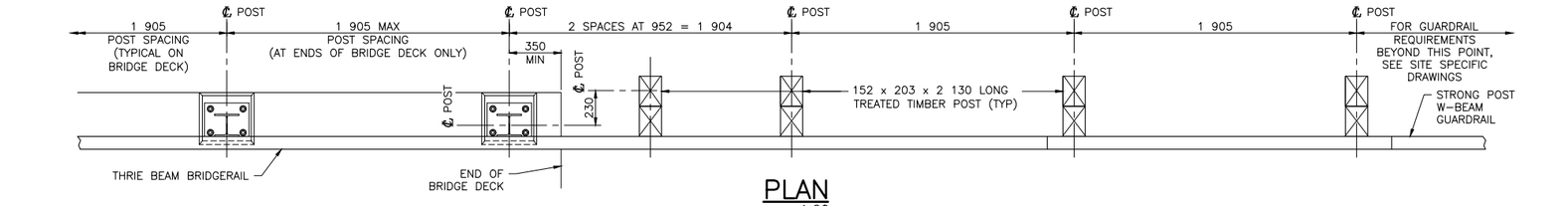
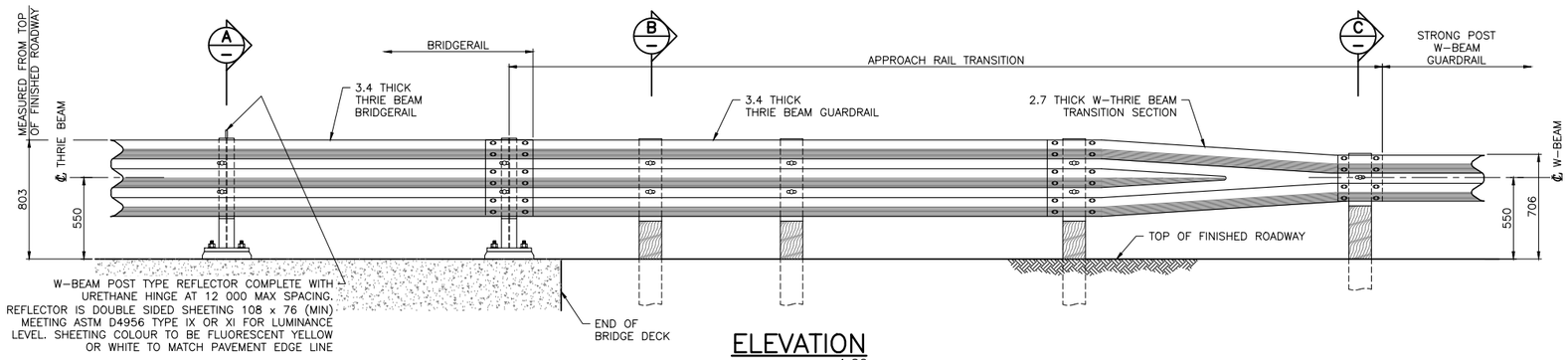


PLAN
1:20



ELEVATION
1:20

GENERAL NOTES

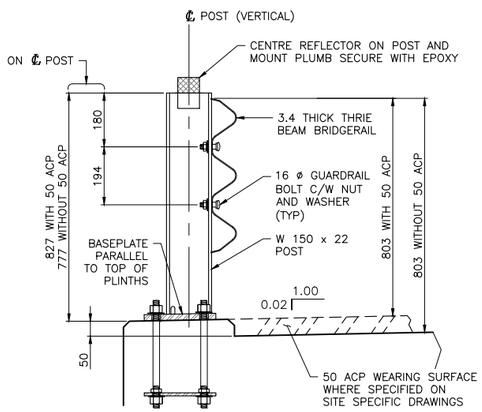
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- RAILING CONFIGURATION IS BASED ON A RAILING CONFIGURATION THAT HAS BEEN CRASH TESTED AND MEETS THE REQUIREMENTS OF PERFORMANCE LEVEL I OF THE AASHTO GUIDE SPECIFICATIONS OR BRIDGE RAILING, 1989. (EQUIVALENT TO TEST LEVEL 2)
- RAILING SHALL NOT BE USED WITH CURB.
- RAILING SHALL BE USED FOR CLEAR ROADWAYS LESS THAN 9.0 m WIDE ONLY.
- DESIGN OF DECK REINFORCING SHALL BE CARRIED OUT ON A SITE SPECIFIC BASIS TO DEVELOP THE CAPACITY OF THE BRIDGERAIL POSTS BASED ON Fy = 350 MPa.

FABRICATION

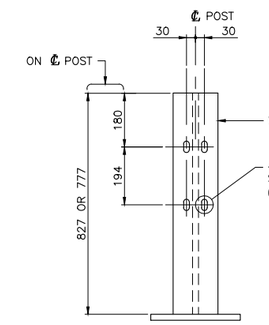
- BRIDGERAIL INCLUDING APPROACH RAIL TRANSITION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 12 AND SECTION 14.
- ALL PLATE STEEL AND STRUCTURAL SHAPES SHALL CONFORM TO CSA G40.21 GRADE 350W OR ASTM A36.
- ALL GUARDRAIL BOLTS, NUTS AND WASHERS SHALL CONFORM TO AASHTO M180.
- ANCHOR RODS SHALL CONFORM TO ASTM A193 GRADE B7 (Fy = 720 MPa, Fu = 860 MPa). GALVANIZING OF ANCHOR RODS SHALL BE IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION.
- ANCHOR ROD NUTS AND WASHERS SHALL CONFORM TO ASTM A563 AND F436 RESPECTIVELY UNLESS NOTED OTHERWISE.
- ALL W–BEAM AND THRIE BEAM GUARDRAIL (INCLUDING W–THRIE BEAM TRANSITION SECTION) SHALL HAVE A MINIMUM YIELD STRENGTH OF 345 MPa.
- TIMBER POSTS AND SPACERS SHALL BE COAST DOUGLAS FIR, PACIFIC COAST HEMLOCK OR LODGEPOLE PINE CONFORMING TO THE STRESS GRADE "SELECT STRUCTURAL POSTS AND TIMBERS" (NLGA PARAGRAPH 131 a)
- ALL WELDING SHALL CONFORM TO CURRENT AWS SPECIFICATION D1.5.
- ALL STEEL MATERIALS SHALL BE HOT–DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123/A123M AND ASTM F2329 UNLESS NOTED OTHERWISE.

ERECTION

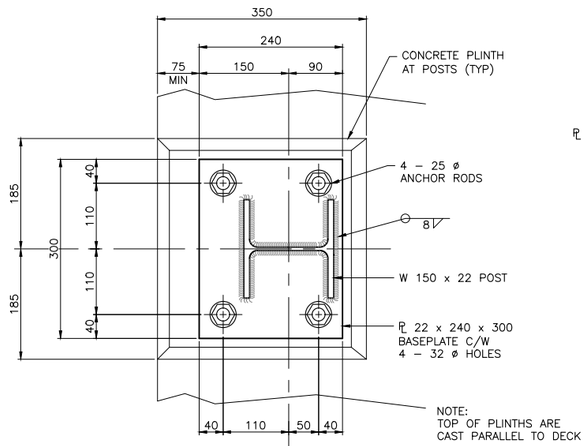
- BRIDGERAIL ANCHOR RODS SHALL BE TIGHTENED AN ADDITIONAL ⅓ TURN OF THE NUT PAST THE "SNUG FIT" CONDITION.
- ALL POSTS SHALL BE PERPENDICULAR TO LONGITUDINAL ROADWAY GRADE.
- ALL DIMENSIONS ARE MEASURED PARALLEL TO THE TOP OF BRIDGE DECK AND ALONG THE CENTRELINE OF ANCHOR ROD ASSEMBLIES.
- LINE AND ELEVATION OF RAIL SHALL HAVE A TOLERANCE OF 6 mm.
- ALL NON–STANDARD GUARDRAIL LENGTHS SHALL BE SAW CUT TO SUIT AND ALL NON–STANDARD GUARDRAIL HOLES SHALL BE DRILLED. FLAME CUTTING OF GUARDRAIL SHALL NOT BE ALLOWED. APPLY TWO COATS OF ZINC RICH PAINT ON AREAS DAMAGED BY SAW CUTTING OR DRILLING.

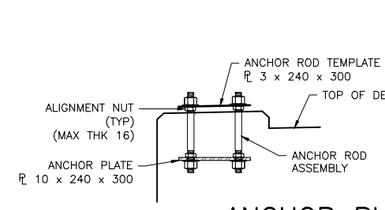


A SECTION
1:10



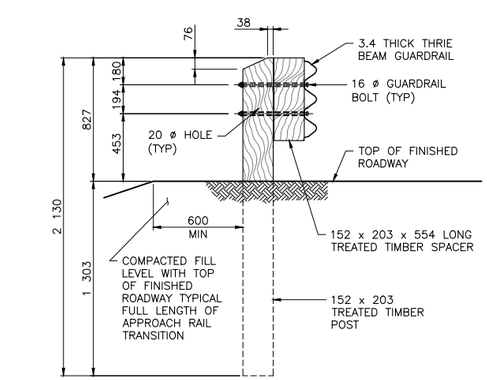
POST DETAIL
1:10



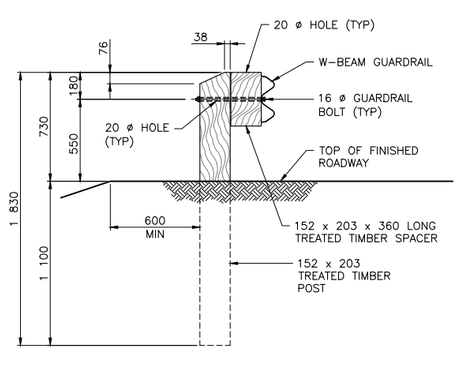


ANCHOR PLATE AND ANCHOR ROD TEMPLATE DETAIL
1:10

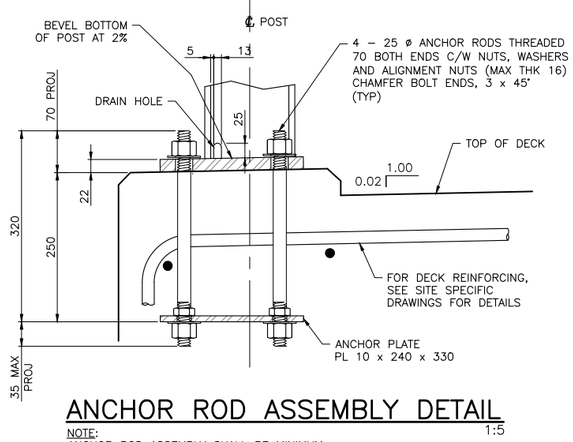
NOTE:
ANCHOR ROD TEMPLATE C/W NUTS AND ALIGNMENT NUTS TO BE INSTALLED DURING FABRICATION OF ANCHOR ROD ASSEMBLIES. ANCHOR ROD TEMPLATE AND ALIGNMENT NUTS TO BE REMOVED AFTER PLACING OF DECK OR GIRDER CONCRETE AND PRIOR TO INSTALLATION OF W 150 x 22 POST.



B SECTION
1:20



C SECTION
1:20



ANCHOR ROD ASSEMBLY DETAIL
1:5

NOTE:
ANCHOR ROD ASSEMBLY SHALL BE MINIMUM
25 CLEAR FROM BOTTOM OF DECK OR GIRDER

Government of Northwest Territories

Consultant Logo

Rev	Date	Description	Init

REVISIONS

Government of Northwest Territories

STANDARD DRAWING

TL–2 THRIE BEAM BRIDGERAIL

WITH STRONG POST W–BEAM

DESIGNED	K. HABEL	DATE OCTOBER 25, 2024
CHECKED	K. WILLIS	DATE OCTOBER 25, 2024
DRAWN	T. CHIU	DATE OCTOBER 25, 2024
SCALE	AS SHOWN	

PERMIT TO PRACTICE
ASSOCIATED ENGINEERING (B.C.) LTD.
Signature
Date 2024-11-15
PERMIT NUMBER: P 554
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

PREPARED UNDER THE DIRECTION OF
K. HABEL
ENGINEER OF RECORD
DATE OCTOBER 25, 2024

PROJECT No.

DRAWING No.
S–007–24

CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: \\AE-CA\DATA\WORKING\VAN\2021-2234-00\STRU\MODEL\S-007-24.DWG
PLOTTED : October 25, 2024