Type: Stress-laminated deck  
Owner: City of Skagway  
Built in: 1998  
Fabricator: Hamilton Construction Co.  
Engineer: Frank W. Muchmore, P.E.  
Spans over: Nelson Slough  
Bridge length: 76'-0" (3 spans)  
Roadway width: 14'-4"  

Directions: From Skagway, take State Highway #2 north 2.3 miles to the intersection of Dyea Road and State Highway #2. Turn left onto the Dyea Road and after crossings the Taiya River, turn left onto Slide Cemetery Road (which is approximately 7.4 miles from the intersection of State Highway #2 and Dyea Road). From the intersection of the Dyea Road and Slide Cemetery Road proceed approximately .5 miles to a fork in the road and take the left fork, which takes you to the bridge site.
### GEOMETRY

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Spans</td>
<td>3</td>
</tr>
<tr>
<td>Out-to-out length</td>
<td>76'-0&quot;</td>
</tr>
<tr>
<td>Center-of-bearing length</td>
<td>75'-0&quot;</td>
</tr>
<tr>
<td>Skew</td>
<td>0 degrees</td>
</tr>
<tr>
<td>Number of lanes</td>
<td>1</td>
</tr>
<tr>
<td>Out-to-out width</td>
<td>16'-3&quot;</td>
</tr>
<tr>
<td>Superstructure square footage</td>
<td>1090</td>
</tr>
<tr>
<td>Curb-to-curb width</td>
<td>14'-4&quot;</td>
</tr>
<tr>
<td>Design load</td>
<td>AASHTO HS20-44</td>
</tr>
<tr>
<td>Design by</td>
<td>Muchmore Engineering, Int’l.</td>
</tr>
<tr>
<td>Abutment material</td>
<td>Rock filled gabion baskets</td>
</tr>
<tr>
<td>Total wood quantity</td>
<td>28.7 mbf</td>
</tr>
<tr>
<td>Total wood cost</td>
<td>$24,007</td>
</tr>
<tr>
<td>Total steel quantity</td>
<td>4750 lbs</td>
</tr>
<tr>
<td>Total project cost</td>
<td>$139,474</td>
</tr>
<tr>
<td>Total superstructure cost</td>
<td>$33,171</td>
</tr>
<tr>
<td>Total superstructure cost /sq. ft.</td>
<td>$30.43 (excludes cost of wood materials)</td>
</tr>
</tbody>
</table>

### MATERIAL

#### DECK
Material: Wood  
Grade: No. 1  
Species: Alaska yellow-cedar  
Sizes used: 3”x13”x16'-0”  
Quantity: 23.1 mbf  
Preservative treatment: None, decay-resistant species

#### BEAMS/STRINGERS (none)

#### GUIDERAIL CURB
Material: Wood  
Grade: No. 2  
Species: Alaska yellow-cedar  
Size: 6”x12”  
Preservative Treatment: None, decay-resistant species

#### GUIDERAIL
Material: Steel  
Size: Thrie-beam & w-beam  
Preservative treatment: Galvanized

#### GUIDERAIL POSTS
Material: Wood  
Grade: No. 2  
Species: Alaska yellow-cedar  
Quantity: 3.4 mbf  
Preservative treatment: None, decay-resistant species

#### STRESSING STEEL
Grade: ASTM A722  
Manufacturer: Dywidag  
Bar Diameter: 5/8”  
Coating: Galvanized  
Quantity: 720 lineal ft.  
Bearing plate size: 7”x3/4”x12”

### FUNDING SOURCES:
USDA Forest Service: $37,000; Balance of funding from the City of Skagway and other sources.

### LOCAL CONTACT:
Frank W. Muchmore, P.E.  
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Juneau, AK 99801  
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Information provided by Muchmore Engineering, Int’l.

WIT Program Proposal Number: R10-01-96  
Federal Grant Identifier: 96G-10-018

May 1999

State & Private Forestry  
Alaska Region