TOWN OF PLYMOUTH
COMMUNITY PRESERVATION
COMMITTEE

MEMO

TO: Town Meeting, Board of Selectmen, and the Advisory & Finance Committee
From: The Community Preservation Committee
Date: Friday August 19, 2022
Re: ANNUAL SATM 2022: CPA Article 9D

ARTICLE 9D: To see if the Town will vote to appropriate from Community Preservation Fund receipts, transfer from Community Preservation Fund available funds or borrow to grant to Safe Harbors for the restoration, rehabilitation, and preservation of the historic façade, roof and interior of the 1857 Plymouth Foundry, known as the Marina; and to authorize the Select Board to enter into a grant agreement with and accept a historic preservation restriction from Safe Harbors pursuant to G.L. c. 44B, §12 and G.L. c. 184, §§31-33; or take any other action relative thereto.
COMMUNITY PRESERVATION COMMITTEE

CPC RECOMMENDATION: Approval (unanimous)
The Community Preservation Committee voted unanimously in favor of Article 9D, at its meeting held Thursday, August 18, 2022.

SUMMARY & INTENT: The Community Preservation Committee is recommending 9D to Fall Town Meeting 2022 for the historical restoration of the stone façade and interior renovations of the 1857 Plymouth Foundry located on Water Street and Union Street.

Safe Harbor Marinas, the owners of property, have filed an application with The Community Preservation Committee for Community Preservation Act Funds for the restoration of an original 1857 portion of the Marina that had been renovated in the 1940's. Since 1970, it is has been used as office space. The Bradford Area Commission is a neighborhood group that has worked with Safe Harbor Marinas to explore other designs, options and uses in order to preserve this section of the building. The CPC has hired a Building Conservation Specialist and a Cost Estimator to prepare a report on the cost of the proposed use and repairs.

FISCAL YEAR 2022-2023 APPLICATION

Project Name: Water/ Union Streets Facade and Cupola.

CPA Funding requested: $ TBD If the amount is unknown, will an appraisal be needed?

☐ Y ☐ N (If yes see page 14 of the appraisal process)

Total project cost: $ TBD

Category–check all that apply: ☑ Open Space/Recreation ☑ Historic ☐ Housing

Lot and Plot: 020-000-183A-000

Assessors Map #: 020

Number of acres in parcel: .32 (13, 904 sq. ft)

Number of proposed housing units: 0

Are there any existing deed restrictions on this property? ☐ No ☐ Don't know ☑ Yes/DESCRIBE

Describe restrictions below:

Chapter 91 License for marina.

Project Sponsor/Organization: SHM Plmouth LLC

Contact Name: Jason Heywood

Address: 14 Union Street, Plymouth, MA 02360

Phone #: 781-223-6147 E-mail: jheywood@shmarinas.com

DocuSigned by:
Jason Heywood
AC38C68388044C0...

6/14/2022
Date submitted

APPLICATION REQUIREMENTS:

A complete application consists of this application page (the specific amount of CPA funding is required), along with the following:

- A detailed description of the project explaining how your proposal benefits the Town of Plymouth and how it meets CPA goals and selection criteria outlined at the end of this application packet.
- Are there any special permit, variance or other approvals required? Are there any legal ramifications or impediments to this project?
- A detailed project budget including any additional revenue sources. Will there be any annual costs to the town once the project is operational?
- A project timeline.
- Additional supporting information such as photographs, plot plans, and maps (if applicable).
- Applicant must provide all title information for the property.
- Applicant must initial each page in the space provided.

PLEASE SEND 11 COPIES (DOUBLE-SIDED) OF YOUR APPLICATION TO:
The Community Preservation Committee, Plymouth Town Hall
26 Court Street, Plymouth, MA 02360

Applications may also be dropped off at the Town Clerk's office.
or in the CPC mailbox at Plymouth Town Hall.

The deadline for submitting an application is last Friday in February for Spring Town Meeting, and last Friday in June for Fall Town Meeting.

MEMORANDUM OF UNDERSTANDING

Project Name: Water/ Union Streets Facade and Cupola.

Applicant Name: SHM Plmouth LLC

Address: 14 Union Street, Plymouth, MA 02360

Phone #: 781-223-6147 E-mail: jheywood@shmarinas.com

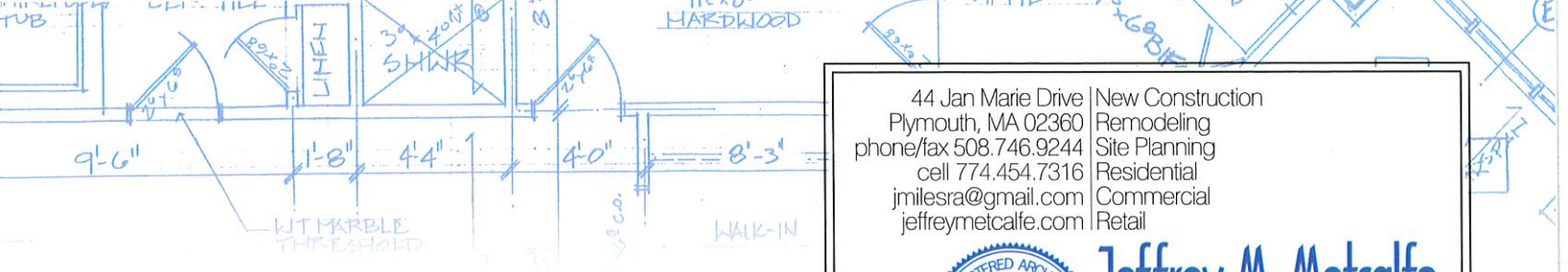
I understand that there are certain conditions and responsibilities involved in receiving CPA funding. My signature below indicates that I have read the following conditions and agree to follow them if my application is recommended to and approved by Town Meeting:

1. I understand that the funding process follows procedures described in the Community Preservation Act, M.G.L. Ch. 44B and that this places certain restrictions on how payments may be made.
2. In order to acknowledge the Community Preservation Act, and thus the contributions of the Plymouth taxpayers, I will:
   - Order, pay for and place a temporary "Community Preservation Works" sign or banner in front of the project. The Community Preservation Committee will provide the approved design. Approximate cost for the banner is generally $250-$300.
   - Acknowledge the contributions of the Community Preservation Act in all press releases, newsletters, and other publicity.
   - Include recognition of the Community Preservation Act if a permanent plaque or sign is placed on the project.
3. If requested I will supply the Community Preservation Committee with quarterly financial up-dates the project.
4. As needed, I will assist in the process of obtaining the required deed restriction to help protect the property in perpetuity.
5. The Applicant agrees to adhere to the intent and the spirit of the presentation made to Town Meeting.

Jason Heywood
Print Name

DocuSigned by:
Jason Heywood
AC38C68388044C0...
Signature

6/14/2022
Date



44 Jan Marie Drive | New Construction
Plymouth, MA 02360 | Remodeling
phone/fax 508.746.9244 | Site Planning
cell 774.454.7316 | Residential
jmilesra@gmail.com | Commercial
jeffreymetcalfe.com | Retail

REGISTERED ARCHITECT · JEFFREY M. METCALFE · COMMONWEALTH OF MASSACHUSETTS

Jeffrey M. Metcalfe
Registered Architect

Letter of Transmittal

Date: 7 Sept 2022
Job No: 22-045

To: Bill Keohan, Chairman
CPC

Re: Safe Harbor Marina
14 Union Street
Plymouth, MA

Attn:

Copy + : Lisa Howe, BCA via Email

WE ARE SENDING YOU **X** Attached Under separate cover Hand Delivered

Quan.	Date	No.	Description
1	18 Aug 2022	EX1-EX4	Existing Condition Drawings
1		7 pages	Existing Condition Photos
	6 Sept. 2022		Invoice to Date

These are transmitted as checked below:

For Approval	*Approved as submitted*	*Resubmit ___ copies for approval*
X *For your use*	*Approved as noted*	*Submit ___ copies for distribution*
As requested	*Correct & Resubmit*	*Return ___ corrected prints*
For review & comment	*Not Approved*	**FOR BIDS DUE –**
Reviewed no approval req'd		

REMARKS:

Signed: Jeffrey M. Metcalfe, R.A.
Jeffrey M. Metcalfe, R.A.

Safe Harbor Marina – 14 Union Street
Existing Conditions
Exterior

Safe Harbor Marina – 14 Union Street
Existing Conditions
Exterior

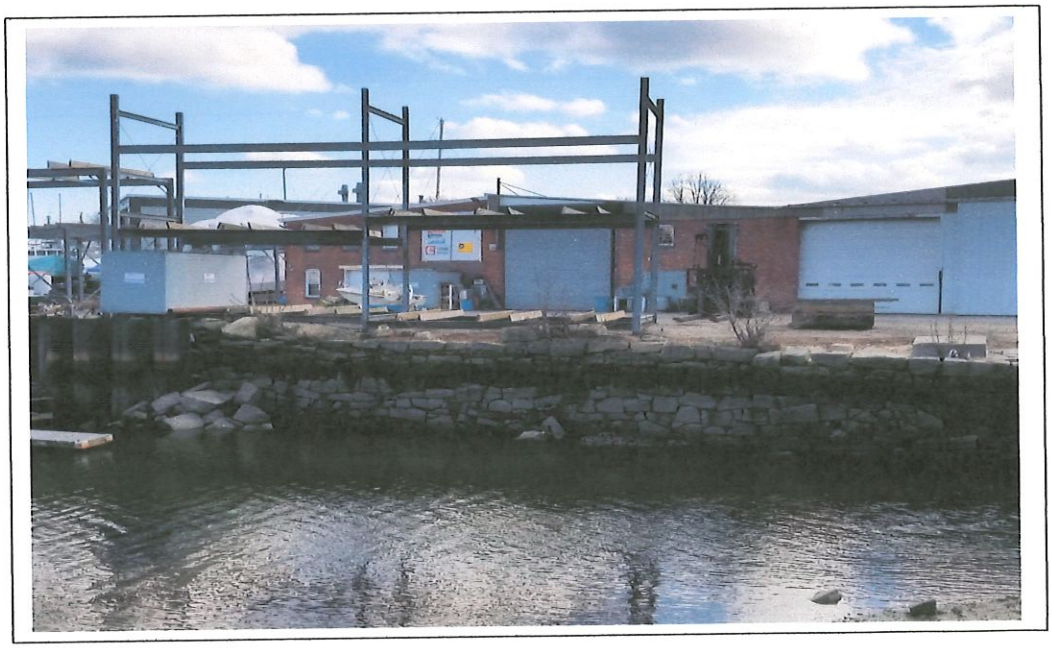
Safe Harbor Marina – 14 Union Street
Existing Conditions
Exterior

Safe Harbor Marina – 14 Union Street

Existing Conditions

Exterior

Safe Harbor Marina – 14 Union Street
Existing Conditions
Exterior



Safe Harbor Marina – 14 Union Street
Existing Conditions
Exterior

Safe Harbor Marina – 14 Union Street
Existing Conditions
Exterior

BCA

10 Langley Road
Suite 202
Newton Centre, MA
02459

617.916.5661 TEL
617.477.2350 FAX

bcausa.com

MEMORANDUM

To: Bill Keohan
Plymouth Community Preservation Committee
From: Lisa Howe
Lisa Harrington
Date: 8.30.22
Project: Safe Harbors – Plymouth Foundry Building
Re: Exterior Restoration Repair Scope Quantities

The following are estimated scope of repair quantities for the masonry, original wood trim and windows.

MASONRY

- Masonry Cleaning, 100% **1,080SF**
- Masonry Repointing 100% **1,080SF**
- Damaged/Spalled Brick Replacement **120SF**
- Replacement of Poorly Matched Replacement Brick **43SF**
- Repair of Spalled Granite with New Granite Dutchmen **2 locations**

ORIGINAL WOOD WINDOW RESTORATION

- Restoration of original circular wood windows – **2 windows**
- Restoration of large multi-pane original wood window – **1 window**
- Restoration of original double sash window – **1 window**
- Restoration of original wood cupola windows - **1 window**
- Fabrication and installation of new wood window frame and sash to replicate original fenestration pattern – **10 windows**

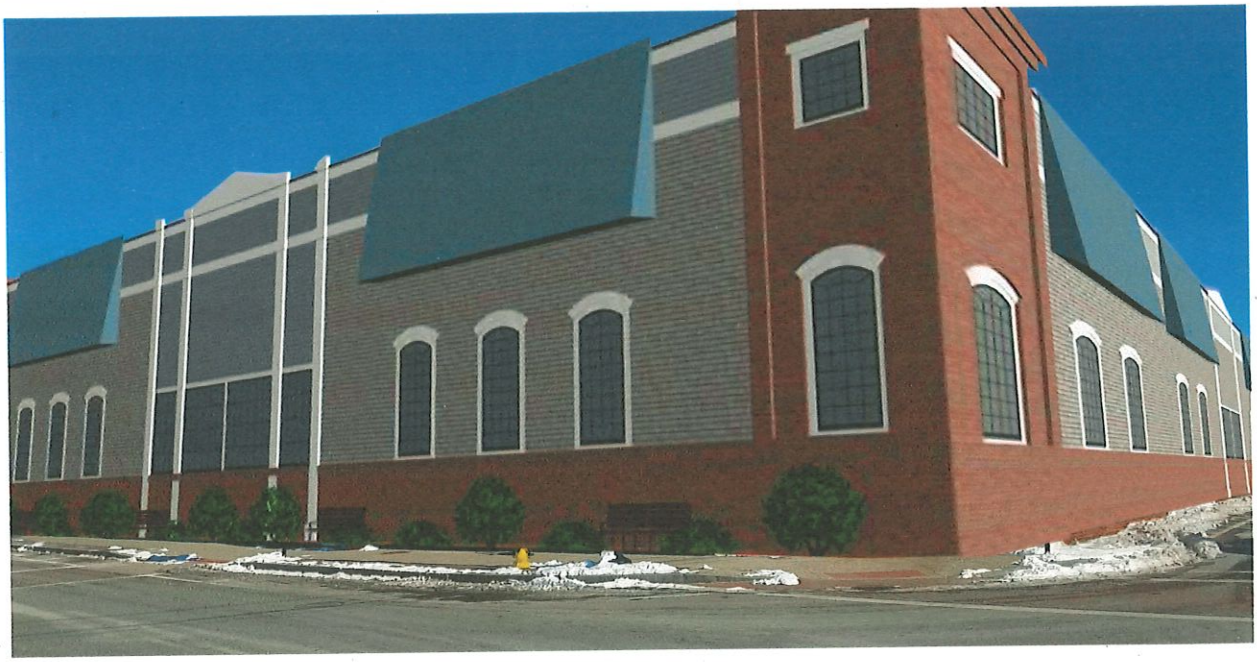
ORIGINAL WOOD CLADDING AND DECORATIVE TRIM

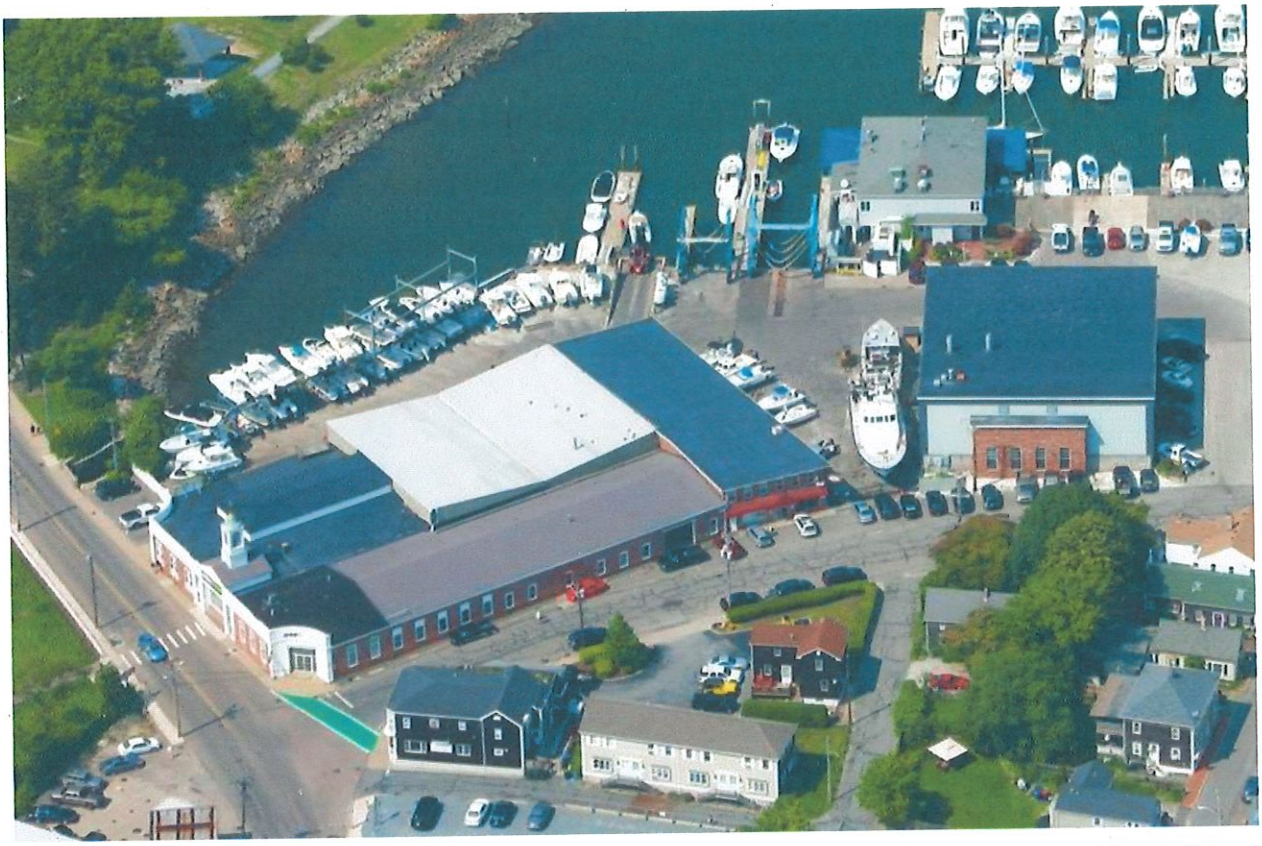
- Restoration of cupola wood cladding and trim – **assume 20% replacement of wood elements**
- Remove existing aluminum siding and trim – **100% removal**
- Assess underlying original wood siding and trim – **restore 75% of wood elements; replicate and install 25% new wood elements where missing or damaged**

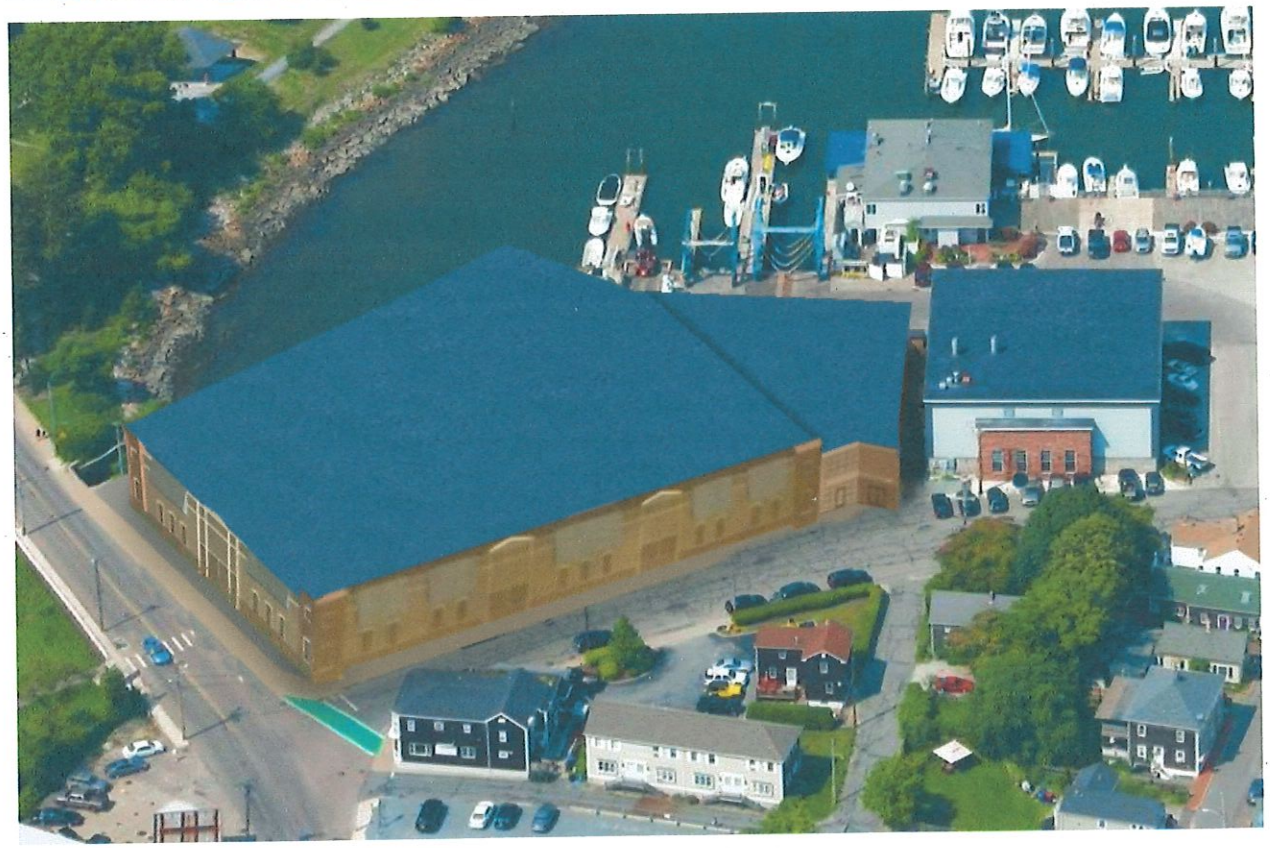
WEATHERVANE

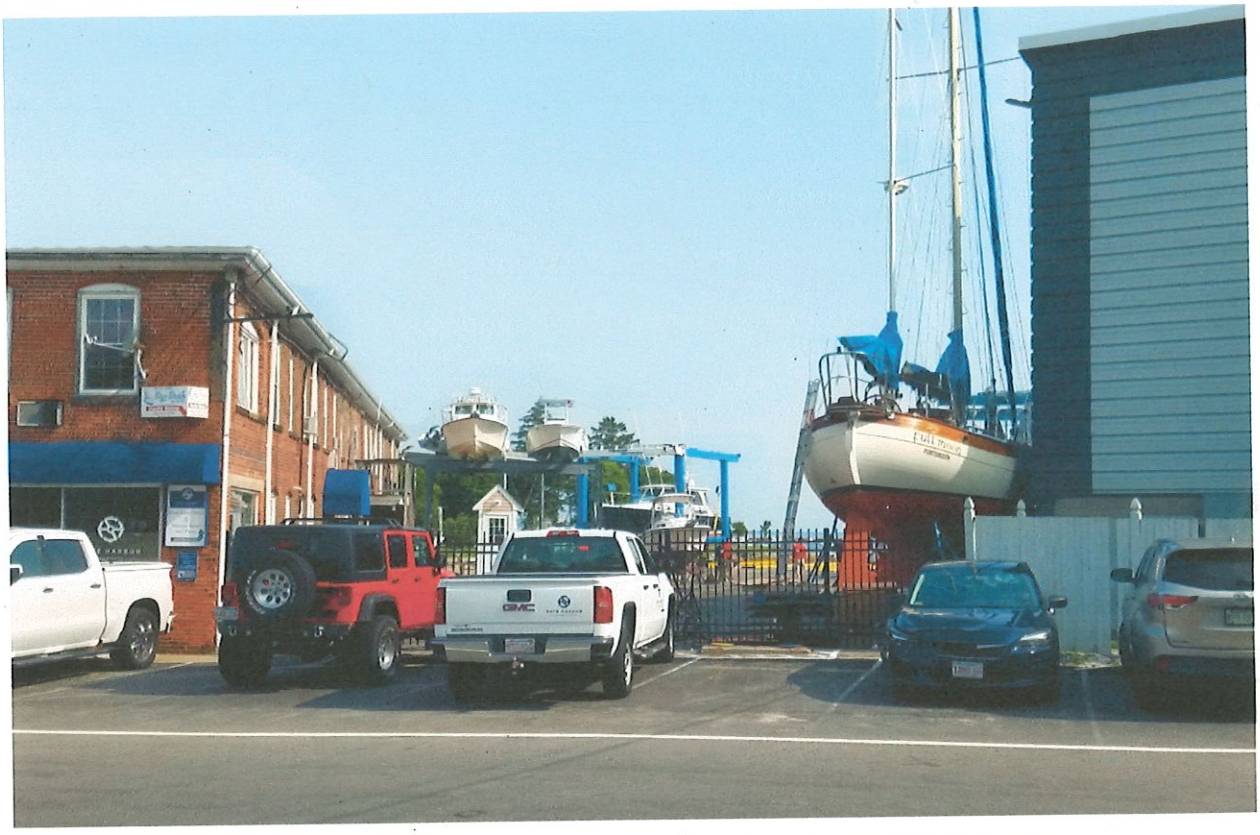
Remove, Restore and Reinstall Cupola Weathervane, including regilding of ship and fabrication of S and W direction letters


ZEBRASIGNS
ZEBRAVISUALS





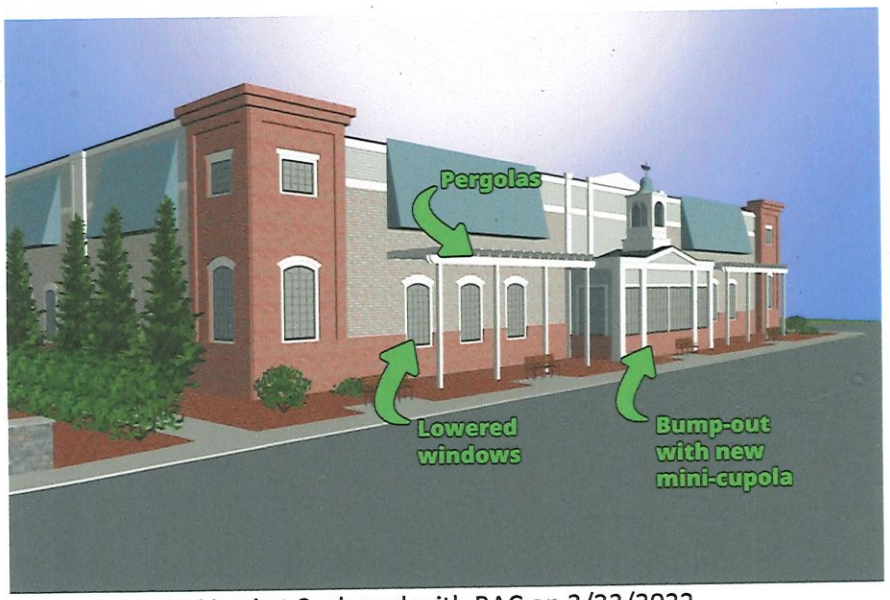




Comparison of the four "different" designs the Marina has offered

The Marina has repeatedly claimed that they've made changes to their design to try and make the neighbors happy. In actual fact, the very few changes they did make were minor and cosmetic and did not in any way address the concerns that had been raised. Note also that the only change that was something we'd actually asked for was lowering the windows. At the end of the day, their final version looks almost exactly like their original one, just without the awnings.

Version 1, shared with ConCom on 12/21/2021

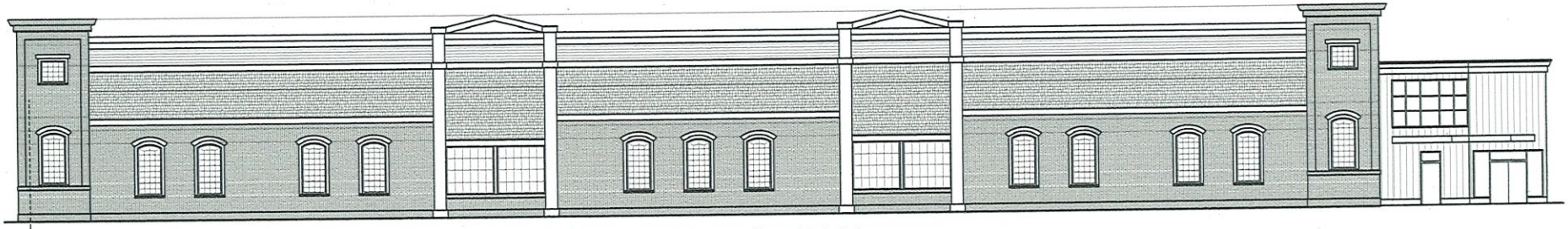


Version 2, shared with BAC on 3/23/2022

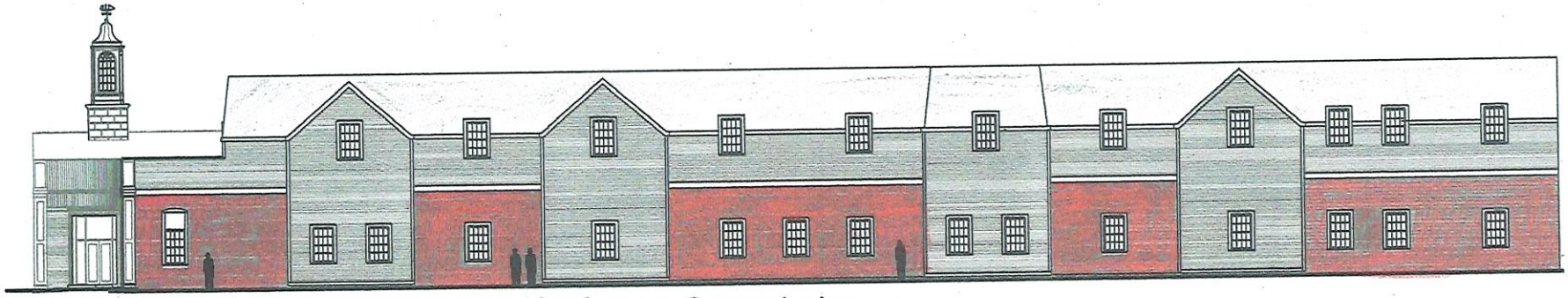
Version 3, shared with ConCom on 4/19/2022

Version 4, shared with Planning Board 5/18/2022

Union Street facade

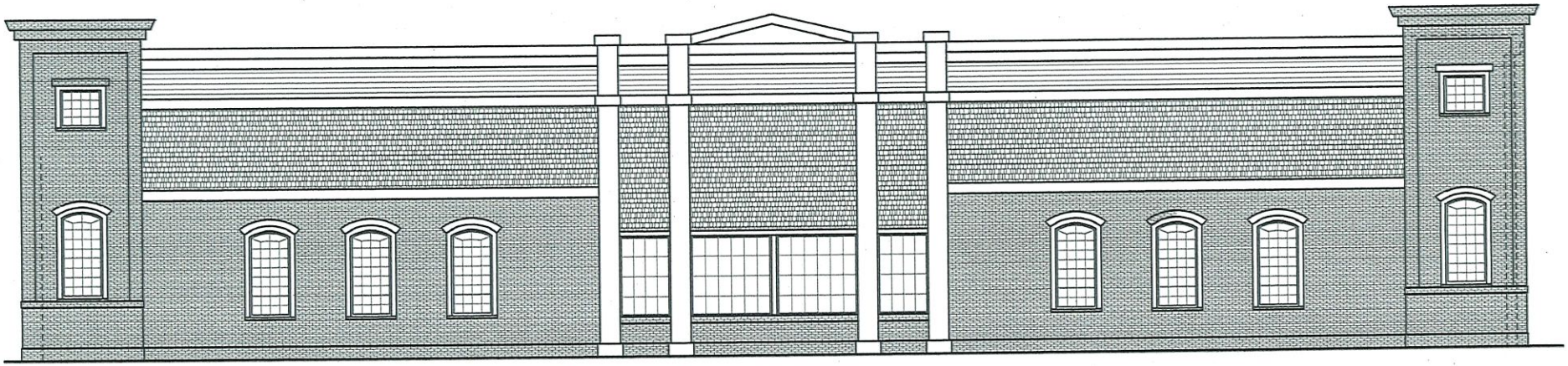


Submitted by Safe Harbor Marinas to Planning Board 5/2022

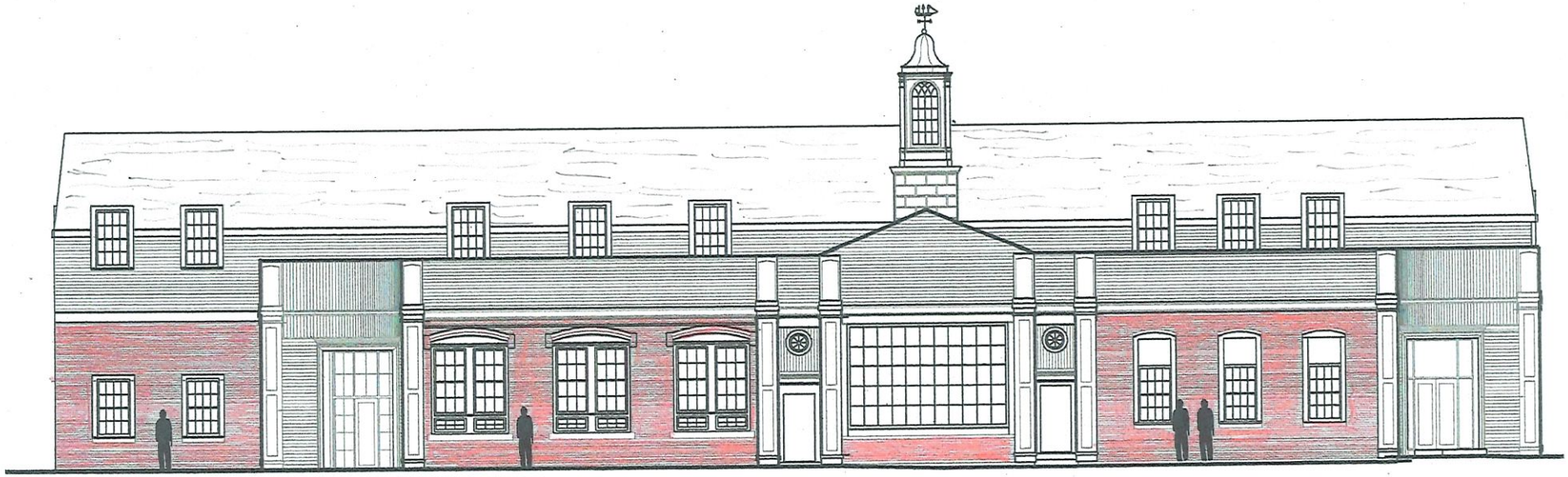


Alternate proposal by Bradford Area Commission

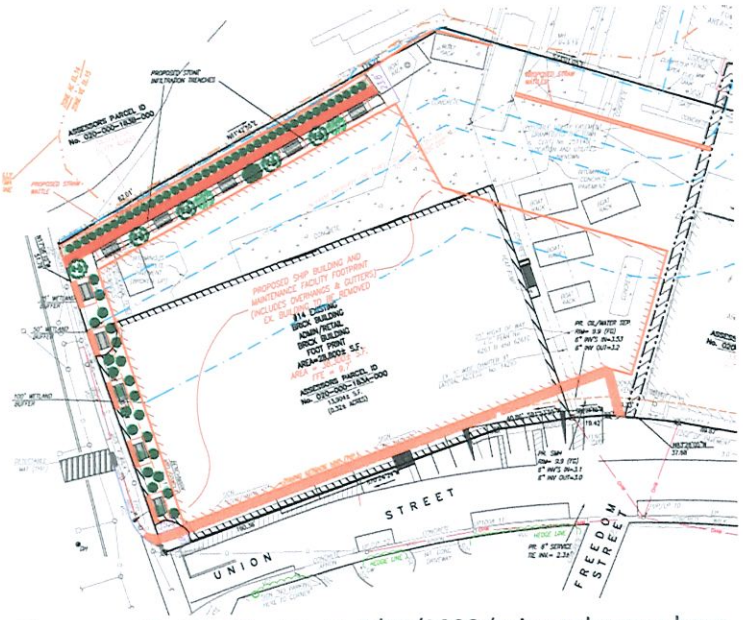
Water Street facade



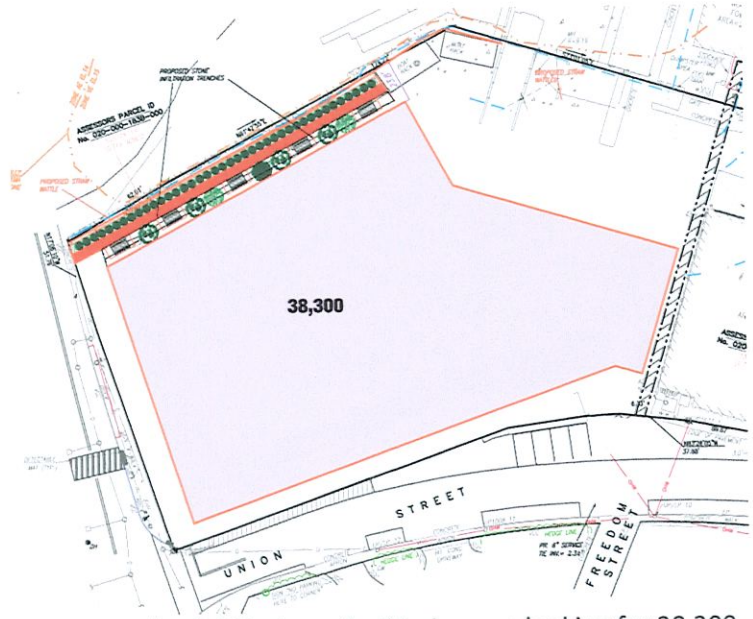
Submitted by Safe Harbor Marinas to Planning Board 5/2022



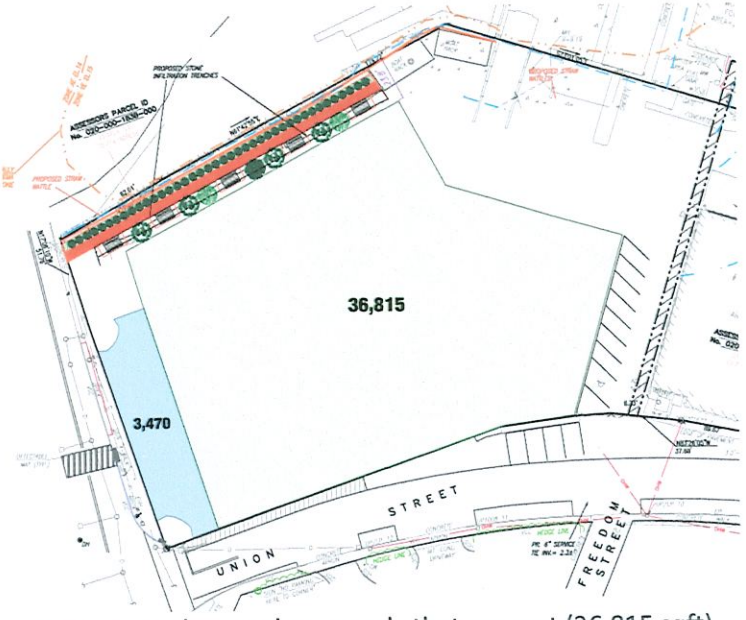
Alternate proposal by Bradford Area Commission



Plans provided by Marina on 3/23/2022 (minor changes have been made since, but nothing that substantially changes the main issues here)



In those 3/23/2022 plans, the Marina was looking for 38,300 sqft out of their new building



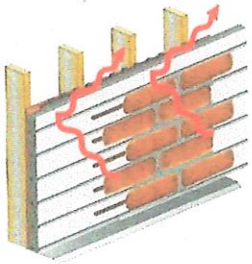
Our approach gave them nearly that amount (36,815 sqft) while allowing them to donate 3,470 sqft to the town

Or if they preferred, they could keep and restore the Water Street façade themselves, and gain a couple thousand extra square feet, coming in at 40,285 sqft total

brickpanel+
by oldmillbrick

THE MOST ADVANCED SYSTEM FOR EXTERIOR SURFACES

BRICKPANEL+ KEY FEATURES



Code-compliant Continuous Insulation (CI) for maximum energy efficiency.

Maximum design potential. Use foam thickness for Architectural Relief.

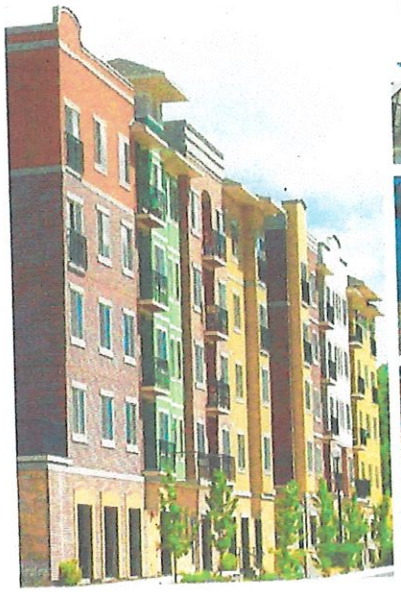
15-year System Warranty from the Sheathing out

PRODUCT FEATURES

- Time & labor saving. Faster install with guide channels.
- Light weigth and easy to handle, no sharp edges.
- Use with nearly all brands and sizes thin brick.
- High R-Value without thermal drift.
- Meets ASTM C10888, Type TBS, Grade Exterior standards.
- Meets ASTM E84-08 surface burn test standards.
- ASTM C482 bond strength restuls of 1,649 psf.
- United States Patents: 6,516,578 & 7,121,051

SYSTEM PRODUCTS

- BrickPanel+ Foam Panels
- Old Mill Air & Water Barrier
- Old Mill Fasteners
- Old Mill Adhesive
- Thin Brick Singles

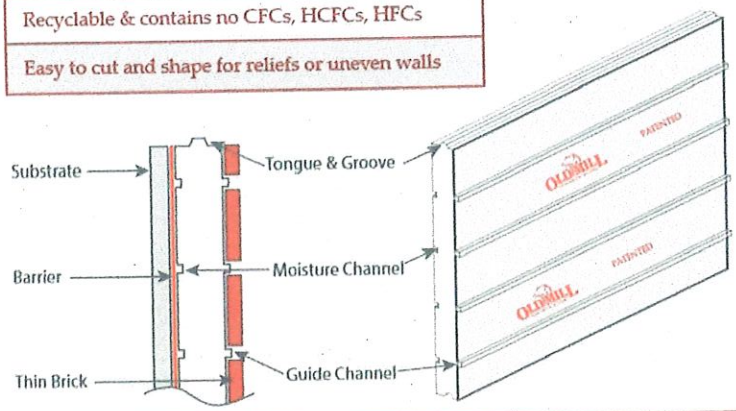


oldmillbrick.com

Products

Old Mill Patented Panels

Available in 2'x4' and 4'x4' sheets. 1"- 4" thick
Recommended component of LEED projects
Exeeds ASTM C578 for thermal insulation
Recyclable & contains no CFCs, HCFCs, HFCs
Easy to cut and shape for reliefs or uneven walls



Old Mill Fasteners

Greater flexibility reduces crushed EPS
36 holes to increase base coat adhesion
Unique color for easy identification
Great performance in hot or cold weather
Packaged for easy handling (Sleeves of 25)

Old Mill Adhesive

Easy to mix 50 lb. bag
Smooth, easy to trowel
Superior pull out strength
Meets ANSI 118.11 standards

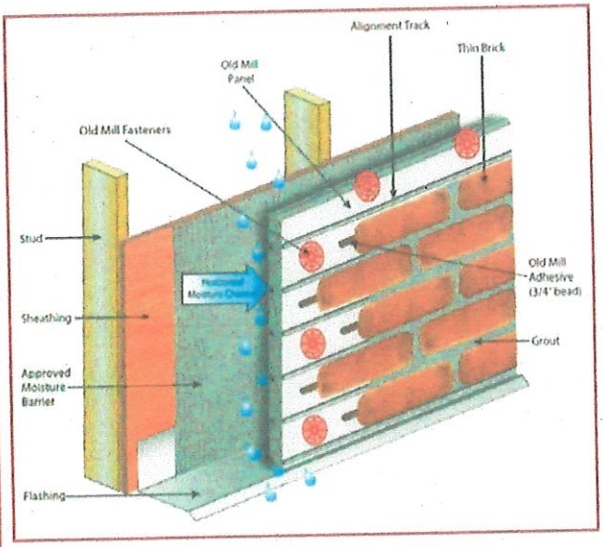
*Brick colors in this brochure represent general color range and texture. Precise color consistency is difficult to represent in print. Colors may vary.

Prior to installation, check with all local building codes and regulations. For additional installation tips check with your local building professional.

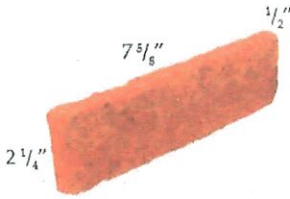
WARNING: The dust generated from dry sawing may contain silica and may be a potential health problem for the lungs. Wet sawing is recommended. Wear all necessary protective gear.

Advantages of the Old Mill System

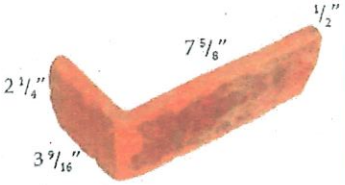
- Time & labor savings. Faster install with guide channels
- Light weight and easy to handle, no sharp edges
- Use with nearly all brands and sizes of thin brick
- High R-Value without thermal drift
- More design potential. Easier architectural reliefs
- Meets ASTM C1088 thin brick standards
- Meets ASTM E84-08 surface burn test standards
- ASTM C482 shear test results of 1,649 lbs. sq. ft.
- United States Patents: 6,516,578 & 7,121,051



Colonial Flats
- 50 bricks per box
- Covers 7.3 sq. ft.



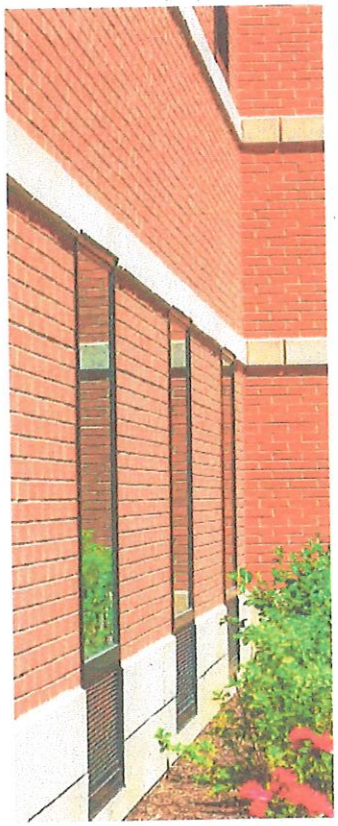
Colonial Corners
- 25 corners per box
- Covers 4.8 linear ft.

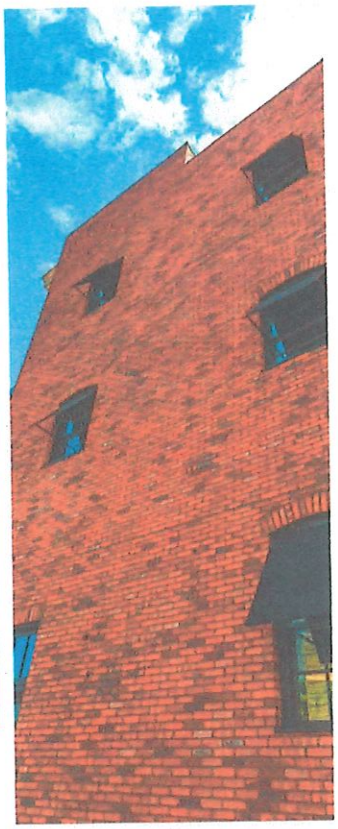


www.oldmillbrick.com
1-888-264-6455
Old Mill Brick, Inc.

Glen-Gery

THIN TECH®



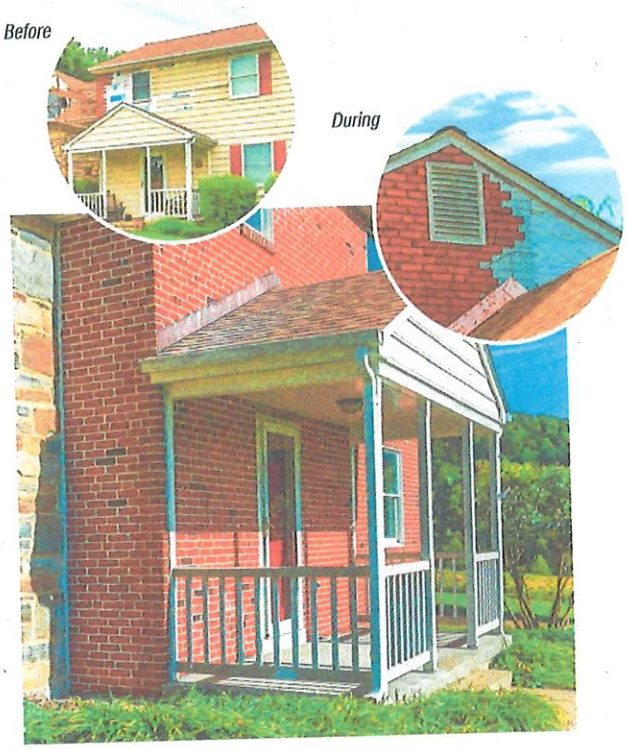


The most advanced thin veneer masonry support system ever designed.

LEADING THE WAY IN THIN MASONRY TECHNOLOGY.

Glen-Gery Thin Tech® is a mechanical support and spacing panel for thin masonry veneers. The most advanced thin veneer panel system ever designed. Each thin brick, tile or stone is supported by our patented support ties that mechanically interlock the masonry veneer to the panel.

Mounting Glen-Gery thin brick to Thin Tech panel (Elite).



After

Thin Tech Features and Benefits:

Thin Tech support tie at 76 degree angle.

Patented support tie configuration placed on a 76 degree angle

- Allows the mortar to surround the support tie creating a positive masonry lock between the brick mortar and panel

Stucco embossed texture

- Provides a built-in weep system on both sides of panel for moisture control
- Creates greater surface area for maximum adhesion between veneer and panel

26-gauge architectural grade steel

- High fastener pull-through strength for panel support and integrity
- Hardened steel sheets help brace wall, minimizing wall racking
- Allows fastening anywhere through the panel for even weight distribution or loading on the wall, using industry standard fasteners
- Protected by a zinc coating plus a thermal set coating

Why Thin Tech?

Simple support – No relief angles or foundations needed for support. Panels are attached with screw fasteners provided by Glen-Gery.

Continuous rigid insulation compatible – Thin Tech fasteners are available in lengths to easily accommodate installations with up to 3" of rigid foam insulation.

Superior drainage and drying – The 3/8" space created by the channels of Thin Tech Elite panel can eliminate the need for a second layer of WRB. Alternately, a drainage mat can be used with Thin Tech Classic panels.

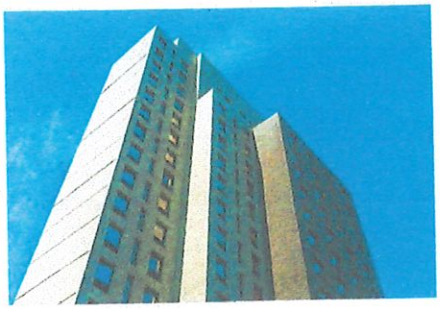
Mechanically secures most thin veneer types – Patented angled support ties mechanically bond each unit to the panel through the mortar joint, without any additional action required by the installer and no need for special slotted units, or special back surface texture such as keyed or dovetail backs.

Performance verified – Available reports include water penetration resistance (ASTM E331), structural performance (wind load deflection ASTM E330), shear bond strength (ASTM C297), fastener pull through, fastener withdrawal (ASTM D1037), and corrosion resistance (salt spray, ASTM B117) and other data. NFPA 285 compliant.

More size options – Standard Thin Tech panels can accommodate a variety of masonry unit thicknesses from 1/2" to 1-1/4" and heights from 2-1/4" to 11-5/8". Panels for unit heights up to 24" are available as special order for limited applications.

Glen-Gery Thin Tech applications

Glen-Gery is the only brick manufacturer to produce a thin veneer metal panel system for brick and stone that is suitable for exterior and interior usage. Offered in the traditional Classic and high-performance Elite series, each are tailored to the needs of specific applications. Glen-Gery Thin Tech products are offered with extended warranties lasting up to fifty years.



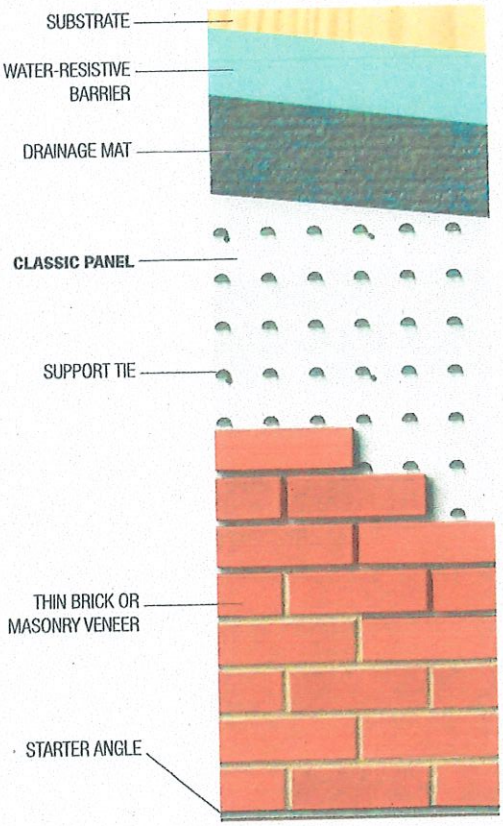
Commercial/Industrial

Residential

Interiors

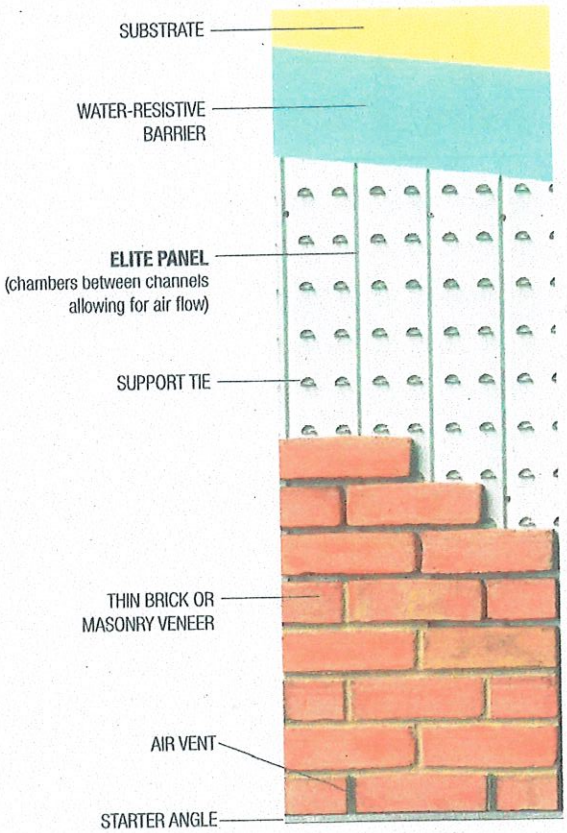
Thin Tech Classic Panel

Thin Tech Classic offers the thinnest, most resilient masonry veneer support structure specifically designed to accommodate thin brick. The Classic series works in conjunction with traditional mortar to secure the veneer.



Thin Tech Elite Panel

Thin Tech Elite is the most advanced masonry support system ever designed. It features all the advantages of the Classic series, but with enhanced product performance: superior drainage, ventilation, pressure equalization and bond strength.



Thin Tech solves the weather problem

Wind is one of the main contributing forces causing rain penetration in a building. When wind blows against the face of a building, it forces water through even the smallest opening. A wall utilizing rain screen technology is designed to counteract the pressure of the wind. When wind hits the Glen-Gery Thin Tech Elite wall it forces air into the airflow chambers, causing the chambers to reach the same pressure as the wind; thus the net pressure difference across the cladding is near zero. As a result, the wall pressure is equalized and the driving force for pressure-induced water penetration is eliminated.

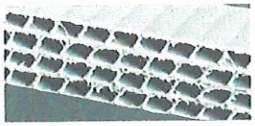
Product	Size	Weight	Packaging	Coverage (Approximate)
Thin Tech support tie ledge panel* (Classic or Elite)	48" x 48" (nominal)	16 lbs. each	As needed	16 sq. ft./panel
Thin Tech corner support	48" x 6" x 6" (nominal)	3.5 lbs. each	As needed	4 linear ft./piece
Thin Tech shim	4' lengths	.4 lbs. each	10/bundle	4 linear ft./piece
Starter angle	10' lengths	2.3 lbs. each	As needed	10 linear ft./piece
Thin Tech air vent	4' lengths	0.1 lbs. each	As needed	4 linear ft./piece
Brick adhesive**	28 oz. tube	3 lbs./tube	12 tubes/case	15 sq. ft./tube***
Brick adhesive**	10 oz. tube	2 lbs./tube	12 tubes/case	14.5 sq. ft./tube***
Stone adhesive	10 oz. tube	2 lbs./tube	24 tubes/case	20 lin. ft./tube
Stone primer	30 oz.	2 lbs.	As needed	200 sq. ft.
Drainage mat (1/4"/6mm)	39" x 61.5'	14 lbs.	As needed	200 sq. ft./roll
PCL mortar (unsanded)	1 cu. ft.	72 lbs.	As needed	72 sq. ft****
Polymer modified mortar	.375 cu. ft.	50 lbs.	As needed	27 sq. ft****
1-1/2" pan head square drive screw for steel	#10 x 1-1/2"	17 lbs.	1,700/box	1,079 sq. ft./box
2-1/2" pan head square drive screw for steel	#10 x 2-1/2"	17 lbs.	1,700/box	1,079 sq. ft./box
3-1/2" pan head square drive screw for steel	#10 x 3-1/2"	17 lbs.	850/box	540 sq. ft./box
4-1/2" pan head square drive screw for steel	#10 x 4-1/2"	17 lbs.	425/box	270 sq. ft./box
5-3/4" pan head square drive screw for steel	#10 x 5-3/4"	17 lbs.	425/box	270 sq. ft./box
1-1/2" pan head square drive screw for wood & concrete	3/16" x 1-1/2"	17 lbs.	1,700/box	1,700 sq. ft./box
2-1/4" pan head square drive screw for wood & concrete	3/16" x 2-1/4"	17 lbs.	1,700/box	1,079 sq. ft./box
3-1/4" pan head square drive screw for wood & concrete	3/16" x 3-1/4"	17 lbs.	850/box	850 sq. ft./box
4-1/4" pan head square drive screw for wood & concrete	3/16" x 4-1/4"	17 lbs.	425/box	270 sq. ft./box
5-1/2" pan head square drive screw for wood & concrete	3/16" x 5-1/2"	17 lbs.	425/box	270 sq. ft./box

*Support tie spacing in following sizes: brick – 2-5/8", 3.2", 4"; stone – 8", 12", 16", 24". Available support tie sizes: 3/8" (standard), 5/8"
**Subject to availability ***Corner brick will require 50% more adhesive ****Coverage will vary depending on masonry unit type and size.

Thin Tech accessories

Glen-Gery continues to lead the way in thin masonry support technology by stocking a full line of high-quality accessories. These accessories are recommended for the Elite and Classic Series panel systems and available through our authorized Thin Tech distribution network.

Starter angle



Air vent

Thin Tech shim

Water-resistive barrier and drainage mat

Adhesive

Corner support

glengery.com

A BRAND OF
BRICKWORKS

Glen-Gery

SAVE THE OLD FOUNDRY

MARINA SAYS "NO" TO PRESERVATION AND COMMON GROUND

Plymouth Cares

PLYMOUTHCARES.ORG

Safe Harbor Marinas (SHM) is preparing to demolish the oldest building on Plymouth's waterfront. In its place, they are erecting a 35' tall warehouse that is nearly the size of a football field. Their warehouse will overpower the historic neighborhood it is part of, and will dominate views from our tourist sites. Located at the gateway of Plymouth's waterfront, it will diminish the character of our town for locals and tourists alike.

SHM had originally indicated they would consider working in partnership with neighbors toward preservation. And all of the town boards they have had to appear before have directed SHM to work with us to find common ground too.

But recently, SHM changed tactics. Their lawyer has now sent our neighborhood group a letter, stating they are no longer willing "to entertain" our preservation proposals. They will no longer compromise. Instead, they intend to simply push through their design, regardless of the uniformly negative response from town members and the history their wrecking ball will forever destroy.

SCAN HERE TO LEARN MORE

Plymouth Cares

ABOUT PRESERVATION | **ABOUT TOURISM** | **ABOUT OUR WATERFRONT** | **ABOUT OUR FUTURE**

Plymouth is a picturesque waterfront tourist destination, but every time we demolish a historic building because "preservation is too hard," we chip away at what makes Plymouth special. SHM could improve their bottom line without eroding the town. They could improve the design of their new warehouse so it doesn't dominate our waterfront, or the photos visitors take, or the historic neighborhood it's nestled in. They could preserve the Old Foundry, which has been here since the Civil War and is on the National Register of Historic Places.

There are a lot of things SHM could do. But only if they cared about Plymouth.

SIGN THE PETITION

PLYMOUTHCARES.ORG/HELP

Who is Safe Harbor Marinas?

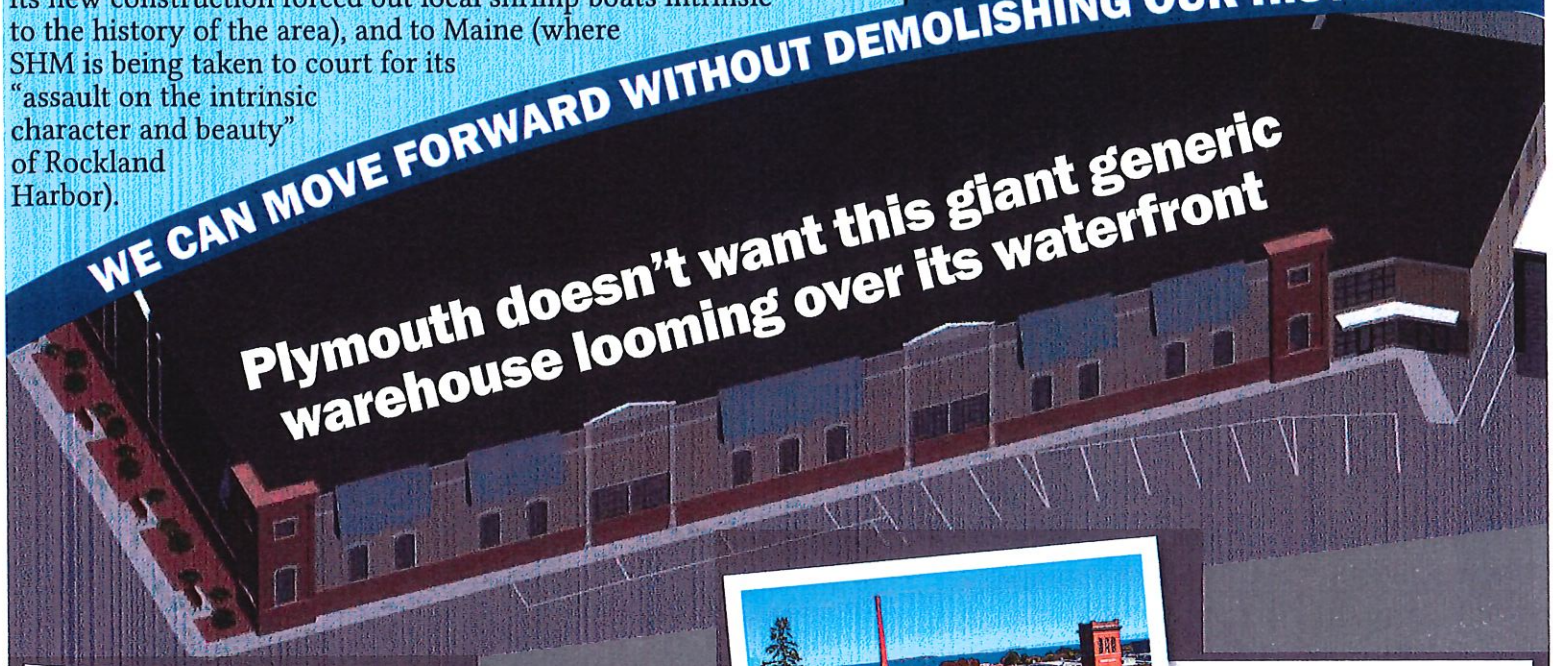
Safe Harbor Marinas (SHM) is a Dallas-based multi-billion dollar corporation that has been buying up locally-owned marinas across the country since 2017. Currently waterfront towns throughout the U.S. are in various stages of being inundated by what SHM prides itself on its website as their "astonishing growth."

Concerns about their approach to local needs run the length of the East Coast from Florida (where boat captains and industry leaders have been quoted worrying about an SHM "monopoly" and its potential impact on the local economy), to South Carolina (where its new construction forced out local shrimp boats intrinsic to the history of the area), and to Maine (where SHM is being taken to court for its "assault on the intrinsic character and beauty" of Rockland Harbor).

SIGN THE PETITION

PLYMOUTHCARES.ORG/HELP

WE CAN MOVE FORWARD WITHOUT DEMOLISHING OUR HISTORY



Rotary building

Cordage stack demo

Water St condos

Bradford lookout

Progress, change, and growth are part of life. But Plymouth is seeing an influx of decisions that are slowly erasing its charm and history. We have offered solutions to SHM that put their business needs front and center, but are not to the detriment of our town. They don't care. They want their warehouse district.

THIS IS ENOUGH. IT'S TIME TO LET THEM KNOW WE CARE.

Plymouth Cares

Bradford Area Commission

Plymouth Foundry

Safe Harbor Marinas

Plymouth, Massachusetts

Exterior Conditions and Treatment Recommendations

September 8,2022

BCA

BUILDING CONSERVATION ASSOCIATES INC

Plymouth Foundry

Safe Harbor Marinas
Plymouth, Massachusetts

Exterior Conditions and Treatment Recommendations

Prepared For

Plymouth Community Preservation Committee
26 Court Street
Plymouth, Massachusetts 02360

Prepared By

Building Conservation Associates, Inc.
10 Langley Road, Suite 202
Newton Centre, MA 02459

BCA Team

Lisa Howe
Lisa Harrington

Plymouth Foundry
Water Street
Plymouth, Massachusetts

Exterior Conditions and Treatment Recommendations

INTRODUCTION

In August 2022, Building Conservation Associates, Inc. (BCA) surveyed the exterior conditions of the materials at the Plymouth Iron Foundry, located on Water Street, in Plymouth, Massachusetts.

The survey was conducted from the ground with the aid of binoculars. BCA was able to inspect the majority of existing conditions of the portion of the building that is to remain, focusing primarily on the historic masonry, wood windows and wood trim. The conditions of the building materials were recorded with over 200 digital photographs and on elevation drawings of the building produced by Jeffrey M. Metcalfe, RA, of Plymouth, MA.

This report summarizes the findings of BCA's survey and provides a general list of recommendations for treatment of the building's exterior historic materials based on those findings.

EXTERIOR BUILDING DESCRIPTION

The Plymouth Iron Foundry is a masonry clad structure, set at the corner of Water and Union Streets. The original portion of the building that faces Union Street and the harbor was built circa 1867; there is a one story addition built in 1900 that fronts both Water and a portion of Union Street. The portion of the building that fronts Water Street and the 2-3 bays to either side of the Water Street elevation (east and west elevation) are the focus of this report. The 1900 addition had been heavily altered in the 1940's when it was converted into a car dealership. The term "original" when used throughout this report is meant to refer to materials that date back to the period of the car dealership, or earlier when specifically noted.

The one-story building is primarily clad in brick set in an english bond pattern and has brick corbelling on portions of the cornice. The northwest and southwest corners of the Water Street elevation were altered to concave curves with entries at each. Arched masonry window openings with granite sills date to 1900; with the exception of the large window opening at the center of the elevation, which is presumed to have been installed as part of the reconfiguration for the Shiretown Ford car dealership. Windows are all aluminum replacement, with the exception of a handful of wood windows, presumably dating to the 1940's. There is a large central wood window with 55 lites and to either side are original circular wood windows. Windows to the south of the central window are 6/6 sash with a 3-light transom at the bottom. Windows to the north are the same in configuration but are a double set in a larger opening.

Windows on the north elevation are the same double set of sash (one of which is a wood original) and the south elevation has singular 6/6 sash with a transom at the bottom.

The majority of the wood trim of the building dating to the 1940's has been covered with aluminum siding and trim, with slight detailing suggesting the decorative wood elements underneath.

The centrally located cupola on the roof remains largely unchanged, dating to the 1940's. It is clad in wood, with large arched wood windows with multiple lights on each side. The cupola is topped with a copper bell-shaped roof, with a decorative weathervane with a ship at the top.

SUMMARY OF FINDINGS

The portion of the Plymouth Iron Foundry that fronts Water Street is in fair to good condition. The building's masonry dates to 1900, now almost 125 years old. The masonry is in fair to good condition, despite deficiencies such as spalling and deteriorated brick that will require replacement. Existing replacement brick in a number of areas could have been better matched to the existing brick, however this is purely an aesthetic deficiency. Granite window sills are generally in good condition, with a couple of isolated losses that will require granite dutchmen. Mortar is generally in poor condition and/or was poorly installed and color matched repointing mortar and should be replaced 100%.

Windows are primarily aluminum replacement, which mimic the original fenestration pattern but are poorly detailed and are not of good quality. Original wood windows include those in the cupola, the large central rectangular window on Water Street and its flanking circular windows, and a double sash window on the north elevation. All of these original windows are in restorable condition; aluminum windows should be replaced with good quality wood windows to match the original.

Decorative wood trim on the building is believed to be largely extant under the aluminum siding. The siding should be removed, existing components restored, and those missing or deteriorated beyond repair replaced.

This report is provided for informational purposes only. Construction documents that include drawings and specifications will be completed separately. Quantification of repairs should be compiled from the construction documents.

EXTERIOR MASONRY

Brick

The building is clad with red brick and laid in an English bond pattern. The brick is of fair quality and is generally in fair to good condition, primarily dating to 1900. The greatest deteriorative condition is spalled brick, which are located as both larger swaths of area and random singular brick (Figures 1,2). Spalling is largely due to inappropriately hard repointing mortar which is incompatible with the softer brick. There are also a number of areas in which brick has been replaced that are poorly matched to the original brick (Figure 3). It is recommended that both spalled and poorly matched brick be replaced. On the west (front) elevation, two of the brick window openings are showing slight signs of outward movement and allowing water to enter the wall at the jamb (Figure 4). These areas should be pinned to backup masonry to prevent further movement and made weathertight. There are tie rods at the corbelled brick cornice on both the north and west elevations (Figure 5). These are typically installed to correct or prevent further structural movement. It is not clear whether they are functional, but should be removed if they are not or no longer providing structural stability.

Figure 1: South elevation, west end. Brick laid in English bond with red brick. Spalled brick caused by repointing mortar that is too hard and not compatible with the soft brick.

Figure 2: North elevation, damaged/missing brick.

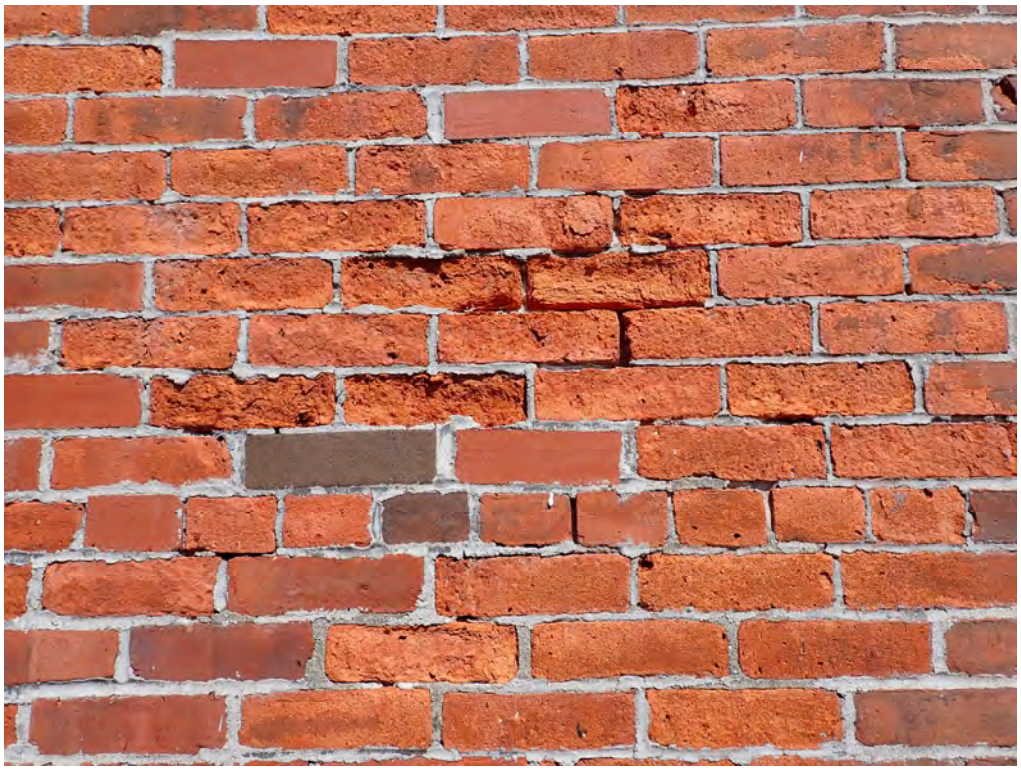


Figure 3: South elevation, west end. Brick laid in English bond with red brick. Note both spalled brick and poorly matched replacement brick.

Figure 4: West elevation (front); slight movement of wall at jamb, allowing for water to enter into the wall.

Figure 5: Tie rod at west elevation.

Granite

There are granite window sills at all window openings (with the exception of the round windows at either side of the central window on Water Street). The granite is generally in good condition. Two granite window sills have areas of spalling (Figure 6). These spalls should be repaired with granite dutchmen to match the existing granite.

Figure 6: Granite retaining wall, east elevation.

Mortar

The mortar at Plymouth Foundry is in fair to poor condition. The mortar is generally light buff, smooth, heavily weathered and recessed. In general, pointing mortar is in a deteriorated condition (Figure 7). There are multiple areas that have been repointed over time using mortar which was too hard in composition, poorly installed and color matched (Figures 8,9). It is recommended that the masonry be repointed 100% to match the original mortar in color, texture, and profile.

Figure 7: North elevation, typical deteriorated mortar joints.

Figure 8. West elevation; poorly color matched and installed repointing mortar.

Figure 9. West elevation; poorly color matched and installed repointing mortar.

Soiling

Overall, the Plymouth Foundry building has light to moderate atmospheric soiling of the masonry. Biologic soiling, in the form of algae, moss and mold is particularly heavy on the north elevation where there is heavy overgrowth against the building and overhanging trees (Figure 10). Biological growth can accelerate deterioration of both masonry and roofing materials. There are also localized areas of efflorescence and staining from salts emitting from mortar joints as well as paint drips (Figures 11,12). The building should be generally cleaned, with localized removal of heavy staining, metallic staining, paint and biological growth with appropriate cleaners and strippers determined through testing.

Figure 10: North elevation, heavy biological growth, particularly at mortar joints.

Figure 11: West elevation, paint drips on granite sill.

Figure 12: West elevation, paint haze and efflorescence on brick.

Windows

Windows are primarily set in arched brick masonry openings. Windows on the north end of the Water Street elevation and on the north elevation are 6/6 sash set in a pair with a wide shared mullion and transom below. Windows on the south end of the Water Street and south elevations are singular 6/6 sash with a transom window below (Figures 13,14). The central bay on the Water Street elevation has a large, fixed sash wood window with 55 lights, original to the 1940's remodeling. Also of this era are extant circular wood windows set in wood paneling in setbacks to either side of the central window (Figure 15). The arched cupola windows also appear original to the 1940's and have multiple lights with arched mullions at the top (Figure 16).

With the exception of the original wood windows mentioned above, all windows are aluminum replacement that somewhat replicate the original windows in configuration. One original wood window remains on the second bay in on the north elevation (Figure 17). This window is in restorable condition. Interestingly, peeling paint on the wood reveals the possibility of an earlier paint scheme, prior to the 1940's and potentially dates to 1900; the arched infill above the window sash shows as dark red and the window sash is dark green. This dark green sash is depicted in an early illustration of the building prior to the 1940's work (Figure 18).

Figure 13: West elevation, north end; replacement windows set in masonry openings.

Figure 14: West elevation, south end; replacement windows set in masonry openings.


Figure 15: Wood windows dating to 1940's, including central bay window and side circular windows.

Figure 16: Original 1940's arched wood windows in the cupola.

Figure 17: 2nd window bay of north elevation, original wood window that may predate 1940's work.

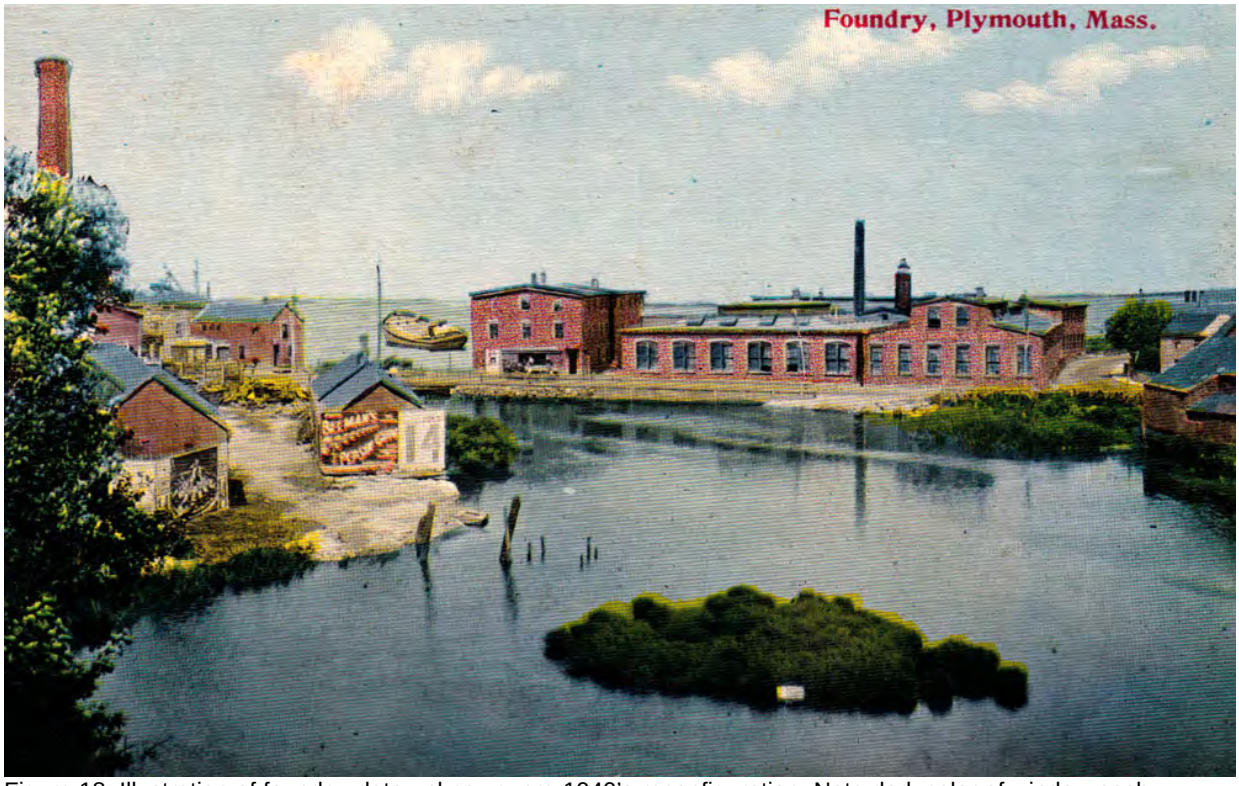


Figure 18: Illustration of foundry, date unknown, pre-1940's reconfiguration. Note dark color of window sash. Date, source; unknown.

DECORATIVE WOOD TRIM ELEMENTS

Most of the decorative wood trim elements that date to the 1940's modifications as the Shiretown Ford car dealership are largely covered by aluminum siding. It is possible that much of the trim work is intact beneath the siding. This is evident where some of the underlying original wood trim is visible under the siding or remains exposed (Figures 19,20). The 1940's wood trim included fluted pilasters, cornices, paneling and a paneled wood pediment at the roof. The concave corners of the building were simply wood paneled with a large garage door opening presumably for car entry. These details are noted in a 1940's photograph (Figure 21). The aluminum siding should be removed, existing wood details be restored, and those that are missing or deteriorated beyond repair replicated in new wood.

Figure 19: West elevation, evidence of original wood fluted pilaster beneath aluminum siding.

Figure 20: West elevation, 1940's window and surrounding wood paneling intact.

Figure 21: Car dealership photograph, circa 1940's. Source unknown.

CUPOLA

The wood cupola was erected as part of the 1940's work and has not been modified. It is in fair to good condition, suffering primarily from weathering and peeling paint. There are a limited number of wood elements that will require replacement. The bell shaped copper roof is deteriorating and has expended its useful life and should be replaced (Figure 22).

WEATHERVANE

The weathervane is in generally good condition, however it is missing the "S" and "W" directional letters. The ship that tops the weathervane is quite detailed and its components appear to be intact. There does seem to be evidence that at least the hull of the ship had been gilded. The weathervane should be removed, restored including replacement of missing parts, and regilded (Figure 23).

Figure 22: 1940's cupola, primarily intact but quite weathered.


Figure 23: Original weathervane, missing directionals "S" and "W".

TREATMENT RECOMMENDATIONS

The following is a comprehensive list of treatment recommendations. This list is intended to include all restoration work by material.

Masonry, General
- Clean masonry 100% to remove general soiling, biological soiling, metallic staining, and all sealant residue at masonry openings (assume 1,080SF).
- Remove 100% of unused anchors, conduit, lighting, etc. from masonry and patch holes with composite patching material.
- Replace 100% of sealants at all masonry openings.

Brick
- Replace cracked, spalled, or missing brick with salvaged or new brick (assume 120SF)
- Replace poorly matched replacement brick with new brick (assume 43SF).

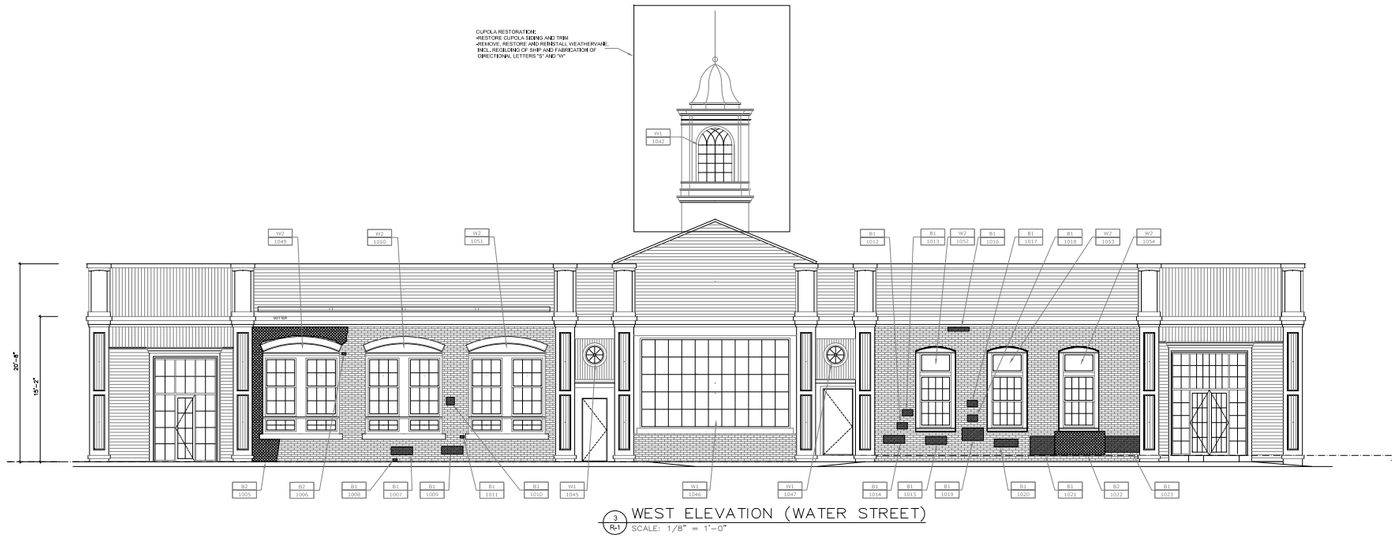
Granite
- Repair spalled granite with granite dutchmen (2 locations)

Mortar
- Rake out and repoint 100% of mortar joints. Repointing mortar shall be an appropriate mortar mix approximating the original mortar in color, texture, and profile (assume 1,080 SF).

Original Wood Windows
- Restore of original circular wood windows (2 windows)
- Restore large multi-pane original wood window (1 window)
- Restore original double sash window (1 window)
- Restore original wood cupola windows (4 windows)
- Fabricate and install new wood window frame and sash to replicate original fenestration pattern (10 windows)

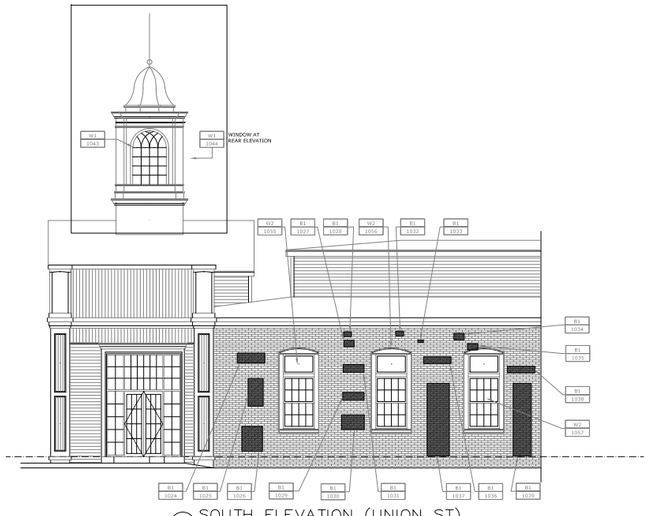
Original Wood Cladding and Decorative Trim
- Restore cupola wood cladding and trim, assuming 20% replacement of wood elements
- Remove 100% existing aluminum siding and trim
- Assess underlying original wood siding and trim; restore 75% of wood elements; replicate and install 25% new wood elements where missing or damaged

Weathervane
- Remove, restore and reinstall cupola weathervane, including regilding of ship and fabrication of “S” and “W” directional letters.



3 R-1 WEST ELEVATION (WATER STREET)
SCALE: 1/8" = 1'-0"

2 R-1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



1 R-1 SOUTH ELEVATION (UNION ST)
SCALE: 1/8" = 1'-0"

GENERAL RESTORATION NOTES:

G1 GRAPHIC INDICATIONS OF WORK SPECIFIED ON DRAWINGS ARE INTENDED TO GIVE LOCATION OF REPAIR AND APPROXIMATE SIZE OF REPAIR ONLY. ALL WORK SHOULD BE FIELD VERIFIED.

G2 CLEAN 100% OF MASONRY UNLESS OTHERWISE NOTED USING DESIGNATED CHEMICAL CLEANERS AND LOW PRESSURE WATER RINSE AS DETERMINED BY FIELD TESTING. METHODS FOR CLEANING WILL VARY ON DIFFERENT SURFACES DEPENDING ON THE LEVEL OF SOILING.

G3 IN ADDITION TO GENERAL CLEANING REMOVE ALL PAINT RESIDUE (INCLUDING PAINT DRIPS, METALLIC STAINING, BIOLOGICAL GROWTH, CARBON DEPOSITS, AND EFFLORESCENCE. ALL RESTORATION CLEANING SHALL BE PERFORMED PRIOR TO ALL OTHER MASONRY WORK.

G4 REPOINT 100% OF MASONRY JOINTS.

G5 REMOVE ALL PINS, ANCHORS, DOWELS, AND OTHER FERROUS ELEMENTS FROM MASONRY. REPLACE BRICK UNITS WITH WITH PINS, ANCHORS, DOWELS AN OTHER ABANDONED FERROUS ELEMENTS WITH NEW BRICK. ASSUME 10 REMOVALS.

G6 REMOVE AND REPLACE 100% OF SEALANTS AT ALL MASONRY OPENINGS.

G7 PERFORM A FINAL MASONRY WASHDOWN AFTER ALL MASONRY RESTORATION WORK IS COMPLETE.

G8 REMOVE ALL ALUMINUM SIDING; RESTORE ORIGINAL WOOD ELEMENTS. REPLACE ELEMENTS THAT ARE MISSING OR BEYOND REPAIR.

G9 REPLACE ALL ALUMINUM REPLACEMENT WINDOWS WITH NEW WOOD WINDOWS TO MATCH ORIGINAL WINDOWS IN COMPOSITION, SIZE, AND PROFILES.

G10 RESTORE ELEMENTS OF CUPOLA 100%, INCLUDING WOOD CLADDING, WINDOWS, AND WEATHERVANE. REPLACE COPPER BELL SHAPED ROOFING WITH NEW COPPER BELL SHAPED ROOFING TO MATCH ORIGINAL.

G11 GRAPHIC INDICATIONS OF WORK SPECIFIED ON DRAWINGS ARE INTENDED TO GIVE LOCATION OF REPAIR AND APPROXIMATE SIZE OF REPAIR ONLY. ALL WORK SHOULD BE FIELD VERIFIED.

RESTORATION KEYNOTES:

BRICK

B1 REMOVE BRICK UNIT WITH SPALLS, CRACKS, OR INAPPROPRIATE PATCHES AND REPLACE WITH NEW BRICK. NEW BRICK TO MATCH ORIGINAL BRICK IN COLOR, TEXTURE, AND REFLECTANCE. NUMBER OF REPLACEMENTS IN (). ASSUME ONE (1) UNIT IF NUMBER IS NOT CALLED OUT. ASSUME AN ADDITIONAL 20 BRICK REPLACEMENTS NOT CALLED OUT IN DRAWINGS.

B2 AREA OF POORLY MATCHED REPLACEMENT BRICK. REMOVE EXISTING BRICK AND INSTALL NEW BRICK MATCHING ADJACENT ORIGINAL BRICK. NUMBER OF REPLACEMENTS IN (). ASSUME ONE (1) UNIT IF NUMBER IS NOT CALLED OUT. ASSUME AN ADDITIONAL 20 BRICK REPLACEMENTS NOT CALLED OUT IN DRAWINGS. ASSUME AN ADDITIONAL 25 BRICK.

GRANITE

G1 REPAIR GRANITE SPALL WITH GRANITE DUTCHMAN TO MATCH ADJACENT EXISTING GRANITE.

WINDOWS

W1 RESTORE ORIGINAL WOOD WINDOW

W2 REPLACE ALUMINUM WINDOW WITH NEW WOOD WINDOW TO MATCH ORIGINAL WINDOW IN FENESTRATION PATTERN, PROFILE AND SIZE.

LEGEND

- REPLACE AREA OF SPALLED OR DETERIORATED BRICK WITH NEW BRICK TO MATCH EXISTING
- REPLACE AREA OF POORLY MATCHED REPLACEMENT BRICK WITH NEW BRICK TO MATCH EXISTING
- REFER TO NOTE / TAG FOR SPECIFIC TREATMENT
- RESTORATION TAG
  - XX — TREATMENT CODE
  - XX — TAG ID

BCA
BUILDING CONSERVATION ASSOCIATES INC.

BUILDING CONSERVATION ASSOC.,INC.
10 Langley Road, Suite 202
Newton Centre, MA 02459
T 617.916.5661

NAME: Plymouth Foundry
Safe Harbor Marinas

ADDRESS: Water Street
Plymouth, MA

REVISIONS		
#	DATE	DESCRIPTION

Drawn By:	Checked By:
LNH	LJH

Date of Issue: September 8, 2022

Drawing Title: EXTERIOR RESTORATION

Scale: As Noted @ 22x34

Drawing No: R-1

STORAGE AREA

STORAGE AREA

STORAGE AREA

REAR STORAGE

HALL

OFFICE

OFFICE

HALL

UP

SALES AREA

OFFICE

RECEPTION

ENTRY

OFFICE

STORAGE AREA

STORAGE

SALES AREA

UP

MAIN FLOOR PLAN

SCALE: 1/4" = 1-0"

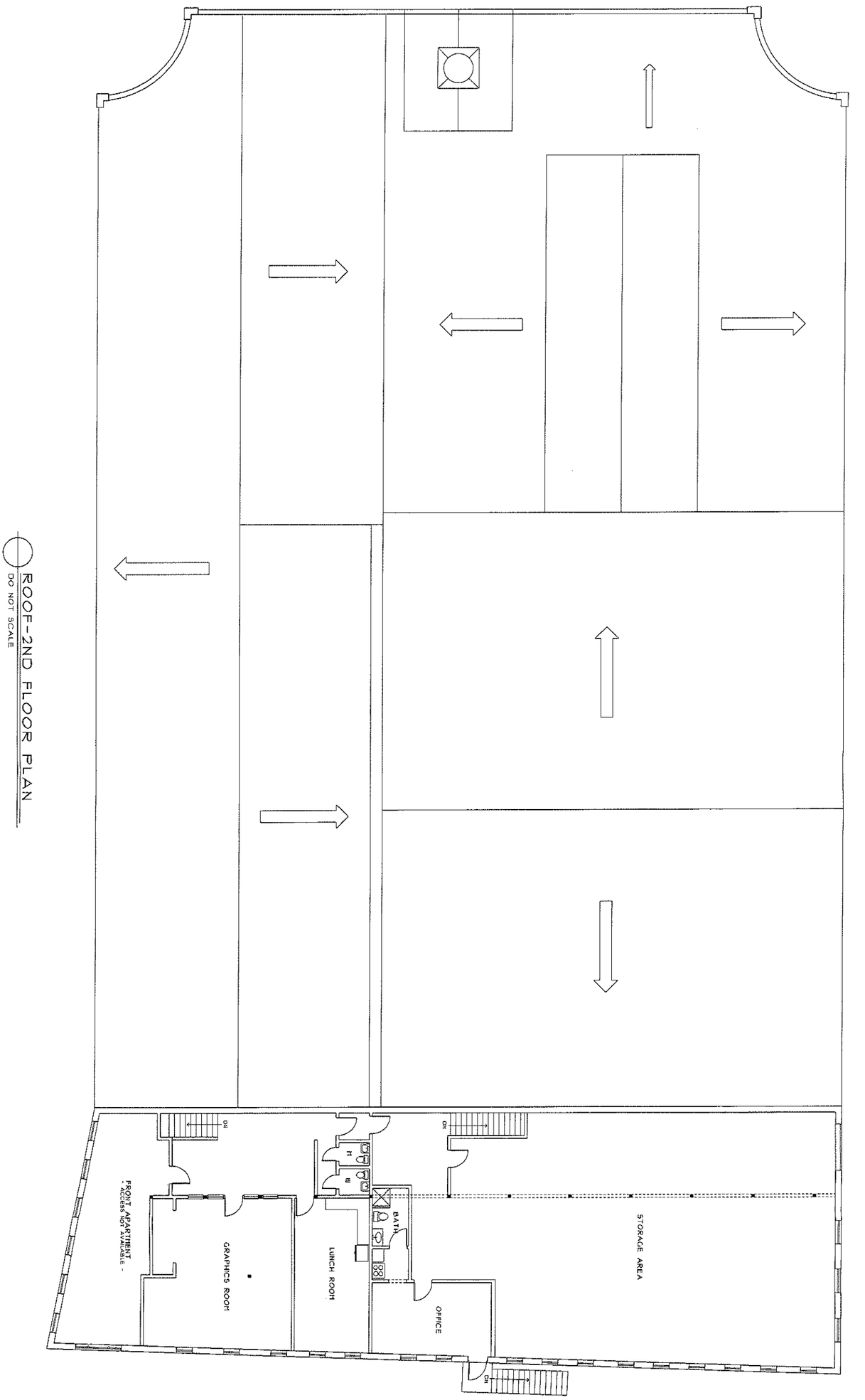
jeffrey m. metcalfe, r.a.
44 jan marie drive
plymouth, massachusetts 02360

Date:
18-August-2022

Safe Harbor - Plymouth
Water Street
Plymouth, MA

22-045

EX1



ROOF-2ND FLOOR PLAN

DO NOT SCALE

EX2	22-045	Safe Harbor - Plymouth Water Street Plymouth, MA		Date: 18-August-2022	jeffrey m. metcalfe, r.a. 44 jan marie drive plymouth, massachusetts 02360

WATER STREET PLAN

SCALE: 1/4" = 1'-0"

jeffrey m. metcalfe, r.a.
44 jan marie drive
plymouth, massachusetts 02360

Date: 18-August-2022

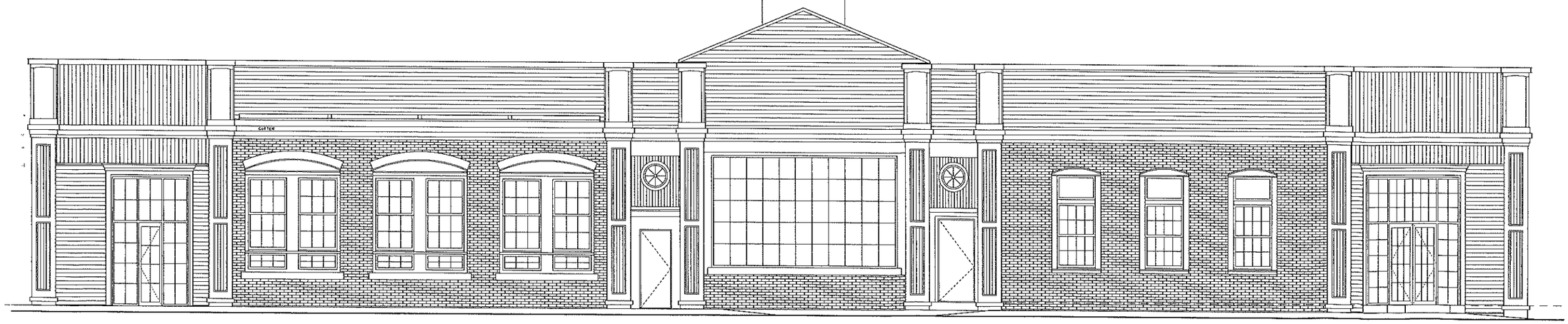
Safe Harbor - Plymouth
Water Street
Plymouth, MA

22-045

EX3

LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



WATER STREET ELEVATION
SCALE: 1/4" = 1'-0"

Jeffrey m. metcalfe, r.a.
44 jan marie drive
plymouth, massachusetts 02360

Date:
18-August-2022

Safe Harbor - Plymouth
Water Street
Plymouth, MA

22-045

EX4

CONSTRUCTION COST ENGINEERING OF BOSTON

Safe Harbors Exterior Renovation 22 0600

Brick Bldg w/wood framing , Exterior Facard 5,000 sf
Drawings 06/30/2021

R O U G H D R A F T

3800 SF Public Service Buildings Last Updated

Year 2022 Cost File 2022 BOSTON UNION AVERA 9/13/2022 11:02:10 AM

Project Summary

Division	Total			
01 General Requirements	***40,985***	$10.79	/SF	11.0 %
02 Existing Conditions	***6,034***	$1.59	/SF	1.6 %
04 Masonry	***85,980***	$22.63	/SF	23.0 %
06 Wood, Plastics, and Composites	***35,327***	$9.30	/SF	9.5 %
07 Thermal and Moisture Protection	***154,272***	$40.60	/SF	41.3 %
08 Openings	***26,585***	$7.00	/SF	7.1 %
09 Finishes	***13,993***	$3.68	/SF	3.8 %
13 Special Construction	***9,949***	$2.62	/SF	2.7 %

Sub Total		373,125	98.19 / SF
Profit	10 %	37,312	
Bond	1 %	3,731	
Contingency	20 %	74,625	
Grand Total		**488,793**	128.63 / SF

CONSTRUCTION COST ENGINEERING OF BOSTON

Safe Harbors Exterior Renovation 22 0600

Brick Bldg w/wood framing , Exterior Facard 5,000 sf
Drawings 06/30/2021

R O U G H D R A F T

3800 SF Public Service Buildings Last Updated

Year 2022 Cost File 2022 BOSTON UNION AVERA 9/13/2022 11:02:10 AM

Description	Quantity	Unit	Unit Cost	Extended Cost

01 General Requirements

01 00 00 General Requirements

Permit fee $10/m	400	JOB	10.00	4,000
General superintendent 1/2 time	6	WEEK	1934.05	11,604
01 00 00	***General Requirements***			***15,604***

01 31 00 Project Management and Coordination

Insurance, 1%	4000	JOB	1.00	4,000
01 31 00	***Project Management and Coordination***			***4,000***

01 32 00 Construction Progress Documentation

Scheduling, cpm, update	5	EA	275.00	1,375
Scheduling, progress cpm	1	EA	1100.00	1,100
01 32 00	***Construction Progress Documentation***			***2,475***

01 50 00 Temporary Facilities and Controls

Rubbish removal, 40 cy capacity	6	LOAD	660.00	3,960
Telephone, general clerk use	3	MONTH	275.00	825
01 50 00	***Temporary Facilities and Controls***			***4,785***

01 52 13 Field Offices and Sheds

Office trailer, furnished, 36'x8'	3	MONTH	264.00	792
Storage trailer, 28'x10'	3	Mo.	110.00	330
01 52 13	***Field Offices and Sheds***			***1,122***

01 General Requirements

Description	Quantity	Unit	Unit Cost	Extended Cost
01 73 00 Execution				
Demo siding, metal wall panels	1100	SF	11.82	12,999
01 73 00 Execution				***12,999***

02 Existing Conditions

Description	Quantity	Unit	Unit Cost	Extended Cost
02 41 00 Demolition				
Building wreckers	2	DAY	879.93	1,760
Saw Cut Masonry Wall	40	LF	19.99	799
02 41 00 Demolition				***2,559***
02 41 19.13 Selective Building Demolition				
Disposal, load & haul, construction debris	100	CY	23.77	2,377
Demo masonry, walls, solid brick	100	CF	10.98	1,098
02 41 19.13 Selective Building Demolition				***3,475***

04 Masonry

Description	Quantity	Unit	Unit Cost	Extended Cost
04 01 00 Maintenance of Masonry				
Grinding, mortar joints 1/2" deep @5.5 lf/sf	5940	LF	3.40	20,224
Pointing, brick	1080	SF	32.66	35,274
04 01 00 Maintenance of Masonry				***55,499***
04 01 20.52 Unit Masonry Cleaning				
Cleaning masonry, h.p. water & chem	1080	SF	4.43	4,783
04 01 20.52 Unit Masonry Cleaning				***4,783***
04 05 19.13 Continuous Joint Reinforcing				
Forklift, w/ operator for Masonry Units & Motar	1080	SF	1.20	1,300
Weep Vent Inserts	50	EA	1.79	90
Staging, Exterior	1080	SF	3.32	3,588
04 05 19.13 Continuous Joint Reinforcing				***4,978***

04 Masonry

Description	Quantity	Unit	Unit Cost	Extended Cost
04 20 00 Unit Masonry				
Labor only, bricklayer/stone mason	10	DAY	1295.90	12,959
04 20 00 Unit Masonry				***12,959***
04 21 13 Brick Masonry				
Brick wall, facebrick 4" thk 6.75sf 10% replacement	108	SF	30.48	3,291
04 21 13 Brick Masonry				***3,291***
04 40 00 Stone Assemblies				
Granite, Repair Spalled with New Granite Dutchman	57	LF	78.43	4,470
04 40 00 Stone Assemblies				***4,470***

06 Wood, Plastics, and Composites

06 05 73 Wood Treatment				
Wood Cladding Restoration	1	TOTAL	11000.00	11,000
06 05 73 Wood Treatment				***11,000***
06 11 00 Wood Framing				
Labor only, carpenter miscl.	10	DAY	1112.13	11,121
06 11 00 Wood Framing				***11,121***
06 16 33 Wood Board Sheathing				
Sheathing, roof, 3/4" cdx plywood	3490	SF	2.94	10,265
06 16 33 Wood Board Sheathing				***10,265***
06 20 00 Finish Carpentry				
Molding, window, 2-1/2", trim exter.	10	OPNG	138.71	1,387
Moulding, window sill (10)	56	LF	27.74	1,554
06 20 00 Finish Carpentry				***2,941***

07 Thermal and Moisture Protection

Description	Quantity	Unit	Unit Cost	Extended Cost

07 Thermal and Moisture Protection

07 22 00 Roof and Deck Insulation

Roof deck insul, rigid, polyiso, 4	3490	SF	3.50	12,227
07 22 00 Roof and Deck Insulation				**12,227**

07 27 00 Air Barriers

Air barrier, peel & stick w.p. membrane f/msbu	3490	SF	6.16	21,498
07 27 00 Air Barriers				**21,498**

07 30 00 Steep Slope Roofing

Mansard 125 lf x 6' high	750	SF	29.41	22,061
07 30 00 Steep Slope Roofing				**22,061**

07 50 00 Membrane Roofing

Membrane, TPO white,60 mil, full adhered	3490	SF	23.20	80,982
07 50 00 Membrane Roofing				**80,982**

07 60 00 Flashing and Sheet Metal

Flashing, membrane PVC .056	112	SF	9.37	1,049
Drip Edge,stainless steel, 4"	100	LF	9.69	969
07 60 00 Flashing and Sheet Metal				**2,018**

07 71 23 Manufactured Gutters and Downspouts

Downspouts, alum enam, .024" 3"x4	100	LF	10.77	1,077
Gutters, alum. 5", box .027	100	LF	11.77	1,177
07 71 23 Manufactured Gutters and Downspouts				**2,254**

07 90 00 Joint Protection

Caulking, backer rod polyethylene 1/2	1088	LF	2.88	3,137
Caulking, butyl 1/2"x1/2" 77lf/gallon	1088	LF	9.28	10,097
07 90 00 Joint Protection				**13,234**

08 Openings

Description	Quantity	Unit	Unit Cost	Extended Cost
08 Openings				
08 05 05 Selective Demolition for Openings				
Demo window, remove	10	EA	276.14	2,761
08 05 05 Selective Demolition for Openings				***2,761***
08 50 00 Windows				
Wood Window, Repairs	5	EA	1436.63	7,183
08 50 00 Windows				***7,183***
08 52 00 Wood Windows				
Wood window, Vinyl Clad, W01, 4' X 9' Type A	4	EA	1268.03	5,072
Wood window, Vinyl Clad, W02, 8x9' Type B	6	EA	1928.03	11,568
08 52 00 Wood Windows				***16,640***
09 Finishes				
09 90 00 Painting and Coating				
Paint, ext door&frames	5	EA	190.32	952
Paint, wood trim	1800	LF	1.27	2,288
Labor only, painters ordinary	10	DAY	1075.40	10,754
09 90 00 Painting and Coating				***13,993***
13 Special Construction				
13 00 00 Special Construction				
Cupola w/weathervane Repairs	1	EA	9948.50	9,949
13 00 00 Special Construction				***9,949***

13 Special Construction

Description	Quantity	Unit	Unit Cost	Extended Cost
Sub Total			373,125	98.19 / SF
Profit	10	%	37,312	
Bond	1	%	3,731	
Contingency	20	%	74,625	
Grand Total			**488,793**	128.63 / SF

CONSTRUCTION COST ENGINEERING OF BOSTON

Safe Harbors Interior Renovation 22 0610

Brick Bldg w/wood framing , Exterior Facard 3,500 sf
Drawings 08/06/2022

R O U G H D R A F T

3585 SF Public Service Buildings Last Updated

Year 2022 Cost File 2022 BOSTON OPEN SHOP 9/13/2022 10:49:16 AM

Project Summary

Division	Total		
01 General Requirements	***33,955***	$9.47 /SF	18.2 %
02 Existing Conditions	***6,521***	$1.82 /SF	3.5 %
04 Masonry	***4,888***	$1.36 /SF	2.6 %
06 Wood, Plastics, and Composites	***30,397***	$8.48 /SF	16.3 %
09 Finishes	***57,520***	$16.04 /SF	30.8 %
10 Specialties	***5,521***	$1.54 /SF	3.0 %
21 Fire Suppression	***4,929***	$1.38 /SF	2.6 %
22 Plumbing	***33,967***	$9.47 /SF	18.2 %
23 Heating, Ventilating, and Air Conditioning (HVA	***4,929***	$1.38 /SF	2.6 %
26 Electrical	***3,944***	$1.10 /SF	2.1 %

Sub Total		186,571	52.04 / SF
Profit	10 %	18,657	
Bond	1 %	1,866	
Contingency	20 %	37,314	
Grand Total		**244,408**	68.18 / SF

CONSTRUCTION COST ENGINEERING OF BOSTON

Safe Harbors Interior Renovation 22 0610

Brick Bldg w/wood framing , Exterior Facard 3,500 sf
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R O U G H D R A F T

3585 SF	Public Service Buildings		Last Updated
Year 2022	Cost File 2022 BOSTON OPEN SHOP		9/13/2022 10:49:16 AM

Description	Quantity	Unit	Unit Cost	Extended Cost

01 General Requirements

01 00 00 General Requirements

Permit fee $10/m	200	JOB	10.00	2,000
General superintendent 1/2 time	6	WEEK	1934.05	11,604
Electrician	2	DAY	1051.89	2,104
Plumbers	6	DAY	1310.79	7,865
01 00 00	***General Requirements***			***23,573***

01 31 00 Project Management and Coordination

Insurance, 1%	2000	JOB	1.00	2,000
01 31 00	***Project Management and Coordination***			***2,000***

01 32 00 Construction Progress Documentation

Scheduling, cpm, update	5	EA	275.00	1,375
Scheduling, progress cpm	1	EA	1100.00	1,100
01 32 00	***Construction Progress Documentation***			***2,475***

01 50 00 Temporary Facilities and Controls

Rubbish removal, 40 cy capacity	6	LOAD	660.00	3,960
Telephone, general clerk use	3	MONTH	275.00	825
01 50 00	***Temporary Facilities and Controls***			***4,785***

01 52 13 Field Offices and Sheds

Office trailer, furnished, 36'x8'	3	MONTH	264.00	792
Storage trailer, 28'x10'	3	Mo.	110.00	330

01 General Requirements

Description	Quantity	Unit	Unit Cost	Extended Cost
01 52 13 Field Offices and Sheds				**1,122**

02 Existing Conditions

02 41 00 Demolition

Building Demolition	3	DAY	879.93	2,640
Saw Cut Concrete Slab	30	LF	19.99	600
02 41 00 Demolition				**3,239**

02 41 19.13 Selective Building Demolition

Disposal, load & haul, construction debris	100	CY	23.77	2,377
Demo floor, resilient tile, 12"x12"	460	SF	1.97	905
02 41 19.13 Selective Building Demolition				**3,282**

04 Masonry

04 05 19.13 Continuous Joint Reinforcing

Forklift, w/ operator for Masonry Units & Motar	1080	SF	1.20	1,300
Staging, Exterior	1080	SF	3.32	3,588
04 05 19.13 Continuous Joint Reinforcing				**4,888**

06 Wood, Plastics, and Composites

06 11 00 Wood Framing

Labor only, carpenter miscl.	10	DAY	1112.13	11,121
Plywood subflooring on sleepers	460	SF	5.50	2,530
Sleepers, p.t. 2"xs @ 8' oc	24	EA	38.62	927
Blocking, wood 2"x6	0.2	MBF	5128.17	1,026
Framing, studs, 2"x6", 8' wall	1	MBF	2866.43	2,866
Partition, wood stud,2"x6",16"oc 8'	160	LF	32.48	5,197
06 11 00 Wood Framing				**23,667**

06 20 00 Finish Carpentry

06 Wood, Plastics, and Composites

Description	Quantity	Unit	Unit Cost	Extended Cost
Molding, window, 2-1/2", trim Interior	10	OPNG	138.71	1,387
Moulding, window sill (10)	56	LF	27.74	1,554
06 20 00 Finish Carpentry				***2,941***

06 40 00 Architectural Woodwork

Finish carpentry, entry desks	20	LF	189.44	3,789
06 40 00 Architectural Woodwork				***3,789***

09 Finishes

09 20 00 Plaster and Gypsum Board

Interior Demising Partition	1984	sf	7.40	14,682
09 20 00 Plaster and Gypsum Board				***14,682***

09 21 16 Gypsum Board Assemblies

Drywall, gypsum, 5/8" on ceiling, Patching	1000	SF	2.30	2,297
09 21 16 Gypsum Board Assemblies				***2,297***

09 22 26 Suspension Systems

Suspension System, Repairs	1000	SF	3.47	3,473
09 22 26 Suspension Systems				***3,473***

09 30 13 Ceramic Tiling

Ceramic tile, floor, 6"x6",thinset	112	SF	15.81	1,771
Ceramic tile, walls, 3"sq., thinset	400	SF	15.22	6,087
09 30 13 Ceramic Tiling				***7,858***

09 68 00 Carpeting

Labor only, tile layer floor	2	DAY	1063.29	2,127
Carpet, acrylic, 35 oz., cemented	350	SY	54.22	18,977
09 68 00 Carpeting				***21,104***

09 90 00 Painting and Coating

09 Finishes

Description	Quantity	Unit	Unit Cost	Extended Cost
Paint, Interior door&frame 3x7,primer+2coats	11	EA	190.32	2,094
Paint, wood trim, 6", primer	500	LF	1.27	635
Labor only, painters ordinary	5	DAY	1075.40	5,377
09 90 00 Painting and Coating				***8,106***

10 Specialties

10 21 13 Toilet Compartments

HC Toilet Partition	2	EA	1500.00	3,000
Partition, toilet	3	EA	840.42	2,521
10 21 13 Toilet Compartments				***5,521***

21 Fire Suppression

21 00 00 Fire Suppression

Sprinkler System Adjustments	3585	SF	1.38	4,929
21 00 00 Fire Suppression				***4,929***

22 Plumbing

22 40 00 Plumbing Fixtures

Interior utility trenching - sanitary	25	lf	49.18	1,229
Sink, rough in, supply, waste & vent	4	EA	1938.29	7,753
Lavatory, vanity top, 26"x18" oval	2	EA	544.65	1,089
Urinal, rough-in, supply/waste/vent	1	EA	1410.67	1,411
Lavatory, rough-in,supply/waste/vt.	5	EA	2158.67	10,793
Installation of Toilet Accessories	10	EA	78.00	780
Urinal, wall hung, vitreous china	1	EA	1396.95	1,397
Lavatory, wall-hung, porcelain/ci	5	EA	1902.89	9,514
22 40 00 Plumbing Fixtures				***33,967***

23 Heating, Ventilating, and Air Conditioning (HVAC)

23 30 00 HVAC Air Distribution

23 Heating, Ventilating, and Air Conditioning (HVAC)

Description	Quantity	Unit	Unit Cost	Extended Cost
Air handling & distribution	3585	SF	1.38	4,929
23 30 00 HVAC Air Distribution				**4,929**

26 Electrical

26 00 00 Electrical

Electrical, allowance	3585	SF	1.10	3,944
26 00 00 Electrical				**3,944**

Sub Total			186,571	52.04 / SF
Profit	10	%	18,657	
Bond	1	%	1,866	
Contingency	20	%	37,314	
Grand Total			**244,408**	68.18 / SF