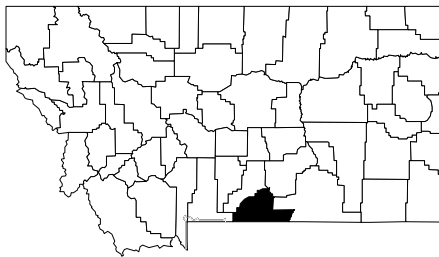
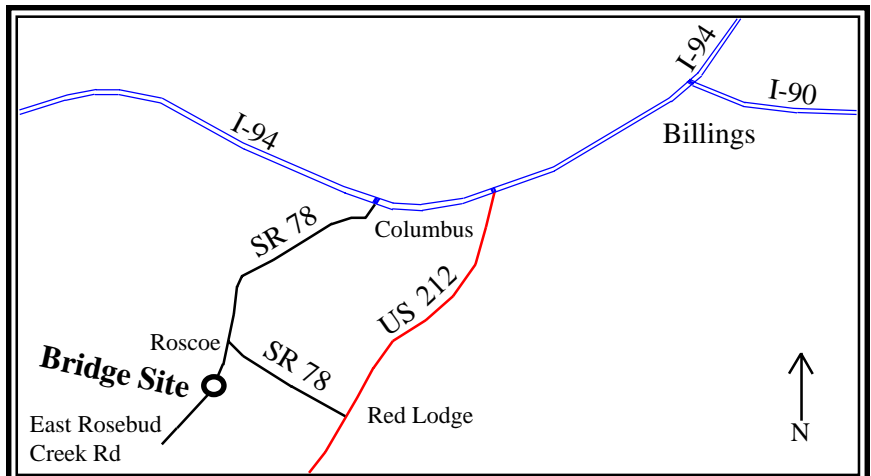


EAST FORK ROSEBUD CREEK BRIDGE, Carbon County, Montana



Type: Transverse Glulam Deck w/Glulam Beams
County: Carbon
Owner: Carbon County, Montana
Engineer: Ben Hurlbut
Spans over: East Fork Rosebud Creek
Bridge length: 128'-6"
Roadway width: 16'-0"

Directions: From Columbus and the intersection of I-94 and SR 78 take SR 78 south toward Roscoe. At Roscoe turn right onto East Rosebud Creek Rd. The bridge site is 3 miles from the intersection of SR 78 and East Rosebud Creek Rd.



USDA Forest Service

The National Wood In
Transportation Program



GEOMETRY

Number of Spans: 2	Design load: HS-20	Pier: Existing timber crib filled w/reinforced concrete
Out-to-out length: 128'-6"	Deadload: 325 lbs/ft/beam	Total project cost: \$140,600
Center-of-bearing span lengths: 62'-6"	Averaged daily traffic: 75	Total superstructure cost: \$88,000
Skew: 0 degrees	Superstructure design by: Ben Hurlbut	Total superstructure cost /sq ft: \$44.53
Number of lanes: 1	Abutment material: Wood	
Out-to-out width: 16'-0"	Abutment type: Treated timber, retaining wall, w/timber anchors & steel tie rods	
Rail-to-rail width: 15'-0"	Abutment height (bottom of footings to top of deck): 13'-6"	
Superstructure square footage: 2,056	Abutment design by: Merv Eriksson, USDA Forest Service	

MATERIAL

DECK

Material: Wood/glulam
 Species: Coastal Douglas-fir
 Allowable bending stress: 1920 psi
 Sizes used: 5-1/8" x 48" x 16'-0"
 Quantity: 10,127 bf
 Preservative treatment: Pentachlorophenol
 Wearing surface: 1/4" black steel plate

BEAMS/STRINGERS

Material: Wood/glulam
 Species: Coastal Douglas-fir
 Allowable bending stress: 2400 psi
 Sizes used: 8-3/4" x 42" x 60'-0" & 63'-0"
 No. and spacing: 4 @ 4'-4"
 Quantity: 15,068 bf
 Preservative treatment: Pentachlorophenol

GUIDERAIL POSTS

Material: Wood/glulam
 Species: Coastal Douglas-fir
 Sizes used: 6-3/4" x 7-1/2" x 5'-6"
 Preservative Treatment: Pentachlorophenol

GUIDERAIL

Material: Wood/glulam
 Species: Coastal Douglas-fir
 Size: 5-1/8" x 6"
 Preservative Treatment: Pentachlorophenol

ABUTMENTS

Material: Wood
 Species: Coastal Douglas-fir
 Grade: No. 1 or better
 Preservative treatment: Pentachlorophenol
 Hardware & structural steel: A36 (uncoated), A307 bolts & nuts (uncoated)

PIER:

Existing treated timber crib (8" x 8" members) top 2' filled with new reinforced concrete

LOCAL IMPACT: This bridge carries East Rosebud Creek Road over the East Fork of Rosebud Creek. Logging trucks, ranch equipment, and recreation traffic use the bridge.

BRIDGE PERFORMANCE: This single lane, 2 span, glued-laminated bridge replaced a 3 span timber/steel bridge (1 span-timber beams, 1 span-timber truss, and 1 span-steel beams). One mid-span, rock-filled, treated timber crib was repaired and filled with reinforced concrete.

FUNDING SOURCES: USDA Forest Service: \$45,100; Balance of funding from Carbon County, Montana.

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Information provided by Merv Eriksson, Structural Engineer, USDA Forest Service

WIT Program Proposal Number: R01-04-93 Federal Grant Identifier: R01-04-93