1992 â?? Pelican Creek Bridge

Description

Meta Fields

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Project Summary : 5-week construction of replacement bridge to access island
Project Location : On Chichagof Island approximately 80 miles west of Juneau in southeast Alaska
Mobility Impact Time : ABC: bridge constructed in five weeks Conventional: ABC is conventional construction in Alaska
Impact Category : Tier 5 (within 3 months)
Dimensions : 178-ft long and 19.08-ft wide three-span decked adjacent double-tee beam bridge (59.3 ft â?? 59.3 ft â?? 59.3 ft)
Average Daily Traffic At Time Of Construction : 100
Traffic Management : ABC is conventional construction in Alaska due to climate and terrain.
Existing Bridge Description : Built in 1992, the old one-lane timber bridge was structurally deficient and required rapid replacement to allow access for the small fishing communityâ??s new fire truck.
Replacement Or New Bridge : The new one-lane bridge consists of precast, pretensioned decked double-tee girders with precast pier and abutment caps on steel H piles. The superstructure cross-section consists of three adjacent 6.33-ft wide 2.67-ft deep girders with timber railing.
Construction Method : Construction requirements included staying out of the sensitive creek bed and completing work within a short time defined by the Department of Fish and Game. The Alaska DOT&PF chose a totally prefabricated bridge with all material, including rock for the approach fill, barged to the work site. The contractor floated in barges at high tide and anchored them in the creek. Crews drove the steel H piles from barges, drove a large-wheeled crane onto the barges, and then used the crane to install the caps. Cap pockets were filled with concrete. The crane was then used to erect the decked double-tee girders. The midspan diaphragms were then post-tensioned with 1-inch-diameter bars. No heavy equipment was lodged in the creek bed.
Contacts : Owner: Leslie Daugherty, P.E., S.E. Chief Bridge Engineer Alaska Department of Transportation and Public Facilities leslie.daugherty@alaska.gov 907-465-8891
Costs : The engineerâ??s estimate for this project was $219,000. The low bid was $296,000 ($77,000 = 35% higher than engineerâ??s estimate). There were three bidders. The cost per square foot of bridge was $87.
Funding Source : Federal and State
Contract Plans : 1
Year Abc Built : 1992
State : AK
Owner : State
Location : Rural
Spans : Three-span
Beam Material : Concrete
Max Span Length Ft : 59.3
Total Bridge Length Ft : 178
Construction Equipment : Conventional
State Id # : 1491
Nbi # : 1491
Latitude : 57.955
Longitude : -136.225
Project Delivery : Design-bid-build
Prefabricated Bridge Elements : adjacent T beam (double tee), precast pile cap, precast abutment cap
Miscellaneous Prefabricated : PT ducts/bonded, socket connection (in precast substructure)-(caps)
Abc Construction Equipment : Conventional
Specifications 0 Spec File : 2099

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