

GENERAL NOTES:

SPECIFICATIONS: MATERIALS AND CONSTRUCTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE CURRENT ADOPTED USDA FOREST SERVICE SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES, AS MODIFIED FOR THIS CONTRACT.

LOG MEMBERS: LOGS USED FOR STRINGERS SHALL BE ONE OF THE SPECIES LISTED IN TABLE 1.1 WITH MINIMUM, PEELLED, MID-SPAN LOG DIAMETERS AS NOTED FOR THE VARIOUS SPANS AND DESIGN LOADING. TREES TO BE USED FOR BRIDGE STRINGERS SHALL BE STRAIGHT SOUND, AND FREE OF DEFECTS AND ROT. STRINGERS SHALL BE CHOSEN FROM TREES WITH RELATIVELY FEW LIMBS, AND HAVE NO KNOT GREATER THAN 3" IN DIAMETER. LOGS SHALL BE NOTCHED AT ENDS TO CREATE A LEVEL BEARING SURFACE AT SUPPORTS TAKING CARE TO AVOID OVERCUTTING. NOTCH UPPER SURFACE OF LOGS TO PROVIDE A LEVEL BEARING SURFACE FOR DECK PLANKS. REFER TO PLANS FOR NOTCHING DETAILS.

TIMBER & LUMBER: SOLID SAWN TIMBER MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF THE GRADING RULES AGENCY FOR THE SPECIES, TYPE, AND GRADE SPECIFIED BELOW.

DECK PLANKS, CURB ELEMENTS, - COASTAL REGION DOUGLAS FIR-LARCH ROUGH SAWN
SLITS AND BACKING PLANKS No.1 GRADE, GRADING RULES AGENCY - WMPA, WCLIB
RUNNING PLANKS - COASTAL REGION DOUGLAS FIR-LARCH ROUGH SAWN No.2 GRADE, GRADING RULES AGENCY - WMPA, WCLIB

BRIDGE RAILS & POSTS (SEE PROJECT CRITERIA)
SAWN - UNTREATED
- REDWOOD, S4S, No.1 GRADE
- GRADING RULES AGENCY - WMPA, WCLIB
- WESTERN RED CEDAR, S4S SELECT STRUCTURAL GRADE
- GRADING RULES AGENCY - WMPA, WCLIB
- HEM-FIR/DOUGLAS FIR, S4S, No.1 GRADE
- GRADING RULES AGENCY - WMPA, WCLIB

POLES
- LODGE POLE PINE & PONDEROSA PINE PEELLED AND DRIED
- GRADING RULES AGENCY - NILGA

TREATMENT: SEE PROJECT CRITERIA FOR MEMBERS IDENTIFIED TO BE TREATED AND FOR TREATMENT TYPE. PRESERVATIVE TREATMENT SHALL BE IN ACCORDANCE WITH THE CURRENT AMPA SPECIFICATIONS USING THE REQUIREMENTS OF THE CURRENT EDITION OF WMP's "BEST MANAGEMENT PRACTICES FOR THE USE OF TREATED WOOD IN AQUATIC ENVIRONMENTS."

LOG STRINGERS, POSTS AND POLES
SOLID SAWN LUMBER
SOLID SAWN LUMBER AND POLES USED FOR BRIDGE RAILS AND POSTS
FIELD TREATMENT: COPPER NAPHTHENE (2% SOLUTION) SHALL BE FURNISHED FOR FIELD TREATING OF WOOD. ALL ABRASIONS AND FIELD CUTS - APPROVED BY THE C.O.R. - SHALL BE CAREFULLY TRIMMED AND GIVEN THREE BRUSH COATS OF THE FIELD TREATMENT SOLUTION. WHERE APPROVED FIELD DRILLING OF BOLT OR NAIL HOLES IS REQUIRED, THE HOLES SHALL BE POURED FULL OF PRESERVATIVE PRIOR TO INSERTING THE FASTENERS.

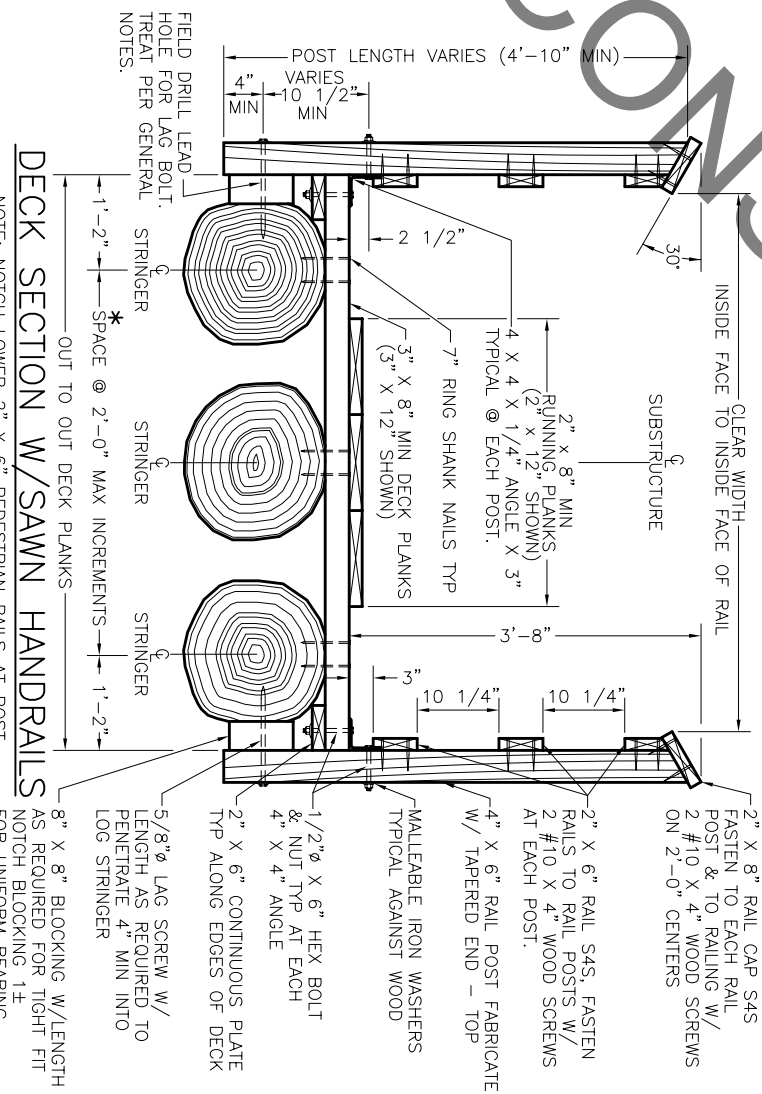
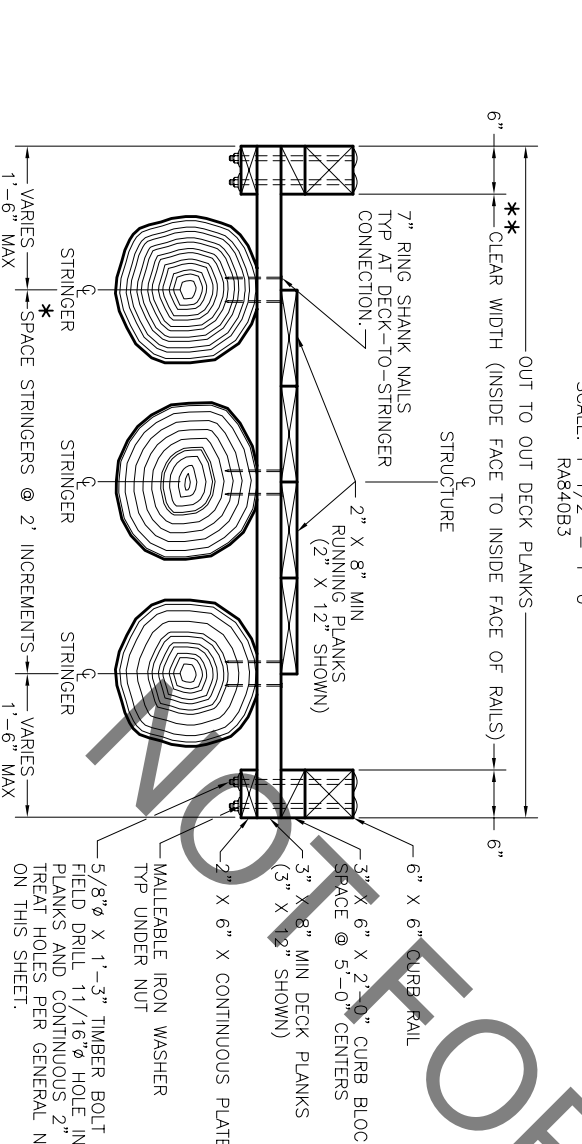
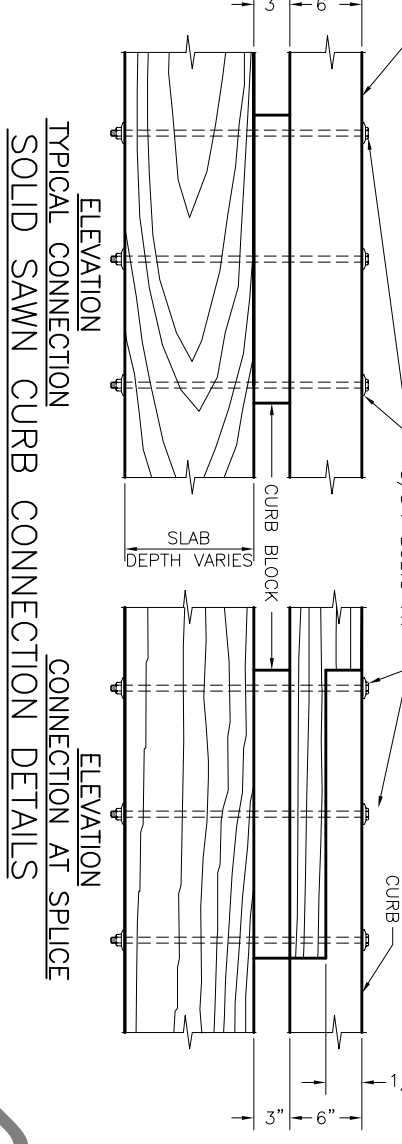
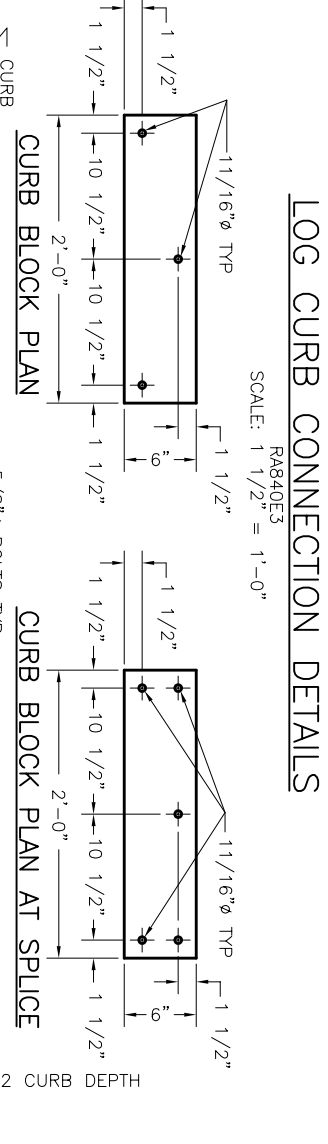
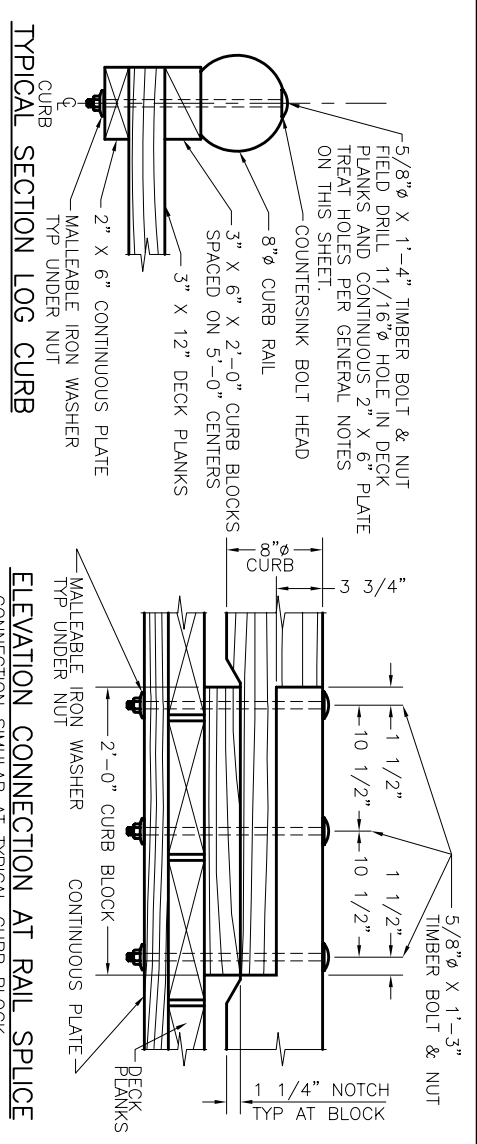
THE ENDS OF UNTREATED LOG STRINGERS (REFER TO THE PROJECT DESIGN CRITERIA) SHALL ALSO RECEIVE THREE BRUSH COATS OF THE FIELD TREATMENT PRIOR TO INSTALLATION OF THE BACKING PLANKS.

HARDWARE AND STRUCTURAL STEEL: SEE PROJECT DESIGN CRITERIA FOR STEEL HARDWARE FINISH. GALVANIZED OR UNFINISHED HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 36, WITH NUTS AND BOLTS CONFORMING TO ASTM A307. GRADE A WEATHERING STEEL AND HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 50W, WITH BOLTS AND NUTS CONFORMING TO ASTM A325, TYPE 3. USE MALLEABLE IRON WASHERS AGAINST WOOD UNLESS OTHERWISE NOTED.

WHEN STRUCTURAL STEEL IS TO BE WELDED, THE WELDING PROCEDURE SHALL BE IN ACCORDANCE WITH AWS D1.1 AND SHALL BE SUITABLE FOR THE GRADE OF STEEL AND INTENDED USE OR SERVICE.

FABRICATION: SUBMIT SHOP DRAWINGS FOR ALL MANUFACTURED BRIDGE COMPONENTS (EXCEPT TIMBER RUNNING PLANKS). SHOW ALL DIMENSIONS AND FABRICATION DETAILS FOR ALL CUT OR BORED TIMBER. FIELD DRILLING OF HOLES SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED ON THE PLANS.

TREES TO BE USED FOR STRINGERS SHALL BE PEELLED AND THEN HAVE AN ADDITIONAL 1/2" OF THE OUTER SAPWOOD REMOVED PRIOR TO BEING USED FOR STRINGERS. RA84003



*MINIMUM CLEAR WIDTH MAY BE CONTROLLED BY STRINGER DIAMETER AND REQUIREMENTS FOR A MINIMUM OF 3 LOGS.
RA840D3
SCALE: 1" = 1'-0"

APPROVED: _____ DATE _____
FOREST ENGINEER

DESIGNED: _____ DRAWN: _____ CHECKED: _____
DATE: 03/01/2004
REGIONAL BRIDGE ENGINEER

DO NOT SCALE - REDUCED -

| REV | DESCRIPTION | MOE | DATE |
|-----|---|-----|---------|
| Δ | REVISED TO R-6 STRUCTURES CAD STANDARDS | | 5/24/05 |

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
THE PACIFIC NORTHWEST REGION (R-6)

LOG STRINGER
10 FT - 45 FT LONG
TRAIL BRIDGE