KEPLER-BRADLEY LAKES BRIDGE, Matanuska-Susitna Borough, Alaska

**Type:** Stress-laminated deck  
**Borough:** Matanuska-Susitna  
**Owner:** Matanuska-Susitna Borough  
**Built in:** 1998  
**Fabricator:** Alaska Forest Products  
**Engineer:** George Strother  
**Spans over:** Unnamed stream  
**Bridge length:** 16'-0"  
**Roadway width:** 12'-0"

**Directions:** From Wasilla, travel east on the Parks Highway to the intersection of Parks Highway and the Glenn Highway. Take the Glenn Highway east towards Palmer and travel 1.5 miles to the intersection of the Glenn Highway and Kepler Drive. Turn left onto Kepler Drive. The bridge site is visible from the highway.
**GEOMETRY**

Number of Spans: 1  
Out-to-out length: 16'-0”  
Center-of-bearing length: 15'-0”  
Skew: 0 degrees  
Number of lanes: 1  
Out-to-out width: 16'-6” (includes walkway)  
Curb-to-curb width: 12'-0” (roadway)  
Superstructure square footage: 240  

Design load: AASHTO HS-20  
Averaged daily traffic: 20  
Design by: Peratrovich, Nottingham & Drage, Inc.  
Abutment material: Wood  
Abutment wood quantity: 2760 bf  

Total wood quantity: 6,990 bf  
Total project cost: $58,735  
Superstructure wood quantity: 4230 bf  
Total superstructure cost: $19,940  
Total superstructure cost /sq. ft.: $83 (includes walkway)

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**MATERIAL**

**DECK**  
Material: Wood  
Grade: #1  
Species: Alaska white spruce  
Sizes used: 2” x 12” x 16’  
Quantity: 3000 bf  
Drying method: Air dry  
Preservative treatment: Copper sulfate & sodium fluoride  
Method: Double diffusion

**BEAMS/STRINGERS (none)**

**GUIDERAIL/HANDRAIL POSTS**  
Material: Wood  
Grade: #1  
Species: Alaska white spruce  
Quantity: 340 bf  
Drying method: Air dry  
Preservative treatment: Copper sulfate & sodium fluoride  
Method: Double diffusion

**GUIDERAIL CURB**  
Material: Wood  
Grade: #1  
Species: Alaska white spruce  
Size: 10” x 10”  
Quantity: 450 bf  
Preservative Treatment: Copper sulfate & sodium fluoride

**HANDRAIL**  
Material: Wood  
Species: Alaska white spruce  
Preservative treatment: Copper sulfate & sodium fluoride

**STRESSING STEEL**  
Grade: ASTM A722  
Manufacturer: Dywidag  
Bar Diameter: 1”  
Coating: Galvanized  
Quantity: 90 lf  
Bearing plate size: 9” x 12”

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**FUNDING SOURCES:** USDA Forest Service: $26,635; Balance of funding from Mat-Su Borough and Mat-Su RC&D Council

**LOCAL CONTACT:**  
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