



# Erie Maritime Museum

## *Project Update 7/3/2025*

As part of the Pennsylvania Historical and Museum Commission's strategic vision to own, operate, and maintain the U.S. Brig *Niagara*, Bristol Marine at Sample's Shipyard in Boothbay Harbor will work in partnership to meet current contract priorities. This document is meant to guide current discussions, communicate progress, and bring definition to ongoing planning and implementation.

### Critical Path Line Items:

1. 7/16/25 USCG inspector to provide more guidance of electrical upgrade requirements upon inspection and meeting with Technician. The inspector requested that formal questions be submitted in writing and recommended electrical circuit load analysis be completed for electronic upgrades. Electrical Technician to complete Engine Room main electrical distribution documentation. Drawings look to be matching the system but any upgrades may also require load analysis. Requires Change Order Request to complete technical drawings and repair/replacement.  
The Stem will be more accessible for inspection at that time as well.
2. 7/7/25 Finalize lumber orders for Planking. 7/20/25 Trip to Washington and Oregon for Douglas Fir selection. Stem & Bow Framing from White Oak, sourcing is in process.
3. 7/8/25 Riggers will be here prior to mast removal.
4. 7/8/25 Finalize lumber order for structural timber.
5. 7/9/25 Crane, down rig & locate masts on dock for initial inspection.
6. 7/21/25 Finalize Fastener Order. (*Portland Bolt* - Boat Spikes)  
Hood end and rabbit fasteners?

### In Process:

- Review & Approval of Invoice #002
- Drawing review for Engine Foundation & change order list.
- Electrical, mechanical and down rig planning.
- Continue with staging and bow demo.

## Priority Planning & Implementation:

### **Section 1: Haulout & Preparation**

- Blocking & haulout. **Complete**
- Wood frame & cover design.
- Staging layout & access.
- Down Rig planning, schedule and USCG mast and mast partner/deck inspection. Repairs require a Change Order Request.

### **Section 2: Tankage & Plumbing**

- Low Priority at this time.
- USCG requirements for Inspection of internal hull structure.

### **Section 3: Engine & Drivetrain, Peripheral Systems**

- Equipment removal planning.
- Naval Architect & USCG requirements for new equipment and drawing approval including engine foundations & exhaust modifications. Requires Change Order Request. **Concept drawings are approved and now require change order request for final installation design, mock ups, fabrication and installation.**
- **Engine room mechanical systems require possible modifications and final engineering. (Main Engine Exhaust has water jacketed pipe smaller than 6" Dia.; Fuel supply pipe sizes; Raw water strainer and intake piping; PTO foundations for auxiliary pump and alternator; Requires Change Order Request.**
- Remove shafts for inspection. Shaft replacement requires Change Order Request.

### **Section 4: Carpentry / Shipright Work**

- Staging / Access, Deck protection & Set-up.
- First phase of demolition for bow & stern above the waterline.
- Naval Architect & USCG requirements and approval for above waterline stem repair configuration and steel reinforcement. Requires Change Order Request.

### **Section 5: Electrical System Upgrade**

- Electrical Technician reviewing potential repairs and upgrades. Requires Change Order Request.
- Genset removal planning.
- Naval Architect & USCG requirements and approval for exhaust modifications and system upgrades. Requires Change Order Request.

### **Section 6: Close Out**

- Low priority at this time.

### PHMC ACTION ITEMS

|   |                                                                                                                                                                                         |         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|   | Delivery status of Engines, Gensets, Aquadrive units. <b>Equipment needed on site for final mock-up of foundations.</b>                                                                 |         |
|   | Payment status of invoice #1 & #2                                                                                                                                                       |         |
|   | Review of First Change Orders                                                                                                                                                           |         |
|   | USCG schedule for inspections. (Fastener pull, Internal Structural, Drydock, Mechanical and electrical system upgrade, Spars & Rigging, Stem 835)                                       |         |
| X | Above Waterline Stem Timber Repair Proposal. <b>Has been reviewed by Naval Architect and will require final design and approval after demo and assessment. Laminating is an option.</b> | 6/12/25 |
|   | Winterization of engines and systems including pump-out of black and grey water tanks.                                                                                                  |         |
|   | Review of lumber species and finalize initial orders.                                                                                                                                   |         |

### USCG ACTION ITEMS

|   |                                                                                                                                                                            |         |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|   | Inspection Schedule - Next inspection 7/16/25 Electrical & Stem                                                                                                            |         |
|   | Mechanical Systems Replacement Requirements                                                                                                                                |         |
|   | Electrical System Replacement/Upgrade Requirements                                                                                                                         |         |
|   | Masts & Rigging Inspection Expectations                                                                                                                                    |         |
| X | Naval Architecture & USCG Drawing Approvals - Engine & Genset Replacement, Engine Foundation Modifications, Steel Stem Fabrication, Engine & Genset Exhaust Modifications. | 6/12/25 |

### SHIPYARD ACTION ITEMS

|   |                                                                                                                                                                                                             |         |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| X | Lead Shipwrights inspection and planning to define the first phase of demolition for Bow & Stern above waterline repairs. <b>Removal of 15-20 planks above waterline, Port &amp; Stbd, Bow &amp; Stern.</b> | 6/12/25 |
| X | Diesel tech inspected the engine room to start planning removal.                                                                                                                                            | 6/17/25 |
| X | Haul out vessel and secure.                                                                                                                                                                                 | 6/25/25 |
|   | Build staging to surround the vessel.                                                                                                                                                                       |         |
|   | Main engine room electrical distribution report.                                                                                                                                                            |         |
|   | Downrigging and remove masts                                                                                                                                                                                |         |