

USCG CORDOVA HOUSING SIDING & INTERIOR REPAIRS (PHASE I & II)



PROJECT NAME

U.S. Coast Guard (USCG) Cordova Housing Siding & Interior Repairs

LOCATION

Cordova, AK

OWNER

U.S. Coast Guard (USCG)

CLIENT

USCG

CONTRACT NO.

HSCG87-10-D-PJT037 / HSCG87-15-J-PJT017 (Phase I)

HSCG50-15-C-PJT168 (Phase II)

PROJECT VALUE

\$4,667,264

YEAR COMPLETED

2016

NAICS

236220

Despite an award-winning design, five-year-old US Coast Guard family housing units located in Cordova, Alaska experienced significant water leakages that eventually ruined floors and walls. By making small penetrations into interior walls, the Coast Guard confirmed high levels of humidity, indicating a risk to human health from mold and the possibility of structural failure from rot. Ahtna Environmental, Inc. (Ahtna) successfully performed the repairs and alterations needed to restore and improve all thirteen family housing duplex units in two phases.

Phase 1 was a pilot project to determine the extent of water damage to building structural conditions. The Coast Guard identified one duplex for investigation and evaluation. After demolishing the five layers within the wall structure, over 25% of the building's superstructure was discovered rotted through to the sheetrock. Working with the Coast Guard, improvements were made to the design of the fit-for-purpose siding system to ensure protection from future water intrusion in a location that experiences an average of 206 days a year of precipitation. After construction completion, the design and quality standards established on this pilot project unit were adopted as the standard for the remaining twelve duplex housing units.

Phase 2 included the demolition of exterior wall systems, major structural repair and design, installation of new framing, and installation of new siding, flashings, weather barrier system, doors, and windows of the remaining twelve duplex housing units.

Each of the twelve buildings presented a unique challenge because the extent of rot was unknown until the siding was removed. Though the housing unit evaluated and repaired during the pilot project was anticipated to be worst case scenario due to its location in the path of prevailing winds, the reality was that several units worked on during Phase 2 had worse rot conditions. Because of the risk to human health posed by rot and mold in the walls, quality assurance and quality control were stepped up several notches. Ahtna worked closely with the client to proactively manage deviations and propose/implement betterments, eliminating unnecessary materials and extra work, effectively saving the client over \$10,000.

Another challenge included performing work while the units remained occupied. This required active stakeholder management and customer service. Efforts were taken to negate human health risk and discomfort during the process by draping reinforced polysheeting, isolating work areas by establishing barrier walls, and delineating work areas with tape and fencing. The Ahtna site superintendent also established direct lines of communication with residents to ensure all concerns were addressed promptly.

