

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. RAILING CONFIGURATION IS BASED ON A RAILING CONFIGURATION THAT HAS BEEN CRASH TESTED AND MEETS THE REQUIREMENTS OF PERFORMANCE LEVEL 2 OF THE AASHTO GUIDE SPECIFICATIONS FOR BRIDGE RAILING, 1989.
3. RAILING SHALL BE USED WITH CURB CONFIGURATION SHOWN.
4. DESIGN OF DECK AND CURB REBAR SHALL BE CARRIED OUT ON A SITE SPECIFIC BASIS TO DEVELOP THE CAPACITY OF THE BRIDGERAIL POSTS.

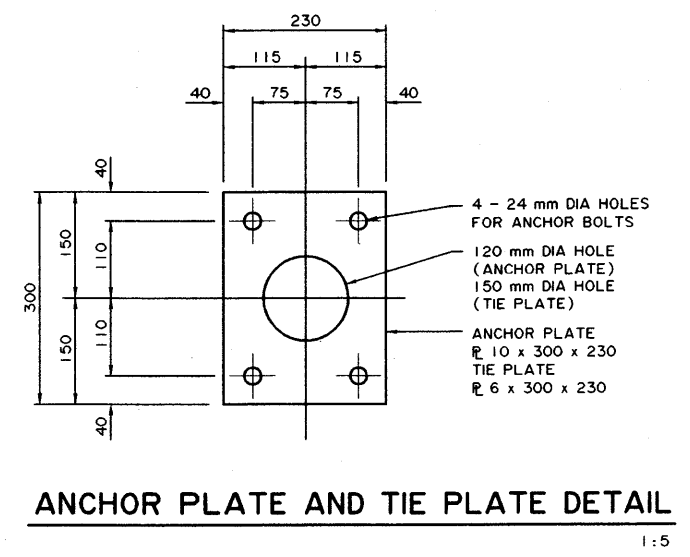
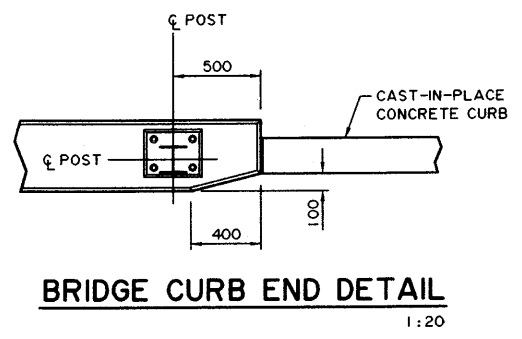
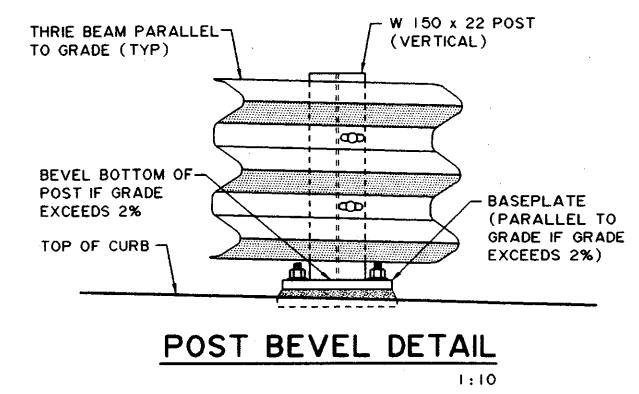
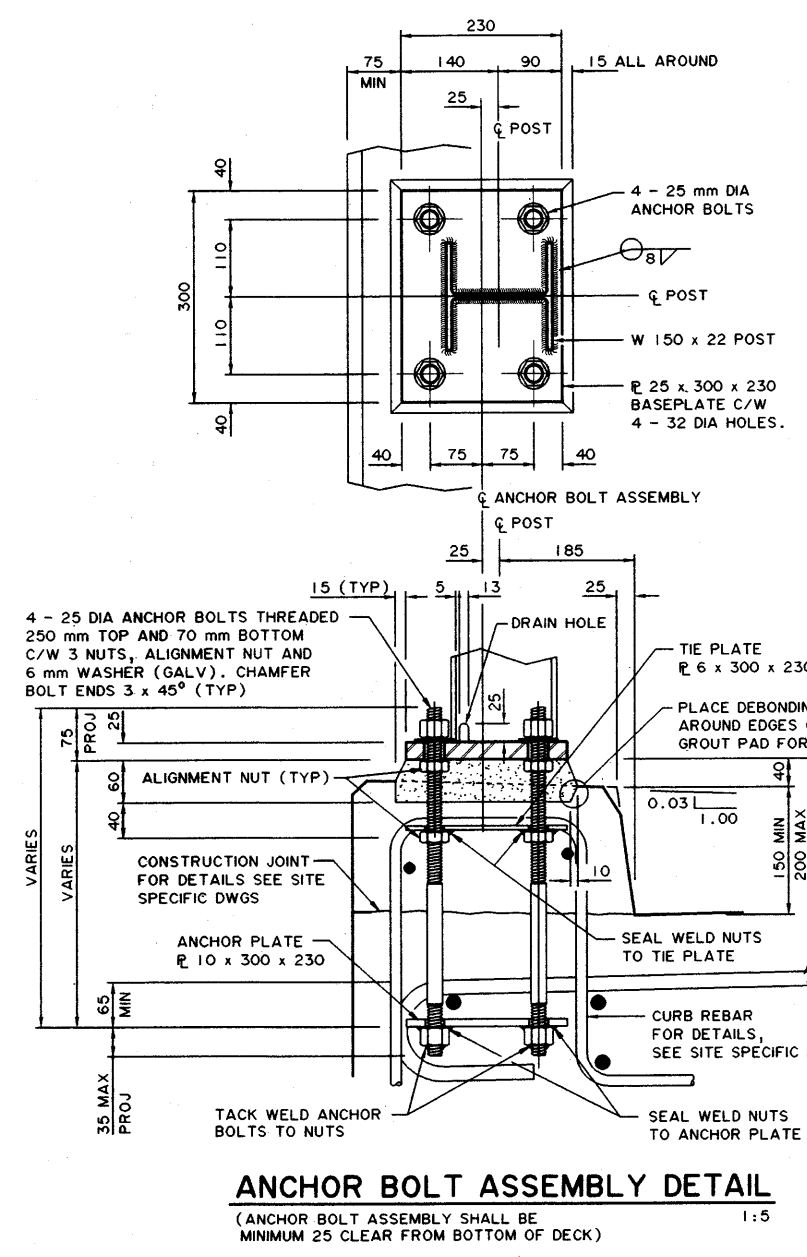
FABRICATION

1. BRIDGERAIL INCLUDING APPROACH RAIL TRANSITION SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 12 - BRIDGERAIL AND SECTION 14 - GUARDRAIL.
2. ALL PLATE STEEL AND STRUCTURAL SHAPES SHALL CONFORM TO CSA G40.21 GRADE 300W, OR ASTM A36.
3. ALL ANCHOR BOLTS SHALL CONFORM TO AISI 4140 ANNEALED AND SHALL HAVE A MINIMUM YIELD STRENGTH (AT 0.2% OFFSET) OF 420 MPa AND A MINIMUM ULTIMATE TENSILE STRENGTH OF 650 MPa. ALL NUTS AND WASHERS SHALL CONFORM TO A325.
4. ALL W-BEAM AND THRIE BEAM GUARDRAIL (INCLUDING THRIE BEAM TERMINAL CONNECTOR AND W-THRIE BEAM TRANSITION SECTION) SHALL HAVE A MINIMUM YIELD STRENGTH OF 345 MPa.
5. TIMBER POSTS AND SPACERS SHALL BE COAST DOUGLAS FIR OR PACIFIC COAST HEMLOCK CONFORMING TO THE STRESS GRADE "SELECT STRUCTURAL POSTS AND TIMBERS" (NLGA PARAGRAPH 131 a).
6. ALL WELDING SHALL CONFORM TO CURRENT AWS SPECIFICATION D1.5.
7. POST BASEPLATES SHALL BE PLACED ON BEVEL IF ROADWAY GRADE EXCEEDS 2% (SEE POST BEVEL DETAIL).
8. ALL STEEL MATERIALS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH CSA G164 UNLESS NOTED OTHERWISE.
9. THE BOTTOM SURFACE OF THE BASEPLATES SHALL BE COATED WITH AN APPROVED COATING SYSTEM, SUITABLE FOR APPLICATION ON GALVANIZED STEEL, TO PREVENT CONTACT BETWEEN THE ZINC AND THE GROUT. THE COLOUR SHALL BE MEDIUM GREY.

ERECTION

1. BRIDGERAIL ANCHOR BOLTS SHALL BE TIGHTENED AN ADDITIONAL 1/3 TURN OF THE NUT PAST THE "SNUG-TIGHT" CONDITION EXCEPT FOR ANCHOR BOLTS WHICH SHALL BE TIGHTENED AN ADDITIONAL 1/2 TURN OF THE NUT PAST THE "SNUG TIGHT" CONDITION.
2. ALL POSTS SHALL BE VERTICAL.
3. ALL DIMENSIONS ARE MEASURED PARALLEL TO TOP OF CURB AND ALONG THE CENTRELINE OF ANCHOR BOLT ASSEMBLIES.
4. LINE AND ELEVATION OF RAIL SHALL BE SET BY INSTRUMENT. DATE SHEET
5. 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.

• WORK THESE DRAWINGS TOGETHER: S-1648-00 AND S-1649-00



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<p>UMA Engineering Ltd. Engineers, Planners & Surveyors</p>	<p>PERMIT TO PRACTICE UMA ENGINEERING LTD. Signature: <i>[Signature]</i> Date: <i>Nov 21, 2000</i></p> <p>PERMIT NUMBER: P329 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	<p>DESIGNER PROFESSIONAL ENGINEER ALBERTA ROBERT JOHN DATE: <i>Nov 21, 2000</i></p>	<p>CHECKER PROFESSIONAL ENGINEER ALBERTA DAKE B. SEYMOUR DATE: <i>Nov 21, 2000</i></p>	<p>RECOMMENDED DIRECTOR BRIDGE ENGINEERING <i>[Signature]</i></p> <p>APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH <i>[Signature]</i> DATE: <i>22 Nov 00</i></p>	<p>Alberta INFRASTRUCTURE</p> <p>PL-2 THRIE BEAM ON CURB BRIDGERAIL BRIDGERAIL DETAILS</p> <p>F500732</p>
	<p>DATE: <i>Nov 21, 2000</i></p>	<p>DATE: <i>Nov 21, 2000</i></p>	<p>DATE: <i>22 Nov 00</i></p>	<p>2000-06-21 1 of 2</p>	<p>DRAWING S-1648-00</p>