



## KITTERY, ME - SUBMARINE MAINTENANCE MODULES

### PROJECT INFO:

**OWNER:**

Portsmouth Naval Shipyard - U.S. Navy

**ENGINEER:**

Naval Facilities Engineering Command

**PROJECT VALUE:**

Confidential

**TECHNOLOGY / SCOPE:**

Repair and re-installation of Special Steel Modules

**PROJECT HIGHLIGHTS:**

Over 100 existing modules received significant structural and architectural upgrades while receiving completely new mechanical and electrical systems.



### ADDITIONAL DETAILS

This project provided for the repair and modernization of the removable submarine covers, which are mission-critical structures that enclose nuclear submarines during maintenance and refueling/defueling availabilities in Dry Dock Two at the Portsmouth Naval Shipyard. The system provides access into the Dry Dock and provides working platforms at five levels for full access to all areas of the submarine. The system includes power receptacles, lighting, compressed air, fire protection, and ventilation (with heating & cooling) to facilitate maintenance activities. Over 100 existing modules were rehabilitated with significant structural and architectural improvements. All mechanical and electrical systems were completely replaced. While upgrading the aged modules, energy savings were gained through the installation of a new automated HVAC system (14 air handling units) and a completely new electrical system. Further savings were gained by cladding the submarine enclosure modules with insulated metal panels and enhancing weatherization throughout. Total energy reduction of 8,813 MMBTU is projected annually.