNEL COMPONENT - OPSD 912.102, NOV. 2016  
STEEL BEAM ASSEMBLY - OPSD 912.130, NOV. 2016  
STEEL BEAM STRUCTURE CONNECTION - OPSD 912.401, APR. 2024  
PLASTIC OFFSET BLOCKS - OPSD 912.103, NOV. 2021  
MSKT ENERGY ATTENUATOR - OPSD 922.186, NOV. 2024

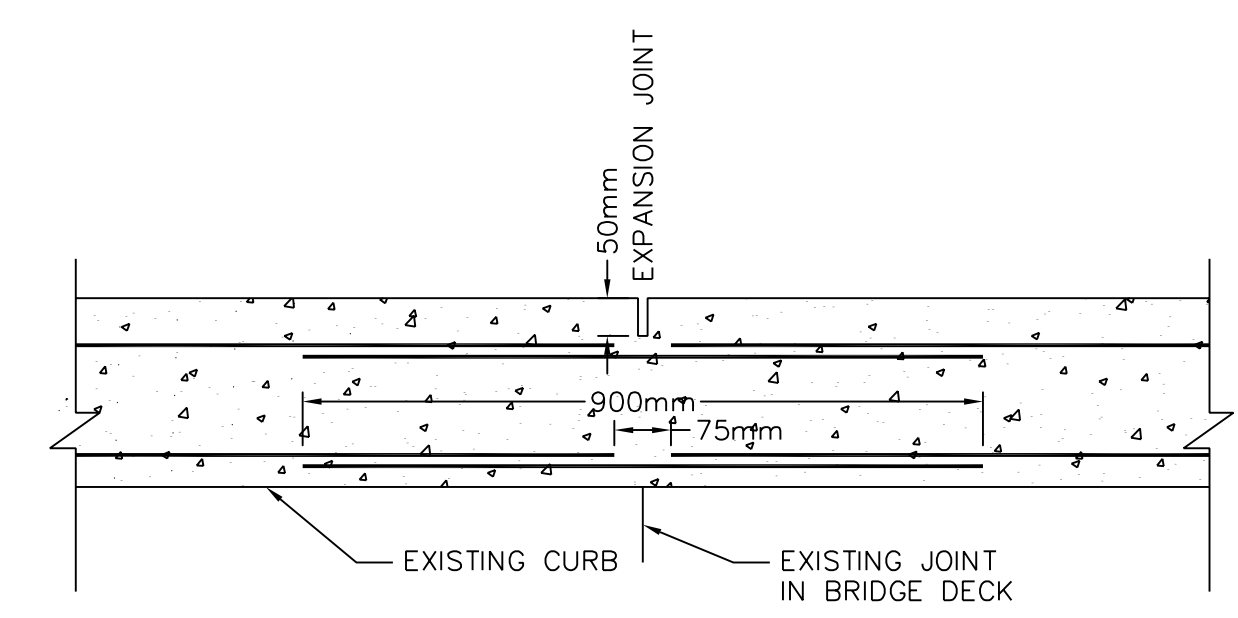
CONCRETE AND STEEL BONDING ADHESIVE TO BE SIKADUR-32  
HI-MOD BY SIKA CANADA INC. OR EQUIVALENT PRODUCT  
APPROVED BY THE PROJECT ENGINEER.



PROFILE CURB SECTION  
SCALE 1 : 20



C/S CONCRETE CURB  
SCALE 1 : 10

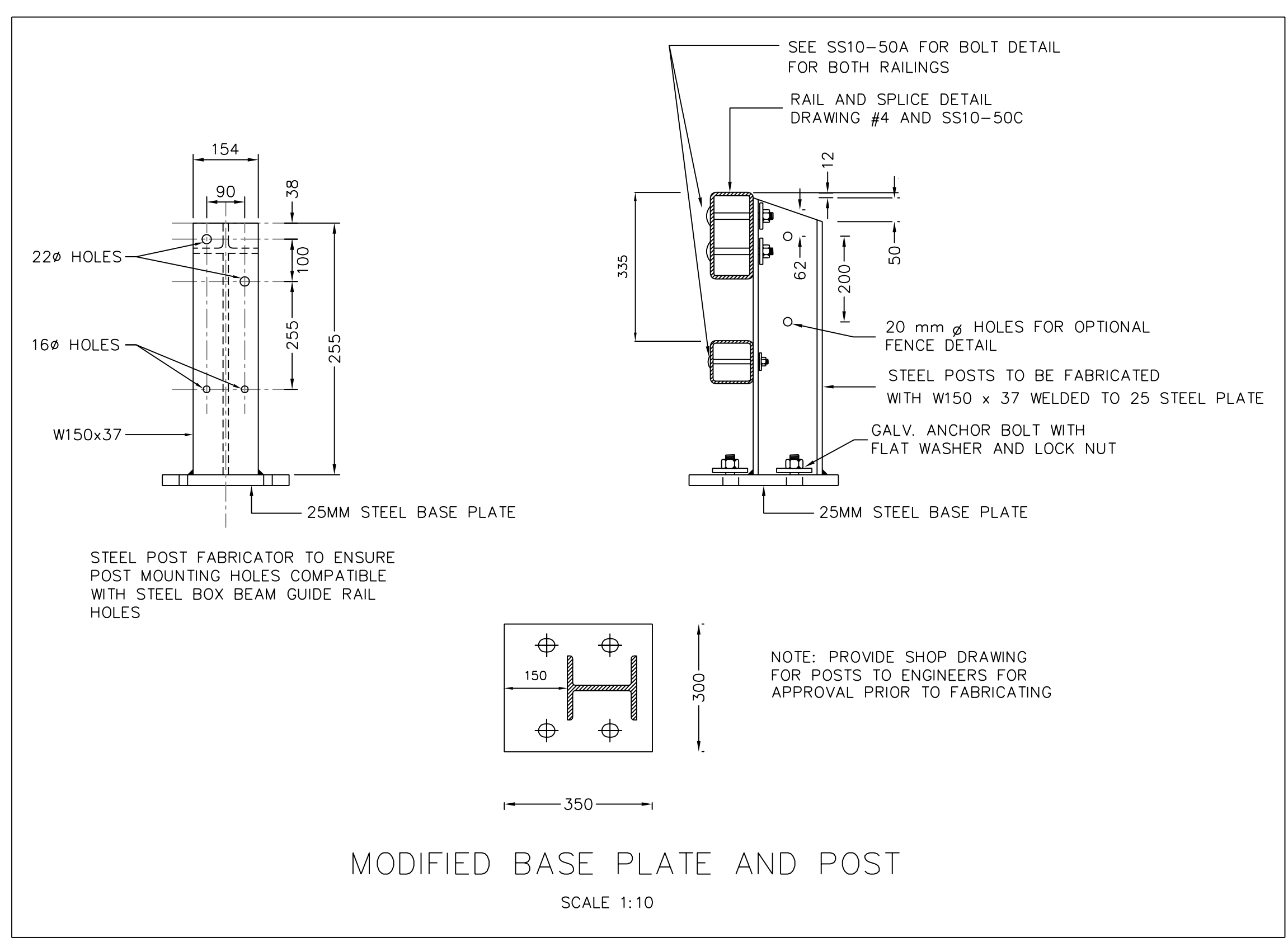


CONSTRUCTION JOINT  
SCALE 1 : 10

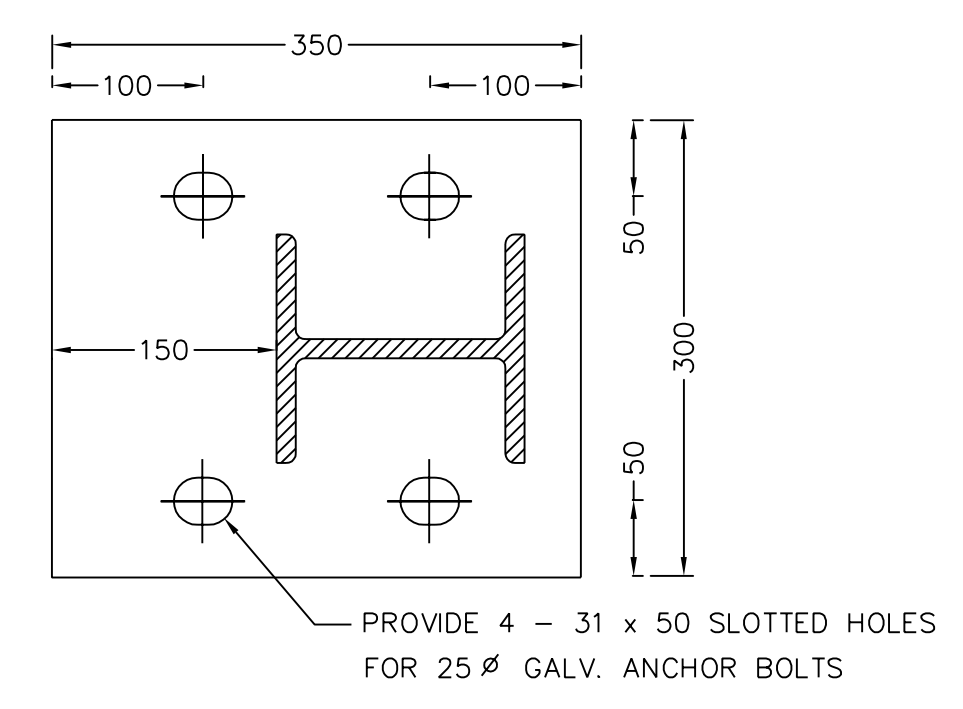
**NOTES:**  
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.  
STANDARD TO BE READ IN CONJUNCTION WITH SS10-50A  
ALL RAIL ASSEMBLY TO BE HOT DIPPED GALVANIZED TO CSA G164



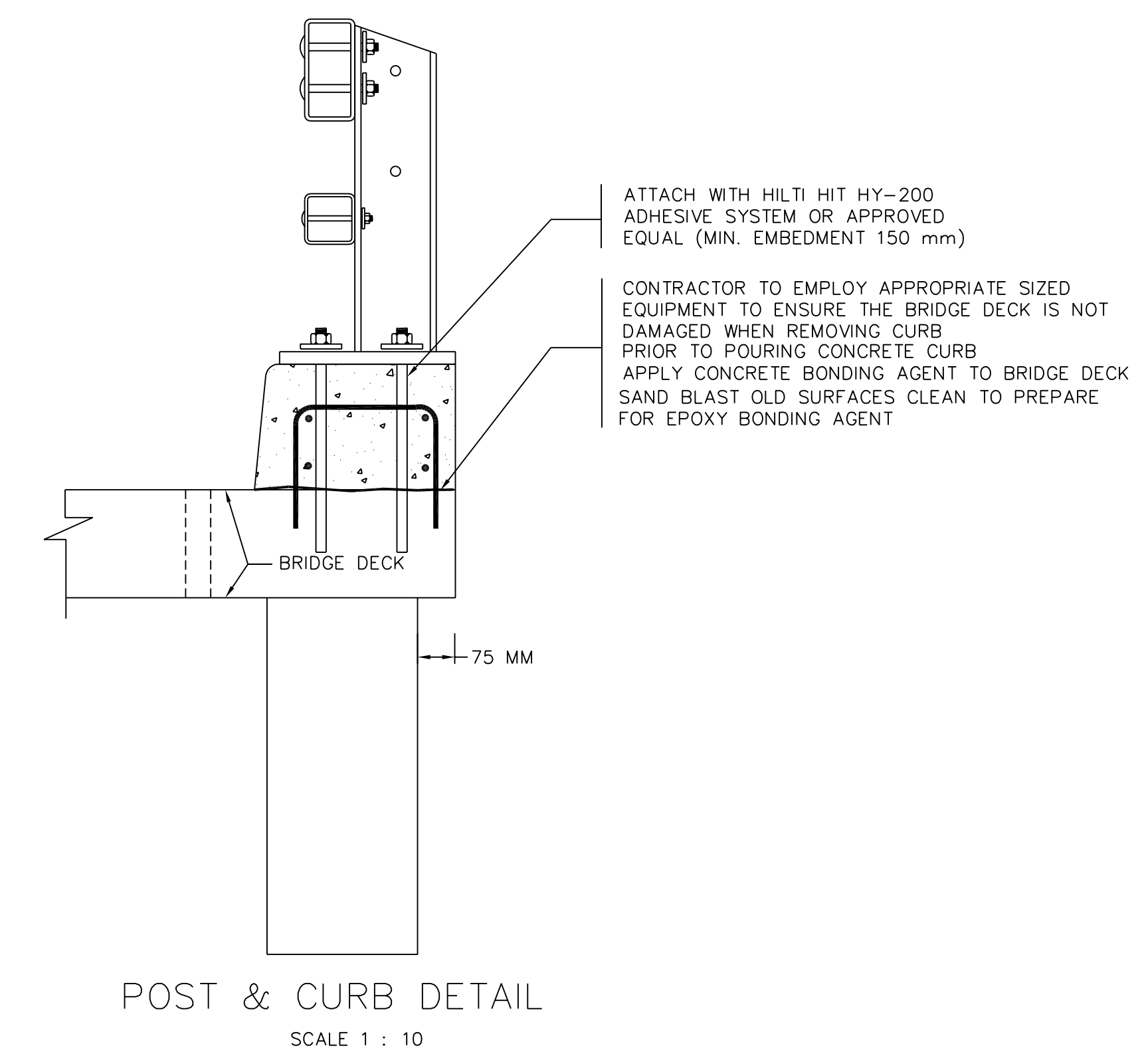
TENDER



MODIFIED BASE PLATE AND POST  
SCALE 1:10

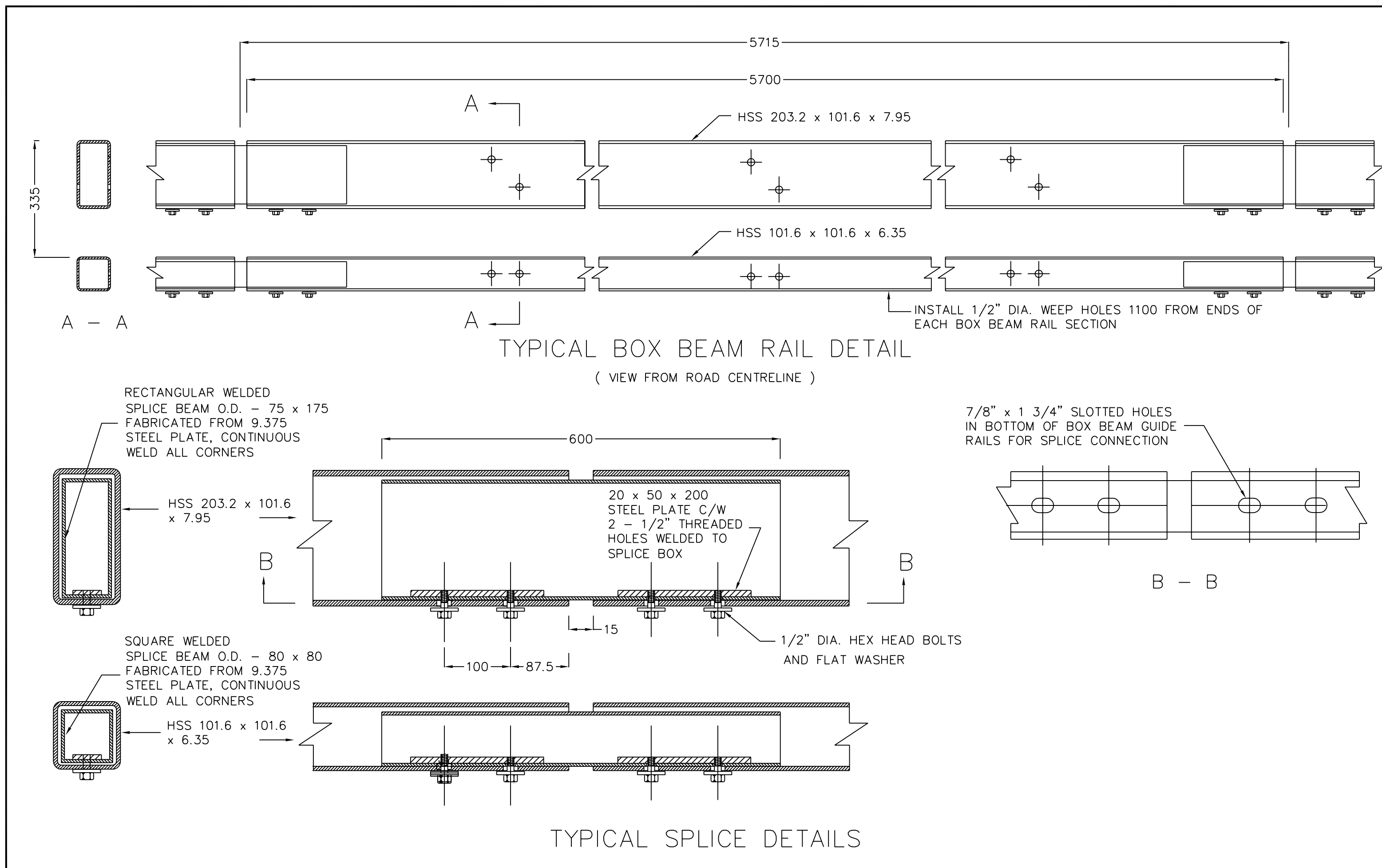


ENLARGED BASE PLATE DETAIL  
SCALE 1:20



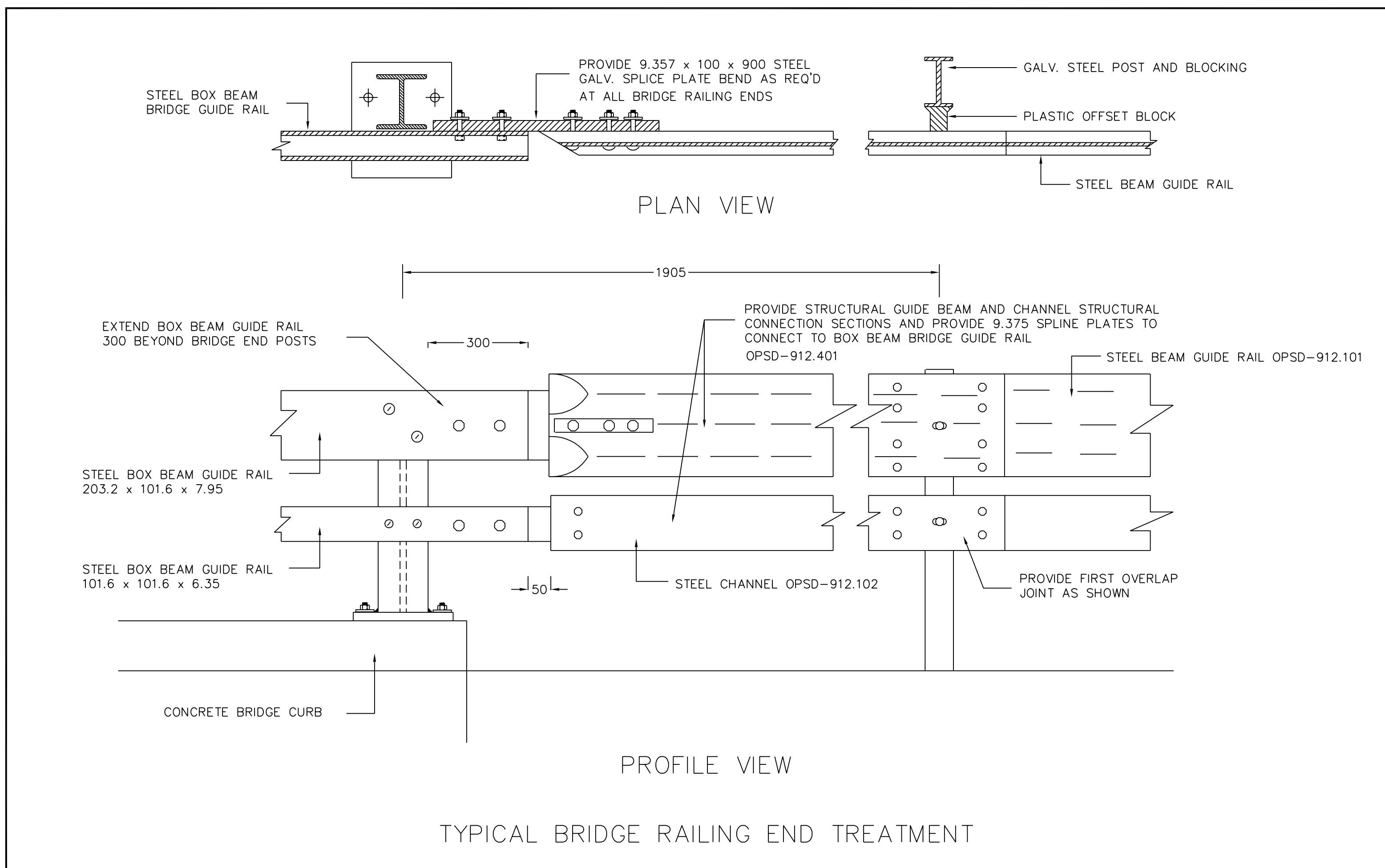
POST & CURB DETAIL  
SCALE 1 : 10

REV. NO.	DESCRIPTION	DATE
	<b>This drawing is not to be used for construction unless noted so, or the drawing is sealed. Any changes to project not detailed on this drawing or not approved in writing by RHH Engineering shall hold harmless RHH Engineering from any action and liability from the consequences of such changes. Drawings are copy write protected. Drawings are not to be scaled. Errors in dimensions, elevations or details must be reported immediately in writing or the contractor shall bear the consequences of any required corrections.</b>	
 <b>RHH Engineering</b> 70 ISABELLA ST., UNIT 111, BOX 675 PARRY SOUND, ONT P2A 2Z1 705-746-1196 PH		
RAILING REPLACEMENT HURDVILLE BRIDGE TOWNSHIP OF McKELLAR DISTRICT OF PARRY SOUND		
SHEET DESCRIPTION BRIDGE RAILING & CURB DETAIL		
SCALE 1 = 100	DATE MARCH, 2025	DRAWING NO.
DRAWN RH	PROJECT NO. RH25-502	3



**NOTES:**

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.  
 STANDARD TO BE READ IN CONJUNCTION WITH SS10-50A  
 ALL RAIL ASSEMBLY TO BE HOT DIPPED GALVANIZED TO CSA G164  
 REFER TO RELATED STANDARDS:  
 CONSTRUCTION SPECIFICATION FOR STEEL BEAM GUIDE RAIL SYSTEMS - OPSS/MUNI 721, APR. 2024  
 STEEL BEAM RAIL COMPONENT - OPSD 912.101, NOV. 2024  
 STEEL BEAM CHANNEL COMPONENT - OPSD 912.102, NOV. 2016  
 STEEL BEAM ASSEMBLY - OPSD 912.130, NOV. 2016  
 STEEL BEAM STRUCTURE CONNECTION - OPSD 912.401, APR. 2024  
 PLASTIC OFFSET BLOCKS - OPSD 912.103, NOV. 2021  
 MSKT ENERGY ATTENUATOR - OPSD 922.186, NOV. 2024



TENDER

REV. NO.	DESCRIPTION	DATE

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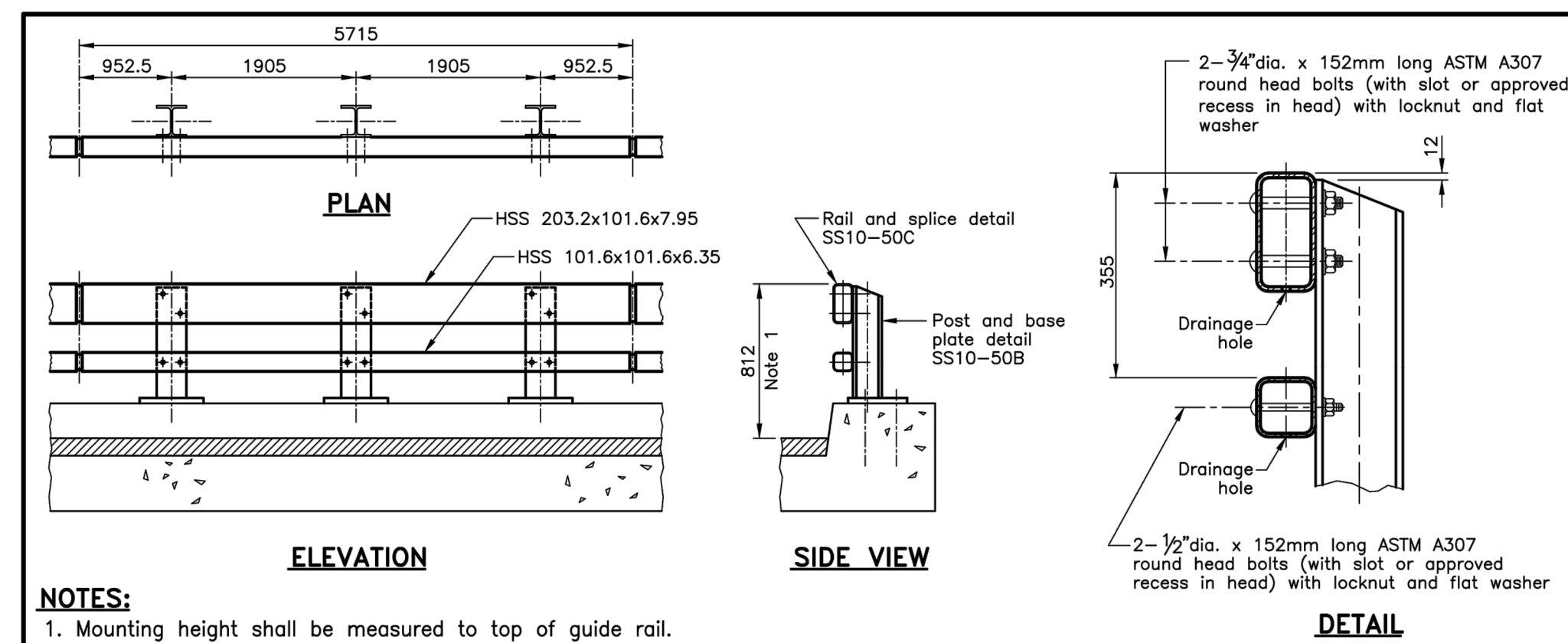
**RHH Engineering**  
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RAILING REPLACEMENT  
 HURDVILLE BRIDGE  
 TOWNSHIP OF McKELLAR  
 DISTRICT OF PARRY SOUND

**SHEET DESCRIPTION**

MODIFIED STANDARD DETAILS

SCALE	DATE	DRAWING NO.
NTS	MAR 2025	4
<b>DRAWN</b>	<b>PROJECT NO.</b>	
RH/DPL	RH25-502	

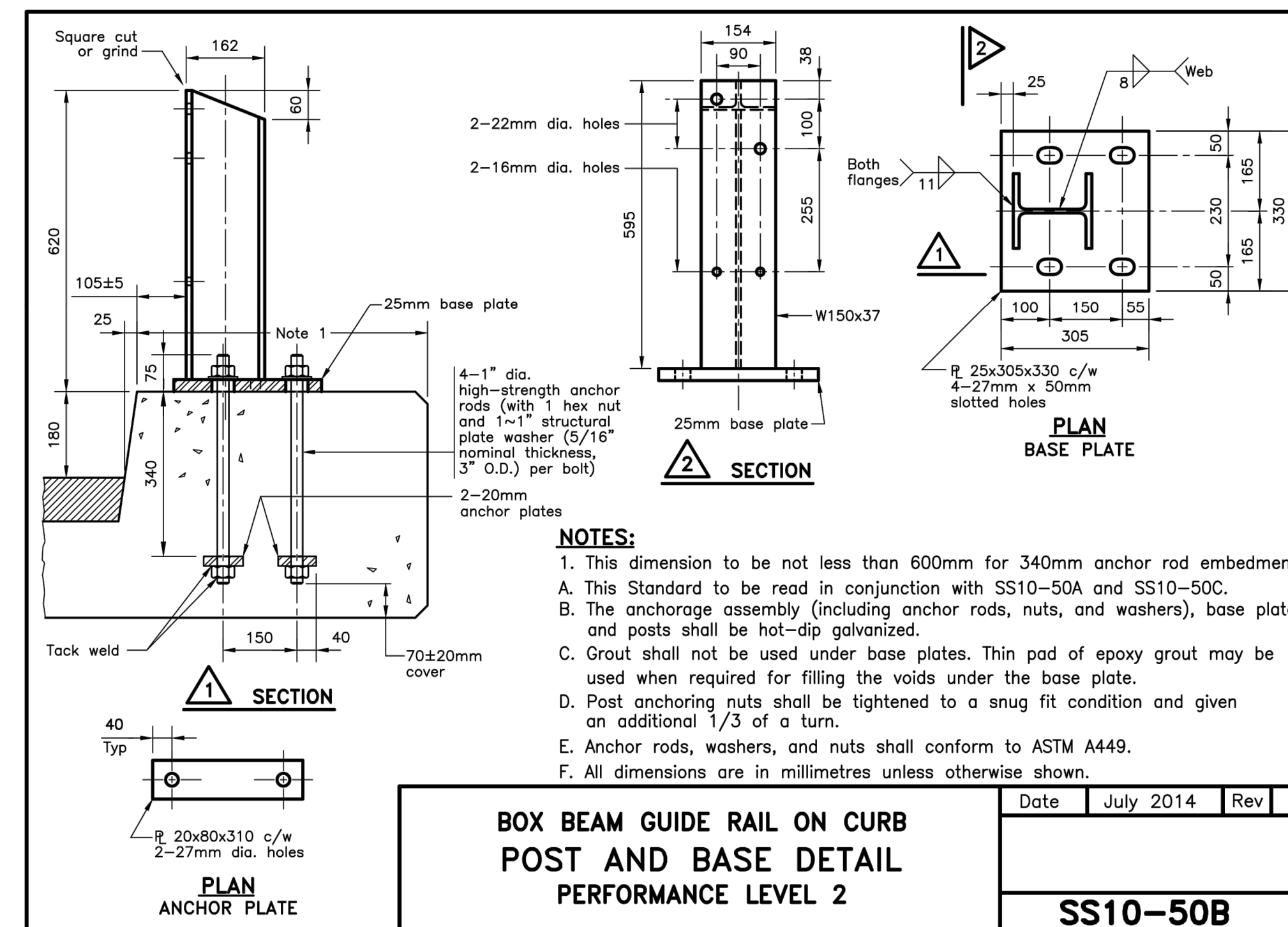


**NOTES:**

- Mounting height shall be measured to top of guide rail.
- This Standard to be read in conjunction with SS10-50B and SS10-50C.
- Rail elements shall be hollow structural sections Grade 350WT, Class C. Rail element shall meet the longitudinal Charpy V-notch impact test requirements of 27 joules at test temperature of \_\_\_\_ °C. (ASTM A500 Grade B or C steel may be substituted for Grade 350WT provided that the Charpy V-notch impact test requirements are verified by the submission of test documentation).
- Posts and plates shall be Grade 350WT.
- The notch toughness requirements for posts and plates shall be the same as those specified in Note B.
- Rails shall be prebent to follow road curvature where radius is less than 150 metres.
- Rail posts shall be set perpendicular to grade.
- Rails may be cut as required in the field, cut to be surface treated with a zinc touch-up solder, galvanguard or an approved equivalent.
- When connecting to existing railing, rails must be made continuous and post spacings to be determined with reference to existing posts.
- All dimensions are in millimetres unless otherwise shown.

**BOX BEAM GUIDE RAIL ON CURB  
ASSEMBLY DETAIL  
PERFORMANCE LEVEL 2**

Date	Oct. 2013	Rev	
<b>SS10-50A</b>			

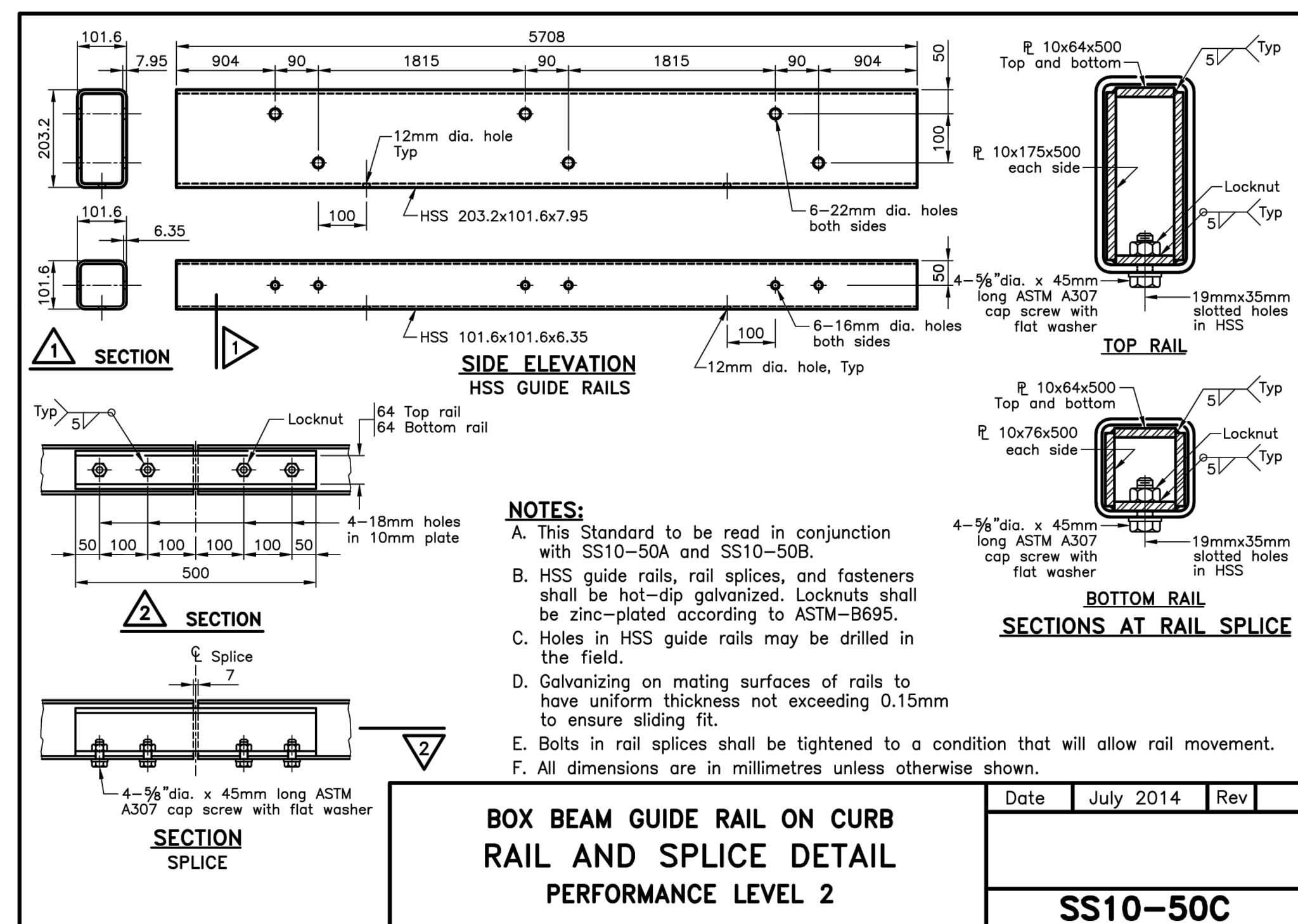


**NOTES:**

- This dimension to be not less than 600mm for 340mm anchor rod embedment.
- This Standard to be read in conjunction with SS10-50A and SS10-50C.
- The anchorage assembly (including anchor rods, nuts, and washers), base plates, and posts shall be hot-dip galvanized.
- Grout shall not be used under base plates. Thin pad of epoxy grout may be used when required for filling the voids under the base plate.
- Post anchoring nuts shall be tightened to a snug fit condition and given an additional 1/3 of a turn.
- Anchor rods, washers, and nuts shall conform to ASTM A449.
- All dimensions are in millimetres unless otherwise shown.

**BOX BEAM GUIDE RAIL ON CURB  
POST AND BASE DETAIL  
PERFORMANCE LEVEL 2**

Date	July 2014	Rev	
<b>SS10-50B</b>			



**NOTES:**

- This Standard to be read in conjunction with SS10-50A and SS10-50B.
- HSS guide rails, rail splices, and fasteners shall be hot-dip galvanized. Locknuts shall be zinc-plated according to ASTM-B695.
- Holes in HSS guide rails may be drilled in the field.
- Galvanizing on mating surfaces of rails to have uniform thickness not exceeding 0.15mm to ensure sliding fit.
- Bolts in rail splices shall be tightened to a condition that will allow rail movement.
- All dimensions are in millimetres unless otherwise shown.

**BOX BEAM GUIDE RAIL ON CURB  
RAIL AND SPLICE DETAIL  
PERFORMANCE LEVEL 2**

Date	July 2014	Rev	
<b>SS10-50C</b>			



TENDER

REV. NO.	DESCRIPTION	DATE

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**RHH Engineering**  
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ONT P2A 2Z1 705-746-1196 PH

RAILING REPLACEMENT  
HURDVILLE BRIDGE  
TOWNSHIP OF McKELLAR  
DISTRICT OF PARRY SOUND

SHEET DESCRIPTION		
DETAILS		
SCALE	DATE	DRAWING NO.
DRAWN	PROJECT NO.	5
RH/DPL	RH25-502	