The Community Preservation Committee
Presentation to
Finance and Advisory Committee
Wednesday, September 14, 2022

Community Preservation Act
Articles 9A, 9B, 9C & 9D

Fall Town Meeting
Saturday October 8, 2022
Fall Town Meeting:
Article 9A ............................................................................................................Section A
Supporting Documents, Article Language and Intention Summary
Open Space Water Protection: Darby Pond Well

Article 9B ............................................................................................................Section B
Supporting Documents, Article Language and Intention Summary
Historical Exterior Restoration: Spire Center for the Preforming Arts

Article 9C ............................................................................................................Section C
Supporting Documents, Article Language and Intention Summary
Open Space Stephens Lane: Estuary Protection

Article 9D ............................................................................................................Section D
Supporting Documents, Article Language and Intention Summary
Historical 1857 Plymouth Foundry Restoration: Water Street

CPA Finance Report Account Balances
Fall: 2022 .............................................................................................................Section E
Section

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

ARTICLE 9A: To see if the Town will vote to authorize the Select Board to acquire by purchase, gift, eminent domain, or otherwise, for open space and recreational purposes pursuant to G.L. c. 44B on such terms and conditions as the Select Board deems appropriate and to accept the deed to the Town of Plymouth, of a fee simple interest or less in the land comprising 99.5 acres, more or less, located off Carver Road in Plymouth, described more particularly in the deed recorded with the Plymouth County Registry of Deeds in Book 56776, Page 338, as further shown on Assessor’s Map 107 as Lots 9A, 20F-1, 20F-2, 20F-3, 22, 23-4, 24A, and 63-10, such land to be held under the care, custody, management and control of the Conservation Commission; and to appropriate $900,000.00 for the acquisition of said land and other costs associated therewith from the Community Preservation Fund estimated annual revenues, fund balance, or reserves, and/or borrow said total sum pursuant to G.L. c. 44B, §11 or G.L. c.44, §7 or any other enabling authority; and further to authorize the Select Board to grant a conservation restriction in said property in accordance with G.L. c. 44B, §12 meeting the requirements of G.L. c. 184, §§31-33; and to authorize appropriate Town officials to file on behalf of the Town any and all applications deemed necessary for grants and reimbursements from the Commonwealth of Massachusetts deemed necessary under G.L. c. 132A, §11 and to authorize them to enter into all agreements and execute all instruments as may be necessary on behalf of the Town to effect said purchase; or take any other action relative thereto.

COMMUNITY PRESERVATION COMMITTEE

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

SUMMARY & INTENT:
The Community Preservation Committee is recommending this Article to Fall Town Meeting 2022 to utilize CPA Open Space Funds for the acquisition of land off of Rt 80.

Property Description: The property is within multiple areas identified as significant by the Commonwealth of Massachusetts for groundwater and surface water protection, including: It is directly adjacent to the Town’s Darby Pond Well, identified by the Commonwealth of Massachusetts as a “Community Groundwater Well” that is within a Zone I Wellhead Protection Area Portions of the Property are within a Zone II Well Head Protection Area

NATURAL RESOURCE VALUES AND CHARACTERISTICS: The property is within multiple areas that have been identified as ecologically significant by Natural Heritage (NHESP), including:

- Entirely within Bio Map 2 “Core Habitat, Core Component—Species of Conservation Concern”, and “Critical Natural Landscape, Core Component, Landscape Blocks”. Directly abuts the Zone 1 Wellhead Protection Area.
- Partially within “Priority Habitats of Rare Species, PH 530” (numerous Pine Barrens-associated species)
- Partially within “Pine Barrens Natural Community Systems, UMass”. Pine Barrens are a globally rare forest type.
- Entirely within a Area of Critical Environmental Concern”, as designated by the Commonwealth of Massachusetts EOEEA in 1991

The property has frontage on Darby Pond, a coastal Plain Pond. Such ponds are globally rare habitats found almost exclusively in Southeastern MA, primarily in Plymouth.
APPLICATION

to the

PLYMOUTH
COMMUNITY PRESERVATION
COMMITTEE

July, 2022

PROJECT: DARBY POND TOWN WELL
PROTECTION/CAMP NORSE

LOCATION: GRAFFAM ROAD, R. CARVER ROAD,
KRISTIN ROAD, PARTING WAYS ROAD, AND DARBY
POND, WEST PLYMOUTH

ACREAGE: Approximately 99.5 acres

CURRENT OWNERS:

RHODE ISLAND BOY SCOUTS

Subject Parcels: Plymouth Assessors Map 107, Parcels
9A, 20F-1, 20F-2, 20F-3, 22, 23-4, 24A, 63-10
PROJECT SUMMARY:

Wildlands Trust ("WLT") hereby submits an application to the Plymouth Community Preservation Committee, pursuant to the possibility of the Town acquiring the fee simple interest in eight parcels situated on and around Darby Pond in the northwest corner of Plymouth.

The parcels (collectively, the "Property") comprise 99.5 acres, more or less, and are part of Camp Norse, a complex serving the scouting community in Southeastern Massachusetts and Rhode Island. It directly abuts and surrounds the Town's Darby Pond Well, a so-called "Community Groundwater Well" that provides drinking water to Plymouth residents. Because of its proximity to the well, the Property is situated proximate to and within multiple areas identified as significant for groundwater and surface water protection. It directly abuts the Zone I Wellhead Protection Area that establishes a 400' protective radius around the well, is within a "Zone II Wellhead Protection Area", and lies entirely within an area identified by the Commonwealth of Massachusetts as a "High Yield Aquifer Area".

The Town's acquisition of the Property would help protect this vital component of the Town's infrastructure, help protect the sole source Plymouth-Carver Aquifer, and preserve a large assemblage of open space in an area of Plymouth historically underserved by land conservation efforts.

The Property possesses other significant natural resource values. It is within areas designated by the Commonwealth of Massachusetts Natural Heritage and Endangered Species Program ("NHESP") as BioMap 2 "Core Habitat" and "Critical Natural Landscape", and "Priority Habitat of Rare Species PH 609". It also includes extensive frontage on Darby Pond, a so-called "Coastal Plain Pond". Such ponds are globally rare habitats found almost exclusively in Southeastern Massachusetts, but primarily in Plymouth.

The proposed acquisition of the Property meets several of the "Open Space Goals and Criteria" enumerated in Plymouth's Community Preservation Committee application, and is consistent with several of the goals and objectives articulated in Plymouth's Open Space and Recreation Plan.

OWNERSHIP/PROJECT HISTORY:

The Property is owned and managed by the Rhode Island Boy Scouts. The Property was formerly owned by the Narragansett Council of the Boy Scouts, which merged with Anawon Council of the BSA in 2016. A copy of that merger agreement is included herewith in the Attachments section of this application, along with a copy of a deed from May 2022 transferring the Property's title from the Narragansett Council to the Rhode Island Boy Scouts.
Camp Norse was established in 1934 with the acquisition of 25 acres on Darby Pond. Subsequent acquisitions, including but not limited to those in 1943, 1962, and 1969 expanded the Camp to its current extent.

In early 2018 WLT staff and representatives of the Town of Plymouth spoke with Narragansett Council CEO Tim McCandless and CFO Marc Cardin about the prospects for a conservation project involving some portion of the Camp’s property. At that time, the proposed project scope involved the Town’s purchase of a Conservation Restriction on approximately 165 acres in Plymouth. Toward that possible outcome, WLT prepared and submitted an application to the CPC on Council’s behalf in spring 2018.

The Town and the Council subsequently commissioned an appraisal of the assemblage that would comprise the proposed CR, and following receipt of the appraisal discussions ensued toward achieving agreement on a sales price for the CR. However, the parties did not reach an accord on a sales price, and the project went dormant for several years, in no small part due to the Covid pandemic.

In June 2022, Mr. McCandless and Mr. Cardin conferred with Plymouth Community Preservation Chair Bill Keohan toward reviving discussions about a potential conservation project, and to discuss the typical parameters of a Community Preservation Act open space project, including the application process, the appraisal process, and how the Community Preservation Committee builds support for its projects prior to presenting them for Town Meeting approval. The parties also discussed and agreed upon revising the proposed project’s scope, to involve a town purchase of the fee simple interest in approximately 99.5 acres of the Council’s holdings in lieu of acquiring a Conservation Restriction.

WLT is revising and advancing this application on behalf of Mr. Cardin, Mr. McCandless and the Rhode Island Boy Scouts, and will help facilitate the project thereafter as needed.

ZONING/DEVELOPMENT POTENTIAL:

The Property is situated entirely within the RR Zoning District. In the absence of a conceptual or approved subdivision plan, its development potential is unknown at this time, and would require further analysis that is beyond the scope of this application. The property does contain significant upland area.

PLANS OF LAND:

Per Mr. Cardin, there aren’t any survey plans that depict the Premises.
PROPOSED ACQUISITION PLAN/TIMELINE:

In the best case, the Town would acquire the Property as soon as possible following a vote by Fall 2022 Plymouth Town Meeting approving the project, subject to the satisfactory completion of all required due diligence. The proposed project timeline would be contingent upon multiple factors, including the parties achieving agreement on a sales price.

NATURAL RESOURCES SUMMARY:

The Property is within multiple areas identified as significant by the Commonwealth of Massachusetts for groundwater and surface water protection, including:

- It is directly adjacent to the Town’s Darby Pond Well, identified by the Commonwealth of Massachusetts as a “Community Groundwater Well” that is within a Zone I Wellhead Protection Area
- Portions of the Property are within a Zone II Wellhead Protection Area
- It lies above the Plymouth-Carver sole source aquifer, an invaluable regional resource that is the source of Plymouth’s drinking water.
- It lies entirely within a “High Yield Aquifer Area”.

The Property is comprised primarily of wooded upland area, with variable topography, and includes most of the frontage on Darby Pond. It is within multiple areas designated as ecologically significant by NHESP, including:

- Partially within Bio Map 2 "Core Habitat", "Core Component—Species of Conservation Concern", "Aquatic Core", "Wetlands", and "Priority Natural Communities", and "Critical Natural Landscape", CNL Components, "Upland Buffer of Aquatic Core", "Upland Buffer of Wetland Core"
- Portions of the Property are within "Priority Habitats of Rare Species, PH 609", and "Estimated Habitats of Rare Wildlife"
- Includes area of "Acidic Peatland Community Systems" (on parcel south of Graffam Road)
- Includes area of "Sandplain Natural Community Systems" (on parcel northeast of Darby Pond, near the power line corridor)
- "Coastal Plain Pond Systems" (Darby Pond is a Coastal Plain Pond. Said ponds are a globally rare natural community).

LANDSCAPE CONTEXT:

The Property's landscape context is mostly favorable. Other holdings of Camp Norse in the Town of Kingston that extend out to Parting Ways Road abut to the north, a 39-acre parcel including a cranberry bog and associated upland acquired by the Town in 2018 directly abuts to the east, and a large tract of privately owned open space extending into the Town of Carver abuts to the west. The Town’s Darby Pond Well sits in the virtual
center of the Camp, and a large parcel also owned by the Town is proximate to the northeast.

There is some single-family residential development situated to the south/southeast, along Graffam Road.

In the larger landscape context, Camp Norse is a significant component of an expansive, if not completely contiguous, corridor of open space in Plymouth and Kingston. Lying to the northeast is the Town of Plymouth’s Parting Ways Cemetery and numerous protected parcels surrounding or in close proximity to Muddy Pond in Kingston, including WLT’s Nick’s Rock Road Preserve, the Kingston State Forest, and the Northeast Wilderness Trust’s Muddy Pond Wilderness Preserve, which completely surrounds Muddy Pond. Situated to the south below Carver Road are several large and primarily undeveloped parcels owned by Pinewood Lodge and the Plymouth Rod and Gun Club, respectively, and the Plymouth Airport complex, part of which contains rare species habitat. WLT holds a CR on a portion of this important habitat area. In the aggregate, this corridor is very significant for its rare wildlife habitats, importance for protecting the Plymouth-Carver Sole Source Aquifer, and scenic qualities.

ACCESS/IMPROVEMENTS:

The Property is accessible from multiple directions. From the south, it is accessed via Darby Station Road and Graffam Road. From the north, it is accessed from Parting Ways Road.

The Property proposed for acquisition does not include any improvements.

PUBLIC ACCESS POTENTIAL: The Property has the potential to support a hiking trail system because of its scale and primarily upland character. Should it acquire the Property, the Town will conduct a thorough assessment of its potential for passive forms of public access such as hiking and nature study.

LONG-TERM MANAGEMENT PROGNOSIS:

The Property proposed for acquisition does not include any improvements and will be managed primarily for water supply protection and passive recreation. Therefore it should not pose a significant operational burden on Town natural resources staff or budget.

ALIGNMENT WITH COMMUNITY PRESERVATION ACT GOALS FOR OPEN SPACE

GOAL 1: Preserve Plymouth’s Rural Character. The Property is one of the most important remaining bastions of rural character in northwestern Plymouth, an area that
has witnessed extensive development over the past 35-40 years and has historically been underserved by both public and private land preservation efforts.

GOAL 2: Protect, rare, unique and endangered plant and wildlife habitat. The Property is within multiple areas identified as containing significant wildlife habitat by NHESP, including Darby Pond, a Coastal Plain Pond. Such ponds are globally rare habitats.

GOAL 3: Protect aquifer and aquifer recharge areas to preserve quantity and quality of future water supply. The Property lies above the Plymouth-Carver sole source aquifer, which provides drinking water for Plymouth, is entirely within a “High Yield Aquifer Area” as identified by the Commonwealth of Massachusetts, is almost entirely within a Zone II Wellhead Protection Area; and completely surrounds a Zone I Wellhead Protection Area that includes the Town’s Darby Pond Well.

GOAL 4: Ensure adequate size and connection of protected natural areas to maximize environmental and habitat benefits. The Property directly abuts other holdings of Camp Norse in Kingston, is proximate to a sizable parcel owned by the Town to the northeast, and abuts a substantial tract of privately owned open space that extends westerly into the Town of Carver.

OTHER SUPPORTING INFORMATION: The proposed acquisition would be consistent with several of the identified resource protection needs enumerated in the updated 2017 Town of Plymouth Open Space and Recreation Plan, including:

Section VIII, OPEN SPACE AND RECREATION OBJECTIVES AND STRATEGIES, pp. 206-208:

Water Supply

- Objective 1: “Protect groundwater and assure an abundant supply of clean drinking water”. STRATEGY: “Protect land in Zone I and Zone II Wellhead Protection Areas”. The proposed acquisition would protect land that almost entirely surrounds a Zone I Wellhead Protection Area, and is almost entirely within a Zone II Wellhead Protection Area.

Surface Water Quality

- Objective 3: “Restore and maintain the quality of Plymouth’s ponds, lakes, rivers, and wetlands”. The proposed acquisition would protect land that includes frontage on and is closely proximate to Darby Pond.
Wildlife Habitat Protection

- Objective 7: “Protect wildlife both common species and "rare, endangered and threatened species" through the protection of wildlife habitat, breeding areas, and wildlife corridors”. The proposed acquisition would protect land that includes numerous areas NHESP identifies as containing significant wildlife habitats, including Bio Map 2 Core Habitat and Critical Natural Landscape. Additionally, Darby Pond is a Coastal Plain Pond. Such ponds support globally rare natural communities, and are high priorities for preservation.

**PROJECT BUDGET**

*Proposed Sales Price*  $ TBD following Appraisal

**Funding Sources**

*Town of Plymouth CPC Funds*  $ TBD

*Other*  $ TBD

**Project Costs**

*Due Diligence*  $ 5,000¹ (to potentially include EHA, closing and legal costs)

*Stewardship Endowment*  $ 15,000²

*Project Total*  $ TBD

¹Estimated figure. In the event the parties determine that additional land survey work is desirable or required, this expense would significantly increase.

²Estimated Figure. The Town and WLT will jointly determine what an appropriate stewardship endowment is for the Property. The landowner has no obligations as regards the endowment for this project.
PROJECT TIMELINE (conditional)

- Submission of Application to CPC—July 2022
- CPC Deliberations on Application/Vote—Early Summer 2022
- Appraisal completed—2nd week of August 2022
- Execution of P+S—Following collective review of appraisal, agreement on sales price
- Due Diligence Initiated/Completed—Late Summer/Early Fall 2022
- Town Meeting Vote on Warrant Article Authorizing CPC Expenditure on Project—October 2022*
- Closing—Pending completion of due diligence, within six to eight weeks after Town Meeting vote authorizing project

*The earliest the project could receive Town Meeting approval is October 2022; and that timeline is contingent upon multiple factors, including obtaining an agreement on a sales price between the parties.
ATTACHMENTS/EXHIBITS

- ASSESSORS FIELD CARDS FOR SUBJECT PROPERTY
- MOST RECENT DEED FOR SUBJECT PROPERTY
- ARTICLES OF CONSOLIDATION/MERGER FOR ANAWON AND NARRAGANSETT BSACOUNCILS
- LANDSCAPE CONTEXT MAP DEPICTING PROPERTY AND ADJACENT OPEN SPACE PARCELS
- CLOSE-UP MAP DEPICTING THE PARCELS COMPRISING THE SUBJECT PROPERTY
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID: 107-006-009A-000
Prior Parcel ID: 0190-001-107*0009*
Property Owner: NARRAGANSETT COUNCIL
BOY SCOUTS OF AMERICA
Mailing Address: MARC CARDIN
PO BOX 14777
City: PROVIDENCE
Mailing State: RI
Zip: 02914
 Parcel/Zoning: RR

Account Number: 16884
Property Location: DARBY POND
Property Use: Char - Rec
Most Recent Sale Date: 9/11/2016
Legal Reference: 47305-148
Grantor: ANNAWON COUNCIL INC BSA,
Sale Price: 0
Land Area: 2,848 acres

Current Property Assessment

Card Value: Building Value: Xtra Features Value: Land Value: Total Value: 257,900

Building Description

Building Style: # of Living Units: 0
Year Built: N/A
Building Grade: N/A
Building Quality: N/A
Finished Area: (SF): N/A
Number Rooms: 0
# of 3/4 Baths: 0

Foundation Type: Frame Type: N/A
Roof Structure: Roof Cover: Siding: N/A
Interior Walls: N/A
# of Bedrooms: 0
# of 1/2 Baths: 0

Flooring Type: N/A
Basement Floor: N/A
Heating Type: N/A
Heating Fuel: N/A
Air Conditioning: 0%
# of Basement Garages: 0
# of Full Baths: 0
# of Other Fixtures: 0

Legal Description

Narrative Description of Property

This property contains 2,848 acres of land mainly classified as Char - Rec with at(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available
No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

https://plymouth.patriotproperties.com/RecordCard.asp
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-000-020F-001
Prior Parcel ID 7529 -001-107-0002B
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
Mailing Address MARC CARDIN
PO BOX 14777
City E PROVIDENCE
Mailing State RI Zip 02914
Parcel Zoning RR

Account Number 18836
Property Location 100 - 122 GRAFFAM RD
Property Use Rec
Most Recent Sale Date 8/11/2016
Legal Reference 47306-148
Grantor ANNANION COUNCIL INC BSA,
Sale Price 0
Land Area 2.999 acres

Current Property Assessment

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Xtra Features

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<td># of Other Fixtures</td>
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Legal Description

This property contains 2.999 acres of land mainly classified as Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available

No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-000-120F-001
Prior Parcel ID 7520 -G01 -107*0002B
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
Mailing Address MARC CARDIN
PO BOX 14777
City E PROVIDENCE
Mailing State RI Zip 02914
Parcel/Zoning RR
Account Number 18896
Property Location 100 - 122 GRAFFAM RD
Property Use Char - Rec
Most Recent Sale Date 8/11/2016
Legal Reference 47306-148
Grantor ANNAWON COUNCIL INC BSA
Sale Price 0
Land Area 2,999 acres

Current Property Assessment

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Building Description

Building Style Foundation Type Flooring Type N/A
# of Living Units 0 Frame Type Basement Floor N/A
Year Built N/A Roof Structure Heating Type N/A
Building Grade Roof Cover Heating Fuel N/A
Building Condition N/A Siding Air Conditioning 0%
Finished Area (SF) N/A Interior Walls N/A # of Bsmt Garages 0
Number Rooms 0 # of Bedrooms 0 # of Full Baths 0
# of 3/4 Baths 0 # of 1/2 Baths 0 # of Other Fixtures 0

Legal Description

This property contains 2,999 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

Disclaimer This information is believed to be correct but is subject to change and is not warranted.
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-009-020F-002
Prior Parcel ID 7520-001-107*002C
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
Mailing Address MARC CARDIN PO BOX 14777 City E PROVIDENCE
Mailing State RI Zip 02914
ParcelZoning RR

Account Number 18886
Property Location 72 - 88 GRAFFAM RD
Property Use Char - Rec
Most Recent Sale Date 0/11/2016
Legal Reference 47306-148
Grantor ANNAMON COUNCIL INC BSA,
Sale Price 0
Land Area 1.799 acres

Current Property Assessment

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Building Description

Legal Description

This property contains 1.799 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available

No Picture Available

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Unofficial Property Record Card - Plymouth, MA

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### General Property Data

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</tbody>
</table>

### Current Property Assessment

<table>
<thead>
<tr>
<th>Card 1 Value</th>
<th>Building Value</th>
<th>Xtra Features Value</th>
<th>Land Value</th>
<th>Total Value</th>
</tr>
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<tbody>
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<td>0</td>
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<td>1,220,700</td>
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### Building Description

<table>
<thead>
<tr>
<th>Building Style</th>
<th>Foundation Type</th>
<th>Frame Type</th>
<th>Roof Structure</th>
<th>Roof Cover</th>
<th>Siding</th>
<th>Flooring Type</th>
<th>Basement Floor</th>
<th>Heating Type</th>
<th>Heating Fuel</th>
<th>Air Conditioning</th>
<th># of Bsmt Garages</th>
<th># of Full Baths</th>
<th># of Other Fixtures</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Living Units</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0%</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Year Built</td>
<td></td>
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<td></td>
<td></td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Building Grade</td>
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<td></td>
<td></td>
<td></td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>Building Condition Average</td>
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<td>N/A</td>
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<tr>
<td>Number Rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>N/A</td>
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<td>N/A</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td># of 3/4 Baths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>0</td>
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</tbody>
</table>

### Legal Description

**Narrative Description of Property**

This property contains 55.399 acres of land mainly classified as Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 units, 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

### Property Images

- [No Sketch Available](image1)
- [No Picture Available](image2)

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-000-020F-003
Prior Parcel ID 7520-G511-1070002D
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
Mailing Address MARC CARDIN PO BOX 14777 CITY E PROVIDENCE
Mailing State RI Zip 02914 ParcelZoning RR

Account Number 18696
Property Location 79 R CARVER RD
Property Use Char - Rec
Most Recent Sale Date 8/11/2016
Legal Reference 47306-148
Grantor ANNAMON COUNCIL INC BSA,
Sale Price 0
Land Area 55.399 acres

Current Property Assessment

Card 1 Value Building Value 0 Xtra Features Value 0
Land Value 1,220,700 Total Value 1,220,700

Building Description

Building Style
# of Living Units 0
Year Built N/A
Building Grade
Building Condition Average
Finished Area (SF) N/A
Number Rooms 0
# of 3/4 Baths 0

Foundation Type Frame Type Flooring Type N/A
Roof Structure Roof Cover Basement Floor N/A
Sliding Interior Walls N/A Heating Type N/A
# of Bedrooms 0 # of Bathrooms 0 Heating Fuel N/A
# of 1/2 Baths 0 Air Conditioning 0%

Legal Description

Narrative Description of Property

This property contains 55.399 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available
No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

https://plymouth.patriotproperties.com/RecordCard.asp
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-006-022-000
Prior Parcel ID 9100-501-167*-9121*
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
Mailing Address MARC CARDIN PO BOX 14777 City E PROVIDENCE
Mailing State RI Zip 02914 ParcelZoning RR

Account Number 18894
Property Location WOODLAND-SHERMAN
Property Use Char - Rec
Most Recent Sale Date 8/11/2016
Legal Reference 47306-148
Grantor ANNAWON COUNCIL INC BSA;
Sale Price 0
Land Area 0.770 acres

Current Property Assessment

Card 1 Value Building Value 0 Xtra Features Value Land Value 15,400 Total Value 15,400

Building Description

Building Style
# of Living Units 0
Year Built N/A
Building Grade
Building Condition Average
Finished Area (SF) N/A
Number Rooms 0
# of 3/4 Baths 0

Foundation Type
Frame Type
Roof Structure
Roof Cover
Siding
Interior Walls N/A
# of Bedrooms 0
# of 1/2 Baths 0

Flooring Type N/A
Basement Floor N/A
Heating Type N/A
Heating Fuel N/A
Air Conditioning 0%
# of Bsmt Garages 0
# of Full Baths 0
# of Other Fixtures 0

Legal Description

Narrative Description of Property

This property contains 0.770 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available
No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID: 107-000-024A-000
Prior Parcel ID: 7520 - 021-0070019
Property Owner: NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
C/O MARC CARDIN
Mailing Address: PO BOX 14777
City: PROVIDENCE
Mailing State: RI
Zip: 02314
Parcel/Zoning: RR

Account Number: 18896
Property Location: 59 KRISTIN RD
Property Use: Char - Rec
Most Recent Sale Date: 8/11/2016
Legal Reference: 47306-148
Grantor: ANNAN WOUN COUNCIL INC BSA,
Sale Price: 0
Land Area: 23,400 acres

Current Property Assessment

Card 1 Value: Building Value: Xtra Features: Land Value: Total Value:
0
2,100
730,100
732,200

Building Description

Building Style: # of Living Units: 0
Year Built: N/A
Building Grade: Building Condition: N/A
Finished Area (SF): N/A
Number Rooms: 0
# of 3/4 Baths: 0

Foundation Type: Frame Type: Flooring Type: N/A
Roof Structure: Roof Cover: Basement Floor: N/A
Siding: Interior Walls: Heating Type: N/A
# of Bedrooms: 0
# of Full Baths: 0
# of Other Fixtures: 0
# of 1/2 Baths: 0
Air Conditioning: 0%
# of Bsmt Garages: 0

Legal Description

Narrative Description of Property

This property contains 23,400 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available
No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-000-023-004  
Prior Parcel ID 9100-091-107*123C  
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA  
Account Number 18895  
Mailing Address MARC CARDIN  
PO BOX 14777  
City PROVIDENCE  
Mailing State RI  
Mailing Zip 02914  
Property Location GRAFFAM RD  
City PROVIDENCE  
Property Use Char - Rec  
Most Recent Sale Date 8/11/2016  
Legal Reference 47366-148  
Grantor ANNABAWN COUNCIL INC BSA,  
Sale Price 0  
Land Area 10.859 acres

Current Property Assessment

Card Value 1 Building Value 0  
Xtra Features Value 0  
Land Value 278,600  
Total Value 273,600

Building Description

Building Style  
# of Living Units 0  
Year Built N/A  
Building Grade  
Building Condition N/A  
Finished Area (SF) N/A  
Number Rooms 0  
# of 3/4 Baths 0  
Foundation Type  
Frame Type  
Roof Structure  
Roof Cover  
Sliding  
Interior Walls N/A  
# of Bedrooms 0  
# of 1/2 Baths 0  
Flooring Type N/A  
Basement Floor N/A  
Heating Type N/A  
Heating Fuel N/A  
Air Conditioning 0%  
# of Bsmt Garages 0  
# of Full Baths 0  
# of Other Fixtures 0

Legal Description

This property contains 10.859 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available

No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-000-324A-000
Prior Parcel ID 7520-001-107-0019
Property Owner NARRAGANSETT COUNCIL BOY SCOUTS OF AMERICA
C/O MAEC CARDIN
Mailing Address PO BOX 14777
City E PROVIDENCE
Mailing State RI Zip 02314
Parcel/Zoning RR

Account Number 16899
Property Location 59 KRISTIN RD
Property Use Char - Rec
Most Recent Sale Date 8/11/2016
Legal Reference 47306-148
Grantor ANNAWON COUNCIL INC BSA,
Sale Price 0
Land Area 23,400 acres

Current Property Assessment

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Building Description

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<th>Building Style</th>
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<th># of Living Units 0</th>
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<tr>
<td>Year Built N/A</td>
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<td>Building Grade</td>
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<tr>
<td>Building Condition N/A</td>
<td>0</td>
<td>Finished Area (SF) N/A</td>
<td>0</td>
</tr>
<tr>
<td>Number Rooms 0</td>
<td>0</td>
<td># of 3/4 Baths 0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foundation Type</th>
<th>Frame Type</th>
<th>Roof Structure</th>
<th>Roof Cover</th>
<th>Sliding</th>
<th>Interior Walls N/A</th>
<th># of Bedrooms 0</th>
<th># of 1/2 Baths 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooring Type N/A</td>
<td>Basement Floor N/A</td>
<td>Heating Type N/A</td>
<td>Heating Fuel N/A</td>
<td>Air Conditioning 0%</td>
<td># of Bmtn Garages 0</td>
<td># of Full Baths 0</td>
<td># of Other Fixtures 0</td>
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</tbody>
</table>

Legal Description

This property contains 23,400 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available

No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

https://plymouth.patriotproperties.com/RecordCard.asp
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 107-000-063-010
Prior Parcel ID 9100 -G01 -107*0125C
Property Owner NARRAGANSETT COUNCIL BOY
SCOUTS OF AMERICA
Mailing Address MARC CARDIN
PO BOX 14777
City E PROVIDENCE
Mailing State RI Zip 02914
ParcelZoning RR

Account Number 64736
Property Location GRAFFAM RD
Property Use Char - Rec
Most Recent Sale Date 8/11/2016
Legal Reference 47306-148
Grantor ANNAPOLON COUNCIL INC BSA,
Sale Price 0
Land Area 1,510 acres

Current Property Assessment

Card 1 Value Building Value 0 Xtra Features 0 Value Land Value 13,600 Total Value 13,600

Building Description

Building Style
# of Living Units 0
Year Built N/A
Building Grade
Building Condition N/A
Finished Area (SF) N/A
Number Rooms 0
# of 3/4 Baths 0
Foundation Type
Frame Type
Roof Structure
Roof Cover
Sliding
Interior Walls N/A
# of Bedrooms 0
# of 1/2 Baths 0
Flooring Type N/A
Basement Floor N/A
Heating Type N/A
Heating Fuel N/A
Air Conditioning 0%
# of Bsmt Garages 0
# of Full Baths 0
# of Other Fixtures 0

Legal Description

Narrative Description of Property

This property contains 1,510 acres of land mainly classified as Char - Rec with a(n) style building, built about N/A, having exterior and roof cover, with 0 unit(s), 0 room(s), 0 bedroom(s), 0 baths), 0 half bath(s).

Property Images

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

https://plymouth.patriotproperties.com/RecordCard.asp
The Narragansett Council, Boy Scouts of America, Inc., a Rhode Island non-profit corporation, for consideration paid in the amount of Three Million Nine Hundred Ninety-Six Thousand Dollars and 00/100 ($3,996,000.00) hereby grants to Rhode Island Boy Scouts, a Rhode Island non-profit corporation, with QUITCLAIM COVANTNS, the following described premises:

See Exhibit A attached hereto and made a part hereof.

Property address: 112 Parting Ways Road, Kingston, Massachusetts
Grafton Road and Darby Pond, Plymouth, Massachusetts

WITNESS our hand and seal this 4th day of May, 2022.

The Narragansett Council, Boy Scouts of America, Inc.

By:  

Dennis Leahy, President

STATE OF MASSACHUSETTS
COUNTY OF BARNSTABLE

On this 4th day of May, 2022, before me, the undersigned notary public, personally appeared Dennis Leahy, as President of The Narragansett Council, Boy Scouts of America, Inc., personally known to the notary or proved to the notary through satisfactory evidence of identification, which was satisfactory to be the person whose name is signed on the preceding document, and he acknowledged to the notary that he signed it voluntarily for its stated purpose.

Grantee address: 1033 Sciuate Ave.
Cranston, R.I. 02921

6790-13892319

Notary Public
My Commission Expires: 7/1/2018

Erie L. Niederer
Notary Public, Commonwealth of Massachusetts
My Commission Expires July 07, 2022
WITNESS our hand and seal this ___ day of May, 2022.

The Narragansett Council, Boy Scouts of America, Inc.

By: [Signature]
   Rick Partridge, Treasurer

STATE OF Rhode Island
COUNTY OF Providence

On this ___ day of May, 2022, before me, the undersigned notary public, personally appeared Rick Partridge, as Treasurer of The Narragansett Council, Boy Scouts of America, Inc., personally known to the notary or proved to the notary through satisfactory evidence of identification, which was [insert evidence], to be the person whose name is signed on the preceding document, and he acknowledged to the notary that he signed it voluntarily for its stated purpose.

[Signature]
Notary Public
My Commission Expires: 4/1/2026
H 782289
EXHIBIT A

PARCEL 1

A certain parcel of land with any buildings thereon, in Kingston, bounded and described as follows: beginning at a stake and stones on the southerly side of Parting Ways Road; thence running southerly by land of Sherman to land of Isaac Sherman and land formerly of Ephraim Ward and to the Poplar Tree Road, so-called; thence westerly by said road to land formerly of Levi Sherman; thence northerly by the said Levi Sherman's land to a pine tree marked standing by the said Parting Ways Road; thence by the said road to the point of beginning. Said lot contains 14 acres, more or less.

Also a certain parcel of woodland situated in said Kingston adjoining the above described lot, bounded as follows: beginning at the corner of land of Nelson Sherman; thence running North 5 deg. West twenty-three (23) rods to a pitch pine tree and land now or formerly of Eliza Sherman; thence South 89 deg. West thirty-six (36) rods to a pitch pine tree; thence southerly by land of Andrew Bradford to the woodland; thence by the woodland to the Poplar Tree Road; thence by the road to the point of beginning.

Also, a certain parcel of woodland situated in Kingston on the southerly side of Parting Ways Road, so-called, containing twenty acres, more or less, bounded as follows: beginning on the said road and at the northeast corner of land of Nelson Sherman; thence running southwesterly by said land of Nelson Sherman to land formerly of Earl Sherman; thence running northwesterly by said land of Earl Sherman to land supposed to belong to Warren Rickard; thence northeasterly by said Rickard land to said road to the bounds first mentioned.

For title reference see deed to Lillian P. Proctor in Book 1595 at Page 422. And being the same premises conveyed to Annawon Council, Inc., Boy Scouts of America in Book 1806 at Page 9 and in Book 1864 at Page 594.

Also, the land on the south side of the highway leading from Plympton to Parting Ways, so-called, bounded and described as follows: beginning at a stake and stones by the highway that leads from Plympton to Parting Ways; thence South 1 1/8 deg. East by land formerly of John C. Barnes, now of Annawon Council, Inc., about 82 rods to Popple Tree Road, which leads from Doton's Cedar Swamp to Parting Ways; thence easterly by said road about 80 rods to a pitch pine tree marked with stones around it for a corner; thence North 9 deg. West by land of the Town of Plympton 59 rods to a stake and stones by the highway; thence westerly by said highway 62 rods to the point of beginning, containing 30 acres, more or less.

Also, another parcel of woodland, bounded as follows: beginning at a white oak tree with stones about it for a corner by the highway leading from Parting Ways to Plympton; thence South 2 1/4 deg. East by land now or formerly of B. D. Sherman about 100 rods to Popple Tree Road to a stake and stones; thence easterly by said road 27 rods to the corner of land formerly of John C. Barnes, standing by said road; thence North 2 deg. West by land formerly of said John C. Barnes about 94 rods to a corner standing by the highway; thence westerly by said highway 26 1/4 rods to the point of beginning, containing 15 acres more or less.
For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 2026 at Page 175.

Also, a certain piece of woodland situated in the Town of Kingston, in Plymouth County, containing 15 acres, more or less, and bounded as follows: beginning at a stake and stones standing by the road leading from Plympton Meeting House to Plymouth, being the northeast corner of the lot now or formerly of Heman Crocker; thence South 8 deg. East about 94 rods to the Poplar Tree Road; thence by said road northeasterly about 30 ½ rods to a stake and stones by said Poplar Tree Road, the corner of the lot now or formerly of Henry and Anthony Sherman; thence North 8 deg. West to the road first mentioned; thence by said road westerly to the point of beginning.

For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 2056 at Page 271.

Excepting from the above parcels that portion of locus taken for the layout of Parting Ways Road in Book 2380 at Page 62; that portion of locus conveyed to the Boston Edison Company in Book 3723 at Page 172; and that portion of locus conveyed to Gosco, Inc. in Book 12783 at Page 22.

Property address: (for reference only)
112 Parting Ways Road
Kingston, MA
AP 106, Lot 7

PARCEL 2

A parcel of land in Plymouth, Plymouth County, Massachusetts being more particularly bounded and described as follows: beginning at a point in the southerly sideline of an existing way at the northwesterly corner of the parcel to be described; thence easterly in the southerly sideline of said existing way 540 feet, more or less, to a point in a line which is 25 feet distant from and parallel to the westerly side of a building located southerly of the existing way last referred to; thence South 33° 12' 49" East in said line 88 feet to Darby Pond; thence by Darby Pond westerly and southerly to a point; thence South 39° 45' 46" West 45 feet more or less to an iron pin; thence North 51° 52' 28" West 681.15 feet to the point of beginning.

For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 3794 at Page 55.

Property address: (for reference only)
Darby Pond
Plymouth, MA
AP 107, Lot 9A
PARCEL 3

The land in Plymouth, Plymouth County, Massachusetts being more particularly bounded and described as follows: two small islands situated in Darby Pond, one containing about one-half acre and the other about one and one-half acres; also a parcel of land on the northerly side of Darby Pond, bounded westerly by the brook running from the cranberry bog into the pond; northerly by land now or formerly of Decas Cranberry Co., Inc. easterly by land of Annawon Council, Inc., Boy Scouts of America; and southerly by Darby Pond. Containing about one and one-half acres.

For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 4022 at page 309.

Property address: (for reference only)
Darby Pond
Plymouth, MA
AP 107, Lots 1C, 11 & 12

PARCEL 4

A certain lot or parcel of land known as Darby and being known as the Brewster lot, bounded and described as follows: beginning at a point on Darby Pond in line of land now or formerly of Herbert Bourne; thence North 5° 40' East 1089 feet to a corner in line of said Bourne; thence North 62° West 237.6 feet to a corner still in line of land of said Bourne; thence North 24° 40' West 139.5 feet to a corner marked by a pile of stones in line of land of said Bourne, said corner being on the northerly side of Ridge Road, so-called; thence southwesterly by said Ridge Road about 1134.5 feet to a corner marked by a stake and stones in line of land supposed to be of Warren S. Bumpus; thence South 1° 30' East 370.9 feet to a stake and stones for a corner; thence in line of land now or formerly of Cape Cod Company South 57° 40' East 350.5 feet to a stake and stones for a corner at the edge of the woods road; thence crossing said woods road and running South 19° East 59.4 feet to a stake and stones for a corner; thence South 70° 40' East 3' 3.5 feet to a maple tree for a corner near the edge of said Darby Pond; thence in the same course to pond; thence by the pond northeasterly, easterly and southeasterly to the bound first mentioned.

Together with the right to pass and repass on foot and with vehicles over the roadway as now used from Plymouth Street to premises.

For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 1686 at Page 250.

Property address: (for reference only)
Parting Ways Road
Plymouth, MA
AP 107, Lot 13
PARCEL 5

A certain lot of woodland situated in Plymouth, Massachusetts, containing about fourteen (14) acres, with the buildings thereon, bounded and described as follows: beginning at a stake standing on the south side of the road leading from the late Reuben Sherman's to "Parting Ways" at a corner of land row or formerly of Henan Cobb; thence running South 3 ½ West by said Cobb land and land now or formerly of the heirs of Ripley, ninety-three (93) rods to a stake at a maple tree by Darby Pond; thence westerly by the pond about twenty (20) rods to a stake and stones at a corner of land formerly owned by James V. Faunce; thence northerly by said Faunce land, sixty-six (66) rods to a stake and stones; thence North 87 ¼ West by said Faunce land, fourteen and one-half (14 ½) rods to a stake and stones at the corner of land now or formerly of George Shurtleff; thence North 28 West by said Shurtleff's land, nine (9) rods and three (3) links to a stake and stones by the road; thence easterly by the road, forty-nine (49) rods to the point of beginning.

Excepting from the above described premises about one acre of land conveyed in Book 1578 at Page 58. Also that parcel taken by the Town of Plymouth for the Darby Pond Well Site in Book 8932 at Page 7.

For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 46185 at Page 132.

Property address: (for reference only)
136 Grimsom Road
Plymouth, MA
AP 107, Lot 17A

PARCEL 6

A certain parcel of upland and cranberry bog bounded as follows: SOUTHEASTERLY by the northwesterly sideline of the former Plymouth to Middleboro Railroad, one thousand two hundred eighty (1280) feet, more or less; thence SOUTHEASTERLY by Lot 24 on Plat 107, three hundred forty (340) feet, more or less; thence SOUTHEASTERLY by said Lot 24, one thousand one hundred ninety (1190) feet, more or less; thence EASTERLY again by said Lot 24, one hundred (100) feet, more or less; thence SOUTHERLY by said Lot 24, one thousand twelve (1012) feet, more or less; thence EASTERLY again by land of Bradford Land Co., eight hundred ninety (890) feet, more or less; thence NORTHERLY by land of the Town of Plymouth, five hundred thirty-five (535) feet, more or less; thence EASTERLY again by land of the Town of Plymouth, seven hundred twenty-five (725) feet, more or less; thence NORTHWESTERLY by Topping Tree Road, so-called, two thousand two hundred (2200) feet, more or less; thence WESTERLY by land of Irene D. Bourne, and by land of Charles W. Hall, Jr., one thousand five hundred fifty (1550) feet, more or less; thence SOUTHERLY again, southwesterly and westerly again by the irregular line of Darby Pond, about one thousand five hundred (1500) feet.

Excepting from the above described premises: that portion of locus conveyed to the Boston Edison Company in Book 3723 at Page 172; that parcel taken by the Town of Plymouth for the Darby Pond Well Site in Book 8932 at Page 7; and that parcel as shown as Lot 72 in PB 36/504 and conveyed in Book 12580 at Page 199.
The above-described premises are shown as Lot 20F-1, Lot 20F-2 and Lot 20F-3 on Plat 107 of the Town of Plymouth assessor's map.

Also, a certain parcel of upland with the drainage ditch passing through the same, situated in said Plymouth and bounded as follows: WESTERLY by land of Richard A. and Anne L. LaRoeque, three hundred eighty (380) feet, more or less; thence SOUTHERLY by a brook, seventy (70) feet, more or less; thence EASTERLY by land of Leo B. and Arlene P. Begin, four hundred sixty (450) feet, more or less; thence NORTHWESTERLY by Little Clear Pond, one hundred (100) feet, more or less.

The above-described premises is shown as Lot 22 on Plat 107 of the Town of Plymouth assessor's map.

Also, a certain parcel of upland situated near Darby Pond in said Plymouth and bounded as follows: SOUTHEASTERLY by land of Leo B. and Arlene P. Begin and by land of Ovila F. and Jeanette E. Parker, one thousand eight hundred fifteen (1815) feet, more or less; thence WESTERLY by Lot 21 on Plat 107, seventy (70) feet, more or less; thence SOUTHEASTERLY again by Lot 21 and by Little Clear Pond, four hundred forty (440) feet, more or less; thence SOUTHWESTERLY by land of Irving C. Minot, Jr. and Virginia Minot, eighty (80) feet, more or less; thence NORTHWESTERLY by Lot 20, four hundred sixty (460) feet, more or less; thence WESTERLY by said Lot 20, three hundred forty (340) feet, more or less; thence NORTHWESTERLY again by Lot 20, one thousand one hundred ninety (1190) feet, more or less; thence WESTERLY by Lot 20, one hundred (100) feet, more or less; thence NORTHERLY by Lot 20, one thousand twelve (1012) feet, more or less; thence EASTERLY by land of Bradford Land Co., six hundred twenty (620) feet, more or less.

Excepting from the above-described premises that parcel as shown as Lot 72 in PB 36/504 and conveyed in Book 12580 at Page 199; also any portion of locus taken for the layout of Kristin Road in Book 11144 at Page 93.

The above-described premises is shown as Lot 24A on Plat 107 of the Town of Plymouth assessor's map.

For title reference see deed into Annawon Council, Inc., Boy Scouts of America in Book 3547 at Page 284.

**PARCEL 7**

A certain parcel of land situated on the northwesterly side of Carver Road in Plymouth, Plymouth County, Massachusetts, containing 10.9 acres ±, and being shown as Parcel A on a plan entitled: "Plan of Land in Plymouth, Massachusetts Owned by Ann L. LaRoeque Scale: 1" = 100' January 8, 2009 Flaherty & Stefani Inc. 67 Samson Street, Plymouth, Massachusetts 02360", which plan is recorded in Plan Book 55 Page 1122.

Together with a non-exclusive easement over the following portions on said plan: (1) a non-exclusive easement over those portions of Lot 53-1 and Lot 53-2 shown as "16' Wide Right-of-Way", and (2) a non-exclusive easement over that portion of Lot 53-3 shown as Existing Roadway Crossing Lot 53-3, all as shown as said plan (collectively the servient estate) for all purposes for which ways are used in the Town of Plymouth, appurtenant to the grantee's premises (the dominant estate). This easement shall enable the grantee to use the servient estate.
for access and utility purposes (including the right to enter upon the servient estate, at the
granter's sole risk, for the purpose of widening, surfacing, maintaining, and repairing the
servient estate, as may be required by the Plymouth Planning Board or utility companies). This
easement shall be deemed binding upon the servient estate and appurtenant to the dominant
estate.

Exception any portion of locus taken in the layout of Carver Road in Book 4063 at page
176.

For title reference see deed into Annawon Council Inc., Boy Scouts of America in Book
38734 at Page 274.

Property address: (for reference only)
Graffam Road
Plymouth, MA
AP 107, Lot 23-4

PARCEL 8

The following three parcels of land shown as Lot 63-10, Lot 63-11, and Lot 63-12 on a
plan entitled "Plan of Land on Darby Station Road and Graffam Road in Plymouth
Massachusetts Date: January 9, 2009 Outback Engineering Incorporated 165 East Grove Street,
Middleborough, MA 02346", which plan is recorded in Plan Book 55, Page 1123, together with
the rights to use Graffam Road for all purposes for which ways are used in the Town of
Plymouth, together with others entitled thereto.

For title reference see Quitclaim Deed to Annawon Council, Inc., Boy Scouts of America in
Book 38734 at Page 292.

Property address: (for reference only)
Graffam Road
Plymouth, MA
AP 107, Lots 63-10, 63-11 & 63-12

PARCEL 9

That certain real estate, with the buildings thereon, situated in Plymouth, Plymouth
County, Massachusetts, bounded and described as follows: 5.7 acres shown on a map entitled:
"New York, New Haven & Hartford Railroad Real Estate & Right of Way Department Land in
Plymouth, Mass., to be conveyed to Rudolph P. and Belle Schumaker. Scale 1" = 200, July
1999", and duly recorded in the Plymouth County Registry of Deeds.

Being all that part of the abandoned right of way of the former railroad from Plymouth to
Middleborough which lies between a line drawn at right angles to the monumented base line of
said railroad at Station 278 & 44 thereof on the West and a line drawn at right angles to said
monumented base line at Station 253 & 52.98 thereof on the East. Together with all rights,
easements, privileges and appurtenances belonging to the granted estate.
For title reference see Quitclaim Deed to Boy Scouts of America, Annawon Council, Inc. in Book 12559 at Page 244.

Also that parcel of land in Plymouth, Plymouth County, Massachusetts as shown as Parcel A on a plan entitled "Plan of Land on Darby Station Road and Graffam Road in Plymouth Massachusetts Date: January 9, 2009 Outback Engineering Incorporated 165 East Grove Street, Middleborough, MA 02346", which plan is recorded in Plan Book 55, Page 1123, together with the rights to use Graffam Road for all purposes for which ways are used in the Town of Plymouth, together with others entitled thereto.

Excepting those parcels shown as Parcel B and Parcel C on said plan, conveyed in Book 38734 at Page 290.

For title reference see Quitclaim Deed to Annawon Council, Inc., Boy Scouts of America in Book 38734 at Page 292.

Also a parcel of land commencing at a point in the southerly line of land now or formerly of the Plymouth & Middleboro Railroad Company at Darby Street, so-called; thence by the westerly line of said Darby Street, southerly to the said Carver Road; thence turning and running by said Carver Road in a general westerly direction to land now or formerly of one Edmond Boutenain; thence by land of said Boutenain, North 3° 6' West 4 rods, 16 links to a corner; thence turning and running North 14° 36' West 22 rods, 2 links; thence South 58° 6' West 22 rods, 5 links to a point; thence North 36° 36' West 538 feet, more or less, to a stone bound; thence North 71° East 625 feet to a cedar tree; thence North 13° East to an iron pipe in line of land formerly the Plymouth & Middleboro Railroad Company; thence by land of said Plymouth & Middleboro Railroad Company in a general easterly direction to the point of beginning.

Excepting those parcels conveyed in Book 23600 at Page 153 being, for reference only, Lot 64-4 in Plan Book 46, Page 89 and Lot 64-1, Lot 64-2 and Lot 64-3 in Plan Book 46, Page 259.

For title reference see the First Parcel of Quitclaim Deed to Annawon Council, Inc., Boy Scouts of America in Book 2954 at Page 410.

Property address: (for reference only)
Darby Pond
Plymouth, MA
AP 107, Lot 66-2

PARCEL 10

That certain parcel of land commencing at a point in the northerly line of land now or formerly of the Plymouth & Middleboro Railroad Company and land now or formerly of Hall; thence by land now or formerly of Hall and land now or formerly of Hall and/or others in a general northerly direction to Darby Pond and by the southerly edge of said Darby Pond to land now or formerly of Churchill and Wood or the land now or formerly of the Plymouth & Middleboro Railroad Company; thence by land of the Plymouth & Middleboro Railroad Company westerly to the point of beginning.
For title reference see the Second Parcel of Quitclaim Deed to Annawon Council, Inc., Boy Scouts of America in Book 2954 at Page 410.

Property address: (for reference only)
Darby Pond
Plymouth, MA
AP 107, Lot 67

Meaning and intending to convey all of the property located in the Town of Kingston and the Town of Plymouth, County of Plymouth, Commonwealth of Massachusetts, owned by the Narragansett Council Boy Scouts of America, as successor to Annawon Council, Inc., Boy Scouts of America, as set forth in the Articles of Consolidation/Merger recorded in the Plymouth County Registry of Deeds in Book 47306 at Page 148.
The Commonwealth of Massachusetts
William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Room 1717, Boston, Massachusetts 02108-1512

ARTICLES OF *CONSOLIDATION / *MERGER
(General Laws, Chapter 180, Section 10A)
Foreign and Domestic Corporations

Notwithstanding Section 10A of Chapter 180 of the General Laws, this merger has been approved and is authorized by Chapter 46 of the Acts of 2016.

*CONSOLIDATION

*merger of

__________________________

__________________________

Annawon Council, Boy Scouts of America

Narragansett Council, Boy Scouts of America

organized under the laws of ___________ Rhode Island

The undersigned officers of each of the constituent corporations certify under the penalties of perjury as follows:

1. The agreement of *CONSOLIDATION / *merger was duly adopted in accordance with and complies with the requirements of the *laws of Massachusetts and if the *CONSOLIDATION / *surviving corporation is to be governed by the laws of another state the agreement of *CONSOLIDATION / *merger shall comply with the applicable provisions of the laws of such state. The resulting or surviving corporation shall furnish a copy of the agreement of *CONSOLIDATION / *merger to any stockholder or member or to any person who was a member or stockholder of any constituent corporation upon written request without change.

2. The effective date of the *CONSOLIDATION / *merger determined pursuant to the agreement of *CONSOLIDATION / *merger shall be the date approved and filed by the Secretary of the Commonwealth. If a later effective date is desired, specify such date, which shall not be more than thirty days after the date of filing.

__________________________

__________________________

Narragansett Council
Boy Scouts of America

P.O. Box 488
East Providence, RI
02914-0777
Item 3 below may be deleted if the resulting/surviving corporation is organized under the laws of a state other than Massachusetts.

3. (For a merger)
   *(a) The following amendments to the Articles of Organization of the surviving corporation have been effected pursuant to the agreement of merger:

   (For a consolidation)
   (b) The purpose of the resulting corporation is to engage in the following business activities:

   *(c) The resulting corporation may have one or more classes of members. If it does, the designation of such class or classes, the manner of election or appointment, the duration of membership and the qualification and rights, including voting rights, of the members of each class may be set forth in the by-laws of the corporation or may be set forth below:

   *(d) Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the resulting corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or members, or of any class of members, are as follows:

Item 4 below may be deleted if the resulting/surviving corporation is organized under the laws of a state other than Massachusetts.

4. The information contained in Item 4 is not a permanent part of the Articles of Organization of the resulting/surviving corporation.
   (a) The street address of the resulting/surviving corporation in Massachusetts is: (post office boxes are not acceptable)

   (b) The name, residential address and post office address of each director and officer of the resulting/surviving corporation is:

   President:
   
   Treasurer:
   
   Clerk:

   Directors:

   "Delete the applicable word. "If there are no provisions state "none"."
(c) The fiscal year (i.e., tax year) of the resulting / surviving corporation shall end on the last day of the month of:

(d) The name and business address of the resident agent, if any, of the resulting / surviving corporation is:

The following paragraph may be deleted if the resulting / surviving corporation is organized under the laws of Massachusetts:

5. The resulting / surviving corporation hereby agrees that it may be sued in the Commonwealth of Massachusetts for any prior obligation of any constituent domestic corporation, any prior obligation of any constituent foreign corporation qualified under General Laws, Chapter 156D, § 15.03, and any obligations hereafter incurred by the resulting / surviving corporation, so long as any liability remains outstanding against the corporation in the Commonwealth of Massachusetts, and it hereby irrevocably appoints the Secretary of the Commonwealth as its agent to accept service of process in any action for the enforcement of any such obligation, including taxes, in the same manner as provided in Chapter 156D, § 15.10. The surviving corporation shall be bound by, and the obligations contained in this clause (5) shall include any restrictions, whether in the nature of a contract or in the nature of an express or implied trust, on the use or disposition of assets held for charitable purposes by the Annawon Council, Inc., Boy Scouts of America.

FOR MASSACHUSETTS CORPORATIONS

The undersigned* President/Name* and *Secretary/Name* of Annawon Council Boy Scouts of America, a corporation organized under the laws of Massachusetts, further state under the penalties of perjury that the agreement of *consolidation / *merger has been duly executed in behalf of such corporation and duly approved in the manner required by General Laws, Chapter 180, Section 10 and in compliance with all pertinent requirements of the Articles of Organization of such corporation as a meeting of members / stockholders / directors of such corporation held on:

September 8, 2015

Dennis Dion, *President/Name*

Edward A. McLaughlin III, *Secretary/Name*

FOR CORPORATIONS ORGANIZED OTHER THAN IN MASSACHUSETTS

The undersigned, † Edward T. Broderick, President and †† John H. Mosby, Clerk of Narragansett Council Boy Scouts of America, a corporation organized under the laws of Rhode Island, further state under the penalties of perjury, that the agreement of *consolidation / *merger has been duly adopted by such corporation in the manner required by the laws of Rhode Island and in compliance with all pertinent requirements of the Articles of Organization of such corporation on September 10, 2015

Edward T. Broderick

† John H. Mosby

††Specify the officer having powers and duties corresponding to that of president or vice president of a Massachusetts corporation organized under General Laws, Chapter 156D.

††Specify the officer having powers and duties corresponding to the clerk or assistant clerk of such a Massachusetts corporation.

*Defer the inapplicable words.
THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF *CONSOLIDATION / *MERGER
(General Laws, Chapter 180, Section 10A)
Foreign and Domestic Corporations

I hereby approve the within Articles of *Consolidation / *Merger and, the filing fee in the amount of $\text{____}_, having been paid, said articles are deemed to have been filed with me this day of \text{March}, 2016.

Effective date:

WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION
Contact information:

Eric Jaikes, Esquire
105 William Street, Suite 23
New Bedford, MA 02740
Telephone: (508) 992-7400
Email: jaikeslaw@comcast.net

A copy of this filing will be available on-line at www.csle.state.ma.us/cor once the document is filed.
Parcels of Interest
Area of Darby Pond-Camp Norse
Plymouth MA
NARRATIVE APPRAISAL REPORT & VALUATION ANALYSIS

Property
Camp Norse Parcels-Plymouth
8 Parcels; 99.58 Acres
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman
Plymouth, Massachusetts

Effective Valuation Date
August 5, 2022

Report Date
August 9, 2022

Prepared For
William Keohan, Chairman
Town of Plymouth Community Preservation Committee
26 Court Street
Plymouth, MA 02360

Prepared By
Christopher H. Bowler, MAI, SRA, CRE
Senior Appraiser and Advisor
LandVest, Inc.
Ten Post Office Square
Suite 1125 South
Boston, MA 02109

LandVest Project # MA3929-CG
August 9, 2022

William Keohan, Chairman  
Town of Plymouth Community Preservation Committee  
26 Court Street  
Plymouth, MA 02360

RE: Camp Norse Parcels-Plymouth  
8 Parcels; 99.58 Acres  
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman  
Plymouth, Massachusetts

Dear Mr. Keohan:

In response to your request, I am pleased to transmit the appraisal report detailing my estimate of the market value of the fee simple interest in the subject property. This report sets forth the value conclusion, together with supporting data and reasoning which forms the basis for my conclusions. This appraisal has been completed in accordance with the Uniform Standards for Professional Appraisal Practice (USPAP 2020-2022) and the Specifications for Analytical Narrative Appraisal Reports for the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA).

The subject of this report is 8 parcels of Rural Residential zoned land located between Kristin Road, the Kingston town line and Carver Road in Plymouth near Darby Pond. The 8 parcels total 99.58 acres and are not contiguous but are in 6 distinct clusters. The parcels are part of the 325-acre Camp Norse campus owned by the Narragansett Council of the Boy Scouts of America that spans the Kingston-Plymouth town line.

I have been asked to estimate the current market value of the property “as is” assuming purchase by a single buyer. As a result of this analysis, it is my opinion that the market value of the fee simple interest in the subject property as of August 5, 2022, subject to the definitions, assumptions and limiting conditions, extraordinary assumptions, and certifications set forth in the attached report is:

NINE HUNDRED THOUSAND DOLLARS  
($900,000)

This letter must remain attached to the report in order for the value opinion set forth to be considered valid.

Respectfully submitted,

LandVest, Inc.

Christopher H. Bowler, MAI, SRA, CRE  
Senior Appraiser and Advisor  
Massachusetts Certified General Real Estate Appraiser License #495
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SUMMARY OF IMPORTANT FACTS AND CONCLUSIONS

PROPERTY ADDRESS: Darby Pond, 10-122 Graffam Rd, 72-78 Graffam Rd, 79R Carver Rd, Woodland-Sherman, 59 Kristin Rd, Graffam Road Plymouth, MA

OWNER OF RECORD: Narragansett Council, Boy Scouts of America

DATE OF VALUE ESTIMATE: August 5, 2022

TOTAL LAND AREA: 99.58 acres

EXISTING IMPROVEMENTS: Some wood frame camp structures.

ZONING: Rural Residential

FLOOD ZONE: The parcels with frontage on Darby Pond and Little Clear Pond are partly within the boundaries of the 100-year flood hazard zone per FEMA Panel #250 23C 353K dated July 6, 2021.

HIGHEST AND BEST USE: Subdivision of the land into 2 large, reduced frontage required buildings lots and 7 low utility parcels totaling 78.16 acres.

INTEREST APPRAISED: Fee simple

VALUE ESTIMATE: $900,000

APPRAISED BY: LandVest, Inc.
Christopher H. Bowler, MAI, SRA, CRE
Senior Appraiser and Advisor
SUBJECT PROPERTY PHOTOGRAPHS
Camp Norse Parcels-Plymouth
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman
Plymouth, Massachusetts

View Looking NW at the Frontage Portion of 59 Kristin Road; Parcel 107-24A.

Street Scene Looking NE Along Kristin Road.
SUBJECT PROPERTY PHOTOGRAPHS
Camp Norse Parcels-Plymouth
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman
Plymouth, Massachusetts
Taken by C.H. Bowler (7/29/2022)

View Looking SW Along a Path That Bisects 59 Kristin Road; Parcel 107-24A.

View Looking Northerly at the Eastern Portion of 79 Carver Road; Parcel 107-20F-3.
SUBJECT PROPERTY PHOTOGRAPHS
Camp Norse Parcels-Plymouth
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman
Plymouth, Massachusetts
Taken by C.H. Bowler (7/29/2022)

View of Parcel 107-9A Looking Northerly with Darby Pond in Background.

View Looking SW at Parcel 107-20F-1, 100-122 Graffam Road.
SUBJECT PROPERTY PHOTOGRAPHS
Camp Norse Parcels-Plymouth
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman
Plymouth, Massachusetts
Taken by C.H. Bowler (7/29/2022)

View Looking SW at Parcel 107-20F-2, 78 Graffam Road.

View Looking SW at Darby Pond.
SUBJECT PROPERTY PHOTOGRAPHS
Camp Norse Parcels-Plymouth
Kristin Road, Graffam Road, Carver Road, Darby Pond, Woodland-Sherman
Plymouth, Massachusetts
Taken by C.H. Bowler (7/29/2022)

View Looking Northerly at the 10’ Strip of Front for Parcel 107-23-4 Along Carver Road.

View Looking Easterly at the Western Edge of Parcel 107-24A; 59 Kristin Road.
PURPOSE OF THE APPRAISAL

The purpose of this appraisal is to estimate the market value of the 99.58-acre property “as is”, assuming purchase by a single buyer, as of August 5, 2022.

In estimating this value, it has been necessary to make a careful physical inspection of the property, a review of land planning completed for the property, a review local zoning by-laws, a review of local, state and federal GIS data, and a review of market conditions as of the date of valuation and the impact on the value of the subject property, resulting in a thorough analysis of the property from a legal and physical standpoint. The results are reported in this study.

HYPOTHETICAL CONDITIONS AND EXTRAORDINARY ASSUMPTIONS

The value estimate is based upon the following.

- The estimated values of the property are based upon the *extraordinary assumption* that the land has the development potential stated in the Highest and Best Use section of this report.
- No specific geotechnical engineering data has been provided, and as of the date of valuation the subject property was not included as either a contaminated site or a location to be investigated by the Bureau of Waste Site Cleanup of the Department of Environmental Protection of the Commonwealth of Massachusetts. It is an *extraordinary assumption* in this report, therefore, that the subject site is not a contaminated site.

Should any of these conditions or assumptions change, or be proven false with additional engineering, then the value estimates contained herein may also change.

MARKET VALUE DEFINITION

"The most probable price, which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently, knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is consummation of a sale as of a specified date and passing of title from seller to buyer under conditions whereby:

1. buyer and seller are motivated;
2. both parties are well informed or well advised and each is acting in what he considers his own best interest;
3. a reasonable time is allowed for exposure in the open market;
4. payment is made in terms of cash in U.S. dollars, or in terms of financial arrangements comparable thereto; and
5. the price represents the normal consideration for the property sold unaffected by special or creative financing, or sales concessions granted by anyone associated with the sale."\(^1\)

\(^1\) FIRREA 12CFR Part 323.2.
PROPERTY RIGHTS APPRAISED

The property rights appraised in the subject property are fee simple, which is defined as:

"Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat."\(^2\)

ASSUMPTIONS AND LIMITING CONDITIONS

This appraisal report has been made with the following general assumptions.

1. No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.

2. The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.

3. Responsible ownership and competent property management are assumed.

4. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.

5. All engineering is assumed to be correct. The plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.

6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.

7. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined, and considered in the appraisal report.

8. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless nonconformity has been stated, defined, and considered in the appraisal report.

9. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.

10. It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in the report.

\(^2\) The Dictionary of Real Estate Appraisal, Appraisal Institute, Chicago, IL 2015, Sixth Edition - Page 90.
This appraisal report has been made with the following general limiting conditions.

1. The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate allocation of land and building must not be used in conjunction with any other appraisal and are invalid if used.

2. Possession of this report, or a copy thereof, does not carry with it the right of publication.

3. The appraiser, by reason of this appraisal, is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.

4. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraiser.

5. Any value estimates provided in the report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in the report.

6. The forecasts, projections, or operating estimates contained herein are based upon current market conditions and anticipated short-term supply and demand factors. These forecasts are, therefore, subject to changes in future conditions.

CLIENT: Town of Plymouth Community Preservation Committee (CPC).

INTENDED USERS OF REPORT: Town of Plymouth CPC and the Narragansett Council, Boy Scouts of America.

INTENDED USE OF REPORT: The intended use of this appraisal is to estimate the market value of the subject property as the client considers its acquisition.

INTEREST VALUE: Fee Simple.

EFFECTIVE VALUATION DATE: The effective date of valuation of this appraisal is August 5, 2022. All data, analysis, and conclusions are based upon facts in existence as of the date of valuation.

DATE OF REPORT: August 9, 2022.

SCOPE OF THE APPRAISAL

Christopher H. Bowler, MAI, SRA, CRE inspected the subject property on July 29, 2022 with Joran Northup of the Narragansett Council of the Boy Scouts of America. Each of the 8 parcels were walked and photographed at this time. A 2nd inspection was made by Mr. Bowler on August 5th.
In addition to the inspections, Mr. Bowler performed the following work.

- Corresponded with Plymouth Town Planner Robin Carver to discuss zoning issues that affect the subject land and development options.
- Reviewed the *Rules and Regulations Governing the Subdivision of Land* in Plymouth, the *Plymouth Zoning By-Law*, and discussed development requirements and options with the Plymouth Town Planner.
- Reviewed FEMA flood map information pertaining to the property and soil survey information as well provided by the USDA NCRS.
- Reviewed GIS maps and data available for the subject site from the Town of Plymouth and the Commonwealth of Massachusetts.
- Obtained additional information regarding the property from the Plymouth Assessors Department, Building Department, and the Plymouth Registry of Deeds.
- Gathered information on residential acreage sales, lot sales, infrastructure cost estimates, and development activity in the Plymouth area.
- Mr. Bowler then confirmed and analyzed the data and utilized a Cost of Development/Subdivision Analysis in order to estimate the market value of the property.

**DESCRIPTION OF REAL ESTATE APPRAISED**

**LEGAL DESCRIPTION** – The subject of this report is 8 parcels of *Rural Residential* zoned land located between Kristin Road, the Kingston town line and Carver Road in Plymouth near Darby Pond. The 8 parcels total 99.58 acres and are not contiguous but are in 6 distinct clusters. The parcels are part of the 325-acre *Camp Norse* campus owned by the Narragansett Council of the Boy Scouts of America that spans the Kingston-Plymouth town line.

The following is the address, assessor’s and legal reference for the property.

<table>
<thead>
<tr>
<th>Street Address</th>
<th>Town</th>
<th>Assessors' Parcel</th>
<th>Acres</th>
<th>Current Owner</th>
<th>Legal Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darby Pond</td>
<td>Plymouth</td>
<td>107-000-009A-000</td>
<td>2.85</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3794/55</td>
</tr>
<tr>
<td>100-122 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-020F-001</td>
<td>3.00</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3547/274</td>
</tr>
<tr>
<td>72-78 Graffam Road</td>
<td>Plymouth</td>
<td>107-000-020F-002</td>
<td>1.80</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3547/274</td>
</tr>
<tr>
<td>79R Carver Rd.</td>
<td>Plymouth</td>
<td>107-000-020F-003</td>
<td>55.40</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3547/274</td>
</tr>
<tr>
<td>0 Woodland-Sherman</td>
<td>Plymouth</td>
<td>107-000-022-000</td>
<td>0.77</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3547/274</td>
</tr>
<tr>
<td>59 Kristin Road</td>
<td>Plymouth</td>
<td>107-000-024A-000</td>
<td>23.40</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3547/274</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-023-004</td>
<td>10.86</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>3547/274</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-063-10</td>
<td>1.51</td>
<td>Narragansett Council, Boy Scouts of America</td>
<td>38734/292</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>99.58</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The property has been under the ownership of the Narragansett Council, Boy Scouts of America (f.k.a. Annawon Council) for several decades. Copies of the deeds referenced above can be found in the Addenda to this report.
Based upon a review of public records, MLS and discussion with the property owner, there have been no sales of the property, pending sales, or listings of the property for sale in the past 5 years.

**TAXES AND ASSESSMENT** - The following is the current assessment for the subject parcels.

<table>
<thead>
<tr>
<th>Street Address</th>
<th>Town</th>
<th>Assessor's Parcel</th>
<th>Acres</th>
<th>Assessment</th>
<th>Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darby Pond</td>
<td>Plymouth</td>
<td>107-000-009A-000</td>
<td>2.85</td>
<td>$257,900</td>
<td>none due</td>
</tr>
<tr>
<td>100-122 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-020F-001</td>
<td>3.00</td>
<td>$41,400</td>
<td>none due</td>
</tr>
<tr>
<td>72-78 Graffam Road</td>
<td>Plymouth</td>
<td>107-000-020F-002</td>
<td>1.80</td>
<td>$30,600</td>
<td>none due</td>
</tr>
<tr>
<td>79R Carver Rd.</td>
<td>Plymouth</td>
<td>107-000-020F-003</td>
<td>55.40</td>
<td>$1,220,700</td>
<td>none due</td>
</tr>
<tr>
<td>0 Woodland-Sherman</td>
<td>Plymouth</td>
<td>107-000-022-000</td>
<td>0.77</td>
<td>$15,400</td>
<td>none due</td>
</tr>
<tr>
<td>59 Kristin Road</td>
<td>Plymouth</td>
<td>107-000-024A-000</td>
<td>23.40</td>
<td>$732,200</td>
<td>none due</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-023-004</td>
<td>10.86</td>
<td>$278,600</td>
<td>none due</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-063-10</td>
<td>1.51</td>
<td>$13,600</td>
<td>none due</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>99.58</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Because of the not for profit ownership of the subject property there are no taxes currently due. Note that the assessments listed above are not realistic and are not reflective of the current market value of the land. Often assessors in communities in Massachusetts put higher values on properties owned by not for profit entities knowing that no taxes are due regardless. It is done for bookkeeping purposes.

**MARKET DESCRIPTION AND ANALYSIS**

**LOCATION DESCRIPTION** – *Town* – The subject property is in the south shore Massachusetts community of Plymouth. It is bordered on land by Bourne to the southeast, Wareham to the southwest, Carver to the west, and Kingston to the north. It also shares a small border with Duxbury at the land entrance of Saquish Neck. Plymouth makes up the entire western shore of Cape Cod Bay. Its population per the 2020 U.S. Census is 61,217, up 8.4% from the 2010 census. Plymouth is 34 miles southeast of Boston and 39 miles east of Providence.

Most know the town’s history. Known as "America's Hometown". Plymouth was the site of the colony founded in 1620 by the Mayflower Pilgrims, where New England was first established. It is the oldest municipality in New England and one of the oldest in the United States. The town has served as the location of several prominent events, one of the more notable being the First Thanksgiving feast.

For its first couple of centuries the town thrived as a fishing, shipping, and rope making center. But it was relatively isolated from Greater Boston and its population remained low. But with improved highways, railroads, and bus routes, low land costs and low taxes the population has surged 229% from 1970.
Region — Plymouth is in the “South Shore” region of Massachusetts surrounded mostly by the Atlantic Ocean, but also by 5 smaller communities. At 134 sq miles Plymouth is the largest municipality in Massachusetts, surpassing even Boston.

The following is breakdown of Plymouth and the immediately surrounding communities by population, density, income, and real estate values:

<table>
<thead>
<tr>
<th>Town</th>
<th>Population</th>
<th>Area (sq mi)</th>
<th>Density (pers/sq mi)</th>
<th>Median HH Income*</th>
<th>Past 12 months **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plymouth</td>
<td>61,217</td>
<td>134.0</td>
<td>456.8</td>
<td>$ 92,757</td>
<td>$ 592,124</td>
</tr>
<tr>
<td>Carver</td>
<td>11,660</td>
<td>39.7</td>
<td>293.7</td>
<td>$ 61,374</td>
<td>$ 512,762</td>
</tr>
<tr>
<td>Kingston</td>
<td>13,708</td>
<td>20.5</td>
<td>668.7</td>
<td>$ 90,574</td>
<td>$ 625,404</td>
</tr>
<tr>
<td>Bourne</td>
<td>20,452</td>
<td>52.9</td>
<td>386.6</td>
<td>$ 76,823</td>
<td>$ 678,041</td>
</tr>
<tr>
<td>Wareham</td>
<td>23,303</td>
<td>46.3</td>
<td>503.3</td>
<td>$ 66,695</td>
<td>$ 433,314</td>
</tr>
<tr>
<td>Duxbury</td>
<td>16,090</td>
<td>37.6</td>
<td>427.9</td>
<td>$ 126,889</td>
<td>$ 1,264,947</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>7,029,917</td>
<td>10,565.0</td>
<td>665.4</td>
<td>$ 81,215</td>
<td>$ 699,583</td>
</tr>
</tbody>
</table>

* Source: U.S. Census Data  
** Source: MLS
ECONOMIC & MARKET CONDITIONS: When completing an analysis of real property, it is necessary to have a proper perspective of economic conditions as of the date of valuation. Economic conditions play a significant role in the price paid for real estate at any given time.

As the 3rd quarter of 2022 moves forward, the U.S. economy is facing turbulent times. After seemingly making it through the COVI-19 pandemic, and the brief ‘shutdown’ of many areas of the economy in 2020, strong growth resumed in 2021. But at the same time nearly a trillion dollars of stimulus had been pumped into the economy through government programs as a means of offsetting the effects of the pandemic. At the same time COVID-19 had shut down production of many products and services putting them in short supply. Combine these two facts; excess money chasing fewer products and beginning in 2022 inflation has returned to the economy. In fact, inflation is running at the highest rates in over 40 years. To combat inflation the Federal Reserve has begun to raise interest rates rapidly. A possible outcome of this policy is a recession.

I will now look at several key economic indicators to measure the health of the economy as of the date of valuation.
### ECONOMIC GROWTH (growth in the U.S. GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Annualized Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022 Q2</td>
<td>-0.9%</td>
</tr>
<tr>
<td>2022 Q1</td>
<td>-1.6%</td>
</tr>
<tr>
<td>2021 Q4</td>
<td>6.9%</td>
</tr>
<tr>
<td>2021 Q3</td>
<td>2.3%</td>
</tr>
<tr>
<td>2021 Annual</td>
<td>5.7%</td>
</tr>
<tr>
<td>2020 Annual</td>
<td>-3.5%</td>
</tr>
<tr>
<td>2019 Annual</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

(Gross Domestic Product is the total market value of the goods and services produced by a nation's economy during a specific period of time).

### INFLATION RATE (U.S. annualized)

<table>
<thead>
<tr>
<th>Date</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-Jun-22</td>
<td>9.1%</td>
</tr>
<tr>
<td>01-May-22</td>
<td>8.6%</td>
</tr>
<tr>
<td>01-Apr-22</td>
<td>8.3%</td>
</tr>
<tr>
<td>01-Mar-22</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

(CPI for All Urban Consumers).

### EMPLOYMENT/UNEMPLOYMENT

<table>
<thead>
<tr>
<th>Town of Plymouth</th>
<th>Massachusetts</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plymouth</td>
<td>3.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>County</td>
<td>3.7%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Most Recent Month</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>New Jobs Created</td>
<td>528,000</td>
<td>523,500</td>
</tr>
<tr>
<td>Rate</td>
<td>3.5%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Last Mos.; July 2022

### STOCK MKT, COMMODITY & INTEREST RATE TRENDS

<table>
<thead>
<tr>
<th>Stock Market &amp; Commodity</th>
<th>Beginning Price</th>
<th>Closing Price</th>
<th>Change Since</th>
<th>Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>S &amp; P 500</td>
<td>1-Jan-22</td>
<td>5-Aug-22</td>
<td>1/1/2022</td>
<td></td>
</tr>
<tr>
<td>Dow Jones Industrial</td>
<td>36,338</td>
<td>32,803</td>
<td>-9.73%</td>
<td>2021: +26.90%</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>4,766</td>
<td>4,145</td>
<td>-13.03%</td>
<td>2020: +16.30%</td>
</tr>
<tr>
<td>London Gold $ per oz</td>
<td>1,829</td>
<td>1,792</td>
<td>-1.9%</td>
<td>2019: -6.20%</td>
</tr>
<tr>
<td>Crude Oil $ per barrel</td>
<td>75.21</td>
<td>88.53</td>
<td>17.71%</td>
<td>2018: -19.42%</td>
</tr>
<tr>
<td>10 Year Treasury</td>
<td>1.51%</td>
<td>2.83%</td>
<td>87.19%</td>
<td>2017: +9.53%</td>
</tr>
</tbody>
</table>

### CONSUMER CONFIDENCE

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>July</td>
<td>95.7</td>
</tr>
<tr>
<td>2021</td>
<td>July</td>
<td>125.1</td>
</tr>
<tr>
<td>2020</td>
<td>July</td>
<td>91.7</td>
</tr>
<tr>
<td>2019</td>
<td>July</td>
<td>135.8</td>
</tr>
<tr>
<td>2018</td>
<td>July</td>
<td>127.9</td>
</tr>
</tbody>
</table>

(1985=100)

### CASE-SHILLER HOME PRICE INDEX

<table>
<thead>
<tr>
<th>Year Earlier</th>
<th>Current</th>
<th>3 Year Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Years Earlier</td>
<td>May-19 221.8</td>
<td>41.52%</td>
</tr>
<tr>
<td>2 Years Earlier</td>
<td>May-20 231.1</td>
<td>4.2%</td>
</tr>
<tr>
<td>1 Year Earlier</td>
<td>May-21 271.3</td>
<td>17.4%</td>
</tr>
<tr>
<td>Current</td>
<td>May-22 313.9</td>
<td>15.7%</td>
</tr>
</tbody>
</table>
The growth in the U.S. GDP declined at a 0.9% annualized rate in the 2nd quarter of 2022 after a 1.6% decline in the 1st quarter. By most economists’ definition this means the economy has entered into recession. GDP, or gross domestic product, is the value of all goods and services produced here and is considered the official ‘scorecard’ for the economy. For all of 2021, GDP growth was 5.7%. This comes after COVID-19 caused a decline in 2020. Growth was expected to be more robust in 2021. However, labor, and raw materials shortages, combined with two separate resurgences in infections of COVID-19, lessened growth versus initial forecasts. GDP growth in Massachusetts was a bit more robust, coming in at +0.2% in the 2nd quarter of 2022 and +0.2% in the 1st quarter of 2022.

The two straight quarterly declines in U.S. GDP doesn’t look like a typical recession given very strong labor markets. However, with the Federal Reserve raising interest rates to try and slow the economy and tame inflation (see below), many other economists suggest that this recession is real and labor markets could start to see weakening in the Fall.

Inflation is a significant factor affecting economic conditions at present. The U.S. enjoyed very low inflation, in the 1.5-3% range for over a decade, lasting until the middle of 2021. This allowed interest rates and mortgage rates to hit historic lows in 2019 and 2020. However, the COVID-19 pandemic created a situation in which government stimulus monies flowed into the economy at the same time supply constraints of most all products emerged. The result was too many dollars chasing too few products and as a result inflation is now reaching 40+ year highs. The last reading of the CPI in June of 2022 at 9.1% was the highest monthly reading in 41 years. The reading came in ‘hotter’ than expected which in turn triggered multiple days of selloff in the stock market as investors anticipate the Federal Reserve raising interest rates more sharply to combat inflation.

The employment figures show continued improvements in the employment market since the depths of the COVID-19 pandemic. Last month’s figure of +528,000 new jobs was strong and the unemployment rate dipped to 3.5%. The employment market is in a unique position due to COVID-19. Job growth would be even more robust; however, open jobs are remaining unfilled as people are either reluctant to rejoin the workforce because of fears over COVID-19, or generous state unemployment benefits that are encouraging workers to ‘stay home’ instead of taking the new job.

The stock market has been on a wild ride over the past 3+ years. In 2018, the market declined 6.20% in terms of the S&P 500 Index, the largest annual decline in 10 years. But in 2019, the market rebounded sharply, finishing up over 30% for the year. For 2020, the market rose +16.3% after having plunged over 30% in the 1st quarter of the year. For 2021, there was another robust increase, at 26.9%. Thus far in 2022, the market is off to a down start, with the S&P 500 down over 13% as investors are being spooked by rising inflation, rising interest rates, and a war between Russia and Ukraine. It should be noted that while down over 14%, the S&P 500 was down nearly 24% as of mid-June.

The Conference Board Consumer Confidence Index declined again in June for the 3rd straight month. Intentions to buy big ticket items such as automobiles and appliances remain high, but respondents cited concerns about surging inflation, rising interest rates, and the war in Ukraine as items of concern as the 3rd quarter of 2022 moves along. The current index reading is 95.7. This is down 24% from one year earlier.
The Conference Board, who compiles the index, suggests a reading above 90 translates into an economy on solid footing while a reading above 100 reflects stronger economic growth. Consumer confidence numbers are considered a leading economic indicator, and they have historically been good predictors of consumer spending for the next three to six months. As consumer spending is roughly 70% of the U.S. economy, that is no trivial matter.

The residential housing market in Massachusetts has been quite strong over the past five to seven years. An index considered reliable by many market professionals is the Case-Shiller Home Price Index. This data includes only repeat sales of homes. The most recent data from the Case-Shiller Home Price Index listed on the previous page indicates that we are up 15.7% in terms of pricing from one year ago in Massachusetts, and an aggregate increase of 41.52% from three years ago. Extremely limited inventory of homes combined with strong demand is causing the price increases. Rising mortgage rates have begun to put a dent in demand nationwide, but in Greater Boston a slowdown in demand has not yet been seen as of mid-July 2022.

**Interest/Mortgage Rates:** The average rate on 30-year mortgages slipped to 5.55 percent this week, down from 5.59 percent the previous week and hitting a four-week low, according to Bankrate’s national survey of large lenders.

The Federal Reserve continues to move aggressively to rein in inflation, announcing its second consecutive rate hike of three-quarters of a percentage point in July. By conventional wisdom, this would lead to rising mortgage rates, but concerns around a recession have stalled the increases for now.

A year ago, the benchmark 30-year fixed-rate mortgage was 3 percent. Four weeks ago, the rate was 5.55 percent. The 30-year fixed-rate average for this week is 2.55 percentage points higher than the 52-week low of 3 percent.

The rate on a 30-year mortgage averaged 5.55% as of Aug. 3.

Fixed-rate mortgages follow the benchmark 10-year U.S. Treasury Bond. When bond prices fall, yields or rates rise. Bond prices typically fall when investors are confident in the economy
and market conditions warrant them putting their money into investments like stocks, with higher risk but higher yield opportunities. The inverse is also true. When investors are nervous about global and economic conditions, there is a flight to buy 10-year U.S. Treasury Bonds, which increases their price and lowers their interest rate.

Global concerns about the coronavirus and its impact on the economy had pushed investors to safe assets like treasuries, which in turn pushed long-term rates to historic lows in 2020 and 2021. However, with a surge in government spending surrounding the COVID-19 pandemic, along with supply and labor shortages in the economy, inflation has surged to 40+-year highs, and interest rates are rising quickly to contain it. For the period ending June of this year, inflation came in at 9.1%, the highest level since 1981 and a harbinger of continued higher mortgage rates.

Local Housing Market: To get a more defined look at current market conditions and where they may be headed, I have looked at MLS statistics for current listings, pending sales, and total sold relating to single family homes in Plymouth, Plymouth County, and the State as a whole. The following is a breakdown of this data:

| ACTIVE LISTINGS |
|-----------------|-----------------|-----------------|-----------------|-----------------|
|                  | %               | Average         | %               |
|                  | # Change        | Price Change    |                  |
| Current Supply of Single Family Homes | 22.54% | $772,176 | 9.09% |
| Supply of Single Family Homes 1 Year Ago | ----- | $707,816 | ---- |
| Current Supply of Single Family Homes | 34.98% | $907,901 | 7.83% |
| Supply of Single Family Homes 1 Year Ago | ----- | $841,943 | ---- |
| Current Supply of Single Family Homes | 24.31% | $1,066,339 | 4.28% |
| Supply of Single Family Homes 1 Year Ago | ----- | $1,022,597 | ---- |

| PENDING SALES |
|-----------------|-----------------|-----------------|-----------------|-----------------|
|                  | %               | Average         | %               |
|                  | # Change        | Price Change    |                  |
| # of SF Homes; Went Under Agrmnt; Past Year | -23.44% | $592,122 | 11.52% |
| # of SF Homes; Went Under Agrmnt; Previous 12 mos. | ----- | $530,973 | ---- |
| # of SF Homes; Went Under Agrmnt; Past Year | 31.75% | $539,111 | -8.61% |
| # of SF Homes; Went Under Agrmnt; Previous 12 mos. | ----- | $589,926 | ---- |
| # of SF Homes; Went Under Agrmnt; Past Year | -13.20% | $501,424 | 11.46% |
| # of SF Homes; Went Under Agrmnt; Previous 12 mos. | ----- | $449,880 | ---- |

| CLOSED SALES |
|-----------------|-----------------|-----------------|-----------------|-----------------|
|                  | %               | Average         | %               |
|                  | # Change        | Price Change    |                  |
| Total Closed Sales of SF Homes; Past Year | -16.83% | $592,124 | 12.76% |
| Total Closed Sales of SF Homes; Previous 12 mos. | ----- | $525,103 | ---- |
| Total Closed Sales of SF Homes; Past Year | -14.75% | $653,636 | 11.25% |
| Total Closed Sales of SF Homes; Previous 12 mos. | ----- | $587,534 | ---- |
| Total Closed Sales of SF Homes; Past Year | -11.02% | $699,605 | 10.20% |
| Total Closed Sales of SF Homes; Previous 12 mos. | ----- | $634,859 | ---- |

SOURCE: MLS Statistics;

From a developers/seller’s standpoint, the ideal results from these statistics would be decreasing inventory, increasing sales activity, both pending and closed, and rising prices.
The statistics reflect a low inventory-rising prices market. Pending and closed sales data is down year over year. But prices continue to rise. If the downturn in sales activity were due to a decline in demand, we would see a decline in prices as well. But that is not the case looking at the right-hand side of the chart above.

In terms of single-family homes, the statistics do indicate a rise in inventory recently. This rise is thought to be many homeowners realizing the market may be peaking and getting their property on the market before conditions deteriorate. But despite the increase in listings very recently, the overall supply in homes for sale in Massachusetts represents just 1.3 month supply based upon the previous 12 months worth of closed sales. The National Associates of Realtors indicates a 6 month supply represents a ‘balanced’ market. It is for this reason that prices continue to rise.

**Plymouth-Only Market:** In Plymouth alone the market has been on the rise for the past 10 years at an annualized rate, in terms of median price, of 6.83% on average as shown below:

<table>
<thead>
<tr>
<th>Period</th>
<th>Median Price</th>
<th>% Change from Prior Year</th>
<th>% Change Total 10 Year</th>
<th>Average Annual % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/1/2021-8/1/2022</td>
<td>$530,000</td>
<td>11.58%</td>
<td>92.73%</td>
<td>6.83%</td>
</tr>
<tr>
<td>8/1/2020-8/1/2021</td>
<td>$475,000</td>
<td>13.10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2019-8/1/2020</td>
<td>$420,000</td>
<td>7.69%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2018-8/1/2019</td>
<td>$390,000</td>
<td>5.91%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2017-8/1/2018</td>
<td>$368,250</td>
<td>8.31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2016-8/1/2017</td>
<td>$340,000</td>
<td>4.62%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2015-8/1/2016</td>
<td>$325,000</td>
<td>1.56%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2014-8/1/2015</td>
<td>$320,000</td>
<td>4.58%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2013-8/1/2014</td>
<td>$306,000</td>
<td>7.37%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2012-8/1/2013</td>
<td>$285,000</td>
<td>3.64%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/1/2011-8/1/2012</td>
<td>$275,000</td>
<td>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMMENTS/CONCLUSIONS:** The following conclusions are drawn from a review of the data presented above and a review of market activity.

- As of the date of valuation, the economy is at a crossroads. Labor markets remain strong, and jobs remain unfilled. Consumer demand is still strong. But rising inflation is putting Federal Reserve officials in the position of pushing the economy into recession by raising interest rates as a way of combating inflation. It remains to be seen whether the Fed can maneuver a ‘soft landing’ and reduce inflation without causing damage to long term economic growth.
- Inflation has returned to the economy and is causing some concerns moving forward. The annualized inflation rate this past month was 9.1%, the highest rate since the early 1980’s. Oil prices are up over 25% year-to-date after rising substantially in 2021 as well. When
inflation is present, there is pressure for interest rates to rise to contain it. Rising interest rates tend to dampen real estate markets.

- Consumer confidence remains at a solid level but has dipped recently and is down over 24% from one year ago. It is the 3rd straight monthly decline.
- The stock market is down sharply thus far in 2022 after having risen substantially in 2021, although it is off its June 2022 lows.
- The residential housing market in Greater Boston remains strong and is characterized by low supply and strong demand. Nationally, rising mortgage rates are beginning to put a damper on demand. Locally, the housing market still favors sellers. However, there are fewer offers on most properties than would have been the case 1 year ago.

Each of these factors has been taken into consideration with the valuation of the subject property.

LOCATION DESCRIPTION - Neighborhood – The subject property is located between Kristin Road, the Kingston town line and Carver Road in Plymouth near Darby Pond, in the northwest corner of town, commonly referred to as “West Plymouth”. Its distance from major roadways and places are as follows.

- Downtown Plymouth and its waterfront are 4.5 miles to the northeast.
- The Kingston town line abuts to the northwest. The Carver town line
- Access to Route 44, a major east-west roadway through this area of the State, is 1.9 miles north.
- A significant shopping area with a Walmart, Aldi, Dick’s Sporting Goods and hotels is 1.5 miles to the northeast.
- Access to Route 3, the major north-south roadway that takes residents to Boston to the north and Cape Cod to the south, is 2.9 miles to the northeast.
- West Elementary School is 1.2 miles to the northeast.
- Plymouth North High School is 6.1 miles east.

The immediate area is single family residential and open space in nature. Abutting to the east and southeast are residential neighborhoods containing 200+ homes. These neighborhoods were built in the late 1960’s, 1970’ with some homes constructed as late as the 1980’s. The homes are modest split level, gambrel and colonial in style with recent prices ranging from $450,000 to $590,000.

To the south along and off Carver Road are additional single-family homes. Located between the subject parcels is Town of Plymouth Water Department owned land, fallow cranberry bogs, and active cranberry bogs to the southwest.

Abutting the subject parcels to the north and northwest is the remaining 200+ acres of Camp Norse whose main operations if off of Parting Way Road in Kingston.

Favorable & Unfavorable Factors/Conclusion: Favorable factors to the subject location include its convenience to major roadways, shopping, the public elementary school, and the open space of the Town of Plymouth Water Department properties, Darby Pond and the Camp Norse land.
Unfavorable factors from a new development standpoint include a lack of public water and sewer lines in the area; and that the approach to the property through Kristin Road is through a neighborhood of modest homes in which not all are well kept.
## PROPERTY DESCRIPTION

The subject of this report is 8 parcels of Rural Residential zoned land located between Kristin Road, the Kingston town line and Carver Road in Plymouth near Darby Pond. The 8 parcels total 99.58 acres and are not contiguous but are in 6 distinct clusters. The parcels are part of the 325-acre Camp Norse campus owned by the Narragansett Council of the Boy Scouts of America that spans the Kingston-Plymouth town line.

The following are details on the 8 parcels followed by 3 GIS maps which provide more detail regarding the parcels and their physical features:

<table>
<thead>
<tr>
<th>Street Address</th>
<th>Town</th>
<th>Parcel</th>
<th>Acres</th>
<th>Frontage (ft)</th>
<th>Wetlands</th>
<th>Floodzone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darby Pond</td>
<td>Plymouth</td>
<td>107-000-009A-000</td>
<td>2.85</td>
<td>none</td>
<td>yes, approximately 50%</td>
<td>yes</td>
</tr>
<tr>
<td>100-122 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-020F-001</td>
<td>3.00</td>
<td>none</td>
<td>yes, approximately 33%</td>
<td>yes</td>
</tr>
<tr>
<td>72-78 Graffam Road</td>
<td>Plymouth</td>
<td>107-000-020F-002</td>
<td>1.80</td>
<td>none</td>
<td>yes, approximately 50%</td>
<td>yes</td>
</tr>
<tr>
<td>79R Carver Rd.</td>
<td>Plymouth</td>
<td>107-000-020F-003</td>
<td>55.40</td>
<td>none</td>
<td>yes, approximately 2.78 ac</td>
<td>no</td>
</tr>
<tr>
<td>0 Woodland-Sherman</td>
<td>Plymouth</td>
<td>107-000-022-000</td>
<td>0.77</td>
<td>none</td>
<td>none, but within setbacks</td>
<td>yes</td>
</tr>
<tr>
<td>59 Kristin Road</td>
<td>Plymouth</td>
<td>107-000-024A-000</td>
<td>23.40</td>
<td>67.35</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-023-004</td>
<td>10.86</td>
<td>10.00</td>
<td>yes, over 50%</td>
<td>no</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>Plymouth</td>
<td>107-000-063-10</td>
<td>1.51</td>
<td>none</td>
<td>yes, 100%</td>
<td>no</td>
</tr>
</tbody>
</table>

| Total          |               | 99.58   |       |               |                |           |

<table>
<thead>
<tr>
<th>Street Address</th>
<th>Town</th>
<th>Parcel</th>
<th>Acres</th>
<th>Frontage (ft)</th>
<th>Wetlands</th>
<th>Floodzone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Utilities: There are no municipal sewer or water lines in the area. The subject parcel at the end of Kristin Road (107-24A) is readily connected to electrical, telephone, and broadband internet lines. The other parcels are distant from any utilities. Any development of this parcel will require private septic systems and private wells.

Flood Zone: The 3 parcels that border Darby Pond and the one parcel that borders Little Clear Pond are located within the boundaries of the 100-year flood hazard zone per FEMA Panel #250 23C 353K dated July 6, 2021. Not all of their area is within the floodplain but over 50% in most cases as shown on the Site Analysis Plan above.

Soils: Based upon NRCS/USDA mapping, the primary soil type found in the developable portions of the subject land is Hinkley Loamy Sand with both 3-8% and 8-15% slopes. This soil is rated ‘high’ in terms of its potential for septic installation. It is a well-drained soil that is well above the mean water table.

Improvements: There are minor wood frame camp structures on Parcel 107-20F-3. Remaining parcels are vacant.

Comments/Conclusions: Only two of the 8 subject parcels have frontage on a paved, public way. For one of those parcels the frontage is only 10’ wide and leads to a parcel that is largely wetlands. The other has 67.35’ of frontage at the terminus of Kristin Road.

The two parcels with Graffam Road addresses and located on the northeast side of Darby Pond have access via a sand and gravel path that is labeled as Graffam Road Access & Utility Easement. This easement, in favor of the Town of Plymouth to access its Darby Pond Well Site actually bisects subject Parcel 107-20F-1 and runs along the northeast side of Parcel 107-20F-2.

However, we do not believe this provides legal access to these parcels that could be used to obtain a building permit that would allow for development of these parcels as it is an easement in favor of the Town of Plymouth.

REGULATORY ANALYSIS

Zoning

The subject acreage is located primarily within the Rural Residential (RR) zoning district of the Town of Plymouth. Uses allowed in this zone include: conservation areas, farming and ancillary uses, single-family detached dwellings, educational, religious, or municipal uses.

Dimensional requirements include the following.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Lot Size (sf)</td>
<td>120,000</td>
</tr>
<tr>
<td>Minimum Width (ft)</td>
<td>200</td>
</tr>
<tr>
<td>Minimum Depth (ft)</td>
<td>200</td>
</tr>
<tr>
<td>Minimum Setbacks (ft)</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>70</td>
</tr>
<tr>
<td>Side</td>
<td>na</td>
</tr>
<tr>
<td>Rear</td>
<td>50</td>
</tr>
</tbody>
</table>
Maximum Building Height 35’
Maximum Lot Coverage 15%

Two parking spaces per dwelling unit are required.

**Residential Reduced Frontage by Special Permit (203-1H)**

There is a reduced frontage bylaw in town that allows for lots with as little as 30’ of frontage with the minimum lot size increased 200% of the normal zoning district minimum lot area. No more than 3 lots can be formed from the existing frontage. No part of the lot may be narrower than 30’. And these bylaw does not pertain to lots with frontage on a Major or Collector Street.

In the RR zone the minimum lot area with a reduced frontage lot would be 240,000 sq ft or approximately 5.5 acres.

**Subdivision Rules and Regulations**

The rules and regulations governing the subdivision of land for Plymouth have been reviewed and a copy is retained in the appraiser’s files.

Notable regulations include a limit on dead-end roadways/cul-de-sacs to no more than 500 feet in length unless a secondary means of egress can be established. Latter regulation is at the discretion of the planning board and is routinely waived.

The minimum right-of-way for roadways is 50’. The minimum pavement width is 22’.

**Board of Health Septic System Regulations**

New and existing septic systems in town must conform to Title 5 of the State Environmental Code, 310 CMR 15.000.

**Wetlands Regulations**

The town wetland by-laws follow Commonwealth of Massachusetts wetlands regulations (310 CMR 10.00 and 310 CMR 13.00). State wetland regulations prohibit construction of buildings within wetland areas. State wetland regulations also prohibit the subsurface disposal of wastewater within 50 feet of the edge of vegetated wetland and within 100 feet of a stream or other body of water, and the filling of more than 5,000 sq. ft. of wetlands, and then only for purposes of providing access within a parcel.
HIGHEST AND BEST USE

The Dictionary of Real Estate Appraisal, Sixth Edition, defines highest and best use as "the reasonable, probable, and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity." The highest and best use is often referred to as the optimum use.

Given zoning, market conditions and the physical characteristics of the property, some form of residential development is the use that would likely yield the highest value for the 99.58 acres. Other legally permissibly uses include recreation, agriculture, open space, municipal, educational, and religious uses.

Now, combining legally permissible with physically possible. The subject land is limited in its development potential because of the non-contiguous nature of the 99.58 acres and the limited frontage/access. Only two of the 8 parcels have frontage on a public way. One is 59 Kristin Road. This 23.40-acre parcel with 67.35’ of frontage is connected to the 55.40 acre Parcel 107-20F-3.

The other parcel with road frontage, 107-23-4, has 10’ of frontage on Carver Road that leads to wetlands. This parcel connects to Parcel 107-63-10. These two parcels have no development potential as they are over 50% wetlands and the 10’ of frontage is insufficient to meet minimum criteria in the RR zone.

Parcel 107-9A is 2.85 acres and borders Darby Pond. This parcel has no independent development potential as it has no road frontage and is mostly floodplain.

Parcel 107-22 is 0.77 acres. It has no independent development potential as it is too small (0.77 acres in a zoning district where the minimum is 2.75 acres) and has no road frontage.

Parcel 107-20F-2 is 1.8 acres and border Darby Pond. While this parcel does have frontage on a right of way in favor of the Town of Plymouth to allow for access to their property further north, it is not sufficient as frontage on a public way needed to be considered a building lot. For this reason, along with a location in floodplain, and its lack of size in a zoning district where 2.75 acres is the minimum, this parcel has no independent development potential.

Parcel 107-20F-1 is 3.0 acres. It is bisected by the aforementioned right of way. It has sufficient land area to be considered a building lot. However, as with Parcel 20F-2, the right of way access is not considered sufficient as frontage on a public way to allow for a building permit to be issued. In addition, because the right of way bisects this land it would prevent placement of a dwelling on site. Also, a portion of this parcel is within the boundaries of the 100-year flood hazard zone. For these reasons this parcel has no independent development potential.

So let’s return to the parcel(s) with frontage that could be used for development. Parcel 107-24A has 67.35’ of frontage at the end of Kristin Road. I reached out to Robin Carver, the Town Planner for the Town of Plymouth for guidance on what could be done with this access. The first thought was extending Kristin Road the allowed 500’ to provide enough frontage for 5-7 single family building lots. The problem with this possible scenario is that Kristin Road is already a dead
end road approximately 650’ past the intersection with Anawon Road. So extending it an additional 500’ would not be allowed without a significant variance. But to allow for this variance a secondary means of egress would be needed for public safety purposes. This secondary means of egress is not possible.

Although installing a roadway to allow for subdivision and development of Parcel 107-24A is not likely possible, there is bylaw within the Plymouth Zoning code that would allow for subdivision and creation of building lots. The **Residential Reduced Frontage by Special Permit (203-1H)** allows for lots with as little as 30’ of frontage with the minimum lot size increased 200% of the normal zoning district minimum lot area. No more than 3 lots can be formed from the existing frontage. No part of the lot may be narrower than 30’. And this bylaw does not pertain to lots with frontage on a Major or Collector Street. In the RR zone the minimum lot area with a reduced frontage lot would be 240,000 sq ft or approximately 5.5 acres.

So with 67.35’ of frontage there is possibility of two large lots at the end of Kristin Road. I confirmed this with Robin Carver, the Town Planner. This would require a special permit, but the subject meets all the criteria to allow for the two, reduced frontage lots.

Based upon the analysis displayed above, it is my opinion that the highest and best use of the subject property, as of the date of valuation, is to subdivide the 23.4 acre Parcel 107-24A into two, large, reduced frontage lots and subsequent development of these two lots with single-family homes that conform to buyer demands in the Plymouth. For the 7 remaining parcels with no development potential the highest and best use is passive recreation, open space.

A highest and best use plan can be found on the following page.
**EXPOUSE TIME**

The Dictionary of Real Estate, 6th Edition, defines *Exposure Time* as:

1. The time a property remains on the market.
2. [The] estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (USPAP, 2016-2017 ed.)

In other words, how long do I estimate it would have taken to sell the subject property at the estimated “as is” value of $900,000? Based upon a review of the periods it took to sell the comparable sales presented later in this report, it is my opinion that a reasonable exposure time is 9 to 12 months.

**APPRAISAL PROCESS**

The methodology traditionally used for the valuation of real property is derived from three basic approaches to value: The Cost Approach, the Sales Comparison Approach and the Income Capitalization Approach. From the indicated values produced by each of these approaches and the weight accorded to each, an estimate of market value is made. The following is a brief summary of the method used in each approach to value.

**Cost Approach**

The Cost Approach is devoted to analysis of the physical value of a property; that is the market value of the land, assuming it were vacant, to which is added the depreciated value of the improvements to the site. The latter is estimated to be the reproduction cost of the improvements less accrued depreciation from all causes.

**Sales Comparison Approach**

The Sales Comparison Approach is based upon the principle of substitution; that is, when a property is replaceable in the market, its value tends to be set at the cost of acquiring an equally desirable substitute property assuming no costly delay in making the substitution. Since few properties are ever identical, the necessary adjustments for differences between comparable properties and the subject property are to a certain extent a function of the appraiser’s experience and judgment.

**Income Capitalization Approach**

The Income Capitalization Approach is an analysis of the subject property in terms of its ability to produce an annual net income in dollars. This estimated net annual income is then capitalized at a rate commensurate with the relative certainty of its continuance and the risk involved in ownership of the property.
VALUATION METHODS USED

In order to estimate the value of the 99.58 acre property in accordance with my highest and best use projection, I utilized a “Subdivision Analysis” or “Cost of Development Analysis”.

**Cost of Development/Subdivision Analysis**

The Cost of Development Approach or Subdivision Sellout Analysis is a valuation tool available to the appraiser when subdivision and development represent the highest and best use of a property. The Cost of Development Approach, or Subdivision Analysis, is a hybrid of all three traditional approaches to value; Cost Approach, Income Approach, and Sales Comparison Approach, and uses techniques from all three.

In this case, after determining the number and type of lots that can be created from the appraised parcel, physically, legally, and economically, a sales comparison analysis of finished lots is then undertaken. There are 2 potential large, vacant lots per my highest and best use conclusion, along with 7 parcels of “low utility” land totaling 76.18 acres that do have value in this market. After adjusting the comparable sales for differences, the appraiser estimates the most likely retail sale prices of these lots and parcels, the probable development period and the absorption rate.

All costs associated with constructing and selling the lots are then deducted from their projected retail sale prices. The periodic net sale proceeds are then discounted to present value at an appropriate yield rate over the estimated period required for the project development and market absorption. The result is an indication of the value of the property ‘as-is’.

**Retail Lot Price Projections** – We begin with a projection of the retail price potential for the 2 possible subject lots. A search for building lot sales, as well as current listings, was conducted in Plymouth dating back 36 months. Of the 10+ sales first researched, 9 sales were considered most similar to the potential vacant subject lots in terms of location, size of lots, and available utilities. The following are narrative details on these 9 lot sales.
<table>
<thead>
<tr>
<th>ADDRESS</th>
<th>DATE</th>
<th>PRICE</th>
<th>ADJUSTED</th>
<th>LOT SIZE</th>
<th>LEGAL REF</th>
<th>WATER/ SEWER</th>
<th>GRANTOR/ GRANTEE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 Trails End Cove Rd Plymouth</td>
<td>1-Mar-21</td>
<td>$400,000</td>
<td>$428,609</td>
<td>3.71</td>
<td>54492/158</td>
<td>private/ private</td>
<td>Paul S. Muther/ William Askew</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Great Herring Pond front lot in south Plymouth. This lot is close to the Sagamore Bridge. Wooded lot that slopes gently down to the pond from its road frontage.</td>
</tr>
<tr>
<td>60 Steeple Chase</td>
<td>16-May-22</td>
<td>$379,900</td>
<td>$384,116</td>
<td>1.45</td>
<td>LC 669/65</td>
<td>private/ private</td>
<td>David Teplow/ Timothy Goonan</td>
<td></td>
</tr>
<tr>
<td>Plymouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Little Long Pond front lot in south Plymouth. Sloping lot created some issues with siting of the dwelling built on the lot.</td>
</tr>
<tr>
<td>1928R off State Road Plymouth</td>
<td>16-Dec-21</td>
<td>$370,000</td>
<td>$381,761</td>
<td>2.55</td>
<td>56183/24</td>
<td>private/ private</td>
<td>Donald Quinn/ Patrick Downey</td>
<td></td>
</tr>
<tr>
<td>173R-2 Old Sandwich Rd Plymouth</td>
<td>26-Feb-21</td>
<td>$350,000</td>
<td>$375,177</td>
<td>19.10</td>
<td>54476/321</td>
<td>private/ private</td>
<td>Lorenz B. Cueni/ Ryan Vayo</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Large lot in Chiltonville area of Plymouth. Northern portion of town. The lot has pond views and some frontage, but the latter is not considered 'usable'. Access via Bump Rock Rd.</td>
</tr>
<tr>
<td>9 Hibiscus Lane</td>
<td>26-Oct-20</td>
<td>$293,500</td>
<td>$319,559</td>
<td>3.02</td>
<td>53691/203</td>
<td>private/ private</td>
<td>Mark Paronich/ Virginia Stutzman</td>
<td></td>
</tr>
<tr>
<td>Plymouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lot located in Chiltonville area of town and abuts the 12th hole of the Plymouth Country Club. Wooded, gently sloping lot.</td>
</tr>
<tr>
<td>30A Doten Road</td>
<td>26-Oct-20</td>
<td>$290,000</td>
<td>$315,483</td>
<td>1.16</td>
<td>63806/73</td>
<td>public/ private</td>
<td>Mary Kennedy/ Jacquelyn Roche</td>
<td></td>
</tr>
<tr>
<td>Plymouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lot located in the Chiltonville area. Abuts Plymouth Country Club. Lot has access to municipal water.</td>
</tr>
<tr>
<td>1510 Old Sandwich Road Plymouth</td>
<td>9-Dec-20</td>
<td>$265,000</td>
<td>$286,931</td>
<td>2.87</td>
<td>53971/349</td>
<td>private/ private</td>
<td>Edward Simpson/ Chris G. Barry</td>
<td></td>
</tr>
<tr>
<td>21 Pine Mountain Drive Plymouth</td>
<td>31-Mar-21</td>
<td>$245,000</td>
<td>$261,516</td>
<td>1.64</td>
<td>54701/323</td>
<td>public/ private</td>
<td>Paul Kelleher/ North Sound Homebuilding</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Smaller lot in the Ellisville area of town. Views of ocean east of lot. Small lot and marginal soils limit septic to 3br.</td>
</tr>
<tr>
<td>1865 State Road</td>
<td>6-Jul-21</td>
<td>$235,000</td>
<td>$247,719</td>
<td>2.93</td>
<td>55269/4</td>
<td>private/ private</td>
<td>Edward Simpson/ Absolute Building</td>
<td></td>
</tr>
</tbody>
</table>
Lot Sales Analysis

The sales range in price from $235,000 to $400,000. For these sales, I made a market conditions/time adjustment of +5% on an annualized basis after a review of the Case-Shiller Index presented earlier and a review of MLS statistics discussed earlier. This appreciation rate is lower than some of the rates seen for single family homes in the market. However, after a review of sales of lots now, versus similar lots 3-4 years ago, it is my opinion that land prices have been appreciating at a slower rate for land than prices for homes.

No adjustments were required in the conditions of sale, financing, or property rights appraised categories.

I then compared the lots to the subject in six different categories as detailed below, as I feel these categories play the biggest role in determining lot prices in the subject market. Using this system, the subject lots had a rating of ’21.0’.

### LOT SALES COMPARISON

<table>
<thead>
<tr>
<th>#</th>
<th>Address</th>
<th>Sale Price</th>
<th>Land</th>
<th>Location</th>
<th>Size</th>
<th>Views</th>
<th>Site</th>
<th>Utility</th>
<th>Utilities</th>
<th>Development</th>
<th>Costs</th>
<th>Expected Development</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subject Lot 1</td>
<td></td>
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<td></td>
<td></td>
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<td>21.00</td>
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<tr>
<td></td>
<td>Subject Lot 2</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td>21.00</td>
</tr>
<tr>
<td>#1</td>
<td>33 Trails End Cove Rd</td>
<td>$428,609</td>
<td>3.71</td>
<td>4.5</td>
<td>4.0</td>
<td>4.0</td>
<td>5.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>23.50</td>
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<tr>
<td></td>
<td>Plymouth</td>
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<tr>
<td>#2</td>
<td>60 Steeple Chase</td>
<td>$384,116</td>
<td>1.45</td>
<td>4.5</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>22.50</td>
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<tr>
<td>#3</td>
<td>1928R off State Road</td>
<td>$381,761</td>
<td>2.55</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>22.00</td>
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<tr>
<td>#4</td>
<td>173R-2 Old Sandwich Rd</td>
<td>$375,177</td>
<td>19.10</td>
<td>4.0</td>
<td>5.0</td>
<td>4.0</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>23.00</td>
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</tr>
<tr>
<td>#5</td>
<td>9 Hibiscus Lane</td>
<td>$319,559</td>
<td>3.02</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>22.00</td>
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</tr>
<tr>
<td>#6</td>
<td>Lot 30A Doten Road</td>
<td>$315,748</td>
<td>1.16</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
<td>23.00</td>
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</tr>
<tr>
<td>#7</td>
<td>1510 Old Sandwich Road</td>
<td>$286,931</td>
<td>2.87</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>21.00</td>
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<td>Plymouth</td>
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<tr>
<td>#8</td>
<td>21 Pine Mountain Drive</td>
<td>$261,516</td>
<td>1.64</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>20.00</td>
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<td>Plymouth</td>
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<tr>
<td>#9</td>
<td>1865 State Road</td>
<td>$247,719</td>
<td>2.93</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>20.00</td>
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<td>Plymouth</td>
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</tbody>
</table>

The two potential subject lots are quite large, averaging approximately 12 acres each. The only lot sale of this size is #4, at 19.1 acres. This lot sold for $350,000. It is superior in location to the subject lots and has better views and some pond frontage.
Lot sales #1 through #6 are all generally superior to the subject in terms of location. These lots are located closer to the ocean and have either ocean views, pond frontage or both.

Lot sales #8 and #9 are similar in location to the subject but much smaller in size. These lots are inferior to the subject.

Lot sale #7 is generally similar, overall to the subject lots using this rating system. While inferior in size this lot has slightly superior views and will come with the ability to connect to municipal water, while development of the subject lots will require private well installation.

Based upon this analysis, I have projected the typical subject lot to have a retail value of $295,000.

Up to the date of valuation, I adjusted the lot prices up at a 5% annualized rate. Going forward, I have projected an annual price increase at 4%, expecting a slight ‘cooling’ in market conditions.

Low-Utility Land Parcel Retail Price Projection – In addition to the two potential building lots derived by subdividing Parcel 107-24A, there is 76.18 acres of low utility/ backland divided among 7 parcels that also would have value in the Plymouth market. To project what these parcels might sell for I searched for recent sales of land that were either legally or physically ‘non buildable’, similar to these 7 subject parcels, or that offered a ‘lower’ utility and likely needed assemblage with other land in order to achieve maximum development potential.

Sales of this type of land are far less frequent than sales of building lots and ‘buildable’ acreage. Therefore, the search area and search period for comparable sales was extended beyond typical guidelines.

The following is a summary of 7 restricted and/or non-buildable land sales, similar to the 7 subject parcels totaling 76.18 acres.
## LOW, LOWER-UTILITY RESIDENTIAL LAND SALES SUMMARY

<table>
<thead>
<tr>
<th>ADDRESS/ TOWN</th>
<th>GRANTOR/ GRANTEE</th>
<th>SALE PRICE/ DATE per AC</th>
<th>LAND AREA(ac)</th>
<th>LEGAL REF. BOOK/PAGE</th>
<th>PRICE/ ACRE</th>
<th>FRONTAGE</th>
<th>ZONING</th>
<th>COMMENTS - REASON(S) FOR NON-BUILDABLE STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lot 1A-8 Bump Road Rd Plymouth</td>
<td>Louise Gillock/ Dennis Smith</td>
<td>$68,000 16-Mar-21</td>
<td>6.67</td>
<td>54610/220</td>
<td>$10,903</td>
<td>157' Rural Res</td>
<td>Wetlands and deed restriction cause this land to be unbuildable. It is an open space parcel that fronts on Cold Bottom Pond. Approximately 1/4 of this land is in Cold Bottom Pond. A 40' right of way to three other lots crosses this land. Abuts Route 3 to the west.</td>
<td></td>
</tr>
<tr>
<td>2. Map 122 Lot 6 Herring Pond Road Plympton</td>
<td>Everett Kenerson/ James Smith</td>
<td>$20,000 30-Jul-20</td>
<td>5.90</td>
<td>53160/234</td>
<td>$3,732</td>
<td>0 R25</td>
<td>This strip of land is a portion of the western shoreline of Herring Pond. Narrow and long. The land has no frontage and is accessible only by foot via public ways. Partly in a flood zone.</td>
<td></td>
</tr>
<tr>
<td>3. Map 70 Lot 4 off Ring Road Plympton</td>
<td>Mary Forcier/ Jennifer MacDonald</td>
<td>$15,000 4-Nov-19</td>
<td>3.38</td>
<td>60515/307</td>
<td>$5,049</td>
<td>0 Res</td>
<td>Triangular parcel of backland with no road frontage and no ability to connect to a right of way. Purchased by abutter to enhance yard.</td>
<td></td>
</tr>
<tr>
<td>4. Map 5 Lot 7 Davis Road Westport</td>
<td>Jean Vitali/ Timothy Milbert</td>
<td>$70,000 8-Jul-20</td>
<td>39.20</td>
<td>13289/103</td>
<td>$1,971</td>
<td>0 Res Ag</td>
<td>Tract is 55% wetlands. It abuts I-195 and has walking access via an Algonquin gas easement from Davis Road. Buyer farms land nearby and is considering use of land for potential solar fields.</td>
<td></td>
</tr>
<tr>
<td>5. Map 24 Lot 22 Spring Street West Bridgewater</td>
<td>Ira Smith/ Elyon Services, Inc.</td>
<td>$30,000 4-Aug-21</td>
<td>7.94</td>
<td>55429/16</td>
<td>$3,968</td>
<td>10' Res</td>
<td>Lot has limited frontage and abuts 2 parcels that have the minimum frontage. So it can't be assembled with abutting land for development. Has 10' wide access way. Was listed on MLS for 512 days prior to sale. Lot is wooded, has wetlands and a stream crosses it.</td>
<td></td>
</tr>
<tr>
<td>6. Map 5 Lot 5-79 Assumption Road Marshfield</td>
<td>David Pickering/ David J. Good</td>
<td>$20,000 12-May-22</td>
<td>15.70</td>
<td>56797/208</td>
<td>$1,289</td>
<td>195' Res R-3</td>
<td>Land is 99% wetlands/marsh. It fronts on Assumption Road and Bay Avenue and is bisected by a Listed with MLS for 17 days at $29,000 before sale.</td>
<td></td>
</tr>
<tr>
<td>7. 5R Old Beaverdam Rd Wareham</td>
<td>Wiratda Ouellette/ Joel Sullivan</td>
<td>$17,000 21-Jan-21</td>
<td>1.26</td>
<td>54239/306</td>
<td>$14,483</td>
<td>0 MR 30</td>
<td>Wooded backland that was purchased by an abutter. Parcel was on the market through MLS for several months prior to sale.</td>
<td></td>
</tr>
</tbody>
</table>
Is there a market for land for which no development potential exists? Yes, particularly in communities in which forestry and agriculture are practiced, and in towns which covet open space. This is still the case in the subject’s region.

The motivations of buyers of non-buildable or restricted land are wide-ranging and vastly different from motivations involving the purchase of "usable" properties. Some of the more common motivations or reasons for purchase include:

Agricultural use or timber rights.

An abutter, who simply wants to increase the size of one’s yard, create a larger buffer between a neighbor, or have extra room to walk their dog or for their children to play.

In the case of non-restricted land, that is non-buildable due to lack of access, a 'gambler'-type developer who thinks that, through assemblage of other land, that access to the non-buildable parcel could be obtained, making it 'buildable'.

The local municipality may want to purchase the property for conservation, or perhaps prevent a higher authority such as the State or U.S. Government from acquiring the tract for other uses.

Nature conservancy. If a site were a natural nesting ground for a specific species, many government agencies, including the U.S. Fish & Wildlife Agency, would be interested in acquiring the parcel.

Recreational use.

A factor that plays a role in determining the sale price of non-buildable or restricted land is the size of the parcel involved. Larger parcels tend to sell for less on a per acre basis than similar parcels that are simply smaller. The inverse is also true.

Another characteristic of the market for restricted or non-buildable land is that it is less ‘structured’ than other segments of the real estate market. The price range for a three-bedroom ranch or a two-acre building lot in a particular town is fairly tight and determined by numerous sales. Price negotiations for non-buildable or restricted land often begin at the assessment of the land by the town and vary significantly depending upon the motivations of the buyer. Abutters tend to pay more for this type of land than non-abutters.

We have compared these sales to the subject on a price per acre basis. This is the most common, if not the only, unit of comparison used by buyers and sellers of this property type.

Of the 7 sales listed, some were highly ‘usable’ for other purposes such as recreational purposes. These sales, which offer higher utility, tend to sell for more than acreage that is predominantly wetlands and floodplain.

The 7 sales have time adjusted prices per acre ranging from $1,289 to $14,483 shown as follows:
<table>
<thead>
<tr>
<th>#</th>
<th>TOWN</th>
<th>ADDRESS/FRONTAGE</th>
<th>TOWN</th>
<th>TIME ADJUSTED</th>
<th>PRICE/ACRE</th>
<th>ZONING</th>
<th>COMMENTS - REASON(S) FOR NON-BUILDABLE STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lot 1A-8 Bump Road Rd</td>
<td>Plymouth</td>
<td>10</td>
<td>$10,903</td>
<td>6.67</td>
<td>Rural Res</td>
<td>Wetlands and deed restriction cause this land to be unbuildable. It is an open space parcel that fronts on Cold Bottom Pond. Approximately 1/4 of this land is in Cold Bottom Pond. A 40’ right of way to three other lots crosses this land. Abuts Route 3 to the west.</td>
</tr>
<tr>
<td>2</td>
<td>Map 122 Lot 6 Herring Pond Road</td>
<td>Plymouth</td>
<td>19</td>
<td>$3,732</td>
<td>5.90</td>
<td>R25</td>
<td>This strip of land is a portion of the western shoreline of Herring Pond. Narrow and long. The land has no frontage and is accessible only by foot via public ways. Partly in a flood zone.</td>
</tr>
<tr>
<td>3</td>
<td>Map 70 Lot 4 off Ring Road</td>
<td>Plympton</td>
<td>19</td>
<td>$5,049</td>
<td>3.38</td>
<td>Res</td>
<td>Triangular parcel of backland with no road frontage and no ability to connect to a right of way. Purchased by abutter to enhance yard.</td>
</tr>
<tr>
<td>4</td>
<td>Map 5 Lot 7 Davis Road</td>
<td>Westport</td>
<td>19</td>
<td>$1,971</td>
<td>39.20</td>
<td>Res Ag</td>
<td>Tract is 55% wetlands. It abuts I-195 and has walking access via an Algonquin gas easement from Davis Road. Buyer farms land nearby and is considering use of land for potential solar fields.</td>
</tr>
<tr>
<td>5</td>
<td>Map 24 Lot 22 Spring Street</td>
<td>West Bridgewater</td>
<td>19</td>
<td>$3,968</td>
<td>7.94</td>
<td>Res</td>
<td>Lot has limited frontage and abuts 2 parcels that have the minimum frontage. So it can’t be assembled with abutting land for development. Has 10’ wide access way. Was listed on MLS for 512 days prior to sale. Lot is wooded, has wetlands and a stream crosses it.</td>
</tr>
<tr>
<td>6</td>
<td>Map 5 Lot 5-79 Assumption Road</td>
<td>Marshfield</td>
<td>19</td>
<td>$1,289</td>
<td>15.70</td>
<td>Res R-3</td>
<td>Land is 99% wetlands/marsh. It fronts on Assumption Road and Bay Avenue and is bisected by a Listed with MLS for 17 days at $29,000 before sale.</td>
</tr>
<tr>
<td>7</td>
<td>5R Old Beaverdam Rd</td>
<td>Wareham</td>
<td>19</td>
<td>$14,483</td>
<td>1.26</td>
<td>MR 30</td>
<td>Wooded backland that was purchased by an abutter. Parcel was on the market through MLS for several months prior to sale.</td>
</tr>
</tbody>
</table>
The sale at the lower end of the range at $1,289 per acre is 99% marsh and wetlands. It has very little utility. The sale at the upper end of the range is both small and 100% upland and usable. It just can’t be developed independently due to the lack of frontage.

The large subject, low utility parcel of 107-20F-3 offers the most potential for recreational use suggesting a high price per acre. But the large size of this parcels indicates the price per acre should be tempered.

Parcels 107-20F-1 and 107-20F-2 have been projected at the highest prices per acre because they are both small, have high utility or ‘usability’ and they do have foot access.

Parcels 107-23-4 and 107-63-10 have been projected at the lowest price per acre as they are generally unusable for recreational purposes.

Based upon a review of each sale and the analysis completed, the following retail price projections are made for the 7 subject “low utility” land parcels:

<table>
<thead>
<tr>
<th>Street Address</th>
<th>Assessors’ Parcel</th>
<th>Acres</th>
<th>Road Frontage (ft)</th>
<th>Price Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darby Pond</td>
<td>107-000-009A-000</td>
<td>2.85</td>
<td>none</td>
<td>$8,000 = $22,784</td>
</tr>
<tr>
<td>100-122 Graffam Rd.</td>
<td>107-000-020F-001</td>
<td>3.00</td>
<td>none</td>
<td>$12,000 = $35,988</td>
</tr>
<tr>
<td>72-78 Graffam Road</td>
<td>107-000-020F-002</td>
<td>1.80</td>
<td>none</td>
<td>$12,000 = $21,588</td>
</tr>
<tr>
<td>79R Carver Rd.</td>
<td>107-000-020F-003</td>
<td>55.40</td>
<td>none</td>
<td>$6,000 = $332,394</td>
</tr>
<tr>
<td>0 Woodland-Sherman</td>
<td>107-000-022-000</td>
<td>0.77</td>
<td>none</td>
<td>$10,000 = $7,700</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>107-000-023-004</td>
<td>10.86</td>
<td>10.00</td>
<td>$5,000 = $54,295</td>
</tr>
<tr>
<td>0 Graffam Rd.</td>
<td>107-000-063-10</td>
<td>1.51</td>
<td>none</td>
<td>$4,000 = $6,040</td>
</tr>
</tbody>
</table>

Total $480,789
Rounded $480,000

Absorption - Retail price projections for the 2 lots and low-utility land parcels have been made. The next step in the Cost of Development Analysis is to project a sellout period. This period would include the time it takes to market, sell and close on each of the components. Based upon a review of the time it took to sell the comparable lots discussed above, I project that all components could be sold in one year, or two six-month periods as shown on the cash flow model to follow.

Development Expenses

An estimate of the retail potential and a sellout period for the lots has been made. It is now necessary to deduct expenses related to the construction and marketing of the lots to individual buyers.

The following is an estimate and summary of the necessary expenses.

Engineering/Approvals – Based upon discussion with two area engineering firms, I have projected a total allowance/cost of $15,000 or $7,500 per lot to pay for the cost of ANR plans, soil testing, and septic designs.
Real Estate Taxes During Sellout – At present there are no real estate taxes due because of the not for profit ownership of the land. And as discussed earlier, the current assessment by the town of the 8 parcels is not reflective of market value.

I have deducted a total allowance of $10,000 to account for real estate taxes that may be due during the projected 12-month sellout. The current tax rate in Plymouth is $15.43 per assessed thousand. If we assume a realistic assessment of $900,000 in total for the property, the annual taxes would be $14,658.5. But because the land or portions thereof will be sold off during the year, not all of this amount will be borne by the developer/buyer of the land. The $10,000 allowance is considered sufficient to cover real estate taxes during sellout.

Marketing Expense – A marketing expense has been estimated for the purpose of allocating resources to the marketing and sale of the individual components. An allowance of 5% of the sale price has been used and is the norm for commissions in the Plymouth area.

Discount Rate – Discounting is simply the conversion of future benefits and cash flows into a present value. In this case, on the valuation model that follows, we have 2 cash flows that need to be discounted into a present value. The aggregate for the 2 cash flows is $991,388. The question arises: “But why wouldn’t the property be worth the $991,388?” This is because this figure suggests a developer would buy the land, pay for engineering and testing, brokerage fees, and all carrying costs over the 12 months, and assume all financial risk associated with the development - for free. This obviously would not happen. Therefore, I need to convert the future benefits of $991,388 into a present value using a rate that accounts for the time value of money and compensation for the illiquidity of funds; this includes a factor for the risk associated with installing a roadway, carrying costs, and selling the various components of the development; and it includes a factor for overhead and entrepreneurial profit.

The Dictionary of Real Estate, 6th Edition, defines Discount Rate as:

“A rate of return on capital used to convert future payments or receipts into present value; usually considered to be a synonym for yield rate.” (p 66)

In order to project a rate commensurate with the subject property, I have reviewed two sets of investor/developer surveys, excerpts of which can be found in the Addenda section to this report. The range of discount rates from the Realty Rates most recent survey ranges from 15% to 32%, with an average of 23%. I have projected a discount rate at the lower end of this range at 15% for this analysis. The projected 2-lot development requires no approvals, nor infrastructure, is located in strong market conditions, and represents low risk to a developer, which in turn means a lower required reward and discount rate.

SUMMARY – After making expense deductions, the net cash flows are derived and the present worth of the investment can be calculated. After applying an appropriate discount rate, it is my opinion that the market value of the 99.58-acre property, as is, assuming purchase by a single buyer, as of August 5, 2022 via the Cost of Development Approach, is $900,000. The following is my Cost of Development model.
###SUBDIVISION DEVELOPMENT ANALYSIS

<table>
<thead>
<tr>
<th>Subject Property</th>
<th>Development Presumptions/Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Camp Norse Plymouth Parcels</strong></td>
<td>Date of Valuation 5-Aug-22</td>
</tr>
<tr>
<td>99.58 Acres</td>
<td>Average Lot Price $295,000</td>
</tr>
<tr>
<td></td>
<td>Semi-Annual Price Change 2.0%</td>
</tr>
<tr>
<td></td>
<td>Semi-Annual Cost Change 2.0%</td>
</tr>
<tr>
<td></td>
<td>Real Estate Taxes (during sellout) $10,000</td>
</tr>
<tr>
<td></td>
<td>Legal - Closing Cost per lot $4.56/$1000+$1000 per lot</td>
</tr>
<tr>
<td></td>
<td>Assumed Tax per lot $2,137</td>
</tr>
<tr>
<td></td>
<td>Advertising, brokerage 5%</td>
</tr>
<tr>
<td></td>
<td>Discount Rate 15% (7.5% semi annual)</td>
</tr>
<tr>
<td></td>
<td>(includes overhead and developers profit, time cost of money, risk)</td>
</tr>
</tbody>
</table>

**SEMI ANNUAL PERIODS**

<table>
<thead>
<tr>
<th></th>
<th>PERIOD 1</th>
<th>PERIOD 2</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of VACANT lots to be sold</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sales During Period</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Lots Remaining</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**INCOME**

<table>
<thead>
<tr>
<th></th>
<th>PERIOD 1</th>
<th>PERIOD 2</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceeds from Lot Sales</td>
<td>$295,000</td>
<td>$300,900</td>
<td>$595,900</td>
</tr>
<tr>
<td>Proceeds from Sale of Low Utility/Non BuildableParcels</td>
<td>$-</td>
<td>$480,000</td>
<td>$480,000</td>
</tr>
<tr>
<td>Total</td>
<td>$295,000</td>
<td>$780,900</td>
<td>$1,075,900</td>
</tr>
</tbody>
</table>

**EXPENSES**

<table>
<thead>
<tr>
<th></th>
<th>PERIOD 1</th>
<th>PERIOD 2</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering/Soil Testing/Septic Designs</td>
<td>$15,000</td>
<td>-</td>
<td>$15,000</td>
</tr>
<tr>
<td>Legal Expense/Closing Costs</td>
<td>$2,345</td>
<td>$3,372</td>
<td>$5,717</td>
</tr>
<tr>
<td>Real Estate Taxes During Sellout</td>
<td>$7,500</td>
<td>$2,500</td>
<td>$10,000</td>
</tr>
<tr>
<td>Advertising, brokerage</td>
<td>@ 5% of sales proceeds</td>
<td></td>
<td>$53,795</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>$39,595</td>
<td>$44,917</td>
<td>$84,512</td>
</tr>
<tr>
<td>Net Development Proceeds</td>
<td>$255,405</td>
<td>$735,983</td>
<td>$991,388</td>
</tr>
</tbody>
</table>

**PRESENT WORTH OF NET PROCEEDS**

$874,456 Rounded to $900,000
RECONCILIATION AND VALUE CONCLUSION

The final step in estimating the market value of the property is a correlation of the value from each of the approaches utilized in the appraisal process. To estimate the value of the 99.58-acre property, I utilized the “Subdivision Analysis” or “Cost of Development Approach”.

This approach used is an alternative method of valuation, commonly referred to as a “Subdivision Analysis” or “Cost of Development Analysis”. This is a valuation tool available to the appraiser when subdivision and development represent the highest and best use of a property. Nine building lot sales were reviewed and analyzed in order to make retail price projections for the 2 lots possible from a subdivision of the land in accordance with my opinion of the highest and best use. I also reviewed 7 sales of “low utility” type land for comparison to the 78.16 acres/7 parcels that in my highest and best use conclusion have no readily independent development potential but do have value for passive recreation or perhaps assemblage with abutting land in the future for development. A price projection for these parcels were made based upon a review of these sales.

Costs necessary to achieve these retail prices were projected based upon a review of actual costs of similar developments in the area, along with expected brokerage commissions and real estate tax costs. The net proceeds from this exercise were then discounted at a 15% rate to produce an indication of value of $900,000.

Based upon the methods of valuation used, it is my opinion that the market value of the subject property, subject to the extraordinary assumptions cited, as of August 5, 2022 is:

NINE HUNDRED THOUSAND DOLLARS
($900,000)
CERTIFICATION OF VALUE

I certify that, to the best of my knowledge and belief,

- the statements of fact contained in this report are true and correct.
- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal unbiased professional analyses, opinions, and conclusions.
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.
- my compensation is not contingent on an action or event resulting from the analyses, opinions, conclusions in, or the use of this report.
- I have performed no services as an appraiser regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Practice of the Appraisal Institute.
- the use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- I am currently certified under the voluntary continuing education program of the Appraisal Institute.
- I made a personal inspection of the property that is the subject of this report and each of the comparables sales used.
- no one provided significant professional assistance to the person(s) signing this report.
- the appraisal assignment was not based on a requested minimum valuation, a specific valuation, or the approval of a loan.

This appraisal has been completed using the following extraordinary assumptions:

- No specific geotechnical engineering data has been provided, and as of the date of valuation, the subject property was not included as either a contaminated site or a location to be investigated by the Bureau of Waste Site Cleanup of the Department of Environmental Protection, Commonwealth of Massachusetts. It is an extraordinary assumption in this report, therefore, that the subject site is not a contaminated site.
- It is an extraordinary assumption that the land has the development potential as stated in the highest and best use section of this report.

Based upon the data presented above, it is my opinion that the market value of the fee simple interest in the subject property, subject to the definitions, limiting conditions, extraordinary assumptions, and certifications set forth in the attached report, as of August 5, 2022 is:

NINE HUNDRED THOUSAND DOLLARS
($900,000)

Christopher H. Bowler, MAI, SRA, CRE
Senior Appraiser and Advisor
Massachusetts Certified General Real Estate Appraiser License #495
APPENDIX

- Subject Property Deeds
- Comparable Building Lot Sales Location Map
- Comparable Low Utility Land Sales Location Map
- PWC National Land Market Survey
- Realty Rates Developer Survey Excerpts
- Qualifications
SUBJECT PROPERTY DEEDS
DECAS CRANBERRY CO., INC.,
a corporation duly established under the laws of
Massachusetts for ten thousand ($10,000.00) dollars paid
for the purchase of a parcel of land in Plymouth, County, Massachusetts, being more particularly bounded and described as follows:

Beginning at a point in the southerly sideline of an existing way at the northwesterly corner of the parcel to be described; thence easterly in the southerly sideline of said existing way 540 feet more or less to a point in a line which is 25.00 feet distant from and parallel to the westerly side of a building located southerly of the existing way last referred to; thence South 33° 12' 49" East in said line 88.00 feet to Darby Pond; thence by Darby Pond westerly and southerly to a point; thence South 39° 45' 46" West 45 feet more or less to an iron pin; thence North 518 52' 20" West 681.15 feet to the point of beginning.

Containing 2.85 acres more or less.

For title see the deed of Oiva A. Hannula dated July 20, 1956 recorded in the Plymouth County Registry of Deeds in Book 2511, Page 418.

Also hereby conveying a right of way over the said existing way last referred to for the purpose of passage on foot or by vehicle to and from the within described premises.

Subject to and with the benefit of any and all easements and restrictions of record.

In witness whereof the said Decas Cranberry Co., Inc.

has caused its corporate seal to be hereunto affixed and these presents to be signed, acknowledged and delivered in its name and behalf by William Decas, its President and John C. Decass its Treasurer, hereon duly authorized, this 29th day of June, in the year one thousand nine hundred and seventy-two.

Signed and sealed in presence of

Decas Cranberry Co., Inc.

by

The Commonwealth of Massachusetts

June 29, 1972

PLYMOUTH,

Then personally appeared the above named William Decas

and acknowledged the foregoing instrument to be the free act and deed of the Decas Cranberry Co., Inc.

before me

My commission expires August 5, 1972
CERTIFICATE OF VOTE

I, JOHN N. DECAS, do hereby certify that I am the Clerk of Decas Cranberry Co., Inc., that at a meeting of the Board of Directors of the corporation duly called and held at the office of the corporation at Wareham, Massachusetts, on the 18th day of August, 1971, all the Directors being present and voting at all times, the following resolution was unanimously adopted:

"VOTED: That the President and Treasurer be and is hereby authorized and directed in the name and on behalf of the corporation to sell real estate owned by the corporation to Annawon Council, Inc., Boy Scouts of America, a Massachusetts corporation, for the sum of Ten Thousand ($10,000.00) Dollars. Said real estate is located on Darby Pond in Plymouth, Plymouth County, Massachusetts. Said real estate is a portion of the land conveyed by Oiva A. Hannula by deed dated July 20, 1956 recorded in the Plymouth County Registry of Deeds in Book 2511, Page 418 and is more particularly bounded and described as follows:

Beginning at a point in the southerly sideline of an existing way at the northwesterly corner of the parcel to be described; thence easterly in the southerly sideline of said existing way 540 feet more or less to a point in a line which is 25.00 feet distant from and parallel to the westerly side of a building located southerly of the existing way last referred to; thence South 33° 12' 49" East in said line 88.00 feet to Darby Pond; thence by Darby Pond westerly and southerly to a point; thence South 39° 45' 46" West 45 feet more or less to an iron pin; thence North 51° 52' 28" West 681.15 feet to the point of beginning.

Containing 2.85 acres more or less.

Said President and Treasurer are hereby authorized to sign in the name and on behalf of the corporation, seal with the corporate seal, acknowledge and deliver any deed or deeds, and other instruments of every nature, which may be necessary or proper in connection therewith."

I DO FURTHER CERTIFY that the above vote has not been altered, amended, rescinded or repealed.

I DO FURTHER CERTIFY that the corporation is a duly organized corporation; that the foregoing vote is in accordance with the charter and by-laws of the corporation; that William Decas and John C. Decas are the duly elected, qualified President and Treasurer of the corporation respectively, and that I am the duly elected and qualified Clerk of the corporation.

Dated at Wareham, Massachusetts, this 29th day of June, 1972.

ATTEST:  

John N. Decas  Clerk
Town of Plymouth CPC, Camp Norse
Project # MA3929-CG

DEED BOOK 3547 PAGE 274

WILLIAM HARRISON CHURCHILL, being unmarried, of Plymouth, ELSA B. CHURCHILL, being married, of Plymouth, both of Plymouth County, Massachusetts, and DONALD M. WOOD, being a widow, of Richmond, in the State of Virginia, for consideration paid, grant to ANNAHON CONCEAL, INC., BY SOUTHERLY, a Massachusetts charitable corporation with principal offices in Taunton, Bristol County, Massachusetts, with QUIET CLAIM COVENANTS, our undivided share in and to five certain parcels of upland, with the buildings thereon, swamp and cranberry bog situated at and near Darby Pond in Plymouth, on Block 107 of the Town of Plymouth Assessor's Map, said parcels are more particularly bounded and described as follows:

PARCEL ONE: A certain parcel of upland and cranberry bog bounded as follows:

SOUTHEASTERNLY by the Northwesterly sideline of the former Plymouth to Middleboro Railroad, one thousand two hundred eighty (1280) feet, more or less; by Parcel 5 hereinafter described, three hundred forty (340) feet, more or less;

EASTERLY again by said Parcel 5, one thousand one hundred ninety (1190) feet, more or less; again by said Parcel 5, one hundred (100) feet, more or less;

SOUTHERLY by said Parcel 5, one thousand twelve (1012) feet, more or less;

EASTERLY again by land of Bradford Land Co., eight hundred ninety (890) feet, more or less; by land of the Town of Plymouth, five hundred thirty-five (535) feet, more or less; again by land of the Town of Plymouth, seven hundred twenty-five (725) feet, more or less; by Toplar Street Road, so called, two thousand two hundred (2200) feet, more or less;

NORTHWesterLY by land of Ivan D. Bourne and by land of Charles W. Hall, Jr., one thousand five hundred fifty (1550) feet, more or less; again, Southwesterly and Westerly again by the irregular line of Darby Pond, about one thousand five hundred (1500) feet.

The above described premises are shown as Lot 20 on said Block 107.

PARCEL TWO: A certain triangular shaped parcel of upland in said Plymouth, bounded as follows:

NORTHEASTERLY by the Southwesterly sideline of the former Plymouth-Middleboro Railroad, two hundred ten (210) feet, more or less;

EASTERLY by Southwesterly sideline of said former Plymouth-Middleboro Railroad, seventy (70) feet, more or less;

SOUTHEASTERLY by Little Clear Pond, one hundred eighty (180) feet, more or less.
The foregoing is shown as Lot 21 on said Block 107.

**Parcel Four:** A certain parcel of upland with a drainage ditch passing through the same, situated in said Plymouth and bounded as follows:

- **Westerly**
  - by land of Richard A. and Anne L. LaRoque, three hundred eighty (380) feet, more or less;
  - by a brook, seventy (70) feet, more or less;
- **Southerly**
  - by land of Leo E. and Arlene F. Begin, four hundred sixty (460) feet, more or less;
  - and
  - by Little Clear Pond, one hundred (100) feet, more or less.

The above described parcel is shown as Lot 22 on said Block 107 of the Plymouth Assessor’s Map.

**Parcel Four:** A certain parcel of vacant land situated on Little Clear Pond in said Plymouth and bounded as follows:

- **Northerly**
  - by the Northerly sideline of the former Plymouth-Middleboro Railroad;
  - and
- **Southerly**
  - by Little Clear Pond, two hundred (200) feet, more or less;
- **Easterly**
  - by land of Richard A. and Anne L. LaRoque, one hundred eighty (180) feet, more or less;
  - by land of Richard A. and Anne L. LaRoque, six hundred forty (640) feet, more or less;
  - by land of Richard A. and Anne L. LaRoque, five hundred twenty (520) feet, more or less;
  - and
  - by land of Franklin Graffen, five hundred fifty (550) feet, more or less.

The foregoing premises are shown as Lot 23 on said Block 107 of the Town of Plymouth Assessor’s Map.

**Parcel Five:** A certain parcel of upland situated near Darby Pond in said Plymouth and bounded as follows:

- **Southeasterly**
  - by land of Leo E. and Arlene F. Begin and
  - by land of Cicile F. and Jeanette E. Farley, one thousand eight hundred fifteen (1815) feet, more or less;
- **Westerly**
  - by Parcel 2 above described, seventy (70) feet, more or less;
- **Southerly**
  - again by Parcel 2 above described and by Little Clear Pond, four hundred forty (440) feet, more or less;
- **Southeasterly**
  - by land of Irving C. Minot, Jr. and Virginia Minot, eighty (80) feet, more or less;
- **Northerly**
  - by Parcel One above described, four hundred sixty (460) feet, more or less;
- **Westerly**
  - by Parcel One above described, three hundred forty (340) feet, more or less;
  - again by Parcel One above described, one thousand one hundred ninety (1190) feet, more or less;
  - and
  - by Parcel One above described, one hundred (100) feet, more or less;
The foregoing premises are shown as Lot 24 on Block 107 of the Town of Plymouth Assessor's Map.

The interest of Hannah Churchill and Elizabeth G. Walker originated in John Churchill who died leaving his interest in the foregoing premises to Helle Churchill. Helle Churchill died intestate and her estate went one-half to a brother, George Churchill and one-sixth to Hannah Churchill, one-sixth to Louise Churchill and one-sixth to Martha Churchill Johnson. Thereafter George died intestate leaving his estate one-third to said Louise Churchill, one-third to said Hannah Churchill and one-third to said Martha Churchill Johnson. Said Martha Churchill Johnson died intestate leaving one-third to her husband, Charles W. Johnson, and two-thirds to her daughter, Elizabeth Johnson (Martin) Walker. Said Hannah Churchill and Louise Churchill, as joint tenants, acquired from Charles W. Johnson his interest in the foregoing premises by deed recorded Book 2096 Page 405 and Book 2096 Page 407. Said Louise Churchill died intestate in Plymouth and her estate is in Plymouth County. Her heir at law being Hannah Churchill and Elizabeth G. Walker.

Said Hannah Churchill also acquired the interest originally set off to William R. Morrissey through purchase from the estate of Edith Morrissey by deed recorded in Book 2751 Page 314.

The interest of Dorothy M. Wood is that which originally belonged to Charles R. Wood who died leaving as his only heir at law his son, William R. Wood. Said William R. Wood left his residuary estate including the above described premises to Dorothy M. Wood. Both the Charles R. Wood and William R. Wood Estates are Probated in Plymouth County.

There is also included and hereby conveyed all our interest in and to License Number 1578 of the Massachusetts Land and Harbor Commissioners to draw water from Darby Pond.

For title, reference is made to the following deeds to John Churchill and Charles R. Wood:

1. Barnabas Hodge, Book 611, Page 561
2. Charles S. Davis, Book 611, Page 561
3. Nathaniel Clark, Book 611, Page 563
4. Rosanne B. Ripley, Book 611, Page 564
5. Almar E. Dowsett, Book 611, Page 565
6. Caleb T. Robbins, Book 611, Page 566
7. Albert Benson, Book 618, Page 250
8. Andrew W. Burns, Book 619, Page 296
9. Barnabas Hodge, Book 639, Page 84
10. Andrew W. Burns, Book 645, Page 323

See also the deed of Louise Churchill, Book 1787, Page 508

The bog property known as Darby Bog is believed to be owned 75/450ths by the Estate of Louise Churchill, 72/450ths by the Estate of Katherine S. Hartney, 105/450ths by Dorothy W. Wood, 148/450ths by Hannah Churchill and 50/450ths by Elizabeth G. Walker. The same persons in the same proportions purport to own Parcel Five above described. There is conveyed as appurtenant.
to the above described premises all rights of flowage and drainage
appurtenant to the above property together with all rights of record or
acquired through use.

There is also conveyed with the above described premises, all our right
title and interest in and to all cranberry bog equipment located in, or
on or about the premises. Reserving however, to the grantors the 1969 cran
berry crop, and the right to cultivate, protect, harvest and remove the same.

September

WITNESS, our hands and seals this 10th day of May 1969.

Hannah Churchill

Elizabth G Walker

M. Orly M. Wood

COMMONWEALTH OF MASSACHUSETTS

Plymouth, SS.,

September 10, 1969

Then personally appeared the above named Hannah Churchill and
acknowledged the foregoing instrument to be her free act and deed, before
me,

Robert Thayer
Notary Public

My Commission Expires: January 24, 1970

SEP 10 1969 AT 3:55 PM AND RECORDED
DEED AND RESTRICTION

GRANTOR: RALPH A. GRAFFAM (a/k/a RALPH E. GRAFFAM) and LORRAINE H. GRAFFAM, TRUSTEES of GRAFFAM FAMILY REALTY TRUST, under Declaration of Trust dated November 18, 1997 and recorded at Plymouth Deeds in Book 15686, Page 226, of 45 Setlers Crossing, Middleborough, MA 02346

GRANTEE: ANNAWON COUNCIL, INC., BOY SCOUTS OF AMERICA, a duly organized Massachusetts charitable corporation having a principal office at 152 West Main Street, Norton, MA 02766.

CONSIDERATION: One and 00/100 ($1.00) Dollar.

The GRANTOR hereby grants to the GRANTEE, with quitclaim covenants, the following four parcels of land in Plymouth, Plymouth County, Massachusetts as shown on a plan entitled: "Plan of Land on Darby Station Road and Graffam Road in Plymouth Massachusetts Date: January 9, 2009. Outback Engineering Incorporated 165 East Grove Street, Middleborough, MA 02346", which plan is to be recorded herewith, together with the right to use Graffam Road for all purposes for which ways are used in the Town of Plymouth, together with others entitled thereto:

Parcel A, containing 16,485 s.f. (to combine with Lot 66-1 to create Lot 66-2).
Lot 63-12, containing 79,915 s.f. (Open Space)
Lot 63-11, containing 69,889 s.f. (Open Space)
Lot 63-10, containing 65,988 s.f. (Open Space)

For title, see deed recorded at Plymouth Deeds in Book 15686, Page 237.

The grantors herein certify that

1. That the undersigned are the sole Trustees of the Trust.
2. That the Trust is in full force and effect and has not been altered, amended, revoked or terminated.
3. That no person who at any time has been a beneficiary of this Trust has died, and that all of the beneficiaries of the Trust are eighteen (18) years of age or older.

4. That the Trustees have been authorized and directed by all of the beneficiaries of the Trust to convey the subject premises for the consideration set forth herein and to execute any and all other documents necessary or convenient to effectuate said conveyance.

Pursuant to the terms of the Special Permit Decision recorded at Plymouth Deeds in Book 36609, Page 290, this conveyance is subject to the following Stewardship Plan with respect to the parcels conveyed herein:

1. The parcels herein conveyed shall be inspected regularly and periodically monitored for maintenance purposes by the GRANTEE. All trash shall be removed from said parcels in a timely fashion.

2. In the event that the GRANTEE fails to remove any nonhazardous household trash from the parcels herein conveyed, the GRANTORS, and their successors in interest to Lots 63-7, 63-8, and 63-9, as shown on said plan, shall be jointly and severally responsible for doing so.

3. Prior to any subsequent transfer or conveyance by the GRANTEE of the parcels herein conveyed, the GRANTEE shall notify the Plymouth Planning Board for its approval under such conditions as shall maintain the intent of this Stewardship Plan.

The parcels herein conveyed are conveyed for open space purposes and shall be left substantially in their natural state, per Section 205-62 of the Plymouth Zoning Bylaw.

The restrictions and Stewardship Plan are to run with the land and shall be binding upon all parties and all parties claiming under them for a period of ninety-nine (99) years from the date of recording of this Deed, after which time said restriction may be extended in accordance with the applicable provisions of G.L. c. 184, Section 27.

The Grantor reserves for herself and her successors in interest to Lots 63-7, 63-8 and 63-9 the right to enter said parcels for the purposes of performing their obligations under the above-described Stewardship Plan.

The address of the subject premises is Map 107, Lots 66-2, 63-12, 63-11, and 63-10, on and off Grailam Road, Plymouth, MA 02360.
Bk: 38734 Pg: 294

Executed as a sealed instrument this 26th day of February, 2009.

Ralph A. Graffam (a/k/a Ralph E. Graffam), Trustee

Lorraine H. Graffam, Trustee

COMMONWEALTH OF MASSACHUSETTS

Plymouth, ss. July, 15, 2010

Then personally appeared the above-named Ralph A. Graffam (a/k/a Ralph E. Graffam), Trustee, and Lorraine H. Graffam, Trustee, each proved to me through satisfactory evidence of identification, which was a driver’s license, to be the person whose name is signed on the preceding document, and acknowledged to me that it was signed voluntarily for its stated purpose.

Notary Public:
My commission expires: 7/15/2014

Res/Graffam/Deed and Restriction (To BSA)/
7/15/2010 9:10 AM
COMPARABLE BUILDING LOT SALES
LOCATION MAP
COMPARABLE LOW UTILITY LAND SALES LOCATION MAP
PWC NATIONAL LAND MARKET SURVEY
<table>
<thead>
<tr>
<th>PROPERTY TYPES</th>
<th>PREFERRED ABSORPTION YEARS</th>
<th>CHANGE RATES</th>
<th>MARKET CONDITIONS</th>
<th>DISCOUNT RATE (IRR)</th>
<th>DEVELOPER’ FREE &amp; CLEAR PROFIT</th>
<th>FORECAST VALUE CHANGE NEXT 12 MONTHS RANGE</th>
<th>MARKETING PERIOD MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-family</td>
<td>11</td>
<td>3.0%</td>
<td>Sellers</td>
<td>18.00%</td>
<td>Included in the discount rate</td>
<td>10.0% to 20.0%</td>
<td>1 to 6</td>
</tr>
<tr>
<td>Luxury</td>
<td>20</td>
<td>5.0%</td>
<td>Sellers</td>
<td>20.00%</td>
<td></td>
<td>25.0% to 30.0%</td>
<td>6</td>
</tr>
<tr>
<td>Retail</td>
<td>1 to 5</td>
<td>0.0%</td>
<td>Sellers</td>
<td>17.00%</td>
<td>Included in the discount rate</td>
<td>(5.0%) to 5.0%</td>
<td>3 to 12</td>
</tr>
<tr>
<td>Industrial</td>
<td>Over 20</td>
<td>2.5%</td>
<td>Sellers</td>
<td>10.00%</td>
<td>Included in the discount rate</td>
<td>Did not disclose</td>
<td>7 to 12</td>
</tr>
<tr>
<td>Office</td>
<td>1 to 5</td>
<td>5.0%</td>
<td>Sellers</td>
<td>12.00%</td>
<td>Included in the discount rate</td>
<td>8.0% to 10.0%</td>
<td>6 to 12</td>
</tr>
<tr>
<td>Industrial</td>
<td>1 to 5</td>
<td>0.0%</td>
<td>Sellers</td>
<td>12.00%</td>
<td>Included in the discount rate</td>
<td>0.0% to 5.0%</td>
<td>5 to 12</td>
</tr>
</tbody>
</table>

Source: Survey conducted by PwC during April 2022; (1) If a % is given it reflects the compound annual rate of growth applied to a specific dollar amount.
REALTY RATES DEVELOPER SURVEY EXCERPTS
Developer Survey

2nd Quarter 2022
Welcome to the 2nd Quarter, 2022 edition (1st Quarter 2022 data) of the RealtyRates.com™ Developer Survey.

The Developer Survey tracks actual and pro-forma discount rates on 22 sell-out property types including residential subdivisions and PUDs, business and industrial parks, and residential and commercial/industrial condominiums and co-ops. The data is presented on both a national and regional basis and covers all 50 states as well as Puerto Rico, Guam and the U.S. Virgin Islands.

The Developer Survey represents a polling of 366 commercial appraisers (8%), lenders (26%), and local, regional and national developers (66%). The bulk of the data is comprised of individual tables for each region that include surveyed actual (historical) and pro-forma (forward looking) minimum, maximum and average discount rates for each property type. In the case of subdivisions and PUDs, rates incorporate developer’s profit, while condominium and co-op rates do not.

RealtyRates.com™ is the Trade Name and a Trademark of Robt. G. Watts (RGW). Founded in Honolulu, Hawaii as Pacific Research Company and now headquartered in Bradenton, Florida, RGW has provided professional analytical, advisory and development management services to investors, property owners, major corporations, lenders and government agencies worldwide since 1973.

We hope you find the Developer Survey useful and informative.

Robert Watts
Market Commentary

RealtyRates.com™ Developer Survey Reports Modestly Increased Discount Rates For All Sell-Out Property Types During 1st Quarter 2022

Prices continued upward, inventories continued to tighten and modest increases in average discount rates for all Sell Out property types were reported during the 1st Quarter of 2022.

Site-Built Residential Subdivision rates increased an average of just three basis points, while Manufactured Housing increased an average 37 basis points during the 1st Quarter. Likewise, Commercial and Industrial Subdivision rates were up an average 26 basis points. Meanwhile, Residential Condominiums increased 33 basis points while Commercial/Industrial Condominiums were up 16 basis points during the same period.

Overall, pro-forma and actual discount rates moved largely in tandem, indicating a market consistent outlook by developers.

<table>
<thead>
<tr>
<th>Subdivisions &amp; PUDs</th>
<th>Actual Rates</th>
<th>Pro-Forma Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1Q22</td>
<td>1Q21</td>
</tr>
<tr>
<td>Site-Built Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-100 Units</td>
<td>23.67%</td>
<td>26.44%</td>
</tr>
<tr>
<td>100-500 Units</td>
<td>26.46%</td>
<td>26.41%</td>
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<tr>
<td>500+ Units</td>
<td>25.78%</td>
<td>28.76%</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>38.15%</td>
<td>38.11%</td>
</tr>
<tr>
<td>Manufactured Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-100 Units</td>
<td>23.66%</td>
<td>29.83%</td>
</tr>
<tr>
<td>100-500 Units</td>
<td>28.81%</td>
<td>31.22%</td>
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<tr>
<td>500+ Units</td>
<td>32.11%</td>
<td>32.61%</td>
</tr>
<tr>
<td>Business Parks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-100 Acres</td>
<td>27.15%</td>
<td>27.27%</td>
</tr>
<tr>
<td>100-500 Acres</td>
<td>26.77%</td>
<td>28.61%</td>
</tr>
<tr>
<td>500+ Acres</td>
<td>37.80%</td>
<td>37.71%</td>
</tr>
<tr>
<td>Industrial Parks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-100 Acres</td>
<td>24.62%</td>
<td>24.61%</td>
</tr>
<tr>
<td>100-500 Acres</td>
<td>25.50%</td>
<td>29.42%</td>
</tr>
<tr>
<td>500+ Acres</td>
<td>27.85%</td>
<td>27.36%</td>
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</table>

Condominiums & Co-ops

<table>
<thead>
<tr>
<th>Condominiums &amp; Co-ops</th>
<th>Actual Rates</th>
<th>Pro-Forma Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1Q22</td>
<td>1Q21</td>
</tr>
<tr>
<td>Primary Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hi-Rise/Urbn Townhouse</td>
<td>16.46%</td>
<td>16.13%</td>
</tr>
<tr>
<td>Garden/Suburban Townhouse</td>
<td>16.76%</td>
<td>16.33%</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>16.18%</td>
<td>16.77%</td>
</tr>
<tr>
<td>Resort &amp; Second Home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hi-Rise</td>
<td>16.32%</td>
<td>17.99%</td>
</tr>
<tr>
<td>Garden/Townhouse</td>
<td>16.69%</td>
<td>16.20%</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Office</td>
<td>15.81%</td>
<td>15.43%</td>
</tr>
<tr>
<td>Suburban Office</td>
<td>16.20%</td>
<td>15.68%</td>
</tr>
<tr>
<td>Net all</td>
<td>17.20%</td>
<td>17.17%</td>
</tr>
<tr>
<td>Industrial</td>
<td>15.74%</td>
<td>15.00%</td>
</tr>
</tbody>
</table>

*For Quarter 2022 Data

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Regional Discount Rates

The following tables summarize discount rates for, conventionally financed (interest-only interim or construction financing) subdivisions and planned unit developments (PUDs) and condominium and co-op projects. Actual Rates are historical rates achieved by survey respondents, while Pro-Forma Rates reflect forward-looking revenue and development costs. Subdivision and PUD rates do include provision for developer’s profit, i.e., profit is not treated as a line item expense, while condominium and co-op rates do not, i.e., profit is treated as a line item expense.

Data presented in the Developer Survey are provided by 362 commercial appraisers (4%), lenders (52%), and local, regional and national developers (44%).
### New England - CT, MA, ME, NH, RI, VT

#### RealtyRates.com DEVELOPER SURVEY - 2nd Quarter 2022*
New England - Subdivisions & PUDs

<table>
<thead>
<tr>
<th></th>
<th>Actual Rates</th>
<th>Pro-Forma Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>Site-Built Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;100 Units</td>
<td>17.03%</td>
<td>29.33%</td>
</tr>
<tr>
<td>10-500 Units</td>
<td>17.46%</td>
<td>27.20%</td>
</tr>
<tr>
<td>500+ Units</td>
<td>17.80%</td>
<td>38.68%</td>
</tr>
<tr>
<td>Mixed-Use</td>
<td>18.27%</td>
<td>39.72%</td>
</tr>
<tr>
<td>Manufactured Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;100 Units</td>
<td>17.42%</td>
<td>42.31%</td>
</tr>
<tr>
<td>10-500 Units</td>
<td>17.42%</td>
<td>47.32%</td>
</tr>
<tr>
<td>500+ Units</td>
<td>18.30%</td>
<td>42.95%</td>
</tr>
<tr>
<td>Business Parks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;100 Acres</td>
<td>17.37%</td>
<td>34.66%</td>
</tr>
<tr>
<td>10-500 Acres</td>
<td>18.31%</td>
<td>36.02%</td>
</tr>
<tr>
<td>500+ Acres</td>
<td>18.24%</td>
<td>38.70%</td>
</tr>
<tr>
<td>Industrial Parks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;100 Acres</td>
<td>17.43%</td>
<td>34.17%</td>
</tr>
<tr>
<td>10-500 Acres</td>
<td>17.43%</td>
<td>39.71%</td>
</tr>
<tr>
<td>500+ Acres</td>
<td>18.38%</td>
<td>34.17%</td>
</tr>
</tbody>
</table>

*For Quarter 2022 Data

### RealtyRates.com DEVELOPER SURVEY - 2nd Quarter 2022*
New England - Condominiums & Co-Ops

<table>
<thead>
<tr>
<th></th>
<th>Actual Rates</th>
<th>Pro-Forma Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>Primary Residential</td>
<td>10.52%</td>
<td>20.90%</td>
</tr>
<tr>
<td>Hi-RiseUrban Townhouse</td>
<td>11.72%</td>
<td>26.00%</td>
</tr>
<tr>
<td>GardenSuburban Townhouse</td>
<td>10.32%</td>
<td>19.78%</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>11.57%</td>
<td>26.89%</td>
</tr>
<tr>
<td>Resort &amp; Second Home</td>
<td>12.55%</td>
<td>22.00%</td>
</tr>
<tr>
<td>Hi-Rise</td>
<td>12.72%</td>
<td>22.30%</td>
</tr>
<tr>
<td>GardenTownhouse</td>
<td>12.55%</td>
<td>19.64%</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>9.45%</td>
<td>21.70%</td>
</tr>
<tr>
<td>Urban Office</td>
<td>10.50%</td>
<td>19.61%</td>
</tr>
<tr>
<td>Suburban Office</td>
<td>9.51%</td>
<td>19.51%</td>
</tr>
<tr>
<td>Retail</td>
<td>10.50%</td>
<td>21.70%</td>
</tr>
<tr>
<td>Industrial</td>
<td>9.40%</td>
<td>13.03%</td>
</tr>
</tbody>
</table>

*For Quarter 2022 Data

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Town of Plymouth CPC, Camp Norse
Project # MA929-CG
General Information

The RealtyRates.com™ Developer Survey represents one of the most comprehensive data sets of investment activity compiled for the commercial real estate industry. While no information in this highly fragmented industry is perfect or all encompassing, RealtyRates.com has established rigid data collection and classification methodology including sourcing requirements and detailed procedures to ensure the integrity and timeliness of our information.

Survey Scope

The RealtyRates.com™ Developer Survey summarizes discount rates for conventionally financed subdivisions and planned unit developments (PUDs) and residential and commercial condominiums and co-ops nationwide. The data is distributed amongst 13 regions encompassing all 50 states as well as Puerto Rico, Guam, and the U.S. Virgin Islands.

Data Sources

Data presented in the Developer Survey are provided by 366 commercial appraisers (4%), lenders (52%), and local, regional and national developers (44%).

Terms of Use

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Glossary

Amortization: Years required at the specified interest rate to pay off the entire mortgage, including principal and interest, with a level payment.

Band of Investment Technique: A method of calculating the Overall Capitalization Rate via a weighted average of Mortgage and Equity requirements. Calculated as:

\[(LTV \times \text{Mortgage Constant}) + (\text{Equity-to-Value Ratio} \times \text{Equity Dividend Rate}) = \text{OAR}\]

Debt Coverage Ratio (DCR): Ratio of annual mortgage payment, including interest and principal, to NOI. Generally established by the lender.

Debt Coverage Ratio Technique: A method of calculating the Overall Capitalization Rate (OAR) based on the Debt Coverage Ratio (DCR):

\[\text{DCR} \times LTV \times \text{Mortgage Constant} = \text{OAR}\]

Discount Rate: An annual competitive rate of return on total invested capital necessary to compensate the investor for the risks inherent in a particular investment. A yield rate used to convert future payments or receipts into present value.

Equity Component: Property value less mortgage component.

Equity Dividend: The dollar return to the equity component:

\[\text{Net Operating Income} - \text{Debt Service} = \text{Equity Dividend}\]

Equity Dividend Rate: Rate of return to the equity component:

\[\text{NOI} - \text{Debt Service} = \text{Equity Dividend Rate} \div \text{Equity Investment} = \text{Equity Dividend Rate}\]

Interest Rate: Calculated as 10-Year Treasury Rate + Spread Over Base

Mortgage Constant: A factor, which when applied to the total mortgage, results in the periodic payment necessary to fully amortize a loan at the specified interest rate and amortization period. Mortgage constants may be expressed as annual or monthly.

Net Operating Income (NOI): Income net of all operating costs including vacancy and collection loss and reserve for repairs and replacements but not including debt service.

Overall Capitalization Rate (OAR): Ratio of Net Operating Income to property value or sales price.

Spread Over Base: Difference between a specified index and the mortgage interest rate. Most common indices are US Treasury Bonds, Prime Interest Rate and London Interbank Offering Rate (LIBOR).
QUALIFICATIONS
QUALIFICATIONS OF CHRISTOPHER H. BOWLER
SENIOR APPRAISER AND ADVISOR

EDUCATION

- BA Economics, Union College, Schenectady, New York 1987

- Appraisal Institute
  Course SPP Standards of Professional Practice
  Course 1A-1 Basic Appraisal Principles, Methods and Techniques
  Course 1A-2 Basic Valuation Theory and Techniques
  Course 8-I Residential Valuation
  Course 1B-A Capitalization Theory & Techniques Part A
  Course 1B-B Capitalization Theory & Techniques Part B
  Course 550 Advanced Applications
  Course 410 Standards of Professional Practice Part A
  Course 420 Standards of Professional Practice Part B
  Course 540 Report Writing & Valuation Analysis

- Argus Software
  Valuation DCF 2 Day Training; 11/09

PROFESSIONAL AND TRADE AFFILIATIONS

- The Counselors of Real Estate
  2015 CRE Designation #13359

- Appraisal Institute
  1992 Senior Residential Appraiser - SRA Designation
  2000 Member of Appraisal Institute - MAI Designation #11564
  2002-4 Director, Massachusetts Chapter
  2005 Secretary, Massachusetts Chapter
  2006 Treasurer, Massachusetts Chapter
  2007 Vice President, Massachusetts Chapter
  2008 President, Massachusetts Chapter

- Massachusetts Certified General Real Estate Appraiser License #495

PROFESSIONAL EXPERIENCE

Qualified expert witness; Land Court of Massachusetts.
Qualified expert witness; Massachusetts Appellate Tax Board.
BUSINESS EXPERIENCE

Presently a Senior Appraiser and Advisor for LandVest, Inc. Mr. Bowler has prepared appraisals of apartment complexes, office buildings, industrial buildings, shopping centers, research and development facilities, hotels/motels, golf courses, restaurants, laboratory-life sciences buildings, medical office buildings, auto dealerships, truck terminals, warehouses, bank branches, commercial and industrial condominium units and buildings, lumber yards, service stations, industrial mill buildings, and cranberry bogs.

Mr. Bowler's experience also includes the appraisal of large tracts of land, conservation restrictions, proposed developments; condominium projects, mixed use retail and residential, and traditional single-family subdivisions. Mr. Bowler has prepared market studies and feasibility analyses for proposed developments of both residential and commercial projects. Mr. Bowler has been employed in the following manner during his professional career.

2022-present  Senior Appraiser and Consultant  
                LandVest Inc.  
                Boston, Massachusetts

1992-2022  Senior Associate  
           Avery Associates  
           Acton, Massachusetts

1987-1992  Real Estate Appraiser  
           Edward W. Bowler Associates  
           Waltham, Massachusetts

1987  Research Associate  
      New York State Department of Transportation  
      Albany, New York

BUSINESS ADDRESS
LandVest, Inc.  
10 Post Office Square  
Suite 1125  
Boston, MA 02109  
Tel: 978-294-9056  
Cell: 978-844-0314  
Fax: 617-482-7957  
cbowler@landvest.com
Partial Client List

**INSTITUTIONAL - FINANCIAL - FIDUCIARY**

<table>
<thead>
<tr>
<th>Ballentine Partners</th>
<th>Investor's Bank &amp; Trust Company</th>
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</thead>
<tbody>
<tr>
<td>Bank of America/US Trust Company</td>
<td>Market Street Trust</td>
</tr>
<tr>
<td>Bank of Boston*</td>
<td>Mercantile Bank</td>
</tr>
<tr>
<td>Bank of Canton</td>
<td>OnBank - Syracuse</td>
</tr>
<tr>
<td>Bessemer Trust</td>
<td>People's Bank</td>
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<tr>
<td>Boston Private Bank &amp; Trust</td>
<td>Resource Investment, Inc.</td>
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<tr>
<td>Brown Advisory</td>
<td>Salem Five</td>
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<td>California National Bank</td>
<td>Shawmut National Corp.*</td>
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<td>Chemical Banking – NYC*</td>
<td>State Street Bank - Trust Dept.*</td>
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<td>Citibank - New York</td>
<td>Strategic Timberland Trust (STT)</td>
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<tr>
<td>Commercial Bank of San Francisco</td>
<td>The Forestland Group</td>
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<td>Daintree Advisors</td>
<td>Wainwright Bank &amp; Trust Co.</td>
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<td>Fiduciary Trust Company</td>
<td>Wellington Management Co.</td>
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<tr>
<td>Fleet National Bank*</td>
<td>Wells Fargo Bank</td>
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<tr>
<td>GE Capital Services - SFG</td>
<td>Welch &amp; Forbes</td>
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<tr>
<td>International Bank of Singapore</td>
<td></td>
</tr>
</tbody>
</table>

**EDUCATIONAL INSTITUTIONS**

| Belmont Hill School                             | Landmark School                 |
| Boston University                                | Massachusetts Institute of Technology |
| Bowdoin College                                  | Middlesex School                |
| Brooks School                                    | University of Massachusetts (Boston) |
| Brown University                                 | University of New Brunswick      |
| Clarke Schools                                   | New England College             |
| Dartmouth College                                | Newbury College                 |
| Daycroft School                                  | Northfield Mt. Hermon           |
| Endicott College                                 | Paul Smith’s College            |
| Fenn School                                      | Phillips Exeter Academy         |
| Franconia College                                | Pine Manor College              |
| Gill/St. Bernard's School                        | Rudolph Steiner School          |
| Gould Academy                                    | St. Mark’s School (West Campus) |
| Harvard University                               | St. Paul's School               |
| Hillside School                                  | Windham College                 |
| The Hyde Schools                                 | Yale University                 |
| John Dewey Academy                               |                                 |

**GOVERNMENT AGENCIES**

| Federal Deposit Insurance Corp. (FDIC)          | Maine Dept. of Environmental Conservation |
| Land for Maine’s Future                          | MA Capital Asset Management and Maintenance |
| Maine Bureau of Public Lands                     | Massachusetts Dept. of Agriculture    |
| Maine Department of Conservation                 | Massachusetts Dept. of Environmental  |
| Maine Dept of Inland Fisheries & Wildlife        |                                 |
Protection
Massachusetts Department of Fish and Game
Massachusetts Division of Fisheries & Wildlife
New York Dept. of Transportation
New York Dept. of Environmental Conservation
Resolution Trust Corporation (RTC)
South Carolina Department of Revenue
United States Forest Service
U. S. General Services Administration

INDEPENDENT NON-PROFITS

Baxter State Park Authority
The Biophilia Foundation
Boy Scouts of America, Narragansett Council
The Brattleboro Housing Authority
Buzzards Bay Coalition
Cathedral Square Corporation
Elizabeth Peabody House
FARM Institute (on Martha’s Vineyard)
Feoffees of the Grammar School
Gilman Housing Trust
Hale Reservation
Hammond Castle Museum
Historic New England
Housing Vermont
Lincoln Land Institute
Nantucket Airport Commission
Neponset River Watershed Association
New England Deaconess Association
New England Forestry Foundation
New England Natural Resources Center
New Hampshire Housing Finance Authority
Old Sturbridge Village, Inc
The Plummer Home for Boys
Rensselaer Plateau Alliance
Rockingham Community Land Trust
Shelburne Farms
Southwestern Community Services, Inc
Weston Historical Commission
Woods Hole Oceanographic Institution
YMCA
YWCA

LAND TRUSTS

Appalachian Mountain Club
Berkshire Natural Resources Council
Blue Hill Heritage Trust
Boxford Trails Association/
Boxford Open Land Trust
Burlington Community Land Trust
Buzzards Bay Coalition
Cape Elizabeth Land Trust
The Conservation Fund
Damariscotta Lake Watershed Association
Delta Waterfowl Foundation
Essex County Greenbelt Association
Forest Society of Maine
Hale Reservation
Mahoosuc Land Trust
Massachusetts Audubon Society
Maine Coast Heritage Trust
Maine Wilderness Watershed Trust
Metacomet Land Trust
Mianus River Gorge Preserve, Inc.
Mount Grace Land Conservation Trust
Nantucket Conservation Foundation
Naromi Land Trust
The National Trust for Historic Preservation
The Nature Conservancy
Northeast Wilderness Trust
Open Space Institute
Pacific Forest Trust
Rangeley Lakes Heritage Trust
The Rural Land Foundation
Scarborough Land Conservation Trust
Sherborn Rural Land Foundation
Southeast New Hampshire Land Trust
Sudbury Valley Trustees
Sweet Water Trust
The Trust for Public Land
The Trustees of Reservations
Vermont Land Trust
Westwood Land Trust
Woodie Wheaton Land Trust
**LEGAL**

Bernstein, Shur, Sawyer & Nelson  
Burns & Levinson  
Cravath, Swain & Moore LLP  
Edwards Wildman/Locke Lord  
Foley Hoag LLP  
Choate Hall & Stewart  
Gilberti Stinziano Heintz & Smith, P.C.  
Goodwin Procter  
Goulston & Storrs  
Harmon, Jones & Sanford  
Hemenway & Barnes  
Hinckley, Allen & Snyder  
Milbank, Tweed, Hadley & McCloy  
Mintz, Levin, Cohn, Ferris, Glovsky & Popeo  
Nixon Peabody  
Nutter McClennen & Fish  
Paul, Hastings, Janofsky & Walker LLP  
Peabody & Arnold*  
Pierce Atwood LLP  
Rackemann, Sawyer & Brewster  
Riemer & Bronstien  
Ropes & Gray  
Shaheen & Gordon, P.A.  
Law Office of Stephen J. Small, P.C.  
Verrill Dana LLP  
White & Case  
Wilmer Hale

**MUNICIPALITIES**

Town of Acton, Massachusetts  
Town of Altamont, New York  
Town of Ashland, Massachusetts  
Town of Belmont, Massachusetts  
Town of Bolton, Massachusetts  
Town of Bridgewater, Massachusetts  
City of Cambridge, Massachusetts  
Town of Cohasset, Massachusetts  
Town of Easton, Massachusetts  
Town of Groveland, Massachusetts  
Town of Lenox, Massachusetts  
Town of Leverett, Massachusetts  
Town of Lexington, Massachusetts  
Town of Littleton, Massachusetts  
Town of Mendon, Massachusetts  
Town of Milton, Massachusetts  
Town of Monson, Massachusetts  
Town of Nantucket, Massachusetts  
City of Newton, Massachusetts  
Town of North Andover, Massachusetts  
Town of Norwell, Massachusetts  
Town of Rowley, Massachusetts  
Town of Truro, Massachusetts  
Town of Wayland, Massachusetts  
Town of Weston, Massachusetts  
Town of Westwood, Massachusetts  
Town of Winchendon, Massachusetts

**PRIVATE - CORPORATE**

Crown Vantage Corp.  
Group Hosp. & Medical Services  
International Paper Company  
J.D. Irving, Ltd.  
Lassiter Properties, Inc.  
Mead Oxford Corp.  
Mercy Health Systems  
Niagra Mohawk Corp.  
Okamura Corporation  
Raychem, Inc.  
Ryder Truck, Inc.  
Six Rivers Limited Partnership  
Wagner Forest Management, Ltd.
RELIGIOUS ORDERS

Dominican Sisters (Gloucester, MA)
Dominican Sisters of Spaarkill
Episcopal Diocese of Boston
Episcopal Diocese of Western Massachusetts
La Sallette Order
Marist Brothers
Salesian Society
Sisters of Notre Dame de Namur
Society of St. Margaret
St. Scholastica Priory
United Church of Christ

*Prior to Merger, Acquisition or Dispansion
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 2018: CPA Article 9B

ARTICLE 9B: To see if the Town will vote to raise Community Preservation receipts, transfer from Community Preservation available funds or borrow $3,600,000.00 to grant to the Greater Plymouth Performing Arts Center, Inc. for the restoration rehabilitation and preservation of the façade of the 1884 Spire Center for the Performing Arts in Court House Square, and to authorize the Board of Selectmen to accept an historic preservation restriction pursuant to G.L. c. 44B Section 12 and G.L. c. 184 Sections 31-33, or take any other action relative thereto.

COMMUNITY PRESERVATION COMMITTEE

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

SUMMARY & INTENT: The Community Preservation Committee is recommending 9B to Fall Town Meeting 2022 for the historical restoration of the façade of the 1884 Spire Center for the Performing Arts located in Plymouth Court House Square.

The agreement is as follows.

The building will be available for the Town’s use when requested by the Board of Selectmen free of charge and based on availability.

The Greater Plymouth Performing Arts Center Inc. (GPPAC) has agreed to establish an endowment for the future capital improvements (not to be used heat, lights and general maintenance). One percent of the annually revenue generated by 25 ½ Court Street will be dedicated to a capital improvements account to be submitted to the Town of Plymouth Finance Department for confirmation by last Friday in April of each year.

GPPAC will except one designee from the Community Preservation Committee and one designee by the Historical Commission to serve on the Board of GPPAC building committee during the renovations for the Spire Center for the Preforming Arts 25 ½ Court Street and as long as CPA funds Under Article 9B Fall Town Meeting 2022 are available.

GPPAC sponsored events will be free to Plymouth Students up to grade 12 based on availability.
The Spire Center not only has become the preeminent performing arts venue south of Boston but has also proven to be a major economic driver for downtown Plymouth. Our annual ticket sales now exceed 20,000 in number with 70% of these patrons coming in from outside of our community, many from out of state or the US! This not only benefits those in the local hospitality business but it has also been a catalyst in the downtown real estate market. Many patrons remark on how great it is to be able to enjoy dinner and a show in our own downtown!

Our preservation goal is another key component of why the Spire is so important. As a non-profit, our financial model is to pay for all operating expenses and maintenance items with our operating income (ticket sales, rentals) with any additional funds raised dedicated to capital projects in the building rather than to business owners as it would be if it was operated as a for-profit organization. The Spire budget now exceeds $700,000 and features over 120 acts each year. We have 2 full time employees and employ an additional 7 and have 35 volunteers who assist us with our productions.

Our volunteer Board has been very involved from the beginning and remains dedicated to the Spire’s success while donating over 2,000 hours of sweat equity yearly. This effort includes not only the leadership needed but day to day work like fund raising, construction oversight, accounting, booking shows and dialing in production equipment. We are all dedicated to bringing the best experience possible to our audience and performers alike.
Following is the breakdown for funds raised over our normal expenses and projects completed since our opening on 4/12/2014 and after the initial renovation funded in part by the CPA funding of 2012.

4/12/14 to 8/18/2022

Fundraising:

1. MA Cultural Council – Cultural Facilities Fund: $360,000 for building
2. MA Office of Travel & Tourism:
   a. Building $200,000
   b. Preservation Plan $75,000
   c. Marketing $100,000
3. MA Historical Commission $85,000 for building
4. Plymouth Charitable Foundation $100,000 for building
5. General fundraising & dedicated net income $436,000
   TOTAL $1,356,000

Completed Projects:

1. Structural reinforcement $362,000
2. Elevator and ADA access $250,000
3. Interior renovation $175,000
4. Roof Replacement $175,000
5. Sound & Lighting Systems $145,000
6. Air conditioning & electrical $39,000
7. Preservation Planning $75,000
   Total $1,221,000
APPLICATION FOR CPA FUNDS - FY 2022-23

SPIRE CENTER
FOR THE PERFORMING ARTS

PLYMOUTH, MA

JUNE 30, 2022

Spencer Preservation Group
PRESERVATION ARCHITECTS
FISCAL YEAR 2020-2021 APPLICATION

Project Name: SPIRE CENTER PRESERVATION PROJECT

CPA Funding requested: $3,100,000
If the amount is unknown, will an appraisal be needed? □ Y □ N (If yes see page 14 of the appraisal process)

Total project cost: $3,600,000

Category—check all that apply: □ Open Space/Recreation □ Historic □ Housing
Lot and Plot: Parcel ID 017-000-145-002

Assessors Map #: __________________________
Number of acres in parcel: 1
Number of proposed housing units: 0

Are there any existing deed restrictions on this property? □ No □ Don't know □ YES/DESCRIBE

Describe restrictions below:

Historic restriction held by Commonwealth of MA

Project Sponsor/Organization: Greater Plymouth Performing Arts Center Inc.
Contact Name: Robert Hollis
Address: 110 Fairview Ln Plymouth, MA 02360
Phone #: 608-577-0023 E-mail: rhollis@hollissagency.com

Applicant Signature: __________________________ Date/Submitted: 5/21/2022

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.

__________________________
Initial here

rev. 08/2020
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: **Spire Center Preservation Project**

Applicant Name: **Robert Hollis**

Address: **110 Fairview Ln, Plymouth, MA 02360**

Phone #: **617-777-0023**  E-mail: **rhollis@hollisagency.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.

**Signature**

**Print Name**

**Date**

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rev. 08/2020
The Spire Center occupies a prominent position on Plymouth's Court Street, facing the historic courthouse recently rehabilitated as Plymouth's Town Hall. Built in 1884, this former Methodist Church building has undergone several transformations in use and since 2012 has served as the Spire Center for the Performing Arts, a not-for-profit organization. The building is owned by the Town of Plymouth and leased on a long-term basis to the Greater Plymouth Performing Arts Center, Inc. Vigorous and multi-faceted programming brings enthusiastic audiences to Plymouth,
with benefits to restaurants and hospitality venues, while highlighting the architectural historical character of this historic building, a reference point in the community. As the Massachusetts Office of Tourism and the Mass. Cultural Council have demonstrated, the benefits related to the arts are significant economic drivers for the surrounding communities.

When the volunteers and newly fledged board members of the Spire Center gathered, their enthusiasm for the venture was tempered by the harsh realities of the conditions of the building. The downward slope of deferred maintenance and the need to upgrade the former sanctuary as a theater were daunting challenges. Under the leadership of Bob Hollis as president of the board and head ‘visionary,’ a combination of sweat equity and bootstrap fund raising resulted in a combination of structural stabilization and improvements necessary to secure a certificate of occupancy as a theatre. In the beginning, renovations included a fire suppression (sprinkler) system, electrical upgrades, restrooms.

In 2015 a condition assessment report with structural recommendations was prepared by Spencer & Vogt Group, the predecessor firm to Spencer Preservation Group, the architectural firm guiding the preservation and rehabilitation efforts (see CPA submission package). This was succeeded in 2016-17 with structural repairs funded in part by a MPPF Emergency Fund grant (see CPA submission package) and the installation of an elevator along with related improvements for handicapped access. The latter was funded in part by the Mass. Cultural Facilities Fund.

Continuing improvements have been relatively minor but necessary and the Spire Center has proven self-sustaining on an operating basis. Clearly two years of the pandemic have stalled operations, but the ever-resourceful board has succeeded in securing funding to keep building operational for its tenants, and now alive once again with active programming with concerts, theatre and associated entertainment, including the popular coffee house.

After several years of planning, the restoration of the exterior envelopment is the highest priority and one that also includes structural repairs. Every historic building needs first and foremost to keep the weather out, the heat in, and maintain structural integrity. The Spire Center is no exception and beyond these practical considerations, the appearance of the Spire Center is adversely affected by the dilapidated aluminum siding with its steeple showing the wear and tear of weather and time. Viewed from a distance the steeple is an unmistakable sign of deterioration, now sporting a big patch at its pinnacle due to storm damage.

Closer inspection shows temporary shoring (now 6 years old) at the transepts along with window glazing falling out and peeling paint on the stained-glass windows. A bird’s eye view sees deteriorated asphalt shingle roofing with various temporary patches. Inside, structural engineers have assessed and recommended reinforcement to the tall steeple as well as reinforcing those outward leaning north and south walls of the transepts. In short, there is a pressing need to address critical issues for preservation of the building envelope.

The CPA Request: Preservation Project 2022-2023

The Spire Center has developed preliminary plans and specifications for a comprehensive envelop and structural project, with estimated budget of $3.6 m with $200,000 of roof replacement being performed the summer of 2022, outside of the CPA grant but certainly related to the pressing needs to re-establish a weathertight enclosure. The scope specific to the CPA grant is thus $3.4 m.
The budget was prepared based on outline plans and specifications prepared by Spencer & Vogt, now Spencer Preservation Group (see CPA submission package). The cost estimated was prepared by Cape Associates, which had also assisted in exploratory probes which the Conditions Assessment was prepared in 2015 (see CPA submission package).

The CPA scope and budget includes construction costs of $2,421,963 m. Other associated costs include architectural and engineering services to complete the construction documents (plans and specifications), conduct competitive bidding and construction administration of $242,196; contingency of $484,393; and escalation to 2023 of $290,636. The total project budget is $3,439,188.

The Center requests a Community Preservation grant of $3.1 m. which they are matching with $500,000 as follows: Mass Cultural Facilities Fund, $200,000, committed; Plymouth Community Foundation, $100,000, committed; and capital Campaign, $200,000, in progress.

The Preservation Work

Removal of the aluminum siding in three locations has been useful in understanding how much historic fabric remains and gives hints of what has been lost as a result of the destruction by lopping off anything that extended beyond the plane of the siding. Most of the trim detail have been lost. Working with the surviving historic photos (see Conditions Assessment in the CPA submission package) as the starting basis for restoration of the missing trim elements, Spencer Preservation Group, as preservation architects will also consult millwork catalogues of the late 19th century as well as comparable historic buildings of this type, in the style what might be best called Victorian Carpenter Gothic.

Another useful tool is paint analysis to determine historic colors. Once again, historic photos help but actual sampling is revealing. The Spire Center intends to apply the original colors to sample areas to share the exciting discovery to return this building to its Victorian splendor – no longer white. The body of the clapboards, shingles, and novelty siding was originally tan, with dark green trim and sash, with the doors another shade of dark green. (See paint analysis by Finch & Rose in the CPA submission).

Preservation Standards

Preservation and restoration work are guided by the Secretary for the Interior Standards for Historic Preservation. Where original fabric survives in durable condition, it will be retained and repaired as necessary. Missing elements will be replicated based on evidence, documentary or comparable examples. Structural repairs will be designed to be as complementary interventions. Proper life safety and lead paint safe practices will ensure worker and public safety. Materials and preservation techniques will be employed to maximize durability and longevity of the work.

The project will be submitted to the Plymouth Historic District Commission for a Certificate of Appropriateness.
Schedule

The overall time schedule is included in the CPA submission package.

Plans and specifications for the roof replacement have been prepared, the project bid and the contract awarded. Work is anticipated to be finished in September.

The schedule then moves on to the Town Meeting in September. With hope for a positive vote, the architectural team will then finalize the plans and specifications for bidding in January – February and preservation work starts in March with completion in September.

In conclusion

The Spire Center is a community cultural resource housed in a repurposed historic church building, demonstrating the adaptive reuse of a structure that would have been otherwise subject to the vagaries of real estate speculation. It is time for this resource to get the attention it deserves to ensure its future preservation. The Center and its consultants stand ready and eager to respond to questions and comments from the Community Preservation Committee and welcome the opportunity to offer guided tours and discussions with the design team.
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   Section 01 21 00 Allowances
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DIVISION 2 – EXISTING CONDITIONS
   Section 02 41 19 Selective Demolition

DIVISION 3 – CONCRETE (not used)

DIVISION 4 - MASONRY
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DIVISION 5 – METALS (not used)

DIVISION 6 – WOOD & PLASTICS
   Section 06 10 00 Rough Carpentry
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DIVISION 7 – THERMAL & MOISTURE PROTECTION
   Section 07 21 00 Thermal Insulation
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DIVISION 8 – OPENINGS
   Section 08 01 52 Historic Treatment of Wood Windows and Doors

DIVISION 9 – FINISHES
   Section 09 01 90 Exterior Painting
   Section 09 27 13 Glass Fiber Reinforced Plastic (GFRP) Fabrications [Alternate #1]
Southeast Tower and Steeple

**Level 5 (Steeple roof)**
- Temporarily remove and store copper finial for future reinstallation
- Undertake all recommended structural augmentation improvements (Coastal Engineering)
- Remove wood shingles from all steeple roof surfaces
- Replace any deteriorated wood roof sheathing with new in-kind wood sheathing
- Cover all roof sheathing with Huber Engineered Woods “Zip System” roof sheathing
- Replace any deteriorated wood trim at roof gables with new in-kind materials to match existing
- Prepare, prime and paint all exposed wood trim at roof gables
- Provide felt underlayment over all exposed wood roof sheathing
- Provide copper flashing at all changes in roof surfaces and along perimeter of roof base
- Provide ventilated underlayment (“Cedar Breather”) over new felt underlayment on roof surfaces
- Provide new wood shingles to match width and exposure of existing roof shingles
- Install lightning protection system, including arrestors, terminals, cabling and grounds

**Level 4 (Louvered bell area)**
- Replace deteriorated wood shingles (assume 50%) with new in-kind materials to match existing
- Replace deteriorated wood louver elements with new in-kind materials to match existing
- Replace deteriorated wood cornice elements with new in-kind materials to match existing
- Provide copper flashing over projecting ledge at base of wall along all four sides
- Prepare, prime and paint all exposed wood trim and shingles on all wall surfaces
- Prepare, prime and paint all exposed wood cornice elements at all four sides
- Prepare, prime and paint all exposed wood louver elements at all four sides
- Provide bird screen on inside surfaces of all four louver openings
- Provide one new drain line from interior membrane floor through exterior wall

**Level 3 (Second floor)**
- Replace missing wood decorative elements at top of wall, just below louvered openings
- Remove chamfered and square wood shingles from all wall surfaces
- Replace any deteriorated wood wall sheathing with new in-kind wood sheathing
- Provide felt underlayment over all new and existing wood wall sheathing
- Provide new copper flashing at arched head of three window openings
- Provide new copper flashing over projecting ledge at base of wall along three sides
- Provide new copper-covered roof cricket and metal flashing where northwest wall meets main roof
- Provide ventilated underlayment (“Cedar Breather”) over new felt underlayment on wall surfaces
- Provide new wood shingles to match shape and exposure of existing roof shingles
- Restore all window sash with new hardware, sash weight chains, pulleys and sash weights
- Provide new metal weather-stripping at each window frame; cut kerfs in each sash
- Fix all upper sash in-place with blocks below each end of meeting rail
- Prepare, prime and paint all exposed wood shingles on all walls
- Prepare, prime and paint all exposed wood decorative trim on all wall surfaces
- Prepare, prime and paint all exposed elements of window sash, frames and trim at three sides

**Level 2 (First floor)**
- Remove aluminum siding system from both exterior wall surfaces
- Dispose of all removed siding materials off-site, and in a proper and legal manner
- Replace deteriorated wood shingles with new in-kind materials to match existing
- Replace deteriorated wood cornice elements with new in-kind materials to match existing
• Provide new metal flashing at head of one window opening
• Provide metal base flashing along edge of entry porch roof
• Provide metal weather-stripping at perimeter of entry door
• Restore all window sash and window frames
• Replace all existing window sash cords with new sash chains
• Refurbish and oil existing sash weight pulleys and re-hang sash weights on new chains
• Provide new metal weather-stripping at each window frame; cut kerfs in each sash
• Fix all upper sash in-place with blocks below each end of meeting rail
• Prepare, prime and paint all exposed elements of window sash, frames and trim
• Reinstall all refurbished and repaired window sash locks and sash lifts
• Prepare, prime and paint all exposed wood trim and clapboards at two sides
• Prepare, prime and paint all exposed wood cornice elements at two sides
• Prepare, prime and paint all exposed elements of entry doors, door frames and trim

Level 1 (Basement and foundation))
• Cut and repoint tower foundation, consisting of ashlar granite masonry

Northwest Tower and Steeple

Level 4 (Steeple roof)
• Temporarily remove and store copper finial for future reinstallation
• Remove wood shingles from all steeple roof surfaces
• Replace any deteriorated wood roof sheathing with new in-kind wood sheathing
• Cover all roof sheathing with Huber Engineered Woods “Zip System” roof sheathing
• Provide felt underlayment over all exposed wood roof sheathing
• Provide metal flashing at all changes in roof surfaces and along perimeter of roof base
• Provide ventilated underlayment (“Cedar Breather”) over new felt underlayment on roof surfaces
• Provide new wood shingles to match width and exposure of existing roof shingles
• Install lightning protection system, including arrestors, terminals, cabling and grounds

Level 3 (Wall base below steeple roof)
• Remove aluminum siding system from all exterior wall surfaces
• Dispose of all removed siding materials off-site, and in a proper and legal manner
• Replace deteriorated wood shingles (assume 20%) with new in-kind materials to match existing
• Replace deteriorated wood cornice elements with new in-kind materials to match existing
• Provide metal flashing over projecting ledge at base of wall along all four sides
• Prepare, prime and paint all exposed wood trim and clapboards on all wall surfaces
• Prepare, prime and paint all exposed wood cornice elements at all four sides

Level 2 (Tapered roof area; 2nd floor)
• Remove aluminum siding system from all exterior roof surfaces
• Dispose of all removed siding materials off-site, and in a proper and legal manner
• Remove wood shingles from all roof surfaces
• Replace any deteriorated wood roof sheathing with new in-kind wood sheathing
• Cover all roof sheathing with Huber Engineered Woods “Zip System” roof sheathing
• Replace any deteriorated wood trim at projecting window dormers with new in-kind materials
• Provide felt underlayment over all new and existing wood roof sheathing
• Provide new metal flashing at arched head of dormer windows
• Provide new metal flashing over projecting ledge at base of roof
• Provide new metal-covered roof cricket and metal flashing where southeast wall meets main roof
• Provide ventilated underlayment ("Cedar Breath") over new felt underlayment on roof surfaces
• Provide 100% new wood shingles to match shape and exposure of original roof shingles
• Restore all window sash and window frames
• Replace all existing window sash cords with new sash chains
• Refurbish and oil existing sash weight pulleys and re-hang sash weights on new chains
• Provide new metal weather-stripping at each window frame; cut kerfs into each sash
• Fix all upper sash in-place with blocks below each end of meeting rail
• Prepare, prime and paint all exposed wood decorative trim on all window dormers
• Prepare, prime and paint all exposed elements of window sash, frames and trim at dormers
• Reinstall all refurbished and repaired window sash locks and sash lifts

Level 1 (1st floor entry level)
• Remove aluminum siding system from exterior wall surfaces
• Dispose of all removed siding materials off-site, and in a proper and legal manner
• Replace deteriorated wood shingles with new in-kind materials to match existing
• Replace deteriorated wood cornice elements with new in-kind materials to match existing
• Replace missing wood decorative elements at top of wall, just below projecting cornice
• Provide new metal flashing at heads of window and door openings
• Provide metal weather-stripping at perimeter of entry door
• Prepare, prime and paint all exposed wood trim and clapboards
• Prepare, prime and paint all exposed wood cornice elements
• Prepare, prime and paint all exposed elements of window sash, frames and trim
• Prepare, prime and paint all exposed elements of entry door, frame and trim
• Prepare, prime and paint all entry stair and handicapped ramp elements
• Cut and repoint tower foundation, consisting of brick masonry

Exterior Walls, including Roof Cross Gables
1st and 2nd Floors
• Remove aluminum siding system from all exterior wall surfaces, including roof gables
• Dispose of all removed siding materials off-site, and in a proper and legal manner
• Remove molded aluminum sections covering all main roof and gable cornices
• Remove aluminum sections covering all window trim at sills, jambs and heads
• Provide 5” of blown-in cellulose in all exterior walls (R-value = 17.3)
• Replace deteriorated wood shingles with new in-kind materials to match existing
• Replace deteriorated wood cornice elements with new in-kind materials to match existing
• Replace missing wood decorative elements at window spandrels and transoms
• Replace missing horizontal and vertical wood trim used to create wall panels
• Replace missing wood brackets and corbels
• Replace missing carved decoration in window panels below gothic arches
• Remove and replace deteriorated components of existing fire escapes
• Remove rust from existing fire escapes by wire brushing
• Provide new metal flashing at head of all window openings
• Restore all window sash with new hardware, sash weight chains, pulleys and sash weights
• Provide new metal weather-stripping at each window frame; cut kerfs in each sash
• Fix all upper sash in-place with blocks below each end of meeting rail
• Prepare, prime and paint all exposed elements of all window sash, frames and trim
• Prepare, prime and paint all exposed wood trim and shingles on all wall surfaces
• Prepare, prime and paint all exposed wood cornice elements
• Prepare, prime and paint all repaired fire escape elements

**Main Entry Porch and Shed Roof at Basement (southeast side)**
• Replace missing wood decorative elements at porch balustrade, columns and frieze
• Provide metal base flashing along outer edges of each porch roof
• Strip both roofs of all existing roofing shingles
• Replace any deteriorated roof sheathing with new in-kind wood sheathing
• Provide felt underlayment over all exposed wood roof sheathing
• Provide new standing seam metal roof on main entry porch
• Provide 40 year “Architectural” asphalt shingles on shed roof to basement
• Provide 40 year “Architectural” asphalt shingles on shed roof at northwest side as well
• Prepare, prime and paint all exposed wood trim and shingles
• Prepare, prime and paint all exposed wood balustrades, columns, friezes and ceilings
• Prepare, prime and paint all exposed elements of entry doors, frame and trim

**Main Roof, including Cross Gables**
• Install lightning protection system, including arrestors, terminals, cabling and grounds
• Remove old three tab asphalt shingles, including felt underlayment and all flashing
• Dispose of all removed roofing materials off-site, and in a proper and legal manner
• Cover all roof sheathing with Huber Engineered Woods “Zip System” roof sheathing
• Provide new roofing felt over all roof sheathing
• Provide adhesive waterproofing membrane along six (6') foot strip at all eaves
• Provide 40 year “Architectural” asphalt shingles and install per 110 mph wind zone requirements
• Provide new fully-adhered membrane roofing system at all shed dormers
• Provide new fully-adhered membrane roofing system at cross gable ventilator flat roof area
• Provide new fully-adhered membrane roofing system at flat roof area above Chancel roof
• Remove and replace deteriorated components of existing fire escapes
• Remove rust from existing fire escapes by wire brushing, prime and paint

**Alternate #1:**
• Fabricate and install decorative fiberglass or GFRP cresting along ridge lines.
• Fabricate and install replica finials in fiberglass or GFRP for northwest tower
• Fabricate and install replica finials in fiberglass or GFRP for cross gable ventilator

**Insulation of Main Roof, including Cross Gables**
• Provide 2” thick “flash” coating of all roof rafter cavities with closed cell foam insulation
• Provide 8” thick fiberglass batts in remainder of rafter cavities

**OR ALTERNATIVELY**

• Provide 16” of blown-in cellulose insulation on all attic floor surfaces

**OR ALTERNATIVELY**

• Provide 6” thick layer of closed cell foam insulation over attic surfaces of ceiling materials below
SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:

1. Lump-sum allowances.

C. Related Sections:

1. Division 01 Section "Unit Prices" for procedures for using unit prices.
2. Division 01 Section "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.2 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.3 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

C. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

D. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.
1.5 LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

Allowance No. 1: Lump-Sum Allowance: Include the sum of: $________. Include ________ as specified in Division _____, Section "______________" and as shown on Drawings. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

Allowance No. 2: Lump-Sum Allowance: Include the sum of: $________. Include ________ as specified in Division _____, Section "______________" and as shown on Drawings. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

END OF SECTION 012100
SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Section:

1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.2 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.
PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price No. 1 - ________________:
   1. Description: Provide ______________ according to Division ___ Section "XXXXXXXX, " ________________ .
   2. Unit of Measurement: Per square foot of surface area / Per lineal foot.

B. Unit Price No. 2 - ________________:
   1. Description: Provide ______________ according to Division ___ Section "XXXXXXXX, " ________________ .
   2. Unit of Measurement: Per square foot of surface area / Per lineal foot.

C. Unit Price No. 3 - ________________:
   1. Description: Provide ______________ according to Division ___ Section "XXXXXXXX, " ________________ .
   2. Unit of Measurement: Per square foot of surface area / Per lineal foot.

D. Unit Price No. 4 - ________________:
   1. Description: Provide ______________ according to Division ___ Section "XXXXXXXX, " ________________ .
   2. Unit of Measurement: Per square foot of surface area / Per lineal foot.

E.

END OF SECTION 012200
SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for Alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each Alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each Alternate. Indicate if Alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to Alternates.

C. Execute accepted Alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each Alternate.
PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: ________________________________.

1. Base Bid: <Insert brief description of base bid requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

2. Alternate: <Insert brief description of alternate requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

B. Alternate No. 1: ________________________________.

1. Base Bid: <Insert brief description of base bid requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

2. Alternate: <Insert brief description of alternate requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

C. Alternate No. 1: ________________________________.

1. Base Bid: <Insert brief description of base bid requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

2. Alternate: <Insert brief description of alternate requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

D. Alternate No. 1: ________________________________.

1. Base Bid: <Insert brief description of base bid requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

2. Alternate: <Insert brief description of alternate requirement> [as indicated on Sheet <Insert title of sheet>] [and] [as specified in Division <Insert Division number> Section "<Insert Section Title>"].

E.

END OF SECTION 012300
SECTION 013591 - HISTORIC TREATMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY
A. Section includes general protection and treatment procedures for designated historic spaces, areas, rooms, and interior and exterior surfaces in the entire Project.

1.2 DEFINITIONS
A. Consolidate: To strengthen loose or deteriorated materials in place.
B. Dismantle: To disassemble and detach items by hand from existing construction to the limits indicated, using small hand tools and small one-hand power tools, so as to protect nearby historic surfaces; and legally dispose of dismantled items off-site, unless indicated to be salvaged or reinstalled.
C. Existing to Remain: Existing items that are not to be removed or dismantled.
D. Historic: Spaces, areas, rooms, surfaces, materials, finishes, and whose overall appearance is important to the successful preservation and rehabilitation as determined by the Architect.
E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish, as approved by the Architect.
F. Reconstruct: To remove existing item, replicate damaged or missing components, and reinstall in original position.
G. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
H. Reinstall: To protect removed or dismantled item, repair and clean it as indicated for reuse, and reinstall it in original position, or where indicated.
I. Remove: Specifically for historic spaces, areas, rooms, and surfaces, the term means to detach an item from existing construction to the limits indicated, using hand tools and hand-operated power equipment, and legally dispose of it off-site, unless indicated to be salvaged or reinstalled.
J. Repair: To correct damage and defects, retaining existing materials, features, and finishes while employing as little new material as possible. Includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
K. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
L. Replicate: To reproduce in exact detail, materials, and finish, unless otherwise indicated.
M. Reproduce: To fabricate a new item, accurate in detail to the original, and in either the same or a similar material as the original, unless otherwise indicated.
N. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.
O. **Retain**: To keep existing items that are not to be removed or dismantled.

P. **Reversible**: New construction work, treatments, or processes that can be removed or undone in the future without damaging historic materials, unless otherwise indicated.

Q. **Salvage**: To protect removed or dismantled items and deliver them to Owner ready for reuse.

R. **Stabilize**: To provide structural reinforcement of unsafe or deteriorated items while maintaining the essential form as it exists at present; also, to reestablish a weather-resistant enclosure.

S. **Strip**: To remove existing finish down to base material, unless otherwise indicated.

1.3 **QUALITY ASSURANCE**

A. Historic Treatment Specialist Qualifications: An experienced firm regularly engaged in historic treatments similar in nature, materials, design, and extent to this work as specified in each section, and that has completed a minimum of five recent projects with a record of successful in-service performance that demonstrate the firm's qualifications to perform this work.

1.4 **STORAGE AND PROTECTION OF HISTORIC MATERIALS**

A. Historic Materials for Salvaging and Reinstallation:

1. Repair and clean historic items as indicated, and to functional condition for reuse.
2. Pack or crate items after cleaning and repairing; cushion against damage during handling. Label contents of containers.
3. Reinstall items in locations indicated.

1.5 **PROJECT CONDITIONS**

A. Owner will occupy portions of building immediately adjacent to removal and dismantling area. Conduct removal and dismantling work so Owner's operations will not be disrupted.

**PART 2 - PRODUCTS - (Not Used)**

**PART 3 - EXECUTION**

3.1 **GENERAL HISTORIC TREATMENT**

A. Ensure that supervisory personnel are present when historic treatment work begins and during its progress.

1. Retain as much existing material as possible; repair and consolidate rather than replace.
2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.
3. Use reversible processes wherever possible.
4. Use historically accurate repair and replacement materials and techniques unless otherwise indicated.

**END OF SECTION 013591**

**HISTORIC TREATMENT PROCEDURES** 013591 - 2
SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Demolition and removal of selected portions of building or structure.
   2. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

A. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

B. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
   1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
3.2 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

3.3 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

B. Removed and Reinstalled Items:
   1. Clean and repair items to functional condition adequate for intended reuse.
   2. Pack or crate items after cleaning and repairing. Identify contents of containers.
   3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

D. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.4 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119
SECTION 040120 – MASONRY RESTORATION

PART 1 - GENERAL

1.1 SUMMARY
A. Section includes maintenance of unit masonry consisting of brick and stone masonry restoration and as follows:
   1. Cutting and repointing of brick and stone masonry joints.

1.2 UNIT PRICES
A. Work of this Section is affected by unit prices specified in Division 01 Section "Unit Prices."

1.3 QUALITY ASSURANCE
A. Restoration Specialist Qualifications: Engage an experienced masonry restoration firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience installing standard unit masonry is not sufficient experience for masonry restoration work.
B. Mockups: Prepare mockups of restoration and cleaning to demonstrate aesthetic effects and set quality standards for materials and execution and for fabrication and installation.

PART 2 - PRODUCTS

2.1 MASONRY MATERIALS
A. Face Brick: Provide face brick, including specially molded, ground, cut, or sawed shapes where required to complete masonry restoration work.
   1. Provide units complying with ASTM C 62, Grade SW and with physical properties, colors, color variation within units, surface texture, size, and shape to match existing brickwork.

2.2 MORTAR MATERIALS
A. Portland Cement: ASTM C 150, Type I or Type II, white, gray or both where required for color matching of exposed mortar.
B. Hydrated Lime: ASTM C 207, Type S.
C. Mortar Sand: ASTM C 144 unless otherwise indicated.
   1. For pointing mortar, provide sand with rounded edges.
   2. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
D. Mortar Pigments: Natural and synthetic iron oxides, compounded for mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortars.
E. Water: Potable.

2.3 MORTAR MIXES

A. Mortar Proportions: Mix mortar materials in the following proportions:

1. Pointing Mortar for Masonry: 1 part portland cement, 2 parts lime, and 6 parts sand.

PART 3 - EXECUTION

3.1 PROTECTION

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from masonry restoration work.

3.2 REPOINTING MASONRY

A. Rake out and repoint joints in all areas indicated.

B. Rake out joints as follows, according to procedures demonstrated in approved mockup:

1. Remove mortar from joints to depth of 2 times joint width, but not less than 1/2 inch, or not less than that required to expose sound, un-weathered mortar.

2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.

3. Do not spall edges of masonry units or widen joints. Replace or patch damaged masonry units as directed by Architect.
   a. Cut out center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar by hand with chisel and resilient mallet.

C. Pointing with Mortar:

1. After low areas have been filled to same depth as remaining joints, point all joints by placing mortar in layers not greater than 3/8 inch. Where existing masonry units have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed masonry surfaces or to featheredge the mortar.

3.3 FINAL CLEANING

A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure.

END OF SECTION 040120
SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes work scope for repair of southeast spire and tower:
   1. Provide in-kind replacement of board roof sheathing at steeple exterior. Assume 10% replacement of all spire sheathing surfaces.
   2. Provide OSB wall sheathing over existing steeple board sheathing.
   3. Repair or replace all post bases at all eight (8) spire posts using Dutchmen splices and/or by application of wood consolidant treatment.
   4. Remove damaged floor sheathing at spire level and replace with in-kind sheathing.
   5. Provide new metal beam connectors at each end, and at both sides, of spire level floor framing.
   6. Provide new hold-down anchors and tie-rods at each of eight (8) spire posts.
   7. Provide framed “window box” around each louvered opening.
   8. Provide new sleeper system and wood decking at walking surface of belfry floor.
   9. Provide continuous steel angle ledger below belfry floor, at full perimeter.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness.
   1. Provide dressed lumber, S4S, unless otherwise indicated.

2.2 DIMENSION LUMBER FRAMING

A. Framing Other Than Non-Load-Bearing Interior Partitions: Construction or No. 2 grade.
   1. Species:
      a. Hem-fir (north); NLGA.
      b. Southern pine; SPIB.
      c. Douglas fir-larch; WCLIB or WWPA.

B. Exposed Framing: Provide material hand-selected for uniformity of appearance and freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot-holes, shake, splits, torn grain, and wane.

2.3 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
B. Bolts: Steel bolts complying with ASTM A 307, Grade A with ASTM A 563 hex nuts and, where indicated, flat washers.

1. Where rough carpentry is exposed to weather, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

2.4 METAL FRAMING ANCHORS

A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings, or comparable product by one of the following:

1. Cleveland Steel Specialty Co.
2. KC Metals Products, Inc.
3. Phoenix Metal Products, Inc.
4. Simpson Strong-Tie Co., Inc.
5. USP Structural Connectors.

B. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer that meet or exceed those of basis-of-design products.

C. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A 653/A 653M; structural steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 coating designation; and not less than 0.036 inch thick.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit.

B. Metal Framing Anchors: Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment.

END OF SECTION 061000
SECTION 064013 - EXTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 SUMMARY
A. This Section includes the following:

1. The reconstruction of portions of severely weathered and/or missing architectural woodwork (where indicated on drawings) including fascia and soffit surfaces, ornamental brackets, molded trim profiles, and ornamental details.

2. The repair of exterior architectural woodwork is governed by an intention to preserve as much original material as possible. To achieve this, “repair” as indicated on the drawings, is defined as the application of either wood “Dutchman” splices, or the application of epoxy consolidant and patching materials, as defined in this specification. When replacement is warranted, the new work will duplicate the existing with respect to size, shape, profile and density of the historic wood:

a. Work will be categorized in the following ways:
   1) Stabilization-- minor repair of wood that is split, checked or shows signs of rot
   2) Epoxy repairs -- Where exterior wood siding and trim show physical deterioration, including partially decayed wood
   3) “Dutchmen” -- Where woodwork is so badly deteriorated finished repairs would be greater than 1/2” wide, splice new wood “Dutchmen” into existing members to match existing profiles
   4) Replacement -- Where woodwork cannot physically or economically be repaired, replace with new wood to match existing in all details

1.2 SUBMITTALS
A. Product Data:
   1. Epoxy consolidants and epoxy fillers
B. Shop Drawings: For wood brackets and molding profiles.
C. Samples:
   1. Provide 12” sample of proposed lumber for each molding profile.
   2. Provide 1 completed cornice bracket.

1.3 QUALITY ASSURANCE
A. Restoration Specialist: Work must be performed by a firm having not less than five (5) years successful experience in compatible wood restoration work on at least three (3) buildings listed on the National Register of Historic places in the last five (5) years, and employing personnel skilled in the restoration process and operations indicated.

B. All work performed shall meet the “Secretary of the Interior’s Standards for the Treatment of Historic Properties.”
PART 2 - PRODUCTS

2.1 FABRICATION
   A. Woodwork for Opaque Finish:
      1. Grade: Custom.
      2. Wood Species: African mahogany, Heart pine, or Spanish Cedar.
   B. Shop Priming: Shop prime woodwork for paint finish with one coat of wood primer specified in Division 09 Painting sections.
      1. Back-priming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork.

2.2 PRODUCTS
   A. Wood Consolidant: Ready-to-use product designed to penetrate, consolidate, and strengthen soft fibers of wood materials that have deteriorated due to weathering and decay and designed specifically to enhance the bond of wood-patching compound to existing wood.
   B. Wood-Patching Compound: Two-part epoxy-resin wood-patching compound; knife-grade formulation as recommended by manufacturer for type of wood repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be designed for filling voids in damaged wood materials that have deteriorated due to weathering and decay. Compound shall be capable of filling deep holes and spreading to feather edge.

PART 3 - EXECUTION

3.1 INSPECTION
   A. Test soundness of wood with an ice pick or an awl. Sound wood will separate in long fibrous splinters. Decayed wood will lift up in short irregular pieces due to the breakdown of fiber strength.

3.2 INSTALLATION OF REPAIR MATERIALS
   A. Install woodwork true and straight with no distortions. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches.
   B. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts
   C. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk concealed fasteners and blind nailing. Use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork.
   D. Install trim with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Scarf running joints and stagger in adjacent and related members.

END OF SECTION 064013
SECTION 072100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Loose-fill cellulose insulation.
   2. Glass-fiber blanket insulation.
   3. Spray applied closed cell foam insulation.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 LOOSE-FILL INSULATION

A. Cellulosic-Fiber Loose-Fill Insulation: ASTM C 739, chemically treated for flame-resistance, processing, and handling characteristics.

2.2 GLASS-FIBER BLANKET INSULATION

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. CertainTeed Corporation.
   2. Johns Manville.
   3. Owens Corning.

B. Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type I; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics.

2.3 SPRAY POLYURETHANE FOAM INSULATION

A. Closed-Cell Polyurethane Foam Insulation: ASTM C 1029, Type II, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.

   1. Manufacturer: Subject to compliance with requirements, provide products by the following:
      a. Gaco Western Inc.
2. Minimum density of 1.5 lb/cu. ft., thermal resistivity of 6.2 deg F x h x sq. ft./Btu x in. at 75 deg F.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Comply with insulation manufacturer's written instructions applicable to products and applications indicated.

B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.

C. Extend insulation to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

D. Extend insulation to envelop entire area to be insulated.

E. Loose-Fill Insulation: Apply according to ASTM C 1015 and manufacturer's written instructions. Level horizontal applications to uniform thickness as indicated, lightly settle to uniform density, but do not compact excessively.

1. For cellulosic-fiber loose-fill insulation, comply with CIMA's Bulletin #2, "Standard Practice for Installing Cellulose Insulation."

F. Glass-Fiber or Mineral-Wool Blanket Insulation: Install in cavities formed by framing members according to the following requirements:

1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.

2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.

G. Spray-Applied Insulation: Apply spray-applied insulation according to manufacturer's written instructions. Do not apply insulation until installation of pipes, ducts, conduits, wiring, and electrical outlets in walls is completed and windows, electrical boxes, and other items not indicated to receive insulation are masked. After insulation is applied, make flush with face of studs by using method recommended by insulation manufacturer.

H. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:

1. Loose-Fill Insulation: Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 lb/cu. ft.

2. Spray Polyurethane Insulation: Apply according to manufacturer's written instructions.

END OF SECTION 072100
SECTION 073113 - ASPHALT SHINGLES

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Asphalt shingles.
   2. Underlayment.

1.2 SUBMITTALS
A. Product Data: For each type of product indicated.
B. Samples: For each exposed product and for each color and blend specified.
C. Warranties: Sample of special warranties.

1.3 QUALITY ASSURANCE
A. Fire-Resistance Characteristics: Where indicated, provide asphalt shingles and related roofing materials identical to those of assemblies tested for fire resistance per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing agency.
   1. Exterior Fire-Test Exposure: Class A; ASTM E 108 or UL 790, for application and roof slopes indicated.

1.4 WARRANTY
A. Special Warranty: Standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials or workmanship within specified warranty period.
   1. Material Warranty Period: 30 years from date of Substantial Completion, prorated, with first 12 years non-prorated.

PART 2 - PRODUCTS

2.1 GLASS-FIBER-REINFORCED ASPHALT SHINGLES
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
      a. CertainTeed Corporation.
      b. GAF Materials Corporation.
      c. Owens Corning.
   2. Tab Arrangement: Four tabs, regularly spaced.
   3. Cutout Shape: Square.
   5. Strip Size: Manufacturer's standard.
6. Algae Resistance: Granules treated to resist algae discoloration.
7. Color and Blends: As selected by Architect from manufacturer's full range.

B. Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles.

2.2 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226 or ASTM D 4869, Type I or Type II, asphalt-saturated organic felts, non-perforated.

2.3 RIDGE VENTS

A. Rigid Ridge Vent: Manufacturer's standard, rigid section high-density polypropylene or other UV-stabilized plastic ridge vent with non-woven geo-textile filter strips and external deflector baffles, for use under ridge shingles.

2.4 METAL FLASHING AND TRIM

A. General: Comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."
1. Sheet Metal: Copper

PART 3 - EXECUTION

3.1 UNDERLAYMENT INSTALLATION

A. General: Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
B. Single-Layer Felt Underlayment: Install on roof deck parallel with and starting at the eaves.
C. Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck.

3.2 METAL FLASHING INSTALLATION

A. General: Install metal flashings and other sheet metal to comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."

3.3 ASPHALT SHINGLE INSTALLATION


END OF SECTION 073113

ASPHALT SHINGLES
SECTIO 073129 - WOOD SHINGLES AND SHAKES

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Wood roof shingles (fire-resistant treated wood, Class B).
   2. Wood wall shingles.
   3. Underlayment.

1.2 SUBMITALS
A. Product Data: For each type of product indicated.
B. Samples: For each type of wood shingle indicated.

1.3 QUALITY ASSURANCE
A. Grading Agency Qualifications: An independent testing and inspecting agency recognized by authorities having jurisdiction as qualified to label wood shingles for compliance with referenced grading rules.

   1. Exterior Fire-Test Exposure: Class B; UL 790 or ASTM E 108 with ASTM D 2898, for application and roof slopes indicated.

PART 2 - PRODUCTS

2.1 ROOF SHINGLES
A. Wood Roof Shingles: Smooth-sawn, No. 1 Grade, Alaskan yellow cedar shingles.
   1. Size: 16 inches long; 0.40 inch thick at butt.

2.2 WALL SHINGLES
A. Wood Wall Shingles: Smooth-sawn, No. 1 grade, Alaskan yellow cedar shingles.
   1. Size: 16 inches long; 0.40 inch thick at butt.
   2. Cedar Wall-Shingle Finish: Semi-transparent penetrating stain, oil based, field applied.

2.3 WOOD TREATMENTS
A. Fire-Retardant Treatment: Exterior-type pressure treatment complying with AWPA C1.

2.4 UNDERLAYMENT MATERIALS
A. Felt Underlayment: ASTM D 4869, Type II, asphalt-saturated organic felt.
2.5 ACCESSORIES
A. Drainage Mat: Manufacturer's standard, compression-resisting, three-dimensional, nonwoven, entangled filament, nylon mat designed to permit air movement and drain incidental moisture by gravity.

2.6 METAL FLASHING AND TRIM
A. General: Comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."

PART 3 - EXECUTION

3.1 UNDERLAYMENT INSTALLATION
1. Install felt underlayment on roof deck not covered by self-adhering sheet underlayment. Lap sides of felt over self-adhering sheet underlayment not less than 3 inches in direction to shed water.
B. Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck.

3.2 METAL FLASHING INSTALLATION
A. General: Install metal flashings and other sheet metal to comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."

3.3 ROOF-SHINGLE INSTALLATION
A. General: Install wood-shingle roofing according to manufacturer's written instructions and to recommendations in CSSB's "New Roof Construction Manual" and NRCA's "The NRCA Roofing and Waterproofing Manual."
B. Install drainage mat perpendicular to roof slope in parallel courses, butting edges and ends to form a continuous layer, and fasten to roof deck.
   1. Maintain weather exposure of 5 inches for 16-inch and 5-1/2 inches for 18-inch long shingles.

C. Ridge and Hip Units: Install units over wood shingles trimmed at apex. Maintain same exposure dimension of units as roof-shingle exposure. Lap units at ridges to shed water away from direction of prevailing winds. Alternate overlaps of units and fasten with concealed roofing nails of sufficient length to penetrate sheathing.

3.4 WALL-SHINGLE INSTALLATION, SINGLE COURSED
A. Install wood wall shingles according to manufacturer's written instructions and recommendations in CSSB's "Exterior and Interior Wall Manual."
B. Install drainage mat horizontally, in parallel courses, over surface to receive wood shingles, butting edges and ends to form a continuous layer; fasten to wall sheathing.
   1. Maintain weather exposure of 7-1/2 inches for 16-inch and 8-1/2 inches for 18-inch long shingles.

END OF SECTION 073129
SECTION 075323 - EPDM MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY
   A. Section Includes:
      1. Adhered EPDM membrane roofing system.

1.2 PERFORMANCE REQUIREMENTS

1.3 SUBMITTALS
   A. Product Data: For each type of product indicated.
   B. Samples: For each product included in the roofing system.

1.4 QUALITY ASSURANCE
   A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.
   B. Exterior Fire-Test Exposure: ASTM E 108, Class B; for application and roof slopes indicated, as determined by testing identical membrane roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency.

1.5 PROJECT CONDITIONS
   A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.6 WARRANTY
   A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period.
      1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 EPDM MEMBRANE ROOFING
   A. EPDM: ASTM D 4637, Type II, scrim or fabric internally reinforced, uniform, flexible EPDM sheet.
      1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
         a. Carlisle SynTec Incorporated.
b. Firestone Building Products.
c. GAF Materials Corporation.
d. Johns Manville.

2. Thickness: 60 mils, nominal.
3. Exposed Face Color: Black.

2.2 AUXILIARY MEMBRANE ROOFING MATERIALS
A. General: Auxiliary membrane roofing materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.

2.3 SUBSTRATE BOARDS
A. Substrate Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, Type X, 5/8 inch thick.
B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening substrate panel to roof deck.

PART 3 - EXECUTION

3.1 SUBSTRATE BOARD
A. Install substrate board with long joints in continuous straight lines, perpendicular to roof slopes with end joints staggered between rows. Tightly butt substrate boards together.
   1. Fasten substrate board to top flanges of steel deck to resist uplift pressure at corners, perimeter, and field of roof according to membrane roofing system manufacturers' written instructions.

3.2 ADHERED MEMBRANE ROOFING INSTALLATION
A. Adhere membrane roofing over area to receive roofing according to membrane roofing system manufacturer's written instructions. Unroll membrane roofing and allow to relax before installing.
B. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
C. In addition to adhering, mechanically fasten membrane roofing securely at terminations, penetrations, and perimeters.
D. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.
E. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.

END OF SECTION 075323
SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY
   A. Section Includes:
      1. Formed steep-slope roof sheet metal fabrications including edge, valley, rake ridge and eave flashing.
      2. Complete roof gutter and downspout system, including strainers and splash blocks.

1.2 SUBMITTALS
   A. Shop Drawings: Show installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
   B. Samples: For each exposed product and for each finish specified.

1.3 QUALITY ASSURANCE
   A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
   B. Copper Sheet Metal Standard: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
   C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

PART 2 - PRODUCTS

2.1 SHEET METALS
   A. Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 or H01 temper.
      1. Non-Patinated Exposed Finish: Mill.

2.2 UNDERLAYMENT MATERIALS
   A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
   B. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or SBS-modified asphalt adhesive, with release-paper backing; cold applied.
   C. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.

2.3 MISCELLANEOUS MATERIALS
   A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal
flashing and trim installation and recommended by manufacturer of primary sheet metal, unless otherwise indicated.

2.4 FABRICATION, GENERAL
A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.

2.5 STEEP-SLOPE ROOF SHEET METAL FABRICATIONS
A. Apron, Step, Cricket, and Backer Flashing, as well as Drip Edges: Fabricate from the following materials:
   1. Copper: 16 oz./sq. ft.
B. Eave, Rake, Ridge, Valley and Hip Flashing: Fabricate from the following materials:
   1. Copper: 20 oz./sq. ft.

PART 3 - EXECUTION

3.1 UNDERLAYMENT INSTALLATION
A. Felt Underlayment: Install felt underlayment with adhesive for temporary anchorage. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.
B. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free.

3.2 INSTALLATION, GENERAL
A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement so that completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

3.3 ROOF DRAINAGE SYSTEM INSTALLATION
A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.

3.4 ROOF FLASHING INSTALLATION
A. General: Install sheet metal flashing and trim to comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

END OF SECTION 076200
SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Silicone joint sealants.
   2. Urethane joint sealants.
B. Work included: Throughout this Work, caulk and seal all joints where as required to provide a positive barrier against passage of air and passage of moisture.

1.2 SUBMITTALS
A. Manufacturer's Literature: Product data sheets for all sealants and related products.
B. Samples:
   1. Color: Color of sealants and caulking compounds shall be as selected by the Architect from the manufacturer's standard colors. Submit samples to the Architect for selection and approval.

PART 2 - PRODUCTS

2.1 SILICONE JOINT SEALANTS
A. Mildew-Resistant Silicone Joint Sealant: ASTM C 920.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Dow Corning Corporation.
      b. Sika Corporation; Construction Products Division.
      c. Tremco Incorporated.
   2. Type: Single component (S).
   3. Grade: Non-sag (NS).
   4. Class: 100/50.
   5. Uses Related to Exposure: Non-traffic (NT).

2.2 URETHANE JOINT SEALANTS
A. Urethane Joint Sealant: ASTM C 920.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. BASF Building Systems.
      b. Pecora Corporation.
      c. Sika Corporation, Construction Products Division.
d. Tremco Incorporated.

2. Type: Single component (S).
3. Grade: Non-sag (NS).
4. Class: 100/50.
5. Uses Related to Exposure: Non-traffic (NT).

2.3 JOINT SEALANT BACKING
A. Cylindrical Sealant Backings: ASTM C 1330, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.4 MISCELLANEOUS MATERIALS
A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
B. Cleaners for Non-porous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION
A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
   1. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

3.2 INSTALLATION
A. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
B. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

END OF SECTION 079200
SECTION 080152 - HISTORIC TREATMENT OF WINDOWS AND DOORS

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Preservation and restoration of historic wood window sashes, window frames and trim.
   2. Preservation and restoration of historic wood doors, door frames and trim.
   3. Application of perimeter sealant at each door and window opening.
   4. New door hardware and re-use of existing door hinges.
   5. Refurbishment and replacement of missing window hardware.

1.2 QUALITY ASSURANCE
A. Engage an experienced window and door restoration firm to perform work of this Section. Firm shall have completed work on historic windows and doors of similar age and construction with a record of successful in-service performance. Prior window and door experience must include successful work on historic buildings listed on the National Register of Historic Places or the State Register.

   B. Mockups: Build mockups to demonstrate aesthetic effects and set quality standards for materials and execution and for fabrication and installation. Approved mockups will be incorporated into the work.

       1. Locate mockups on the building where directed by Architect.
          a. Wood Window Repair: Prepare one window unit to serve as mockup to demonstrate sample repairs of wood window members including frame, sashes and glazing.

PART 2 - PRODUCTS

2.1 GLAZING PUTTY
A. Putty is to be best quality pure linseed or other vegetable oil putty.

2.2 REPLACEMENT WOOD MATERIALS
A. Wood: Clear fine-grained lumber; kiln dried to a moisture content of 6 to 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/8 inch deep by 2 inches wide.

   1. Species: Heart Pine, Spanish Cedar or Mahogany
2.3 WOOD REPAIR MATERIALS
   A. Wood Consolidant: Ready-to-use product designed to penetrate, consolidate, and strengthen soft fibers of wood materials that have deteriorated due to weathering and decay and designed specifically to enhance the bond of wood-patching compound to existing wood.
   B. Wood-Patching Compound: Two-part epoxy-resin wood-patching compound; knife-grade formulation as recommended by manufacturer for type of wood repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be designed for filling voids in damaged wood materials that have deteriorated due to weathering and decay. Compound shall be capable of filling deep holes and spreading to feather edge.

2.4 WINDOW HARDWARE
   A. General: All hardware that is intact will be cleaned, lubricated and reinstalled on the window as it was mounted to prior to beginning of work. Broken hardware will be collected by Contractor, placed in sealable, clear plastic bag w/ window number written legible on plastic in black permanent marker and delivered to Architect in a sturdy container.
   B. All window hardware shall smoothly operate, tightly close, and securely lock wood windows.
   C. Replacement Window Hardware: Replace existing damaged or missing window hardware with new hardware.

2.5 WEATHER STRIPPING
   A. Compression-Type Weather Stripping: Bronze compressible weather stripping designed for permanently resilient sealing under bumper or wiper action; completely concealed when window is closed.

PART 3 - EXECUTION

3.1 HISTORIC TREATMENT PROCEDURES, GENERAL
   A. General: Have historic treatment of windows and doors directed and performed by a qualified historic treatment specialist. Remove windows and doors from opening, protect opening from weather and repair windows and doors on a horizontal surface and then reinstall. In treating historic items, disturb them as minimally as possible and as follows:
      1. Stabilize and repair to reestablish structural integrity and weather resistance while maintaining the existing form of each item.
      2. Remove coatings from exterior to expose areas requiring repair and to expose and arrest deterioration including applying borate preservative treatment before repair. Remove all interior coatings on sash to have opaque finished applied. Otherwise, treat removal as for exterior.
      3. Replace or reproduce historic items where indicated or scheduled.

END OF SECTION 08 0152

HISTORIC TREATMENT OF WINDOWS & DOORS

08 0152 - 2
SECTION 09 01 80 – EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY
A. Section includes historic treatment of exterior painting as follows:
   1. Exterior Substrates:
      a. Paint preparation of bare wood or fully adhered existing paint.
      b. Polychromatic painting of historic exterior wall surfaces (assume three colors):
         • Restored wood window sashes, frames and trim
         • Restored wood entry doors, frames and trim
         • Restored wood roof and steeple cornices, brackets and related trim
         • Wood shingle and clapboard wall surfaces and related trim and details

1.2 QUALITY ASSURANCE
A. Mockups: Provide mockups for each type of coating system and substrate indicated and each color and finish required to demonstrate aesthetic effects and set quality standards for materials and execution. Duplicate appearance of approved Sample submittals.

B. Engage an experienced painting firm to perform work of this Section. Firm shall have completed painting work on historic buildings of similar age and construction with a record of successful in-service performance. Prior painting experience must include successful work on historic buildings listed on the National Register of Historic Places or the State Register

PART 2 - PRODUCTS

2.1 EXTERIOR WOOD PRIMERS
A. Exterior Wood Primer for Alkyd Enamels: Factory-formulated, alkyd primer for exterior application.

B. Products:
   1. Sherwin Williams Company; A-100 Exterior Oil Stain Blocking Primer
   2. Benjamin Moore Company; 024/C094 Fresh Start Alkyd Primer
   3. Or Architect-approved equivalent.

2.2 EXTERIOR FINISH COATS

B. Products:
   1. Sherwin Williams Paint Company; Duration Exterior Latex Satin Coating.
   2. Benjamin Moore Company; Impervex Satin latex enamel.
   3. Or Architect-approved equivalent.
PART 3 - EXECUTION

3.1 PREPARATION
A. General: Use only the gentlest, appropriate method necessary to clean surfaces in preparation for painting. Clean all surfaces, corners, contours, and interstices.

3.2 PAINT REMOVAL
A. General: Remove paint to bare wood or fully adhered paint. Ease edges of well adhered paints to reduce “island” effect. Repair defects including dents and gouges. Remove burrs. Where cleaning methods have been attempted and further removal of the paint is required because of incompatible or unsatisfactory surfaces for repainting, remove paint to extent required by conditions.

3.3 SUBSTRATE REPAIR
A. General: Repair substrate surface defects that are inconsistent with the surface appearance of adjacent materials and finishes.

3.4 PROTECTION OF SURFACES
A. Protect all finish materials from damages, drips, splashes, spatters, cuts or tears.

3.5 EXTERIOR FINISH SCHEDULE:
A. Painted Wood:
   1. 1 coat primer
      a. Film Thickness Wet/Dry 3.8mils / 1.2 mils per coat.
   2. 2 finish coats (on doors and window sashes and frames)
      a. Film Thickness Wet/Dry 3.8mils / 1.2 mils per coat.

3.6 PAINT APPLICATION, GENERAL
A. General:
   1. Slightly vary the color of succeeding coats. Do not apply additional coats until each complete coat has been inspected and approved. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.
   2. Sand, dust, tack rag and caulk between coats.
   3. Apply exterior paint to wood surfaces that have been properly prepared. Avoid painting surfaces while they are exposed directly to the hot sun, and refrain from painting during windy or threatening weather.

3.7 COMPLETION
A. Completed work shall match the approved Samples for color, texture, and coverage. Remove, refinish, or repaint all work not in compliance with the specified requirements.

END OF SECTION 090190
EXTERIOR PAINT ANALYSIS REPORT
THE SPIRE CENTER
Plymouth, Massachusetts
Prepared by Finch&Rose
March 29, 2022

1. INTRODUCTION

The purpose of this report is to document the preliminary findings of our investigation of the exterior painted finishes on the Spire Center (former Methodist Church) in Plymouth, MA. The primary objective of the study was to identify and match the original and subsequent early color treatments on the exterior elements of the building.

The building was built ca. 1886 as a Methodist church in the style now called the Stick Style, and later used as a synagogue. In 2012 the building was renovated for its current use as a performance center. In the mid-20th century when the building was clad with aluminum siding, the window tracery and other projecting decorative elements were removed to accommodate the siding.

Several ca. 1900 historical photograph of the building in the collection of the Pilgrim Museum were reviewed to better understand the placement of color on the building and the elements removed for the siding. One of the photographs proved to be quite sharp and has helped understand both color placement and the missing details.

Microscope photographs of sample cross sections are included at the end of this report with annotations and detailed captions to illustrate our findings. Note that some colors appear lighter in cross section photographs than they actually are.

2. METHODOLOGY

William Finch of Finch&Rose visited the building on February 24, 2022 to examine the paint in situ using a scalpel and a 10x “Dermlite” with cross-polarized LED illumination, and to take physical paint samples for further processing and examination. The samples were taken from the front entry porch where the paint had been protected from excessive weathering, and from the bottom of the front facade.

Additional samples will be taken in a future site visit to determine the colors used on the window sash and related tracery, the upper level of the entry porch that could not be reached during the February 24 visit, and to further refine the findings presented in this preliminary report.

The samples were initially examined and later the target layers color matched in our office using a Bosch & Lomb zoom binocular microscope. As the fiber optics light source for the microscope is tungsten, a blue 81A filter was used to simulate daylight. Small pieces from the samples were cast in cold molding resin, polished to expose their cross section, and photographed using an Olympus BH2 microscope at 100x magnification in both visible and ultraviolet(UL) light for further
examination and comparison on a computer screen. The UV light causes various pigments and mediums to fluoresce in different ways making it easier to track particular layers across multiple samples.

The photographs of paint samples were not rigorously color corrected (the same layer may have substantially different color casts in different photographs), and should not be used as a basis for color matching. Likewise, the reproduction of paint swatches in this report may not be visually accurate as to the exact colors due to computer screen variations.

The verbal color descriptions of paint layers in this report are approximate and intended only to convey a general sense of the colors as they appeared in the samples. Except where it is obvious, the descriptions do not distinguish between priming layers and finish layers. The paint sequences are usually described as "generations" rather than individual layers. A "generation" defines a full finish treatment including all the individual layers that make it up including any priming layers. Thus some "generations" are composed of only a single layer, and others may include two or three layers comprising both primers and finish layers.

In some samples from the Spire Center some of the finish layers have layers of dirt and soot on them confirming they were finish layers. Note that a given sample (and its photograph) may not include a full sequence of all the layers due to both weathering and past scraping to prepare for repainting (We observed some evidence heat had been used to remove paint after generation #3). As the primary goal was to identify the early paint treatments, descriptions of generations after the early ones are very approximate. The early generations are marked on the cross section photographs with colored bars.

More rigorous study, such as pigment identification, and sophisticated vehicle identification analysis of the samples, was beyond the scope of this report and was not performed. The color matches were made visually to commercial paint swatches using the Bosch & Lomb zoom binocular microscope using samples that had been cut back with a scalp to expose the surface of the target layer (i.e., not using cross sections).

3. FINDINGS

In taking samples from the clapboards and trim it quickly became apparent that a scheme of two basic colors was used for the first three paint generations with the clapboards being a deep tan (a more greenish tan in generation 3) while the basic trim elements were a very dark slightly greenish black for generations 1 and 2, and a slightly lighter and more bluish shade in the third. However, the schemes were more complex in that the clapboard color was used to pick out some portions of the porch posts and the porch brackets, and the placement of the two colors on the specific parts of the trim (especially the porch columns) varied in each generation (see photo #2 and microscope photos 4-8). A further complication was that red was used on the narrow rings on the porch post in the first generation (we did not obtain a good sample of the red for matching).
The fourth generation appears to be a medium brown on the clapboards that fluoresces blue in UV light, and a dull greenish brown on the trim that does not fluoresce. The fifth generation has a distinctive pinkish tan primer with a tan finish layer. The sixth generation is a lighter tan. The seventh is a cream that fluoresces bright white in UV light. After that both the clapboards and trim were painted with off-whites. At the entry porch where the sampled elements had not been covered with siding, there was a total of 14-15 layers.

After an initial light tan primer the entry doors were painted a dark green through the first five or six paint generations. After that they were painted brighter greens over light gray primers, then a red, bright blue, several grays, and then the current blue.

The matched colors may seem somewhat dark and somber to our modern taste, but they are right in keeping with the taste of the late 19th century, as can be seen in looking at paint manufactures' color advertisements from that period. Photo #1 shows a typical example dated 1890 from Cary, Ogden, and Parker of Chicago that was titled “Cottage Colors”.
RECOMMENDED COLOR MATCHES

CLAPBOARDS AND LIGHT ELEMENTS OF TRIM:
Generations #1 and #2:
“Sandy Buff”
California Paints “Historic Colors of America”

Generation #3:
“Wainscot Green”
California Paints “Historic Colors of America”

DARK ELEMENTS OF TRIM:
Generations #1-2: Benjamin Moore Classic Color Series #1582 or #1484.
Generation #3 was not matched.

Ashwood Moss
1484

Deep River
1582

DOORS:
Benjamin Moore Essex Green
Historic Color Series

Essex Green
HC-188
The cheapest, most popular and best paint ever offered.  These paints are combined on a principle different from other paints in the market, exclusively of our own formulating, thus producing a paint receiving the universal endorsement of all who use it.

Volume, not weight, is the most important factor in connection with the cost of paint. The Paint embodying the greatest covering power in the smallest bulk and weight is invariably and at all times the best. A gallon of Linseed Oil weighing 7½ pounds will spread over more surface than a gallon of paint weighing 14 to 16 pounds, and one pound of Lead and Zinc will cover a given surface more perfectly than would 20 pounds of Barytes.

**INSIDE AND OUTSIDE WHITE**

When comparison is made between a dry sample, as per circular, and wet sample, as on opening can, there is a variance or color, which is always to be found. Our Paints when applied and dry are intended to conform as nearly as can be with color on circular.

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To ascertain amount required to cover a building, two coats:

- Add Front, 20 Feet.
- Rear, 20
- Side, 30
- Other Side, 30

\[
\text{Multiply by } \frac{100}{20} = 5
\]

**DIRECTIONS**

1. Remove the top off the tin, and thoroughly stir up before using.
2. Stir the paint thoroughly until it is of equal consistency throughout.
3. See that the surface is thoroughly dry.
4. Be sure to cover all kinds pitchy or sappy places with shellac or sizing before applying the paint.
5. Allow ample time for each coat to dry.

**Photo #1:** Sheet of color swatches from a catalogue dated 1890 from Cary, Ogden, and Parker of Chicago that was titled "Cottage Colors".
**Photo #2:** Detail from a ca. 1900 photograph of the church showing how the various parts of the posts and brackets were picked out in different shades.

**Photo #3:** Detail from the ca. 1900 photograph of the church showing how the now missing decorative elements were picked out with lighter shades than the basic trim. As the scalloped clapboards marked "A" appear to match the lighter shade of the clapboards, the photo was likely taken after the application of the 2nd pant generation. They matched the trim in the first generation paint scheme.
Microscope photos 1A and 1B - Cross sections at 50x of sample from the bracket below the porch roof clearly showing its full sequence paint layers. The layers on the clapboards were similar, but the full sequence is clearer in this sample. The left photo (1A) is in visible light, the right photo (1B) is in ultraviolet (UV) light. The layers of dirt between finish layers are quite visible in this sample.

Microscope photos 2A and 2B - Cross sections at 250x of sample from the bracket below the porch roof (1A and 1B) clearly showing the first 7 generations paint layers. The left photo (2A) is in visible light, the right photo (2B) is in UV light. The color bars mark each paint generation as listed below.

- Generation #1: Tan over a light tan primer - the primer is more obvious in UV.
- Generation #2: Tan over a light tan primer
- Generation #3: Greenish tan
- Generation #4: Medium brown - note blue fluorescence in UV.
- Generation #5: Tan - Prime is more pinkish in some samples, and finish layer has whitish fluorescence in UV.
- Generation #6: Tan
- Generation #7: Cream - bright white fluorescence in UV.
Microscope photos 3A and 3B - Cross sections at 100X of sample from a porch clapboard. The first generation is unusually thick and may include a second tan primer over the initial white primer. Generation 2 has a slightly grayish tint in this sample, and prime layer of #5 is distinctly pinkish.

Microscope photos 4A and 4B - Cross sections at 100X of sample from the square base of a porch column. The first generation is very dark blackish green over a tan primer. The second generation is a similar dark blackish green. The third generation is distinctly lighter and somewhat blueish. The fourth generation appears to be more greenish than the brown on the sample of generation #4 from the porch bracket (photos 1 and 2). This may be an anomaly, but it also is present on a sample from the round part of the column and the molding around the entry doors.
Microscope photo 5 - Cross section at 100x of sample from the corner chamfer on the square base of a porch column. The first generation finish has been picked out with the tan of the clapboard paint.

Microscope photo 6 - Cross section at 100x of sample from the upper round portion of a porch column. The first and second generations match the clapboard paint, while the third and fourth generations match the darker trim paint.

Microscope photo 7 - Cross section at 100x of sample from scalloped boards below the windows of the front facade. The first generation matches the dark blackish green used on the trim, but from generation #2 on the paint is similar to the clapboard colors.

Microscope photo 8 - Cross section at 100x of sample from beaded boards forming the panels of the entry doors. The off-white at the bottom is a primer. The first five or six generations are all dark greens. Although very dark, they appear to be greener than the dark blackish green on the trim.
Spire Center for the Performing Arts
Plymouth, Mass

Cost Estimate as of 28 September 2021, Updated April 8, 2022

Prepared by Cape Associates, Yarmouthport MA

Based on Outline Plans and Specifications prepared by Spencer & Vogt Group (now Spencer Preservation Group) with Coastal Engineering, structural engineers, dated April 20, 2017.

The scope of work for this estimate includes structural reinforcement of the steeple and transepts; removal of the aluminum siding and restoration of missing woodwork and siding; restoration of the stained-glass windows and installation of protective storm windows; replacement of the shingle cladding on the steeple and restoration of the woodwork and cladding at the belfry; replacement of the wood shingles on the small west tower; preparation and painting of all surfaces, including the steeple and tower based on the historic paint colors determined by paint analysis.

Note: The Spire Center will be proceeding with the replacement of the asphalt shingle roof in 2022 for an estimated cost of $200,000 with funding generated by grants and donations.

<table>
<thead>
<tr>
<th>Estimated Construction Costs</th>
<th>$ 2,421,963</th>
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<tr>
<td>Escalation/Inflation to 2023, 12%</td>
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<td><strong>TOTAL</strong></td>
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Submitted by

Lynne Spencer
Principal of Preservation
lynne@spencerpreservationgroup.com

Doug Manley AIA, LEED AP
Principal of Architecture
doug@spencerpreservationgroup.com
## Job Number
211181

## Billing Address
41 Valley Rd, Suite 211B
Nahant, MA 01908

## Location
25 1/2 Court Street, Plymouth

## Phone
(617) 227-2675

## Architect
Spencer Preservation Group

### Division Breakdown

<table>
<thead>
<tr>
<th>Num.</th>
<th>Code</th>
<th>Item Description</th>
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<td>Repair steel framing of fire escape: prepare and repaint</td>
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<td>Attic structural framing repairs as per Coastal Engineering drawings dated 9/30/16</td>
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<td>Provide decorative ridge creating using Azek trim boards</td>
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<td>Provide decorative Azek finials at spire, venting cupola, and west tower</td>
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<td>Repair exterior wood trim windows and doors</td>
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<td>Replace missing wood watertable and band molding (strong horizontal bands in photographs)</td>
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<td>Replace missing wood vertical sticking at windows and doors and corners</td>
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<td>Replace missing wood carved brackets - 6x18x8 at corner sticking and at cornice</td>
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<td>Replace missing carved decoration in window panels and between gothic arch windows - reinforced fiberglass from clay molding - 4 styles, roughly 2-feet square each</td>
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<td>Replace corner boards</td>
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<td>Provide new cornerboards and running molding at dormer</td>
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<td>General Hardware as needed: nails, glues, fasteners.</td>
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<td>Provide blown-in cellulose insulation in attic, 8&quot; deep</td>
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<td>Roofing</td>
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<td>Provide new scalloped, primed and painted wood shingles on face of dormer</td>
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<td>07300 Main hip, main gable, cross gables - remove old three-tab asphalt</td>
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<td>shingles, install new roof felt, ice-and-water membrane at eaves and</td>
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<td>install new roof felt, ice-and-water membrane at eaves and</td>
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<td>Replace 40% of existing painted, wood shingle siding - 4-1/2&quot;</td>
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<td>exposure - includes replacement for blown-in insulation hole</td>
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<td>08200 Restore wood windows - repair or replace damaged wood, reglaze</td>
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<td>with black glazing putty, weather-strip perimeter, prepare and paint</td>
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<td>Note: seven are gothic arch design, one is circular design</td>
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<td>08200 Restore and paint porch door (Double stile and rail with arched panel</td>
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<td>10000 Custom glass, shower enclosures, mirrors</td>
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**TOTAL** $2,895,118.00

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Options:
CONDITIONS ASSESSMENT & CONCEPTUAL DESIGN

THE SPIRE CENTER FOR THE PERFORMING ARTS

PLYMOUTH, MASSACHUSETTS

April 2015
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- B) Character Defining Features Page 11
- C) Preservation Guidelines Page 15

**PART 2: EXISTING CONDITIONS & TREATMENT RECOMMENDATIONS**
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  - Exterior
  - Interior
- B) Structural Assessment Page 35
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**APPENDIX**
- A) Photographic Documentation
- B) Historic Preservation Resources
  - The Secretary of the Interior’s Standards for the Treatment of Historic Properties
  - Massachusetts Historical Commission Inventory Form B
- C) MPPF Emergency Grant Application (April 2015)
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Robert Hollis, an inspired leader
Renee Nardo
EXECUTIVE SUMMARY & METHODOLOGY

It has been a privilege to study and provide recommendations for the preservation and rehabilitation of the Spire Center for the Performing Arts, a vibrant community resource and historic cultural asset.

Spencer & Vogt Group was engaged by the Center in 2014 to conduct a comprehensive assessment of physical conditions at the building envelope and to provide recommendations for restoration, preservation, ongoing maintenance, code compliance and the introduction of handicapped access.

Part One of the report, History & Significance, begins with a brief history and stylistic description of the building. Next is a list of character defining features, the physical elements that define the building’s architectural significance and should be retained in any restoration scheme. The Preservation Guidelines section describes how alterations to the Spire Center should be approached in order to retain and celebrate the building’s architectural significance and maintain its eligibility for preservation-related funding.

Part Two, Existing Conditions & Treatment Recommendations, includes an examination of conditions at the building, both exterior and interior, from roof shingles to framing to the foundation, and recommendations for repair. A structural assessment and building code analysis are provided for the existing structure.

Part Three, Conceptual Design, Cost Estimates & Planning, includes conceptual design for vertical access, a new dressing room, exterior restoration and structural repairs, and cost estimates to complete it. It finishes with a discussion of funding sources for historic properties.

The Appendix includes photographic documentation of the building and resources for historic preservation.

Moving Forward
With an understanding of the current physical state of the building fabric, the stewards of the Spire Center for the Performing Arts now have a framework upon which to plan for the next phases of the building’s renovation and preservation.
METHODOLOGY

The Conditions Assessment and Conceptual Design report represents a collaborative effort between Spencer & Vogt Group (SVG) and leadership of the Spire Center for the Performing Arts. The Center was represented by Robert Hollis.

The project team was assembled and coordinated by Lynne Spencer, partner and preservation principal at Spencer & Vogt Group. Lynne directed onsite investigations with the assistance of project architect Patrick Guthrie. Architectural Designer Nicholas Curtis prepared the plans and elevations. Lynn Smiledge, preservation planner, developed the historic research components of the report and coordinated its final assembly.

SVG assessed the building envelope and interior conditions and documented them with narrative and photographs. John Bologna of Coastal Engineering conducted the structural engineering assessment of the building in February 2014 and reported on actions needed to bring the structure into compliance with building code requirements. Cape Associates assisted with the building investigation and provided cost estimates.

Patrick Guthrie provided building code analysis and described the work necessary to preserve the building exterior, convert the first floor restrooms into a dressing room and install a LU/LA for vertical access to all three floors.

All photographs were taken by Spencer & Vogt Group and Cape Associates unless otherwise indicated. The final report was issued both as a printed document and in electronic format as a portable document format (pdf). Two hard copies were delivered along with a compact disc.
South elevation (facade).

East elevation.
East elevation and north elevations.
BUILDING HISTORY & ARCHITECTURAL SIGNIFICANCE

The building was constructed in 1884 for the Methodist Church, which occupied it until 1972 when it merged with another congregation and built a new house of worship. The church was sold to the Congregation Beth Jacob and adapted for use as a synagogue and later a community center. The Town of Plymouth acquired the dormant building in 2012 with Community Preservation Act funds and entrusted it to the Greater Plymouth Performing Arts Center, Inc., which has rehabilitated it as a performance venue. The Spire Center for the Performing Arts opened its doors to the public in 2014.

The building reflects the Stick Style, often considered a transitional style between the Gothic Revival and later Queen Anne styles. The characteristic Stick elements are best illustrated on historic photographs of the building since many are currently obscured by vinyl siding or deemphasized by the monochromatic paint scheme. They include the steep gable roofs, overhanging eaves, varied shingle shapes and patterns, curved porch braces, brackets forming the upper extension of vertical strips (seen today at the tower), and wood cladding overlaid with raised decorative boards called stickwork. Stick Style color schemes were polychromatic with details picked
out in a darker color; the original contrasting paint scheme is seen on historic images of the church building.

The building contributes to the Plymouth Historic District, a local historic district established in 1995 and administered by the Plymouth Historic District Commission.
CHARACTER DEFINING FEATURES

Every old building has a distinctive identity and character. Character-defining features are the significant observable and experiential aspects of a building that define its architectural power and personality. These are the features that should be retained in any restoration or rehabilitation scheme in order to protect the building’s integrity and to maintain eligibility for preservation grant funding and rehabilitation tax credits.

Character-defining elements include the overall shape of the building and its materials, craftsmanship, decorative details and interior spaces and features, as well as the various aspects of its site and environment. They are critically important considerations whenever building work is contemplated. Inappropriate changes to historic features can undermine the historical and architectural significance of the building, sometimes irreparably.

This survey of the Spire Center for the Performing Arts identifies the elements that contribute to the unique character of the original building and its site. The bulleted items listed in this section should be considered important aspects of the historic nature of the building and changes to them should be made only after careful consideration.

EXTERIOR

Setting: The topography, population density and other influences that are noteworthy to the property.

- The building faces Court Street and the green in front of the Plymouth County administration complex.

Shape: The form of the building. The massing that gives the initial visual impression of the structure.

- Two-story rectangular plan. Square tower set back from the southeast corner with an octagonal spire. Smaller square tower at the southwest corner with a four-faced spire. Ventilation tower centered on the ridge at the intersection of the hipped cross gables.
Roof and Roof Features: Typically the most dominant element of a building. Often the element that most informs the shape of the building.

- Steep gabled roof with hipped cross gables at the rear half of the main block and a hipped roof at the northernmost block. Gabled dormers within the hips at the east and west slopes.
- Shed roofed wall dormers on the east and west slopes behind the towers.

Openings: Windows and doors. These often reflect the hallmark features of specific architectural styles.

- Asymmetrical window and door placement.
- 1-over-1 light gothic arched and rectangular sash in single and multiple configurations characteristic of Stick Style architecture.
- Louvered arched openings at belfry.
- Oculus windows at facade and hipped gable peaks.
- Arched paneled doors. Main entry has two double-leaf doors.

Trim and Secondary Features: Casings at windows and doors, moldings, cornices, watertables and other additive features.

- Stickwork.
- Shaped shingles and shingle patterns.
- Carved porch brackets, posts and balustrades. (NOTE: A utilitarian balustrade has replaced the original ornamental design at the main entry porch.)
- Brackets, molding and carved ornaments at the bell tower faces, cornice and louvered openings. Ornamented gables at the base of the spire roof.
- Wood panel doors with bead molding.
- NOTE: Decorative panels at spandrels between multi-part windows, now covered by vinyl siding, are Stick Style elements and important character-defining features.
- NOTE: Decorative metal cresting at the roof ridges is seen in historic images of the building.

Shaped and patterned shingles at the tower base. Wood moldings, brackets and carved ornaments at the belfry.
Left: Arched double entry with molded trim. Curved and carved roof brackets and carved porch posts and balustrade.
Right: Oculus window at transept gable.

Left: Fishscale shingles revealed under vinyl siding.
Right: Copper finial at southwest tower.

Horizontal and vertical sticks painted in a contrasting color are character defining features seen in this historic photograph. Vertical sticks end in curved brackets at the cornice. Note the decorative metal cresting at the roof ridges.

Materials: The visible kit of parts that comprise the exterior envelope of the buildings.

- Wood (shingles, windows, doors and trim).
- Stained and clear glass lights.
- Brick.
- Granite.
- Copper.
INTERIOR

Individual Spaces: Individual spaces that are character-defining.
- The lobby bar (former narthex) and theater (former sanctuary) separated by overhead rolling doors.
- Distinctive hipped ceiling configuration over the performance space and pitched ceilings over transepts.
- Projecting balcony.
- Stairways and landings.

Features & Details
- Beadboard ceiling and corbels.
- Decorative natural finish woodwork including window casings, wainscot, brackets, stair rails, newells, flat sawn balusters and applied ornament at balcony.
- Panel doors and casings, overhead rolling doors under balcony.
- Decorative trusses.
- Hardwood flooring.
- Original folding wood seats.
- NOTE: Original trompe l'oeil painting and stenciling is seen at the stage (former chancel) area in historic photographs.

Theater space (former sanctuary). The grilles of the arched openings flanking the stage, now filled with opaque glass, were originally open to reveal the organ pipes.

Note the overhead rolling doors under the balcony and the original folding wood chairs with pierced and embossed designs.

Left to right: decorative trusses at performance space, paneled arched double entry at performance space, flat sawn balusters at stairwell, stained glass windows at lower level.
PRESERVATION GUIDELINES

The consideration of repairs, renovations, and maintenance of the Spire Center for the Performance Arts should be guided by the significance of the building and site as framed by the National Register of Historic Places and the character defining features identified in this report. The Secretary of the Interior's Standards for the Treatment of Historic Properties should be used to inform all work at the building. The Standards provide advice on the preservation and protection of cultural resources and recognize four treatments: Preservation, Rehabilitation, Restoration and Reconstruction. The first three are relevant to this project.

PRESERVATION is defined “as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.”

REHABILITATION is defined “as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural values.”

RESTORATION is defined “as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.”

GENERAL APPLICATION OF THE STANDARDS

Additions
Additions to a historic structure should be respectful and subordinate to the original building. Although the addition should possess similar mass, proportions and materials and can feature complementary stylistic details, it should not replicate the original building and should be readily distinguished as new construction.

Materials
When repairs are required, original building materials should be replaced in kind — brick for brick, wood for wood, slate for slate. When traditional replacement materials are not available or are economically unfeasible, substitute materials that mimic the look, feel, and workability of original materials may be considered. Care should
be taken when deciding to use a synthetic material, however, since modern products may interface poorly with traditional building materials, offer limited longevity versus traditional materials, and experience color shifts and other deteriorative changes.

Siding
Substitute siding materials cannot rival the distinctive, historic appearance of wood clapboards or shingles. Although substitute materials such as vinyl or cement board siding may offer short-term benefits in terms of maintenance and durability of color finish, they have inherent disadvantages. Vinyl siding severely compromises the historic integrity of a building and its application often obscures character defining trim elements or necessitates their removal. Cement board siding lacks the distinctive tapered profile of wood siding, is difficult to install (it requires screws instead of nails), and degrades over time. It performs poorly and takes on water during freeze-thaw cycles and where butt ends have not been properly prepared.

Wood Windows and Doors
Wood windows and doors are character defining features and essential elements in a historic building’s distinctive architectural design. Repairing and weatherizing existing wood doors and windows is always the preferred approach for historic buildings and provides energy efficiency comparable to new elements. When windows have exceeded their useful lives and retention is not practical or economically feasible, an approach that combines repairing old windows where possible and introducing new windows where necessary is recommended.

Paint Finishes
Original paint formulations and colors are character-defining elements that are often lost over time because the paint materials themselves are relatively short-lived. When repainting is necessary to preserve the integrity of the envelope, the colors chosen should be appropriate to the style and setting of the building. If the intent is to reproduce the original colors or those from a significant period in the building’s history, they should be based on the results of a scientific paint analysis.

Traditional lead-based paints, which offer excellent longevity, durability and color stability, are no longer available in the United States. The highest quality latex-based paints available should be employed instead, after thorough surface preparation and priming. The application of a permanent vinyl or ceramic liquid coating system is damaging to wood, irreversible, and historically inappropriate.
APPLICATION OF THE STANDARDS AT THE SPIRE CENTER FOR THE PERFORMING ARTS

Preservation of the character defining features and architectural integrity of the building should be of paramount concern for the building’s stewards.

Preservation of the Setting and Landscape
The building is sited specifically for its historic public function. Its spatial relationship with the street should be retained in any rehabilitation scheme. The handicap access ramp at the facade, installed in 2013, is a practical solution.

Preservation of Exterior Character Defining Features

Roofing
The roofing material is currently asphalt shingles on the main roof slopes and wood shingles on the towers and spires. The type of roofing material used originally has not been determined. Historic photographs suggest that it may have been wood or metal shingle or a combination of the two; these are historically appropriate solutions for the building.

Wood Siding, Windows, Doors and Trim
All wood materials should be retained, repaired and maintained. If the replacement of damaged elements is unavoidable, the original wood profiles should be replicated. Some original trim elements appear to survive under the vinyl siding; others seen in historic images such as the cornice brackets at the stickwork and the balustrade at the entry porch, are no longer extant. These can be replicated if historic images and/or discovered remnants provide sufficient evidence for the recreation of the original forms.

The current white paint scheme is historically inappropriate. We have recommended identification of the original polychromatic color palette through paint analysis. Lacking a scientific determination, an historically appropriate scheme can be devised with the assistance of an historic paint specialist.

Other Exterior Features
The original clear and stained glass windows at the building envelope should be retained. The missing decorative metal cresting at the roof ridges and the finial on the main spire can be recreated if historic images and/or discovered remnants provide sufficient guidance for replication.

The design of the handicap ramp at the facade is appropriate but the materials are not. Should the railings and balusters require replacement, the use of traditional or historically sensitive materials such as painted wood or polymer material is recommended.
Preservation of the Interior Plan & Character Defining Features

The original first floor plan of sanctuary (theater), foyer, lobby bar and stairwell has been retained in the rehabilitation of the building. The balcony, stage (former chancel), stairways, and upper rooms are character defining and contribute to the historic integrity of the space.

The complex form of the ceiling and its handsome beadboard paneling and carved corbels should be retained along with all the wood trim, including the wainscot and door casings. Other features that are critical to the character of the performance space are listed on page 14 of this report.

Remnants of the decorative wall painting seen in historic images may exist at the back wall of the stage and the proscenium spandrels. Although restoration of this painting is not practical nor desired at this time given the current use of the stage area, if evidence is discovered it should be protected from damage.

Prior to any intervention or renovation, the building interior and its constituent materials should be carefully documented, both photographically and with a written narrative. If interior demolition takes place, character defining elements should be salvaged and reused when possible.
EXISTING CONDITIONS & TREATMENT RECOMMENDATIONS
EXTERIOR CONDITIONS

Roof and Water Management System

Conditions
The main roof slopes are covered with 3-tab asphalt shingles. The roofing is in poor condition with worn and missing shingles and has surpassed its life expectancy.

The towers and spires are clad with wood shakes. These are in poor condition and are scheduled for replacement.

Water is directed off the building with a system of aluminum gutters and downspouts that drain onto paving.

Recommendations
• The original roofing material was likely wood shingles; replacement of the asphalt roof with cedar shingles would be preferred. If wood is cost prohibitive, the roofing could be replaced with 3-tab or architectural asphalt shingles.
• Replace the wood shingles on the towers and spires with Alaskan Yellow Cedar shingles.
Siding and Trim

Conditions
With the exception of the southeast tower, all elevations at the Spire Center are covered with aluminum siding that obscures the original wood cladding and trim elements. Assessment of the conditions of the clapboards, decorative shingles and trim underneath cannot be made until the siding has been removed.

The tower wall surfaces are clad in alternating double rows of square and fishscale wood shingles. The shingles are in poor condition with greatest damage at the tower base.

Recommendations
- Remove aluminum siding and sheet aluminum over trim.
- Replace damaged clapboards and decorative shingles and trim with new parts milled to match the historic size.
- Strip, prep and repaint wood elements.
- Replicate missing carved ornaments in panels between the windows at the gable ends. These are seen in historic photographs.
- Replace missing trim, moldings, corbels and brackets.
Windows and Doors

Conditions
The building has a variety of original multi-lite windows in single and grouped configurations. All of these rectangular and arched windows have clear glass center portions with stained glass borders. The rectangular windows are protected by aluminum storms. Arched and round windows are are covered by plexiglas.

Ongoing investigative removal of the aluminum siding and storm windows reveals that the original wood windows are in fair condition, with widespread paint failure and areas of rot.

The paneled wood doors, both arched and rectangular, are in fair condition with worn paint finishes.

Recommendations
- Fully strip, repair, reglaze, prep and paint window sash.
- Fully strip, repair, prep and paint doors.
Foundations

Conditions
The building has a brick foundation. At the facade and southeast tower it is faced with dressed granite. The granite is in good condition. The brick is in fair condition with areas of failed mortar and poorly matched mortar; the brick surface has vestiges of a paint coating.

The front entry is a concrete slab that is spalled, chipped and cracked at the southeast corner. It is approached by a granite step.

Recommendations
• Repoint the brick selectively with correct mortar.
• Repoint granite facing stones.
INTERIOR CONDITIONS

First Floor

Conditions
The first floor of the building (at ground level) contains administrative offices, space rented as a sound studio, a kitchenette, restrooms, and an open spaced leased as a class room and meeting room.

The spaces were renovated after the acquisition of the building by the Spire Center so the infrastructure and finishes are up to date.

Recommendation
• Maintain with regular maintenance.

Administrative office.
Rental meeting space.
Recording studio.
New furnace.
Second Floor

Conditions

The second floor is occupied by the performance space, stage and lobby. Finishes are largely intact from the original construction and pew renovation. The renovations included two accessible restrooms in the lobby and installation of a new exterior door and access ramp on Court Street. Glass in the wood door between the stairway and lobby is missing.

Recommendation

- Salvage glass from the double door into the ticket office for use in doors into the stairway.

Stage, located in former transept and chancel.

Balcony as seen from stage.

Overhead rolling doors between performance space and lobby.

Stairway at main entrance foyer at southeast corner of building.

Organ pipes at rear stage wall.
Lobby - west windows.

Theater space. The line of chairs behind the fixed pews is extant original seating. The pews may date to the synagogue conversion but that has not been confirmed.

Lobby - projecting block in center is the build out for the handicap restroom.
Third Floor

Conditions
The third floor is occupied by the balcony and a rented rehearsal space. Access to the spire is via a ladder attached to the wall at the head of the stairs. The balcony is used in part for the stage sound board and a lighting rig.

Recommendations
- Install LU/LA vertical access.

Window wall at balcony shares light from the rented performance space onto the balcony.

Original seating at the balcony.

Third floor stair landing.
Attic

Conditions
The wood framed attic space has a steep pitched roof with varying floor levels corresponding to the various ceiling heights of the spaces below. Portions of the attic are not accessible where the ceiling plane abuts the roof framing.

Recommendations
- Removed old knob and tube wiring and re-wire with code compliant wiring.
- Critical framing repairs:
  - Reinforce existing collar beams with new steel beams supported on new tube steel posts that are in turn supported on new transfer beams in the attic floor.
  - Introduce new tension tie elements and connections to join the two halves of the corbel trusses. (See the structural report that follows for detailed recommendations on framing repairs.)

Wood framing at gable with wiring and new sprinkler system.

Wood framing at hip roof.

Original knob and tube wiring.
STRUCTURAL ASSESSMENT

John Bologna of Coastal Engineering conducted an exploratory site investigation of the building in February 2015. The survey findings and recommendations are described below. Three areas of urgent concern were identified where reinforcement and augmentation of existing structure are required. These include 1) the east gable window wall, 2) the cupola roof collar beams and 3) the corbel roof truss adjacent to the balcony and stage proscenium. Coastal Engineering has provided schematic design plans for the structural augmentation and retrofit of these areas. Please see the following page for photographs of the existing conditions.

The investigation revealed that structural framing members were compromised or seriously deficient in the three areas noted above. The recommendation is to augment the structural framing by adding new structural steel framing and reinforcements in each area. This would include the necessary removal of the existing gable windows and the installation of a tube steel structural grid to frame the curtain wall on both the north and south gable walls.

Roof collar beams in the attic were observed to have significant splits and cracks resulting from over stressing. These beams act as a compression ring, supporting the roof hip rafter and ridge beams, and have no vertical supports at beam corners to resolve unbalanced loads imposed on opposing sides of the roof framing. The resulting split in several of the members is likely the result of overstress on these compression beam elements. To resolve the unbalanced loads and to reinforce the compromised timbers, the existing collar beams should be reinforced with new steel beams supported on new tube steel posts that are in turn supported on transfer beams in the attic floor.

The transfer beams will themselves need to be supported on the two existing cross “A-Trusses,” which will also likely need to be reinforced, or at least further investigated to ensure adequate load carrying capacity. In laying out the plan, it became clear that the A-Trusses do not span across the entire building width, raising questions on how these trusses were themselves supported. After laying out the roof and attic floor framing on the CAD plans provided, it became apparent that the A-Trusses were supported on the corbel trusses (C-Trusses) that Cape Associates discovered in the concealed attic space adjacent to the balcony.

Superimposing the plans and sections revealed that the corbel trusses rely on the decorative wood tie as a tension element that holds the two bottom sections of the C-Truss together. How they are connected is subjected to further investigation, but it is apparent that a new tension tie element and connection is required to stabilize all four quadrants on either side of both gable window walls. The installation of a new tension rod behind the existing decorative element to tie the two C-Truss halves together is recommended. In doing so, it may be also possible to lift the deflected corbel truss corners by simultaneously jacking the corbel end as the tie rod is tensioned.
Split at roof collar beam at apex of main hip roof.

Trim elements at corbel truss have separated due to uneven load.

Bowing of window wall at the south transept is exacerbated by the framing deficits at the roof and corbel trusses. The wall is 6"-9" out of plumb.

Deflection of the truss corners resulting from inadequate connection between the truss sections is seen in the corbel ends, which have dropped 3-4". Note degree out of plumb.
REGULATORY ANALYSIS

This building code review makes the following assumptions:

1. The use and occupancy of the Spire Center for the Performing Arts will not change. It will remain a performance hall on the second (main) floor with business rental space on the first (ground) floor and rehearsal, storage space and balcony seating on the third floor.

2. Physical changes to the building, internally or externally, will be limited in scope for the foreseeable future. For example, a non-bearing wall in a guest room or staff space may be moved but the supporting walls of the center hall of the Spire Center for the Performing Arts will not be removed or new stairway openings cut through the floors. Exterior windows and doors may be repaired or replaced but new openings will not be made in the exterior walls. A limited-use/limited access elevator will be installed and operational prior to June 6, 2017.

3. The occupied area of the building is 13,080 s.f. The aggregate area of the building, which includes the unoccupied mechanical rooms on the first floor, is 13,730 s.f.

4. The occupancy classifications are A-1 for the theater use on the second floor and the third floor balcony, and B for the renters on the first floor and third floor.

The applicable building code is the 8th edition of 780 CMR. The applicable portion is the 2009 International Existing Building Code with Massachusetts Amendments.

In the narrative below the section of the code that applies is in **bold**, text from the code is in *italics*, and specific application to the Spire Center for the Performing Arts is in standard text.

101.4 Applicability. *This code shall apply to the repair, alteration, change of occupancy, addition and relocation of all existing buildings.*

101.4.2 Buildings previously occupied. *Buildings that are currently occupied may do so without change except for issues of safety and welfare of the users. Unless a change is made to the building it may continue to be occupied with alteration unless there is a matter of concern for life safety. At the Spire Center for the Performing Arts proactive steps were taken to install an automatic sprinkler system when the building was converted from a synagogue to a performance venue.*

101.5 Compliance methods. *The repair, alteration, change of occupancy,... of all existing buildings shall comply with one of the methods listed in Sections 101.5.1 through 101.5.3 as selected by the applicant.* When code applicable changes are proposed to an existing
building there are several approaches to evaluating the required compliance. For the Spire Center, the work area method would be the logical method. This basically requires compliance with the requirements for new construction only at the space where the work is being done; surrounding areas unaffected by the work would not require improvement unless the local building official had concerns for life safety. An example of the opinion of the local official taking precedence is the removal of the door from the stair from the second floor main entry vestibule to the first floor office space.

Section 105, Permits, 105.1 Required. Permits are required to repair, add, alter, remove, convert or replace any electrical, gas, mechanical or plumbing system. There is a provision to maintain an annual permit. This is an “open” permit which would allow improvements to a building system – electrical wiring, for example – at various times throughout the year without pulling an individual permit each time. Since the schedule of improvements at the Spire Center is incremental, an open permit would not be warranted.

Section 106, Construction Documents, 106.1 General. In general, unless waived by Inspectional Services, a permit application for additions, alterations or removals of systems will need to be accompanied by construction documents with sufficient detail for the code official to evaluate the scope of the work. These documents are prepared by professionals in the discipline of the area of work. For example, the proposed LU/LA work should show how the shaft and openings in the floor are structurally resolved and how exiting configurations are preserved or improved at the areas of construction in a set of drawings stamped by an architect or engineer.

Section 110, Certificate of Occupancy. When a space is altered or existing building occupancy is changed, a Certificate of Occupancy must be issued by the Building Official. Additionally, certain types of spaces require annual inspection regardless of whether work is performed or not. The temporary inspection certificate issued to the Spire Center contains the following conditions for A-1 temporary assembly use: second floor assembly occupancy 225, third floor employees only, first floor for bathroom access only. This temporary certificate has expired and should be renewed or made permanent.

Compliance evaluation for existing buildings
This building code analysis uses the Prescriptive Compliance Method to address alterations and repairs since those are the anticipated categories of work and the range of work is anticipated to be relatively limited. If extensive renovation or modification is contemplated the work would be evaluated under Chapter 4 where the Level of Work would be determined to establish what further code requirements would be triggered.
Chapter 3: Prescriptive Compliance Method

Chapter 3, 301.2 Building Materials, 301.2.1 Existing materials. Materials already in use in a building in conformance with the requirements or approvals in effect at the time of their erection shall be permitted to remain. Unless they are considered dangerous to life or safety by the code official, construction materials used at the Spire Center do not need to be changed to conform to the current building code unless work is being done that requires compliance with the current code. Like materials may be used for repairs or alterations provided no safety issues are created.

Section 303, Alterations, 303.1 General. Alteration to any building or structure shall be such that the existing building or structure is no less conforming with the provisions of the code than it was prior to the alteration. When changes are made at the Spire Center the changes should strive to meet the requirements of the current building code. At bare minimum the changes cannot create a circumstance that is LESS conforming to the code than it was prior to the alteration. For example, a meeting room for more than 49 persons that currently has two exits could not be reconfigured to eliminate one exit.

Sections 303.3 Existing structural elements carrying gravity load, 303.4 Existing structural elements carrying lateral load. Unless the Spire Center is substantially altered or damaged, the building will not be required to retroactively meet the requirements for new construction. Changes to the theater walls, new stairway or elevator penetrations, or the installation of mezzanines in double height spaces would be instances where the work needed to be evaluated relative to impact on the structural capacity of the building to sustain gravity loads and resist lateral movement.

Section 303.7 Seismic Hazards. This section is unique to Massachusetts and would apply if more than 50 percent of the aggregate area of the Spire Center, or over 7,200 s.f., was being altered.

Section 304 Repairs. Building and structures, and parts thereof, shall be repaired in conformance with Section 301.2. Routine maintenance...ordinary repairs exempt from permit... and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

Section 304.1.1 Dangerous conditions. The code allows for the repair of existing elements with like materials if that work does not pose a hazard to safety. The rest of the section covers repairs required by damage to the building and conditions under which repairs may be done with in kind materials or made to conform to the current building code.
Section 305 Fire Escapes, 305.1.2 Existing fire escapes, Chapter 10: Means of Egress, Section 1001.3.1 Maintenance of Exterior Fire Escapes, Section 1001.3.2 Testing and Certification. The code allows the continued use of the Spire Center fire escape. Certification by a registered design professional is required every five years. The fire escapes should be recertified by 2018.

Section 307 Change of Occupancy. The assembly functions at the Spire Center require some of the most stringent building code safety requirements. Though not envisioned, a change in use for some portion of the Spire Center building would be unlikely to trigger stiffer code safety requirements.

Section 308 Historic Buildings. Buildings that have historic value are given latitude when meeting the requirements of the building code. Proposed work must satisfy the building official that there is not a life safety hazard. The Spire Center is a contributing resource in the Plymouth Historic District and is considered historic. If building code requirements for work would have an impact on the features for which the Spire Center building is considered historically significant, they may be waived if the code official determines life safety issues are not raised.

521 CMR Massachusetts Architectural Access Regulations

Converting the old Methodist Church into a performing arts center required expenditures of greater than 30% of the fair cash value of the structure in infrastructure and physical improvements. Massachusetts Architectural Access regulations state that when this threshold of expenditure is met or exceeded, the entire structure must be brought into conformance or a variance must be sought. With the renovations it is assumed that the Spire Center was brought up to the requirements of the regulations except for specific areas. The Spire Center has been granted a variance from the Massachusetts Architectural Access Board for the main entry on Court Street, allowing continued use of the entry without changing the existing stairs into a ramp. A time variance has been awarded for the installation of a limited use/limited access elevator to provide vertical access to the first, second and third floors. Finally, a variance has been allowed for the use of a portable lift for access to the stage.

The Massachusetts Architectural Access code will apply to all new work done in the public spaces at the Spire Center. For example, new doors to public spaces must be accessible but the LU/LA machine room need not be accessible because it is not a public space.
248 CMR 10.00: Uniform Plumbing Code

For A-1 occupancy the ratio of toilets to occupants varies by gender. One toilet is required for every 30 female occupants and one for every 60 male occupants. The occupancy of the Spire Center for the Performing Arts as written in the certificate of occupancy is 250. This number is divided by two, so the plumbing count would be based on 125 five women and 125 men. To determine the count of fixtures divide the number of occupants by the ratio required for each gender and round up the result. For women the result is 4.167 which rounds up to 5 toilets. For men the result is 2.083 which rounds up to 3. Fifty percent of the fixtures for men can be urinals. In addition, for the population allowed by the certificate of occupancy, two sinks must be provided for each gender.

The toilet and sink count at the Spire Center meets these requirements.

Zoning
The Spire Center for the Performing Arts is located in the Downtown/ Harbor District (DH). Its street address is 25-1/2 on the town assessors property card. New or remodeled exterior facades and/or signs in the DH are exempt from the mandatory review by the Design Review Board of applications and plans filed with the building inspector are not subject to Zoning Board of Appeals action.

A theater is an allowed use in the DH zoning district.

Historic District Review
The building contributes to the Plymouth Historic District and changes to its exterior are subject to review by the Plymouth Historic District Commission. Design guidelines offering assistance to owners contemplating modifications and additions are included in the appendix to this report.
CONCEPTUAL DESIGN

We were asked to prepare conceptual designs for the exterior restoration of the Spire Center, installation of the Limited Use, Limited Access (LU/LA) elevator, and plans for converting two first floor restrooms into a performer's dressing room. We were also asked to supplement previous investigations of the bowing gable end walls on the east and west elevations with limited destructive testing. During the course of our investigations it became clear that there were repairs required in the roof framing that became a priority.

Exterior Restoration

The Spire Center already had a proposal for restoring the spire. We reviewed the scope prepared by the contractor and discussed wood shingle types that might weather best in the marine air. We concluded that Alaskan Yellow Cedar shingles would weather well. Although the material cost was slightly higher, we suggested that historically the shingles on the spire were likely not painted.

There is woodwork at the dormers which would have been painted which now feature very weathered surfaces. In order to help answer questions about color selection for the work we helped solicit proposals from three firms skilled in paint analysis.

In addition to the restoration of the spire, we were asked to examine the remainder of the exterior. Using photographs, observations made over several site visits, and limited removals of the exterior aluminum siding we evaluated conditions and prepared the following outline scope of work:

- Remove aluminum siding.
- Repoint granite foundation face stones.
- Repoint brick foundation.
- Remove rust, replace worn parts, scrape and paint the fire escape.
- Fabricate and install decorative fiberglass cresting along ridge lines.
- Fabricate and install replica finials in fiberglass for lower tower and venting cupola.
- Replace missing horizontal and vertical wood trim (historic “sticks”).
- Replace missing wood brackets and corbels.
- Replace missing carved decoration in window panels below gothic arched windows. Recreate with reinforced molded fiberglass, 4 different styles roughly 2-feet square.
- Replace 20 percent of painted shingle siding, including replacement for blown in insulation.
- Blow cellulose insulation in walls – 5-inch thickness.
- Remove old three tab asphalt shingles, install new roof felt, install ice and water shield at eaves, install architectural asphalt shingles per 110 mph wind zone requirements. (Note: replacement with wood shingles would be a substantial cost increase.)
- Install new membrane roof at shed dormers, flat roof atop main hip, and flat roof atop rear hip.
- Repair the spire per the proposal from the Burgess Company steeplejacks.
- Restore window sash – repair wood, reglaze with black glazing putty, add weather strip, paint.
- Repaint and weather strip exterior doors.
- Paint siding and trim.
- Install lightning arrestors, terminals, cabling and grounds.

Estimated Cost: $800,000

Cost derived from the Cape Associates estimate on page 55.

**Roof Framing Repairs**

While investigating framing at the gable end walls where the window wall is bowing out we were alerted by Cape Associates, the contractor helping us make discrete openings in walls to check framing, to two cracked members in the compression ring below the venting cupola at the very top of the main hipped roof. Coastal Engineering evaluated the connections and load paths from these key framing members and concluded that repairs were needed and supplemental measures were required.

Two areas where reinforcement and augmentation of compromised or seriously deficient existing structure are required were identified: 1) the cupola roof collar beams, and 2) the corbel roof truss adjacent to the balcony and stage proscenium. The areas noted are related components of the roofing system, with failure in the collar beams exacerbating conditions at the corbel trusses.

Two roof collar beams under the cupola at the apex of the main hip roof have significant splits and cracks resulting from overstress. These beams, which act as a compression ring supporting the roofing system, have no vertical supports at their corners to resolve the unbalanced loads to which they are subjected.

The corbel trusses, which support the cross trusses (A-trusses), are each comprised of two halves tied together with a wood tension element. The wood ties provide inadequate connection between the truss sections resulting in deflection of the truss corners and sagging of the corbel ends.

Coastal Engineering prepared schematic design plans for the structural augmentation and retrofit of the areas of failure described above. The existing collar beams will be reinforced with new steel beams supported on new tube steel posts that are in turn supported on new transfer beams in the attic floor. The existing
cross trusses (A-trusses) on which the new transfer beams will rest will require further investigation to ensure adequate carrying capacity.

New tension tie elements and connections will be introduced to join the two halves of the corbel trusses. The tension rods will be installed behind the existing carved wood decorative elements.

Estimated cost: $75,000

Cost derived from the Cape Associates estimate on page 55.

The drawings that follow illustrate the proposed work.
Limited Use/Limited Access Elevator

We examined three possible locations for the L.U./L.A., all of which would provide access to each of the three floors.

Option 1 was selected, though the alterations to the balcony were not included for cost savings. This option provided the least alteration of existing spaces and importantly could be built within the existing building envelope without having to pierce the roof. The first floor access will be coordinated with the present sound studio so the entry is always available to building users. The second floor location preserves as much of the existing open space in the lobby as possible, but closes off the historic exterior access to the lobby and requires adjusting the existing granite counter. At the third floor the closet in the rental space is blocked by the lift.

Option 2 was rejected because it required the relocation of major utilities in the basement and relocating an exit access doorway in the theater space. This option would also require alterations to the roof of the shed dormer on the west side to accommodate the elevator over-run.

Option 3 was rejected because it obstructed too much space in the second floor lobby and required relocation of the sound studio sound booth and recording platform.

Estimated Cost $120,000

Cost derived from the Cape Associates estimate on page 55.

The drawings on the following pages illustrate the three options.
OPTION ONE

Second floor plan

Area shown in dashed blue outline above at first floor (left) and third floor (right).
Second floor plan

Area shown in dashed blue outline above at first floor (left) and third floor (right).
OPTION THREE

Second floor plan

Area shown in dashed blue outline above at first floor (left) and third floor (right).
Conversion of Restrooms to Single Dressing Room

We were asked to prepare drawings for the conversion of two extant first floor restrooms into a performers' dressing room. A make-up vanity, shower, toilet and sink were part of the program. We were asked to fit the dressing room within the existing walls of the restrooms. We strove to maintain the location of the plumbing wall while fitting the program for the space.

Estimated cost $8,500

Cost derived from the available budget.

The drawings on the following pages illustrate the conceptual design.
SUMMARY OF PROBABLE COSTS

Cape Associates developed the cost estimates that appear on the following pages.
## Scope of Work as outlined by Spencer & Vogt

<table>
<thead>
<tr>
<th>CSI Section</th>
<th>Location</th>
<th>Item Description</th>
<th>Comments</th>
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<td>120.00 ea</td>
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<td>06 Basement to second floor PSL posting for LUL/ALA mast framing - 32 vertical feet</td>
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<td>New shed dormer at top of LUL/ALA shaft. Rough frame for new shed roof dormer 7'x8' with 4' tall face and cheekwalls with 4' maximum height, sheathing, etc.</td>
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<td>06 Roof adjacent to Spire</td>
<td>Cornerboards and running molding at dormer</td>
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<td>20.00</td>
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<td>07 South Elevation</td>
<td>Replace 20-percent painted shingle siding - 4-1/2 exposure - includes replacement for blown in insulation holes</td>
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<td>07 West Elevation</td>
<td>Replace 20-percent painted shingle siding - 4-1/2 exposure - includes replacement for blown in insulation holes</td>
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<td>07 Roofs</td>
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<td>07 Flat roof below venting cupola</td>
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<td>New membrane roof</td>
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<td>Paint siding and trim</td>
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FUNDRAISING DISCUSSION

Community Preservation Act Funding
The Spire Center got its start with Community Preservation Act funds, which made possible the acquisition of the property and the first phase of restoration and renovation. The Center is encouraged to seek CPA money for future phases of restoration/renovation under the historic preservation funding category as long as the proposed work complies with The Secretary of the Interior’s Standards for the Treatment of Historic Properties.

Applications are accepted by the Community Preservation Committee throughout the year. For consideration at Town Meeting, applications must be received by February 1 for the Spring Town Meeting and May 15 for the Fall Town Meeting. The deadlines provide the Committee and Town departments with sufficient time to review the applications and supporting documentation and to vote on recommendations for Town Meeting prior to the deadlines required under the Town’s warrant process. The fiscal year 2014 application can be found online at http://www.plymouth-ma.gov/sites/plymouthma/files/uploads/2014_cpa.pdf.

Massachusetts Historic Rehabilitation Tax Credits
Under this program, a certified rehabilitation project on an income-producing property is eligible to receive up to 20% of the cost of certified rehabilitation expenditures in state tax credits. There is an annual cap, so there are selection criteria that ensure the funds are distributed to the projects that provide the most public benefit. The Massachusetts Historical Commission certifies the projects and allocates available credits. A similar tax credit program is administered at the federal level.

The stewards of the Spire Center have explored the possibility of pursuing both state and federal tax credits for current and future projects. The costs associated with the application process, receipt and administration of the tax credits are significant and it is recommended that construction projects meet or exceed a $2 million dollar threshold in order to make obtaining historic rehabilitation tax credits worthwhile.

Massachusetts Preservation Projects Fund
The Massachusetts Preservation Projects Fund (MPPF) is a state-funded 50% reimbursable matching grant program established in 1984 to support the preservation of properties, landscapes, and sites (cultural resources) listed in the State Register of Historic Places. Applicants must be a municipality or nonprofit organization. The grants are generally awarded annually for pre-development (studies) and development (construction) projects with an application deadline in early Spring.
Emergency funds are available at the Secretary's discretion for the stabilization of resources considered in imminent danger. There are no deadlines for the submission of emergency fund requests. The Spire Center applied for an emergency grant in April, 2015 for critical repairs to the roof framing.

Information on the MPPF grant program can be found at http://www.sec.state.ma.us/mhc/mhcmpff/mppfidx.htm.

**Massachusetts Cultural Facilities Fund**

The fund provides capital grants to promote the acquisition, design, repair, rehabilitation, renovation, expansion, or construction of nonprofit cultural facilities in Massachusetts. Applicants must be nonprofit cultural institutions, municipalities that own cultural facilities, or institutions of higher learning. All grants from the fund must be matched with cash contributions from the private or public sector. The fund is administered through a collaborative arrangement between MassDevelopment and the Massachusetts Cultural Council.

Grants are generally awarded annually with a late Spring application deadline. Information on the Massachusetts Cultural Facilities Fund program can be found at http://www.massculturalcouncil.org/facilities/facilities.htm.
APPENDIX

A) Photographic Documentation

B) Historic Preservation Resources
   – The Secretary of the Interior’s Standards for the Treatment of Historic Properties
   – Massachusetts Historical Commission Inventory Form B

C) MPPF Emergency Grant Application (April 2015)
MASSACHUSETTS PRESERVATION PROJECTS FUND

Project Completion Report

Spire Center for the Performing Arts
MPPF Emergency Grant
April 2017

MASSACHUSETTS HISTORICAL COMMISSION
William Francis Galvin, Secretary of the Commonwealth
220 Morrissey Boulevard, Boston, Massachusetts 02125
PROJECT COMPLETION REPORT

Project Number (MHC use only): MPPF #4064 & MPPF #4098

Project Name: Structural Repairs

Property Name (as listed in State Register of Historic Places): Memorial Methodist Episcopal Church

Address: 25 ½ Court Street, Plymouth, MA 02360

Grant Recipient: Greater Plymouth Performing Arts Center, Inc.

Title of Authorized Signer: Robert Hollis, President

Address: 25 ½ Court Street, Plymouth, MA 02360

Owner: Greater Plymouth Performing Arts Center, Inc.

Address: 25 ½ Court Street, Plymouth, MA 02360

Completion Date: December 2016

Project Type: X Development

Total Project Cost: $130,913 (Part of larger project costing $294,979)

State Share: $80,000

Recipient Share: $50,913 (Remainder of match made up in larger project)

Endowment: N/A

Local Project Coordinator: Robert Hollis

State Supervisors:

Paul A. Holz, Co-Director Grants Division/Historical Architect, MHC
Massachusetts Historical Commission
Massachusetts Archives Building
220 Morrissey Boulevard, Boston, MA 02125

Preservation Supervisor: Spencer & Vogt Group, 1 Thompson Sq., Suite 504, Charlestown, MA

Contractor(s): Murray Bros. Construction, Inc., 19 Union Street, Leominster, MA

Report Prepared by: Lynn Smledge (SVG)    Edited by: Ross W. Dekle

Project Completion Report Approval:

I hereby certify that project work has been completed in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

__________________________________________________
Brona Simon
Executive Director and State Historic Preservation Officer
Massachusetts Historical Commission

Date
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PURPOSE OF PROJECT

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• Narrative Description
• Photographs

SECTION IV
• State Site Visit Comments

SECTION V
• Documentation of Job Creation Statistics & Other Special Conditions

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• Architect/Preservation Consultant Certification
• List of Project Participants
• MHC Inventory Form and Property Location Map
INTRODUCTION

The building was constructed in 1884 for the Methodist Church, which occupied it until 1972 when it merged with another congregation and built a new house of worship. The church was sold to the Congregation Beth Jacob and adapted for use as a synagogue and later a community center. The Town of Plymouth acquired the dormant building in 2012 with Community Preservation Act funds and entrusted it to the Greater Plymouth Performing Arts Center, Inc., which has rehabilitated it as a performance venue. The Spire Center for the Performing Arts opened its doors to the public in 2014.

The building reflects the Stick style, often considered a transitional style between the Gothic Revival and later Queen Anne styles. The characteristic Stick elements are best illustrated on historic photographs of the building since many are currently obscured by vinyl siding or deemphasized by the monochromatic paint scheme. They include the steep gable roofs, overhanging eaves, varied shingle shapes and patterns, curved porch braces, brackets forming the upper extension of vertical strips (seen today at the tower), and wood cladding overlaid with raised decorative boards called stickwork. Stick style color schemes were polychromatic with details picked out in a darker color; the original contrasting paint scheme is seen on historic images of the church building.

The building contributes to the Plymouth Historic District, a local historic district established in 1995 and administered by the Plymouth Historic District Commission.

A 2015 conditions assessment by Spencer & Vogt Group with Coastal Engineering identified serious structural issues in the roof framing in relation to the center cupola, which originally served as a ventilation shaft, and the transept wall framing. Other pressing concerns included the aging roofing, preservation of the historic wood windows, aluminum siding which effectively obscured historical architectural features, and the main tower and steeple which had its aluminum siding removed in anticipation of restoration. Here the worn and missing shingles and architectural trim is a visible reminder to all visitors to downtown Plymouth of the need to preserve this feature. Less visible but of equal necessity is the need to reinforce structural elements. Lastly the Spire Center is now in the process of completing the installation of an elevator providing access to all three floors. This is the final step in the process of making the building fully accessible.
PURPOSE OF PROJECT

The MPPF grant helped fund a $144,863 construction project that included:

- Permanent structural repairs to the roof framing of the center cupola of the main block of the building.
- Temporary reinforcement of the east and west outer walls of the transept.
- Protection of the art glass windows at the east and west outer walls of the transept.
USE OF PROPERTY

The building was constructed as a Methodist church and later adapted for use as a synagogue and then a community center. The Town of Plymouth acquired the building in 2012; it was rehabilitated as a performance venue and opened its doors to the public in 2014 as the Spire Center for the Performing Arts.
SECTION I

- Comparative Budget
- Financial Documentation
SECTION I

1. COMPARATIVE BUDGET

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2. SUMMARY OF FUNDING SOURCES

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<td>Non-State Share:</td>
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Non-State Share Breakdown:
Donor: Greater Plymouth Performing Arts Center, Inc.
Source: Cash
Amount: $50,913

NOTE: In addition to the $130,913 spent on structural stabilization, $164,066 has been invested in an elevator as the final stage in renovations to provide full handicapped accessibility to the Spire Center for the Performing Arts. This more than covers the match required for the combined Emergency MPPF Grants for the stabilization.

Endowment Fund: NA
SECTION III

NARRATIVE REPORT

The Spire Center for the Performing Arts was awarded a $80,000 grant from the Massachusetts Preservation Projects Emergency Fund for structural repairs to the roofing system. The work was part of a larger rehabilitation project that totaled $289,430 in construction and $48,000 in architectural and engineering fees.

The work comprised:

- Structural repairs to the attic truss framing in relation to the center cupola
- Strengthening of corbel trusses visible in the nave/performance space
- Temporary stabilization of outward bowing window walls and protection of art glass windows at the narthex and south transept
- Installation of a limited use/limited access elevator as a separate budget by the same contractor

Procurement and Contract Award

The project was approved by the Massachusetts Historical Commission and bidding commenced in November 2015. The procurement consisted of an advertisement in the Plymouth Bay State Banner and distribution of the bidding documents to six selected local contractors. As the single bid received in December 2015 was well in excess of the available budget, the scope was revised to provide temporary stabilization of the north and south transepts. The second round of bidding, due April 18, 2016, resulted in a single bid. A contract was awarded to Murray Brothers in the amount of $229,792. This total included structural work for $119,477 and the elevator shaft for $12,315 (note that the elevator itself was added back in by a change order). Work commenced in May 2016 with anticipated completion January 2017. A change order increased the cost of the project by $11,436 for the structural work.

Description of Work

The building had a weakened structural roofing system discovered and described after an inspection by Coastal Engineering Company, Inc. of Orleans, MA performed in February 2015. Two areas where reinforcement and augmentation of compromised or seriously deficient existing structure were identified: 1) the cupola roof collar beams (Figures 5a, 5b, 5e, 5f) and 2) the corbel roof truss adjacent to the balcony and stage proscenium (Figures 1a, 1c). The areas noted were related components of the roofing system, with failure in the collar beams exacerbating conditions at the corbel trusses.

Two roof collar beams under the cupola at the apex of the main hip roof had significant splits and cracks resulting from over stress (Figures 5c, 5d). These beams, which act as a compression ring supporting the roofing system, had no vertical supports at their corners to resolve the unbalanced loads to which they are subjected. Originally the reinforcement system was designed with steel. However, Murray Brothers advocated the use of heavy timber. This approach used timber to create a secondary collar beam with posts coming down to adequately support interior beams.

The corbel trusses, which supported the cross trusses (A-trusses), were each comprised of two halves tied together with a wood tension element. The wood ties provided inadequate connection between the truss sections resulting in deflection of the truss corners and sagging of the corbel ends (Figure 1).

Coastal Engineering had prepared schematic design plans for the structural augmentation and retrofit of the areas of failure described above. The existing collar beams were reinforced with new wood beams supported on new wood posts that are in turn supported on new transfer beams in the attic floor (Figures 5, 5g, 5h).
New tension tie elements and connections were introduced to join the two halves of the corbel trusses. The tension rods were installed adjacent to the existing carved wood decorative elements, running east-west. While this succeeded in stabilizing the trusses it was decided to further reinforce the structure by adding steel tension rods running across the auditorium (north-south) to help stabilize the outward leaning walls of the north and south transepts. (Figures 2, 3, 4, 4a, 4b, 4c) This effectively reduced the lean by about 2”.

Additional work included adding temporary beams inside and outside the outer walls of the east and west transepts, bolted together at 18” intervals. Remedial work at the transept initially was designed to address the backway leaning seen in the gable walls above the roof edge (Figures 7a, 7b). Exploratory work involving removal of siding revealed that the entire wall was inadequately framed (Figure 7c). A permanent retrofit was designed but proved to be too expensive for the funding available. Instead, temporary reinforcing beams were installed to stabilize the walls until funding is identified for the permanent reinforcement of the east and west transepts (Figures 7d, 7e).

Future Work
The plan for comprehensive restoration of the Spire Center includes replacement of the roof, completion of structural repairs in a permanent fashion, preservation of the historic wood windows, and removal of the balance of aluminum siding covering the original wood siding. The wood shingles and trim details will be restored, allowing the building to regain its distinctive Stick style appearance. With the installation of the elevator providing access to all three floors, the building is now fully accessible.
Figure 1. Spire Center for the Performing Arts, Plymouth, MA. Corbel roof truss adjacent to the balcony prior to structural reinforcement. Photo: Lynne Spencer

Figure 3. Spire Center for the Performing Arts, Plymouth, MA. Tension rod installed adjacent to carved wood elements. Photo: Lynne Spencer

Spire Center for the Performing Arts, Plymouth, MA. Plate attachment of tension bar to beam. Photo: Lynne Spencer
Figure 4. Spire Center for the Performing Arts, Plymouth, MA. Tension rods installed to be as unobtrusive as possible.
Photo: Lynne Spencer
Figure 1a. Spire Center for the Performing Arts, Plymouth, MA. Theater before installation of rods. Photo: Lynne Spencer
Figure 4b. Spire Center for the Performing Arts, Plymouth, MA. View towards theater balcony with tension rod plates mounted to wall. Photo: Lynne Spencer

Figure 4c. Spire Center for the Performing Arts, Plymouth, MA. Tension rods running across the lower frame of glaze. Photo: Lynne Spencer

Figure 5a. Spire Center for the Performing Arts, Plymouth, MA. View north of portion of cupola truss (new truss not supporting the cupola prior to...). Photo: Lynne Spencer
Figure 5b. Space Center for the Performing Arts, Plymouth, MA. View east of cupola truss. Note redundant knot & tube wiring & recently installed sprinkler pipe.
Photo: Lynne Spencer
Figure 7a. Spire Center for the Performing Arts, Plymouth, MA. East elevation prior to stabilisation
Note back sloping cant of the transept gable.
Photo: Lynne Spencer

Figure 7b. Spire Center for the Performing Arts, Plymouth, MA. Framing augmentation at upper cupola.
Photo: Lynne Spencer
Figure 7. Spire Center for the Performing Arts, Plymouth, MA. East elevation. Photo: Lynne Spencer
PRESERVATION RESTRICTION AGREEMENT
between the COMMONWEALTH OF MASSACHUSETTS,
by and through the MASSACHUSETTS HISTORICAL COMMISSION and
the TOWN OF PLYMOUTH and GREATER PLYMOUTH PERFORMING ARTS CENTER, INC.

The parties to this Agreement are the Commonwealth of Massachusetts, by and through the Massachusetts Historical Commission located at the Massachusetts Archives Building, 220 Morrissey Boulevard, Boston, Massachusetts 02125, hereinafter referred to as the Commission, and the Town of Plymouth, located at 11 Lincoln Street, Plymouth, Massachusetts 02360 and Greater Plymouth Performing Arts Center, Inc., located at 110 Fairview Lane, Plymouth, MA 02360, are sometimes collectively referred to herein as the "Grantors."

WHEREAS, the Town of Plymouth is the owner in fee simple of certain real property with improvements thereon known as the Memorial Methodist Episcopal Church (the Spire Center for the Performing Arts) as described in a deed dated 12/04/2012, from Beis Jacob Society of Plymouth to the Town of Plymouth, recorded with the Plymouth Registry of Deeds, Book 42340, Page 63, and which is located at 25 1/2 Court Street, Plymouth, Massachusetts 02360, hereinafter referred to as the "Premises." The Premises is also described in Exhibit A, a full legal boundary description from deed cited above, and shown in Exhibit B, a legal plot plan, also referenced in the deed cited above, attached hereto and incorporated herein by reference; and

WHEREAS, Greater Plymouth Performing Arts Center, Inc. has entered into a lease with the Town of Plymouth dated March 5, 2013 (the "Lease") for the Premises listed above. Said Lease is attached hereto as Exhibit C and incorporated herein by reference, and;

WHEREAS, the Premises includes, but is not limited to, the following: a wood frame building, built in the Gothic Revival Style. There is a square, three storied tower, crowned with a broach spire, at the corner of Court and Brewster Streets. The main entrance is through a Queen Anne styled porch fronting the tower. While the plan of the sanctuary is that of an open auditorium, unencumbered by columns, the impression of a cross-shaped church is given by the roof framing. The complex roof framing forms a flat-topped hip roof, intersected by a gable roof running front to back and the window dormers on the sides. A ventilator cupola sits on top of the flat portion. A rear wing, as wide as the gabled roof, has its own hipped roofs rising to a flat roof at the base of the rear gable; and is also shown as Parcel 017-000-145-002 on the Assessor's Map attached as Exhibit D hereto and incorporated herein by reference; and

Return to: Town of Plymouth
Town of Plymouth
11 Lincoln St.
Plymouth, MA 02360
WHEREAS, the Grantors wish to impose certain restrictions, obligations and duties upon themselves as the owner and lessee of the Premises and on the successors to its right, title and interest therein, with respect to maintenance, protection, and preservation of the Premises in order to protect the architectural, archaeological and historical integrity thereof, as set forth in Article 16A that was passed in the 2012 Fall Annual Town Meeting, attached hereto and incorporated herein by reference as Exhibit E; and

WHEREAS, the Premises is significant for its architecture, archaeology and/or associations, and was listed in the State Register of Historic Places on 07/31/1995 as a contributing resource to the Plymouth Historic District, a Local Historic District, and therefore qualifies for a preservation restriction under M.G.L., Chapter 184, section 32; and

WHEREAS, the preservation of the Premises is important to the public for the enjoyment and appreciation of its architectural, archaeological and historical heritage and will serve the public interest in a manner consistent with the purposes of M.G.L. Chapter 184, sections 31, 32, and 33 hereinafter referred to as the Act; and

WHEREAS, the Commission is a government body organized under the laws of the Commonwealth of Massachusetts and is authorized to accept these preservation restrictions under the Act;

NOW, THEREFORE, for good and valuable consideration, the Grantors convey to the Commission the following preservation restrictions, which shall apply in Perpetuity to the Premises.

PURPOSE
It is the Purpose of these preservation restrictions to ensure the preservation of those characteristics which contribute to the architectural, archaeological and historical integrity of the Premises which have been listed in the National and/or State Registers of Historic Places, under applicable state and federal legislation. Characteristics which contribute to the architectural, archaeological and historical integrity of the Premises include, but are not limited to, the artifacts, features, materials, appearance, and workmanship of the Premises, including those characteristics which originally qualified the Premises for listing in the National and/or State Registers of Historic Places.

TERMS
The terms of the Agreement are as follows:

1. **Maintenance of Premises:** The Grantors agree to assume the total cost of continued maintenance, repair and administration of the Premises so as to preserve the characteristics which contribute to the architectural, archaeological and historical integrity of the Premises in a manner satisfactory to the Commission according to the Secretary of the Interior’s “Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings” (36
CFR 67 and 68), as these may be amended from time to time. The Grantors may seek financial assistance from any source available to it. The Commission does not assume any obligation for maintaining, repairing or administering the Premises.

2. **Inspection:** The Grantors agree that the Commission may inspect the Premises from time to time upon reasonable notice to determine whether the Grantors are in compliance with the terms of this Agreement.

3. **Alterations:** The Grantors agree that no alterations shall be made to the Premises, including the alteration of any interior, unless (a) clearly of minor nature and not affecting the characteristics which contribute to the architectural, archaeological or historical integrity of the Premises, or (b) the Commission has previously determined that it will not impair such characteristics after reviewing plans and specifications submitted by the Grantors, or (c) required by casualty or other emergency promptly reported to the Commission. Ordinary maintenance and repair of the Premises may be made without the written permission of the Commission. For purposes of this section, interpretation of what constitutes alterations of a minor nature and ordinary maintenance and repair is governed by the Restriction Guidelines which are attached to this Agreement and hereby incorporated by reference.

4. **Notice and Approval:** Whenever approval by the Commission is required under this restriction, Grantors shall request specific approval by the Commission not less than (30) days prior to the date Grantor intends to undertake the activity in question. A request for such approval by the grantors shall be reasonably sufficient as a basis for the Commission to approve or disapprove the request. The notice shall describe the nature, scope, design, location, timetable and any other material aspect of the proposed activity in sufficient detail to permit the Commission to make an informed judgment as to its consistency with the purposes of this Preservation Restriction. Within (30) days of receipt of Grantors’ reasonably sufficient request for said approval, the Commission shall, in writing, grant or withhold its approval, or request additional information relevant to the request and necessary to provide a basis for its decision. However, should the Commission determine that additional time is necessary in order to make its decision the Commission shall notify the Grantors. The Commission’s approval shall not be unreasonably withheld, and shall be granted upon a reasonable showing that the proposed activity shall not materially impair the Purpose of this Agreement. Failure of the Commission to make a decision within sixty (60) days from the date on which the request is accepted by the Commission or notice of a time extension is received by the Grantors shall be deemed to constitute approval of the request as submitted, so long as the request sets forth the provisions of this section relating to deemed approval after the passage of time.

5. **Assignment:** The Commission may assign this Agreement to another governmental body or to any charitable corporation or trust among the purposes of which is the maintenance and preservation of historic properties only in the event that the Commission should cease to function in its present capacity.
6. **Validity and Severability:** The invalidity of M.G.L. c. 184 or any part thereof shall not affect the validity and enforceability of this Agreement according to its terms. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

7. **Recording:** The Grantor agrees to record this Agreement with the appropriate Registry of Deeds and file a copy of such recorded instrument with the Commission.

8. **Archaeological Activities:** The conduct of archaeological activities on the Premises, including without limitation, survey, excavation and artifact retrieval, may occur only following the submission of an archaeological field investigation plan prepared by the Grantor and approved in writing by the State Archaeologist of the Massachusetts Historical Commission (M.G.L. Ch.9, Section 27C, 950 CMR 70.00).

9. **Enforcement:** This Restriction shall be a binding servitude, and shall run with the land and be binding upon the Town of Plymouth, its heirs, successors, transferees, agents and assigns, and shall be binding upon Greater Plymouth Performing Arts Center, Inc., its heirs, successors, transferees, sub lessees, agents and assigns for the term of the Lease or any subsequent lease or other arrangement under which it holds property rights to the Premises. The restrictions, stipulations, and covenants contained herein shall be inserted by the Town of Plymouth and Greater Plymouth Performing Arts Center, Inc., their heirs, successors, transferees, and assigns, verbatim or by express reference, in any deed or other legal instrument by which it divests itself of either the fee simple title or any lesser estate in the Premises, or any part thereof. The Commission shall have the right to prevent and correct violations of the terms of this preservation restriction. If the Commission, upon inspection of the Premises, finds what appears to be a violation, it may exercise its discretion to seek injunctive relief in a court having jurisdiction. Except where the Commission determines that an ongoing or imminent violation will irreversibly diminish or impair the cultural, historical and/or architectural importance of the Premises, the Commission shall give the Grantors written notice of the violation and allow thirty (30) calendar days to correct the violation before taking any formal action, including, but not limited to, legal action. If a court, having jurisdiction, determines that a violation exists or has occurred, the Commission may seek to obtain an injunction to stop the violation, temporarily or permanently. A court may also issue a mandatory injunction requiring the Grantors to restore the Premises to a condition that would be consistent with the preservation purposes of the grant from the Massachusetts Preservation Projects Fund and the Massachusetts Historical Commission. In any case where a court finds that a violation has occurred, the court may require the Grantors to reimburse the Commission and the Commonwealth’s Attorney General for all the Commonwealth’s expenses incurred in stopping, preventing, and/or correcting the violation, including, but not limited to, reasonable attorney’s fees. The failure of the
Commission to discover a violation or to take immediate action to correct a violation shall not bar it from doing so at a later time.

10. **Other Provisions**: None applicable.

The burden of these restrictions enumerated in paragraphs 1 through 10, inclusive, shall run with the land and is binding upon future owners of an interest therein.
IN WITNESS WHEREOF, we have hereunto set our hands and seals this 24th day of January, 2017

Town of Plymouth

By: [Signature]

Name: Kenneth A. Tavares
Title: Chairman, Board of Selectmen

COMMONWEALTH OF MASSACHUSETTS

Plymouth ss.

On this 24th day of January, 2017, before me, the undersigned notary public, personally appeared Kenneth Tavares, proved to me through satisfactory evidence of identification, which was (a current driver’s license) (a current U.S. passport) (my personal knowledge of the identity of the principal), to be the person whose name is signed on the preceding or attached document, and acknowledged to me that s/he signed it voluntarily for its stated purposes.

[Signature]
Notary Public

My Commission Expires 4/10/23
IN WITNESS WHEREOF, we have hereunto set our hands and seals this 23rd day of December, 2016.

Greater Plymouth Performing Arts Center, Inc.

Be:

Name: Robert L. Hollis Jr.
Title: President

COMMONWEALTH OF MASSACHUSETTS

Plymouth, ss.

On this 23rd day of December, 2016, before me, the undersigned notary public, personally appeared Robert L. Hollis Jr., proved to me through satisfactory evidence of identification, which was my personal knowledge of the identity of the principal, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purposes.

Liana E. Patton
Notary Public
My Commission Expires: 09/24/2021
IN WITNESS WHEREOF, we have hereunto set our hands and seals this 27th day of December, 2016.

Greater Plymouth Performing Arts Center, Inc.

By:  
Name: Patricia Gorman  
Title: Treasurer

COMMONWEALTH OF MASSACHUSETTS
Plymouth

On this 27th day of December, 2016, before me, the undersigned notary public, personally appeared Patricia Gorman, proved to me through satisfactory evidence of identification, which was (a current driver’s license) (a current U.S. passport) (my personal knowledge of the identity of the principal), to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purposes.

Amy K. Kelly  
Notary Public  
My Commission Expires 09-19-2018
APPROVAL BY THE MASSACHUSETTS HISTORICAL COMMISSION

The undersigned hereby certifies that the foregoing preservation restrictions have been approved pursuant to Massachusetts General Laws, Chapter 184, section 32.

MASSACHUSETTS HISTORICAL COMMISSION

By:  

Brina Simon  
Executive Director and Clerk  
Massachusetts Historical Commission

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

On this 31st day of January, 2017 before me, the undersigned notary public, personally appeared Brina Simon, proved to me through satisfactory evidence of identification, which was (a current driver's license) (a current U.S. passport) (my personal knowledge of the identity of the principal), to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purposes.

Notary Public

[Signature]

Nancy Maida  
My Commission Expires January 25, 2019
RESTRICTION GUIDELINES

The purpose of the Restriction Guidelines is to clarify Paragraph Three of the Terms of the Preservation Restriction Agreement, which deals with alterations to the Premises. Under this Paragraph, prior permission from the Massachusetts Historical Commission is required for any major alteration. Alterations of a minor nature, which are part of ordinary maintenance and repair, do not require the Commission's prior review.

In an effort to explain what constitutes a minor alteration and what constitutes a major change, which must be reviewed by the Commission, the following list has been developed. By no means is this list comprehensive: it is only a sampling of some of the more common alterations, which may be contemplated by building owners.

PAINT

Minor - Exterior or interior hand scraping and repainting of non-decorative and non-significant surfaces as part of periodic maintenance.

Major - Painting or fully stripping decorative surfaces or distinctive stylistic features including murals, stenciling, wallpaper, ornamental woodwork, stone, decorative or significant original plaster.

WINDOWS AND DOORS

Minor - Regular maintenance including caulking, painting and necessary reglazing. Repair or in-kind replacement of existing individual decayed window parts.

Major - Wholesale replacement of units; change in fenestration or materials; alteration of profile or setback of windows as well as any level of stained glass window conservation/restoration. The addition of storm windows is also considered a major change; however, with notification it is commonly acceptable.

EXTERIOR

Minor - Spot repair of existing cladding and roofing including in-kind replacement of clapboards, shingles, slates, etc.

Major - Large-scale repair or replacement of cladding or roofing. Change involving inappropriate removal or addition of materials or building elements (i.e., removal of chimneys or cornice detailing; installation of architectural detail which does not have a historical basis); altering or demolishing building additions; spot repointing of masonry. Structural stabilization of the Premises is also considered a major alteration.

LANDSCAPE/OUTBUILDINGS

Minor - Routine maintenance of outbuildings and landscape including lawn mowing, pruning, planting, painting, and repair.

Major - Moving or subdividing buildings or Premises; altering of Premises; altering or removing significant landscape features such as gardens, vistas, walks, plantings; ground disturbance affecting archaeological resources.
WALLS/PARTITIONS

Minor - Making fully reversible changes (i.e., sealing off doors in situ, leaving doors and door openings fully exposed) to the spatial arrangement of a non-significant portion of the building.

Major - Creating new openings in walls or permanently sealing off existing openings; adding permanent partitions which obscure significant original room arrangement; demolishing existing walls; removing or altering stylistic features; altering primary staircases.

HEATING/AIR CONDITIONING/ELECTRICAL/PLUMBING SYSTEMS

Minor - Repair of existing systems.

Major - Installing or upgrading systems which will result in major appearance changes (i.e., dropped ceilings, disfigured walls or floors, exposed wiring, ducts, and piping); the removal of substantial quantities of original plaster or other materials in the course of construction.

Changes classified as major alterations are not necessarily unacceptable. Under the Preservation Restriction, such changes must be reviewed by the Commission and their impact on the historic integrity of the Premises assessed.

It is the responsibility of the owner of the Premises (Grantor) to notify the Commission in writing when any major alterations are contemplated. Substantial alterations may necessitate review of plans and specifications.

The intent of the Preservation Restriction is to enable the Commission to review proposed alterations and assess their impact on the integrity of the Premises, not to preclude future change. Commission staff will attempt to work with Grantors to develop mutually satisfactory solutions, which are in the best interests of the Premises.
Legal Boundary Description

A certain parcel of land with the buildings thereon situated on the Northeasterly side of Court Street, at its intersection with the Northwesterly side of Brewster Street in said Plymouth, more particularly bounded and described as follows:

NORTHWESTERLY: by Lot 145 and a portion of Lot 145-1 as designated on the hereinafter referenced plan, 121.59 feet;
NORTHEASTERLY: by Lot 145-1, 59.61 feet;
SOUTHEASTERLY: by land of the Town of Plymouth, designated on said plan as "concrete sidewalk", 119.00 feet; and
SOUTHWESTERLY: by land of the Town of Plymouth, 59.17 feet.

Said parcel contains 7144 square feet, more or less, and is designated as Lot 145-2 on a Certain plan entitled: "Plan of Land in Plymouth, Mass. Prepared for memorial Methodist Episcopal Church Society, Scale 1"=10', August 15, 1978, Delano & Keith, Associates Inc., 5 Sever Street, Plymouth, Mass.", which plan is duly recorded in Plymouth County Registry of Deeds, in Plan Book 20, Page 370. (See Exhibit B of this Agreement)
EXHIBIT B
Plan of Land in Plymouth, Mass.
Prepared for Memorial Methodist Episcopal Church Society
By: Delano & Keith Associates, Inc.
Dated: August 15, 1978
Recorded in Plymouth Registry of Deeds
Plan Book 20, Page 370.
GROUND LEASE

This Lease is made and executed on March 5, 2013, by and between the Town of Plymouth, a Massachusetts municipal corporation, acting by and through its Board of Selectmen, having an address of Plymouth Town Hall, 11 Lincoln Street, Plymouth, Massachusetts 02360 (the "Town") and Greater Plymouth Performing Arts Center, Inc., a non-profit corporation organized and existing under the laws of the Commonwealth of Massachusetts, having an address of 110 Fairview Lane, Plymouth, Massachusetts 02360 (the "Lessee").

The parties agree as follows:

SECTION ONE

DEMISE, DESCRIPTION, AND USE OF PREMISES

Town for and in consideration of the covenants and agreements hereinafter contained on the part of the Lessee, to be paid, kept and performed, hereby leases to Lessee and Lessee hereby leases from Town, for the term as defined in Section Two below and for the purposes set forth in Section Six and for no other purpose, those certain premises with the appurtenances, situated in Plymouth, Plymouth County, Massachusetts located at 25 ½ Court Street (the "Premises") and more particularly described in the schedule attached hereto and made a part hereof this Lease as Exhibit A and all improvements on the Premises and appurtenances to it, and the equipment, fixtures and furnishings located on or in the Premises on the first day of this Lease unless expressly excluded herein.

As used in this Lease, the term "Premises" refers to the real property and personal property described in Exhibit A and to any improvements located on the Premises from time to time during the term of this lease agreement.

SECTION TWO

TERM

The initial term of this Lease shall be for ninety-nine (99) years, commencing on February 15, 2013, (the "Commencement Date") and unless earlier terminated in accordance with the provisions hereof, ending on February 14, 2112 (the "Termination Date"). Lessee agrees that if renovation of the improvements has not commenced as defined in Section 14 below by August 15, 2013, the Town may elect to terminate this Lease upon sixty (60) days written notice to Lessee, provided however if the renovation of the improvements are commenced within such 60-day period, such termination notice shall be null and void and this Lease shall continue in full force and effect. As used in this Lease, the expression "term of this Lease" refers to the initial term and to any renewal of this Lease as provided below.

EXHIBIT C

Lease between the Town of Plymouth and Greater Plymouth Performing Arts Center, Inc.

Dated: March 5, 2013
October 20, 2012 Town Warrant Article & Confirmation of Vote

ARTICLE 16A: Mr. Nassau moves that the town vote to authorize the Board of Selectmen to appropriate $365,000 to acquire by purchase for historic preservation purposes pursuant to G.L. c.44B and also for the purposes of leasing and, to comply with G.L. c.44B, §12, conveyance of a historical restriction, on such terms and conditions as the Board of Selectmen deem appropriate, and to accept a deed to the Town of Plymouth of a fee simple interest to a parcel of land and the buildings thereon, commonly known as Congregation Beth Jacob Community Center which is also formally known as Plymouth’s Methodist Episcopal Church located at 25 1/2 Court Street, Plymouth shown on Assessor’s Map 17 as Parcel 145-2, and further that the land shall be in the care, custody, management and control of the Board of Selectmen, and further to appropriate $285,000 for the installation of two ADA compliant bathrooms, fire emergency exit and fire sprinkler system on said premises; and that to meet this appropriation to transfer from the Community Preservation Historical Reserves the sum of $424,328 and from the Community Preservation Undesignated Fund Balance the sum of $225,672, for a total appropriation of $650,000, and further to authorize the Board of Selectmen to enter into a lease agreement for a term up to or in excess of 30 years with the Greater Plymouth Performing Arts Center, Inc. (“GPPAC”) for the use of the building located on the premises, for such consideration, which may be nominal, and under such terms and conditions as the Board of Selectmen deems appropriate, which conditions shall include, but not limited to, the following: (1) a provision authorizing the Board of Selectmen to appoint a member to the GPPAC board of directors, for two-year terms, for the length of the lease; (2) a provision providing that the Town and its committees may use the building, based on availability, for meeting space; (3) a provision providing that Plymouth students shall be permitted to attend select GPPAC-sponsored play productions free of charge based upon availability; (4) and a provision negotiated by GPPAC and Congregation Beth Jacob allowing said congregation to use the premises for Rosh Hashanah and Yom Kippur holidays; and further to authorize the Board of Selectmen to grant to a governmental entity, a non-profit or charitable organization, a historical preservation restriction on said property meeting the requirements of G.L. c. 184

The Moderator call a recess at 9:50 AM
The Moderator returned the meeting to order at 10:14 AM

Mr. Howe moved the previous question. The motion PASSED.
On the main motion, on a roll call, the motion PASSED with 85 in favor and 32 in opposition.

EXHIBIT E
Confirmation of vote to purchase, renovate, lease and place a preservation restriction on the property formerly known as the Congregation Beth Jacob Community Center.
Section C
MEMO

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

ARTICLE 9C: CPC- Purchase of Open Space- off Stephens Lane
To see if the Town will vote to authorize the Select Board to acquire by purchase, gift, eminent domain, or otherwise, for open space and recreational purposes pursuant to G.L. c. 44B on such terms and conditions as the Select Board deems appropriate and to accept the deed to the Town of Plymouth, of a fee simple interest or less in the land being a portion of lots 38C and 38A comprising 0.64 acres more or less, shown on Assessors’ Map 23, located off Stephens Lane in Plymouth, described more particularly in a deed recorded with the Plymouth County Registry of Deeds in Book 37999, Page 150, such land to be held under the care, custody, management and control of the Conservation Commission; and to appropriate $30,000.00 for the acquisition of said land and other costs associated therewith from the Community Preservation Fund estimated annual revenues, fund balance, or reserves, and/or borrow said total sum pursuant to G.L. c. 44B, §11 or G.L. c. 44, §7 or any other enabling authority; and further to authorize the Select Board to grant a conservation restriction in said property in accordance with G.L. c. 44B, §12 meeting the requirements of G.L. c. 184, §§31-33; and to authorize appropriate Town officials to file on behalf of the Town any and all applications deemed necessary for grants and reimbursements from the Commonwealth of Massachusetts deemed necessary under G.L. c. 132A, §11 and to authorize them to enter into all agreements and execute all instruments as may be necessary on behalf of the Town to effect said purchase; or take any other action relative thereto.

COMMUNITY PRESERVATION COMMITTEE

CPC RECOMMENDATION: Approval (unanimous)
The Community Preservation Committee voted unanimously Article 9C at its meeting held Thursday, August 22, 2019

SUMMARY & INTENT:
The Community Preservation Committee is recommending this Article to Fall Town Meeting 2022 to utilize CPA Open Space Fund for the acquisition of land off Stephens Lane. The Property is significant for its requiring drinking water, aquifer protection and estuarial protection.

NATURAL RESOURCE VALUES AND CHARACTERISTICS: The Property's landscape context is favorable. It directly abuts the Town's Stephens Field, and abuts Plymouth Harbor. The property includes a wetland system designated by the Commonwealth of Massachusetts Natural Heritage and Endangered Species Program as "Brackish Tidal Wetland", and further designated by the Massachusetts Department of Environmental Protection as a Salt Marsh. Salt Marshes are some of the most productive ecosystems on earth, and also help to buffer inland areas for storm surges that often occur in the winter months. The property possesses considerable wildlife habitat values. It is closely proximate to areas designated by NHESP as Bio Map 2 "Critical Natural Landscape", Tern Foraging.. Lands situated within said areas are high priorities for permanent preservation. The proposed acquisition meets several of the "Open Space Goals and Criteria" enumerated in Plymouth's Community Preservation Committee Application, is consistent with several of the goals and objectives articulated in Plymouth's 2017 Updated Open Space and Recreation Plan, and is also consistent with the vision expressed in the 2009 Stephens Field Park Master Plan.
APPLICATION

to the

PLYMOUTH

COMMUNITY PRESERVATION

COMMITTEE

AUGUST, 2021

PROJECT: STEPHENS FIELD ESTUARY PROTECTION PROJECT

LOCATION: SOUTH SIDE OF STEPHENS LANE

CURRENT ACREAGE: 0.7
PROPOSED ACREAGE FOR ACQUISITION:
approximately 0.5

CURRENT OWNER:

NATHAN E. BEKEMEIER TRUST
NATHAN E. BEKEMEIER AND ALICE P. BREWER,
TRUSTEES

Map 23, Lot 38C

CURRENT ASSESSED VALUE: $24,400
PROJECT SUMMARY:

Wildlands Trust ("WLT") hereby submits an application to the Plymouth Community Preservation Committee, pursuant to the possibility of the Town acquiring approximately one-half acre located off of the south side of Stephens Lane (hereafter, the "Property").

The Property's landscape context is favorable. It directly abuts the Town's Stephens Field Complex, and is closely proximate to Plymouth Harbor. The Town's acquisition of the Property would serve to expand Stephens Field, one of the Town's most visible, frequented, and cherished open space and recreation holdings.

The Property includes a wetland system designated by the Commonwealth of Massachusetts Natural Heritage and Endangered Species Program ("NHESP") as "Brackish Tidal Wetland", and further designated by the Massachusetts Department of Environmental Protection ("DEP") as a Salt Marsh. Salt Marshes are some of the most productive ecosystems on earth, and also help to buffer inland areas from storm surges that often occur in the winter months.

The Property possesses considerable wildlife habitat values. It is closely proximate to areas designated by ("NHESP") as Bio Map 2 "Critical Natural Landscape", "Tern Foraging". Lands situated within said areas are high priorities for permanent preservation.

The proposed acquisition meets several of the "Open Space Goals and Criteria" enumerated in Plymouth's Community Preservation Committee Application, is consistent with several of the goals and objectives articulated in Plymouth's 2017 Updated Open Space and Recreation Plan, and is also consistent with the vision expressed in the 2009 Stephens Field Park Master Plan.

OWNERSHIP/PROJECT HISTORY:

Alice Brewer's family began acquiring land along Stephens Lane in 1919, when her grandfather William Hodge acquired what is now known as 7 Stephens Lane. This initial purchase was followed by acquisitions in 1921 and 1943 that collectively extended the family's ownership all the way to Union Street. The family sold the lot now known as 1 Stephens Lane in 1955 to the Cappannaril Family, but has continued to own the balance of the land to the present time.

Because the Property directly abuts Stephens Field, it is a high priority for preservation. Community Preservation Committee Chair Bill Keohan has from time to time engaged the landowners/trustees in conversations about possibly selling the Property to the Town. Those discussions have recently intensified, and as a result WLT is preparing and submitting this application on behalf of the landowners.
ZONING/DEVELOPMENT POTENTIAL:

The Property is situated within the "WF" Zoning District. Per the Plymouth Board of Assessors Property Record Card included herewith as an attachment, the Property is classified as Unbuildable.

PLANS OF LAND:

The most recent deed for the Property does not reference any recorded plans of land that depicts it in its entirety. A 1955 plan depicts a portion of the Property.

As referenced elsewhere herein, a new survey plan will be needed to advance the project. The new plan will subdivide the Property as follows:

- The landowners will retain approximately 0.2 acres, and annex that acreage to their adjacent property at 7 Stephens Lane.
- The Town will purchase the remaining 0.5 acres, and annex that acreage to Stephens Field

ACQUISITION PLAN/TIMELINE:

The "Project Timeline" page found later in this application provides additional information about the acquisition plan's anticipated steps. In summary, primary steps include:

- Discussions with the CPC and the landowners to help define the project scope
- Preparing and submitting this application to the CPC
- The joint commissioning of a draft subdivision plan for the Property.
- The joint commissioning of an appraisal for the subject Property. Note that the CPC seeks to include the property owner in all phases of the approval process, including the vetting and hiring of an appraiser, and sharing the cost of the appraisal.
- Review of the appraisal by all parties
- Negotiations toward finalizing a purchase price
- Advancing the project to Plymouth Town Meeting for approval. The earliest that could occur for this project would at the October 2021 Plymouth Town Meeting.
- Closing: If Town Meeting approval is obtained, and subject to the satisfactory completion of all required due diligence, then the closing could occur as soon as possible thereafter, ideally within two to four weeks.

NATURAL RESOURCES SUMMARY:

The portion of the Premises available for purchase consists primarily of a coastal wetland with level topography.
NHESP designates the Property's wetland system as "Brackish Tidal Wetland", and it is further designated by the Massachusetts DEP as a Salt Marsh. Salt Marshes are some of the most productive ecosystems on earth, and also help to buffer inland areas from storm surges that often occur in the winter months.

The Property is closely proximate to multiple areas identified by NHESP as containing important wildlife habitats, including:

- "Bio Map 2 Critical Natural Landscape", "Tern Foraging".

BioMap2, published in 2010, was designed to guide strategic biodiversity conservation in Massachusetts over the next decade by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems.

Said Critical Natural Landscape areas complement and often overlap Bio Map 2 "Core Habitat" areas, including large natural Landscape Blocks and buffering uplands around coastal, wetland and aquatic Core Habitats to help ensure their long-term integrity.

**LANDSCAPE CONTEXT:**

The Property’s landscape context is favorable. It directly abuts the northern edge of the Town’s Stephens Field Complex, and is closely proximate to Plymouth Harbor. The landowners' property known as 7 Stephens Lane is directly adjacent to the east, Stephens Lane abuts to the north, and a lot known as 1 Stephens Lane is directly adjacent to the west. Across Stephens Lane to the north is a condominium complex built in the 1980's.

The Town’s acquisition of the Property would serve to expand Stephens Field, one of the Town’s most visible, frequented, and cherished open space and recreation holdings. Given the development density in the vicinity of Stephens Field, opportunities to expand its extent are rare, and the Town affords a high priority to such opportunities.

**ACCESS/IMPROVEMENTS:**

The Town will have access to the Property through the Stevens Field complex. The Property does not include any improvements.

**LONG-TERM MANAGEMENT PROGNOSIS:**

The Property should not pose any significant long-term operational burden on Town natural resources staff or budgets, as it would be managed as a "passive" open space component of the Stephens Field Complex. Such passive open space components generally require little in the way of active management.
Should the Town acquire the Property, it will have the opportunity to pursue wetlands and ecological restoration projects on the site and on portions of the adjacent Stephens Field. Such opportunities to restore coastal wetland systems are always of great interest, but are particularly compelling at the present time given ongoing climate instability and associated sea level rise projected over the next several decades. The Town has established numerous successful precedents for wetlands and ecological restoration projects, including the Eel River Headwaters Area and Town Brook Corridor projects, and the acquisition of the Property will offer great potential for adding to that distinguished inventory of restoration projects.

ALIGNMENT WITH COMMUNITY PRESERVATION ACT GOALS FOR OPEN SPACE

GOAL 2: Protect rare, unique and endangered plant and wildlife habitat. The Property is closely proximate to multiple areas identified by NHESP as containing important wildlife habitats, including Bio Map 2 Critical Natural Landscape, Tern Foraging. As described elsewhere herein, Bio Map-designated areas contain some of the Commonwealth’s best remaining biodiversity, and are high priorities for preservation.

GOAL 4: Ensure adequate size and connection of protected natural areas to maximize environmental and habitat benefits. Acquired by the Town in 1930, Stephens Field is situated within a densely developed part of Plymouth that offers few opportunities to physically expand the Field. In addition to expanding the Field’s extent, the proposed project would protect a significant portion of a critical coastal wetland system, and allow for future wetlands restoration opportunities.

GOAL 6: Increase the Town’s ability to protect environmentally sensitive, historic, and culturally significant properties. The proposed project would expand Stephens Field, thereby enhancing one of the Town’s oldest open space and recreation reserves, and one of its few waterfront parks.

OTHER SUPPORTING INFORMATION: The proposed acquisition would be consistent with several of the identified resource protection needs and goals, objectives, and strategies enumerated in the updated 2017 Town of Plymouth Open Space and Recreation Plan, including:

Section VIII, GOALS AND OBJECTIVES, MASTER PLAN GOALS

Pg. 204-205, Open Space: Preserve open space parcels within or near every village and residential neighborhood. The proposed project will preserve land within a densely developed area on the periphery of Downtown Plymouth.

Section VIII, OPEN SPACE AND RECREATION GOALS & STRATEGIES:
Pg. 206-207, Objective 2: Create town-wide Green Networks of linked open space and wildlife habitats. Protect sensitive ecosystems and wildlife corridors while providing recreational opportunities and alternative transportation on those lands which can accommodate human impacts.

STRATEGY: Acquire parcels and use conservation restrictions to develop town-wide Green Networks.

- Stephens Field is the southern terminus of the proposed Pilgrim Necklace, an envisioned network of connected parklands in the Town of Plymouth.

Pg. 208, Objective 5: Protect and restore ocean waters and coastal zones.

STRATEGY: Prevent harm to life and property from coastal flooding.

STRATEGY: Implement other strategies to maintain ocean health.

- The proposed project will protect land in a coastal zone that includes a coastal wetland/salt marsh system. Such coastal wetlands help to buffer inland areas from the impact of storm surges and associated flooding.

The proposed acquisition is also consistent with the vision articulated on pg. 1 in the Stephens Field Park Master Plan prepared for the Town in 2009 by the Conway School of Landscape Design, as follows:

- "The expansion of the park is a unique opportunity to re-envision the park and balance the social and recreational needs of the community, while restoring ecological function and enhancing the natural features and beauty of this waterfront park" (Note: this statement specifically refers to the recent acquisition of the old bus depot/DPW facility, but is also applicable to the acquisition that is the subject of this application).
**PROJECT BUDGET**

**Proposed Sales Price**

$TBD

**Funding Sources**

**Town of Plymouth CPC Funds**

$TBD

**Project Costs**

**Appraisal**

$TBD

**Due Diligence**

$5,000 (estimated: to potentially include EHA, closing and legal costs, title exam)

**Survey Plan**

$TBD

**Stewardship Endowment**

$10,000*

**Project Total**

$TBD

* As the presumptive Conservation Restriction ("CR") holder, Wildlands Trust will require a stewardship endowment contribution. Said contribution is a one-time fee that the Trust will invest in a stewardship endowment fund to ensure that it will always have the financial capacity to perform its obligations as the CR holder. It is standard practice for nonprofit conservation organizations to require stewardship endowment contributions when acquiring CR’s. The indicated contribution is an estimate, and will need to be verified by a property-specific stewardship endowment calculation.

For CPA projects, the Town provides this contribution, and not the landowner/seller.
PROJECT TIMELINE (conditional)

- Initial Discussions/Onsite Meeting with Landowners—August 2021
- Preparation and Submission of Application to CPC—August 2021
- Hiring of Surveyor/Field Work to Delineate Proposed Subdivision Commissioning of Draft Subdivision Plan—August/September 2021
- Appraisal commissioned—following agreement on the delineation of the proposed subdivision
- CPC Deliberations on Application/Vote—September 2021
- Execution of P+S—Fall 2021
- Due Diligence Initiated/Completed—Fall 2021
- Town Meeting Vote on Warrant Article Authorizing CPC Expenditure on Project—October 2021*
- Closing—Pending completion of due diligence, within two to four weeks after Town Meeting vote authorizing project
- Completion of WLT CR—Within six months after Closing

*The earliest the project could receive Town Meeting approval is October 2021, and is contingent upon multiple factors, including obtaining an agreement on a sales price between the parties.
ATTACHMENTS/EXHIBITS

- ASSESSORS FIELD CARD FOR SUBJECT PROPERTY
- MOST RECENT DEED FOR SUBJECT PROPERTY (the subject property is Parcel III)
- WETLANDS AND OCEAN BUFFERS AND SOILS MAP TAKEN FROM THE 2009 STEPHENS FIELD PARK MASTER PLAN (the subject property is shown as "Coastal Wetland")
- LANDSCAPE CONTEXT MAP DEPICTING SUBJECT PROPERTY AND ADJACENT PROTECTED OPEN SPACE
- CLOSE-UP MAP DEPICTING SUBJECT PROPERTY
Unofficial Property Record Card - Plymouth, MA

General Property Data

Parcel ID 023-000-J38C-000
Prior Parcel ID 9100 -001 -023*0020*
Property Owner NATHAN E BEKEIMEIER TRUST
BEKEIMEIER NATHAN E
Mailing Address 77 FOREST ST
City NEW BEDFORD
Mailing State MA
ParcelZoning WF

Account Number 46247
Property Location STEPHENS LN
Property Use UNBUILDL
Most Recent Sale Date 12/7/2009
Legal Reference 37999-150
Grantor BREWER, ALICE PAINE
Sale Price 0
Land Area 0.779 acres

Current Property Assessment

Card Value 1 Building Value 0 Xtra Features Value 0 Land Value 24,400 Total Value 24,100

Building Description

Building Style N/A
# of Living Units N/A
Year Built N/A
Building Grade N/A
Building Condition N/A
Finished Area (SF) N/A
Number Rooms 0
# of 3/4 Baths 0

Foundation Type N/A
Frame Type N/A
Roof Structure N/A
Roof Cover N/A
Siding N/A
Interior Walls N/A
# of Bedrooms 0
# of 1/2 Baths 0

Flooring Type N/A
Basement Floor N/A
Heating Type N/A
Heating Fuel N/A
Air Conditioning 0%
# of Bsmt Garages 0
# of Full Baths 0
# of Other Fixtures 0

Legal Description

Narrative Description of Property

This property contains 0.779 acres of land mainly classified as UNBUILDL with a(n) N/A style building, built about N/A, having N/A exterior and N/A roof cover, with N/A unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

No Sketch Available
No Picture Available

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.
Record and return to:
.T. Craig, Esq.
Mirick O'Connell
100 Front Street
Worcester, MA 01608

DEED

We, ALICE PAINE BREWER AND NATHAN E. BEKEMEIER, for good and valuable consideration paid of LESS THAN ONE HUNDRED DOLLARS ($100.00), grant to NATHAN E. BEKEMEIER AND ALICE P. BREWER, TRUSTEES OF THE NATHAN E. BEKEMEIER TRUST, under an Agreement of Trust dated November 23, 2009, said Trust being described in a Trustees' Certificate recorded with the Plymouth County Registry of Deeds in Book _______, Page ________, with a mailing address of 354 Hulston Avenue, Fairhaven, Massachusetts 02719, with quitclaim covenants, three parcels of land in Plymouth, Plymouth County, Massachusetts, bounded and described as follows:

PARCEL I

A certain parcel of land with the summer cottage or bungalow thereon, situated on the easterly side of Fremont Street or the continuation thereof, known as Stephens Lane in said Plymouth, bounded and described as follows:

Beginning at a point on the easterly line of said Fremont Street at the ending line between the granted premises and land now or formerly of Mary S. Baker et al; thence the line runs easterly by said land of Baker et al and land formerly of said Baker et al, now of the Town of Plymouth, used as a playground, to the post and corner of said Town land, this lane being marked by a row of posts; thence turning at or nearby a right angle and running in a northerly direction by said playground land across the shore and flats to the channel, or as far as the land now or formerly of Alice P. Hedge extends; thence turning and running westerly by said channel or by the extreme northerly boundary of the land now or formerly of Alice P. Hedge until it reaches a point where said line would intersect the easterly line of said Fremont Street extended northerly; thence turning and running southerly along said extended line of Fremont Street and along said easterly line of said Fremont Street till it reaches the point of beginning.

Parcel I is subject to the restrictions contained in a deed from George Stephens, Jr. to Alice Paine Hedge recorded with said Deeds at Book 1318, Page 600, insofar as said restrictions are now in force and effect and without reimposing the same.
PARCEL II

Land situated in said Plymouth on the easterly side of Fremont Street, adjoining Parcel I hereinabove described at the foot of said Street and bounded and described as follows:

Northwesterly by said Fremont Street, twenty-five (25) feet; Northeasterly by said Parcel I about one hundred ninety (190) feet; Southeasterly by Parcel III hereinafter described by a line parallel to and ten (10) feet distant Northwesterly from land of Town of Plymouth, known as Stephens Field, twenty-five (25) feet; and Southwesterly by said Parcel III about one hundred and ninety (190) feet to Fremont Street and the point of beginning.

Parcel II is subject to the restriction contained in a Deed from Edward B. Stephens, et al to Alice Paine Hedge recorded with said Deeds in Book 1394, page 598, insofar as said restriction is now in force and effect and without reimposing the same.

PARCEL III

The land on the southeasterly side of Stephens Lane, so-called, bounded and described as follows:

Beginning at a point in the southerly line of Stephens Lane, formerly called Fremont Street, at the northerly corner of land of the Town of Plymouth, and thence running by said land of the Town of Plymouth South 39° 45' East, two hundred (200) feet; thence turning and running by said land of the Town of Plymouth North 50° 45' East, three hundred ten (310) feet, more or less, to Parcel I hereinabove described; thence turning and running in a northwesterly direction by said Parcel I, ten (10) feet; thence turning and running South 50° 45' West by Parcel II hereinabove described, twenty-five (25) feet; thence turning and running in a northwesterly direction by said Parcel II, one hundred ninety (190) feet to Stephens Lane; thence turning and running South 50° 45' West, two hundred eighty-five (285) feet; more or less, by said Stephens Lane to the point of beginning at said land of the Town of Plymouth, excepting therefrom so much thereof as was conveyed by deed of Alice P. Hedge to David A. Cappannari et al dated September 12, 1955 and recorded with said Deeds in Book 2448, Page 264, but together with the benefit of the restriction imposed in said last mentioned deed, but without reimposing the same.

Being the same premises conveyed by deed of Alice Hedge Brewer to Alice Paine Brewer and Nathan E. Bekemeier dated December 19, 1989 and recorded at the Plymouth County Registry of Deeds in Book 9534, Page 339.
Executed as a sealed instrument this 23rd day of November, 2009.

Alice Paine Brewer

Nathan E. Bekemeier
COMMONWEALTH OF MASSACHUSETTS

Suffolk ss.

On NOVEMBER 27, 2009, Alice Paine Brewer (the "Principal") personally appeared before me and acknowledged to me that the Principal signed the preceding or attached document voluntarily for its stated purpose. The Principal proved to me through satisfactory evidence of identification that the Principal is the person whose name is signed on the preceding or attached document. The satisfactory evidence of identification provided to me was:

☐ A current document issued by a federal or state government agency bearing the photographic image of the Principal's face and signature; or

☐ On the oath or affirmation of a credible witness unaffected by the document or transaction who is personally known to the notary public and who personally knows the Principal; or

☒ Identification of the Principal based on the notary public's personal knowledge of the identity of the Principal; or

☐ The following evidence of identification: ____________________________

[Signature]
Notary Public
Printed Name: TRACY A. CRAIG
My Commission Expires: 9/3/2015

[Seal]
COMMONWEALTH OF MASSACHUSETTS

On November 23, 2009, Nathan E. Bekemeier (the “Principal”) personally appeared before me and acknowledged to me that the Principal signed the preceding or attached document voluntarily for its stated purpose. The Principal proved to me through satisfactory evidence of identification that the Principal is the person whose name is signed on the preceding or attached document. The satisfactory evidence of identification provided to me was:

☐ A current document issued by a federal or state government agency bearing the photographic image of the Principal’s face and signature; or

☐ On the oath or affirmation of a credible witness unaffected by the document or transaction who is personally known to the notary public and who personally knows the Principal; or

☒ Identification of the Principal based on the notary public’s personal knowledge of the identity of the Principal; or

☐ The following evidence of identification: ____________________________

_____________________________________
Notary Public

Printed Name: TRACY A. CRAIG

My Commission Expires: 9/3/2015

[Secl]
STEPHENS (1895 Town Layout) LANE

LOT 64-1
28,016± S.F.
"Un-Buildable"

LOT 64-2
22,886± S.F.

PLYMOUTH HARBOR

ZONING CLASSIFICATION: WF
MINIMUM LOT SIZE.............20,000 S.F.
LOT WIDTH.......................................70'
FRONT YARD SETBACK...................10'
SIDE YARD SETBACK......................10'
REAR YARD SETBACK.....................10'

PLAN OF LAND IN
PLYMOUTH, MASSACHUSETTS
PREPARED FOR
THE NATHAN E. BEKEMEIER TRUST
#7 STEPHENS LANE
SCALE: 1"=20'
DECEMBER 30, 2021

FLAHERTY & STEFANI, INC.
67 SAMOSET STREET
PLYMOUTH, MA 02360
TEL. (508)-747-2425
Section D
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.
Plymouth Community Preservation Committee
FISCAL YEAR 2022–2023 APPLICATION

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: 0.32 (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 Plymouth LLC

Contact Name: Jason Heywood

Address: 14 Union Street, Plymouth, MA 02360

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

Date submitted: 6/14/2022

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 initia each page in the space provided.
Plymouth Community Preservation Committee
FISCAL YEAR 2022-2023 APPLICATION

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 Plymouth 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 updates
   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

6/14/2022
Date
### Project Summary

<table>
<thead>
<tr>
<th>Division</th>
<th>Total</th>
<th>/SF</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>01 General Requirements</strong></td>
<td>40,985</td>
<td>$10.79</td>
<td>11.0</td>
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<tr>
<td><strong>02 Existing Conditions</strong></td>
<td>6,034</td>
<td>$1.59</td>
<td>1.6</td>
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<tr>
<td><strong>04 Masonry</strong></td>
<td>85,980</td>
<td>$22.63</td>
<td>23.0</td>
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<tr>
<td><strong>06 Wood, Plastics, and Composites</strong></td>
<td>35,327</td>
<td>$9.30</td>
<td>9.5</td>
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<tr>
<td><strong>07 Thermal and Moisture Protection</strong></td>
<td>154,272</td>
<td>$40.60</td>
<td>41.3</td>
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<tr>
<td><strong>08 Openings</strong></td>
<td>26,585</td>
<td>$7.00</td>
<td>7.1</td>
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<tr>
<td><strong>09 Finishes</strong></td>
<td>13,993</td>
<td>$3.68</td>
<td>3.8</td>
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<tr>
<td><strong>13 Special Construction</strong></td>
<td>9,949</td>
<td>$2.62</td>
<td>2.7</td>
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<td><strong>Sub Total</strong></td>
<td>373,125</td>
<td>98.19</td>
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<tr>
<td><strong>Profit</strong></td>
<td>37,312</td>
<td>10 %</td>
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<tr>
<td><strong>Bond</strong></td>
<td>3,731</td>
<td>1 %</td>
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<tr>
<td><strong>Contingency</strong></td>
<td>74,625</td>
<td>20 %</td>
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<td><strong>Grand Total</strong></td>
<td>488,793</td>
<td>128.63</td>
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### General Requirements

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<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
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<td>Permit fee $10/m</td>
<td>400</td>
<td>JOB</td>
<td>10.00</td>
<td>4,000</td>
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<tr>
<td>General superintendent 1/2 time</td>
<td>6</td>
<td>WEEK</td>
<td>1934.05</td>
<td>11,604</td>
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<td><strong>Total</strong></td>
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<td><strong>15,604</strong></td>
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### Project Management and Coordination

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<th>Description</th>
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<th>Unit Cost</th>
<th>Extended Cost</th>
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</thead>
<tbody>
<tr>
<td>Insurance, 1%</td>
<td>4000</td>
<td>JOB</td>
<td>1.00</td>
<td>4,000</td>
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<td><strong>Total</strong></td>
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<td><strong>4,000</strong></td>
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### Construction Progress Documentation

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<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
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<th>Extended Cost</th>
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<tbody>
<tr>
<td>Scheduling, cpm, update</td>
<td>5</td>
<td>EA</td>
<td>275.00</td>
<td>1,375</td>
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<td>Scheduling, progress cpm</td>
<td>1</td>
<td>EA</td>
<td>1100.00</td>
<td>1,100</td>
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<td><strong>Total</strong></td>
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<td><strong>2,475</strong></td>
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### Temporary Facilities and Controls

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<th>Description</th>
<th>Quantity</th>
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<th>Unit Cost</th>
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<tbody>
<tr>
<td>Rubbish removal, 40 cy capacity</td>
<td>6</td>
<td>LOAD</td>
<td>660.00</td>
<td>3,960</td>
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<td>Telephone, general clerk use</td>
<td>3</td>
<td>MONTH</td>
<td>275.00</td>
<td>825</td>
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<td><strong>Total</strong></td>
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<td><strong>4,785</strong></td>
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### Field Offices and Sheds

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<th>Description</th>
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<tr>
<td>Office trailer, furnished, 36’x8’</td>
<td>3</td>
<td>MONTH</td>
<td>264.00</td>
<td>792</td>
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<td>Storage trailer, 28’x10’</td>
<td>3</td>
<td>Mo.</td>
<td>110.00</td>
<td>330</td>
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<td><strong>Total</strong></td>
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<td><strong>1,122</strong></td>
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<td>Description</td>
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<td>Unit Cost</td>
<td>Extended Cost</td>
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<tr>
<td>-----------------------------------------------</td>
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<tr>
<td><strong>01 General Requirements</strong></td>
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<tr>
<td><strong>01 73 00 Execution</strong></td>
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<tr>
<td>Demo siding, metal wall panels</td>
<td>1100</td>
<td>SF</td>
<td>11.82</td>
<td>12,999</td>
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<td><strong>01 73 00 Execution</strong></td>
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<td>12,999</td>
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<td><strong>02 Existing Conditions</strong></td>
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<tr>
<td><strong>02 41 00 Demolition</strong></td>
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<tr>
<td>Building wreckers</td>
<td>2</td>
<td>DAY</td>
<td>879.93</td>
<td>1,760</td>
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<tr>
<td>Saw Cut Masonry Wall</td>
<td>40</td>
<td>LF</td>
<td>19.99</td>
<td>799</td>
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<td><strong>02 41 00 Demolition</strong></td>
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<td></td>
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<td>2,559</td>
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<td><strong>02 41 19.13 Selective Building Demolition</strong></td>
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<tr>
<td>Disposal, load &amp; haul, construction debris</td>
<td>100</td>
<td>CY</td>
<td>23.77</td>
<td>2,377</td>
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<td>Demo masonry, walls, solid brick</td>
<td>100</td>
<td>CF</td>
<td>10.98</td>
<td>1,098</td>
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<td><strong>02 41 19.13 Selective Building Demolition</strong></td>
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<td>3,475</td>
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<tr>
<td><strong>04 Masonry</strong></td>
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<tr>
<td><strong>04 01 00 Maintenance of Masonry</strong></td>
<td></td>
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<tr>
<td>Grinding, mortar joints 1/2&quot; deep @5.5 lf/sf</td>
<td>5940</td>
<td>LF</td>
<td>3.40</td>
<td>20,224</td>
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<td>Pointing, brick</td>
<td>1080</td>
<td>SF</td>
<td>32.66</td>
<td>35,274</td>
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<td><strong>04 01 00 Maintenance of Masonry</strong></td>
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<td></td>
<td></td>
<td>55,499</td>
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<tr>
<td><strong>04 01 20.52 Unit Masonry Cleaning</strong></td>
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<tr>
<td>Cleaning masonry, h.p. water &amp; chem</td>
<td>1080</td>
<td>SF</td>
<td>4.43</td>
<td>4,783</td>
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<tr>
<td><strong>04 01 20.52 Unit Masonry Cleaning</strong></td>
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<td></td>
<td></td>
<td>4,783</td>
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<tr>
<td><strong>04 05 19.13 Continuous Joint Reinforcing</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Forklift, w/ operator for Masonry Units &amp; Motar</td>
<td>1080</td>
<td>SF</td>
<td>1.20</td>
<td>1,300</td>
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<tr>
<td>Weep Vent Inserts</td>
<td>50</td>
<td>EA</td>
<td>1.79</td>
<td>90</td>
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<td>Staging, Exterior</td>
<td>1080</td>
<td>SF</td>
<td>3.32</td>
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<tr>
<td><strong>04 05 19.13 Continuous Joint Reinforcing</strong></td>
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<td>4,978</td>
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## 04 Masonry

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<th>Unit Cost</th>
<th>Extended Cost</th>
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</thead>
<tbody>
<tr>
<td>Labor only, bricklayer/stone mason</td>
<td>10</td>
<td>DAY</td>
<td>1295.90</td>
<td>12,959</td>
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<td><strong>04 20 00 Unit Masonry</strong></td>
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<tr>
<td>Brick wall, facebrick 4&quot; thk 6.75sf 10% replacement</td>
<td>108</td>
<td>SF</td>
<td>30.48</td>
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<tr>
<td><strong>04 21 13 Brick Masonry</strong></td>
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<tr>
<td>Granite, Repair Spalled with New Granite Dutchman</td>
<td>57</td>
<td>LF</td>
<td>78.43</td>
<td>4,470</td>
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<tr>
<td><strong>04 40 00 Stone Assemblies</strong></td>
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<tr>
<td>Wood Cladding Restoration</td>
<td>1</td>
<td>TOTAL</td>
<td>11000.00</td>
<td>11,000</td>
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<tr>
<td><strong>06 Wood, Plastics, and Composites</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Sheathing, roof, 3/4&quot; cdx plywood</td>
<td>3490</td>
<td>SF</td>
<td>2.94</td>
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<tr>
<td><strong>06 20 00 Finish Carpentry</strong></td>
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<thead>
<tr>
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<tr>
<td>09 90 00 Painting and Coating</td>
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<td>Paint, ext door&amp;frames</td>
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### 13 Special Construction

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# Safe Harbors Interior Renovation

**Building Description**: Brick Bldg w/wood framing, Exterior Facard 3,500 sf

**Drawings**: 08/06/2022

---

## Rough Draft

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<td>04 Masonry</td>
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<td>21 Fire Suppression</td>
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**Total**

- **Sub Total**: 186,571
- **Profit**: 10% (18,657)
- **Bond**: 1% (1,866)
- **Contingency**: 20% (37,314)

**Grand Total**: 244,408

- **Rate per SF**: 52.04
- **Cost per SF**: 68.18
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Page 2 of 5
## 06 Wood, Plastics, and Composites

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## 06 40 00 Architectural Woodwork

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</table>

## 09 Finishes

### 09 20 00 Plaster and Gypsum Board

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Demising Partition</td>
<td>1984</td>
<td>SF</td>
<td>7.40</td>
<td>14,682</td>
</tr>
<tr>
<td><strong>09 20 00</strong> Plaster and Gypsum Board</td>
<td></td>
<td></td>
<td></td>
<td><strong>14,682</strong></td>
</tr>
</tbody>
</table>

### 09 21 16 Gypsum Board Assemblies

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drywall, gypsum, 5/8&quot; on ceiling, Patching</td>
<td>1000</td>
<td>SF</td>
<td>2.30</td>
<td>2,297</td>
</tr>
<tr>
<td><strong>09 21 16</strong> Gypsum Board Assemblies</td>
<td></td>
<td></td>
<td></td>
<td><strong>2,297</strong></td>
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### 09 22 26 Suspension Systems

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspension System, Repairs</td>
<td>1000</td>
<td>SF</td>
<td>3.47</td>
<td>3,473</td>
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<tr>
<td><strong>09 22 26</strong> Suspension Systems</td>
<td></td>
<td></td>
<td></td>
<td><strong>3,473</strong></td>
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### 09 30 13 Ceramic Tiling

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic tile, floor, 6&quot;x6&quot;, thinset</td>
<td>112</td>
<td>SF</td>
<td>15.81</td>
<td>1,771</td>
</tr>
<tr>
<td>Ceramic tile, walls, 3&quot;sq., thinset</td>
<td>400</td>
<td>SF</td>
<td>15.22</td>
<td>6,087</td>
</tr>
<tr>
<td><strong>09 30 13</strong> Ceramic Tiling</td>
<td></td>
<td></td>
<td></td>
<td><strong>7,858</strong></td>
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### 09 68 00 Carpeting

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor only, tile layer floor</td>
<td>2</td>
<td>DAY</td>
<td>1063.29</td>
<td>2,127</td>
</tr>
<tr>
<td>Carpet, acrylic, 35 oz., cemented</td>
<td>350</td>
<td>SY</td>
<td>54.22</td>
<td>18,977</td>
</tr>
<tr>
<td><strong>09 68 00</strong> Carpeting</td>
<td></td>
<td></td>
<td></td>
<td><strong>21,104</strong></td>
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### 09 90 00 Painting and Coating
<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paint, Interior door&amp;frame 3x7,primer+2coats</td>
<td>11</td>
<td>EA</td>
<td>190.32</td>
<td>2,094</td>
</tr>
<tr>
<td>Paint, wood trim, 6&quot;, primer</td>
<td>500</td>
<td>LF</td>
<td>1.27</td>
<td>635</td>
</tr>
<tr>
<td>Labor only, painters ordinary</td>
<td>5</td>
<td>DAY</td>
<td>1075.40</td>
<td>5,377</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>8,106</strong></td>
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</table>

**10 Specialties**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC Toilet Partition</td>
<td>2</td>
<td>EA</td>
<td>1500.00</td>
<td>3,000</td>
</tr>
<tr>
<td>Partition, toilet</td>
<td>3</td>
<td>EA</td>
<td>840.42</td>
<td>2,521</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>5,521</strong></td>
</tr>
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</table>

**21 Fire Suppression**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprinkler System Adjustments</td>
<td>3585</td>
<td>SF</td>
<td>1.38</td>
<td>4,929</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>4,929</strong></td>
</tr>
</tbody>
</table>

**22 Plumbing**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior utility trenching - sanitary</td>
<td>25</td>
<td>lf</td>
<td>49.18</td>
<td>1,229</td>
</tr>
<tr>
<td>Sink, rough in, supply, waste &amp; vent</td>
<td>4</td>
<td>EA</td>
<td>1938.29</td>
<td>7,753</td>
</tr>
<tr>
<td>Lavatory, vanity top, 26&quot;x18&quot; oval</td>
<td>2</td>
<td>EA</td>
<td>544.65</td>
<td>1,089</td>
</tr>
<tr>
<td>Urinal, rough-in, supply/waste/vent</td>
<td>1</td>
<td>EA</td>
<td>1410.67</td>
<td>1,411</td>
</tr>
<tr>
<td>Lavatory, rough-in,supply/waste/vt.</td>
<td>5</td>
<td>EA</td>
<td>2158.67</td>
<td>10,793</td>
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<tr>
<td>Installation of Toilet Accessories</td>
<td>10</td>
<td>EA</td>
<td>78.00</td>
<td>780</td>
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<tr>
<td>Urinal, wall hung, vitreous china</td>
<td>1</td>
<td>EA</td>
<td>1396.95</td>
<td>1,397</td>
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<tr>
<td>Lavatory, wall-hung, porcelain/ci</td>
<td>5</td>
<td>EA</td>
<td>1902.89</td>
<td>9,514</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>33,967</strong></td>
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**23 Heating, Ventilating, and Air Conditioning (HVAC)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 23 Heating, Ventilating, and Air Conditioning (HVAC)

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air handling &amp; distribution</td>
<td></td>
<td></td>
<td>3585 SF</td>
<td>1.38</td>
</tr>
</tbody>
</table>

---

## 26 Electrical

### 26 00 00 Electrical

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical, allowance</td>
<td>3585 SF</td>
<td></td>
<td>1.10</td>
<td>3,944</td>
</tr>
</tbody>
</table>

| 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 |

---

Safe Harbors Interior Renovation 22 0610

Page 5 of 5
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

<table>
<thead>
<tr>
<th>Quan.</th>
<th>Date</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18 Aug 2022</td>
<td>EX1-EX4</td>
<td>Existing Condition Drawings</td>
</tr>
<tr>
<td>1</td>
<td>6 Sept 2022</td>
<td>7 pages</td>
<td>Existing Condition Photos</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Invoice to Date</td>
</tr>
</tbody>
</table>

These are transmitted as checked below:

For Approval
X For your use
As requested
For review & comment
Reviewed no approval req’d

Approved as submitted
Approved as noted
Correct & Resubmit
Not Approved

Resubmit ___ copies for approval
Submit ___ copies for distribution
Return ___ corrected prints

FOR BIDS DUE –

REMARKS:

Signed: 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
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 Pointing 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
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.
Union Street facade

Submitted by Safe Harbor Marinas to Planning Board 5/2022

Alternate proposal by Bradford Area Commission
square feet, coming in at 40,285 sqft total.

street facade themselves, and gain a couple thousand extra.

Or if they preferred, they could keep and restore the Water.

´s at their new building.

In those 3/23/2022 plans, the Marina was looking for 38,300.

main issue here.

been made since, but nothing that substantially changes the

Plans provided by Marina on 3/23/2022 (minor changes have
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 weight and easy to handle, no sharp edges.
- Use with nearly all brands and sizes thin brick.
- High R-Value without thermal drift.
- Meets ASTM C10988, Type TES, Grade Exterior standards.
- Meets ASTM E04-08 surface burn test standards.
- ASTM C482 bond strength results of 1,649 psf.
- United States Patents: 5,616,576 & 7,121,051

SYSTEM PRODUCTS

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

© 2019 Old Mill Brick, LLC. oldmillbrick.com
## Products

### Old Mill Patented Panels
- Available in 2'x4' and 4'x4' sheets, 1" - 4" thick
- Recommended component of LEED projects
- Exceeds 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 (Stevens of 25)

### Old Mill Adhesive
- Easy to mix. 50 lb. bag
- Smooth, easy to trowel
- Superior pull out strength
- Meets ANSI 118.11 standards

### 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 C492 shear test results of 1,649 lbs. sq. ft.
- United States Patents: 6,316,578 & 7,121,051

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*Brick colors in this brochure represent general color range and textures. 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.

www.oldmillbrick.com
04 Mill Brick, Inc.
The most advanced thin veneer masonry support system ever designed.
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.

Thin Tech Features and Benefits:

- **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

- **20-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 tacks.

- **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 weights from 2-1/4" to 11-5/8". Panels for unit weights up to 24" are available on 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.

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 airfoil 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.

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.
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.

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.
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).

Plymouth doesn’t want this giant generic warehouse looming over its waterfront.

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
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 Shirertown 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.
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.
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.
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.
Section E

CPA Account Balance
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| Undesignated Fund Balance                  | 1,695,067.84             |                                      | 1,695,067.84                                                       |
| Premium Fund for Projects                  | 55,732.00                |                                      | 55,732.00                                                          |
| Borrowing Authorization                     |                          |                                      |                                                                     |
| Grand Total                                | 5,165,531.84             | 1,148,754.00                         | 6,314,285.84                                                       |