THE CITY OF TOGIAK
MULTI-PURPOSE DOCK
AND RAMP FACILITY
PROJECT 2013

SUMMIT
CONSULTING SERVICES Inc.

REMOTE PROJECT CONSTRUCTION MANAGEMENT
& DESIGN SERVICES
Anchorage Office: (907) 563-5675
Tok Office: (907) 291-2339
www.sesalaska.com

PND
ENGINEERS, INC.
The construction of this project was funded by the State of Alaska through a Legislation general obligation grant to the City of Togiak. The design for the Multi-Purpose Dock and Ramp Facility Project was funded by an ARRA Federal grant as a BIA IRR grant to the Traditional Council of Togiak. The Togiak Natives Ltd. Corporation provided the 6.4 acres of land for this needed project. This cooperation shows that the entire community worked together to get this project accomplished.
Togiak Multi Purpose Dock and Ramp Facility Project

The City of Togiak is working with Summit Consulting Services, Inc. to construct a PND designed multipurpose dock and ramp facility using force account methods in Togiak, Alaska.
Scope of work

- Construct Bulkhead
  - Install open cell sheet pile bulkhead
  - Install wye and anchor piles
  - Install safety ladders
  - Install tire fenders
  - Install signage and bollards
- Construct Boat Launch
  - Install under-layer rock
  - Install sleepers and timbers
  - Install concrete ramp panels
- Construct Armor Rock Protection
  - Install under-layer rock
  - Install armor rock
Material Extraction

Two Hill Quarry
Rock Blasting Preparation

Drilling Bore Holes for Dynamite
Explosive Material Logistics

Challenges of Shipping Explosive Material
Blasting Preparation

Placing Explosives after Drilling
Blasting Preparation

Views of Two Hill Quarry
Blasting Preparation

Workers Placing Explosives for Rock Blasting
Rock Blasting

Rock Blasting at Two Hill Quarry
Stockpiling Material

Rock and Gravel Stockpiled for Construction of Dock
Creating a Dock Pad

Building up a Dock Pad
Dock Layout

Setting the Dock Template
Cell Construction

Armor Rock Placement and 1st Cell Dock Construction
Cell Construction

Securing Anchor Points to the Template
Tail Walls and Template Faces

Installation of Tail Walls and Dock Cells
Filling and Compacting Cells

Filling and Compacting Individual Cells
Ramp and Armor Rock

Ramp Construction and Armor Rock Placement
Dock Construction

Constructing Cell Walls, Filling and Constructing Boat Ramp
2013 Construction Completion

Final Filling and Finishing Touches
2013 Construction Summary

- Mobilize to Togiak on July 1\textsuperscript{st}, 2013
- Interview & hire local force account crew
- Mine and Haul 10,000 CY of 8” minus shot rock for the Dock from Two Hills Quarry, working with Statewide Blasting
- Set off first shot for armor rock on August 17\textsuperscript{th}, yielding approximately 3,000 CY
- Second shot on September 27\textsuperscript{th} yielded approximately 2,888 CY
- Process materials to extract necessary armor and under layer rock
- Worked with Orion to drive sheet pile for the dock
- Infill cells with 8” minus shot rock material in one foot lifts, compacted each lift per specifications
- Began constructing boat ramp, excavation, lay-down filter fabric and place under layer rock
- Placed armor rock around the foundation of the boat ramp
2014 Construction Scope

- Trim piling to desired elevation after allowing settling
- Install bull rail, ladders and loader tire fenders as shown in the base bid scope
- Complete the boat ramp
- Complete additive alternates if funding becomes available
  - Install mooring bollards, dock face beam and fenders, crane foundations and signage
- Complete the final lift on the dock cell, fill and grade to elevations specified
- Cleanup site and demobilize