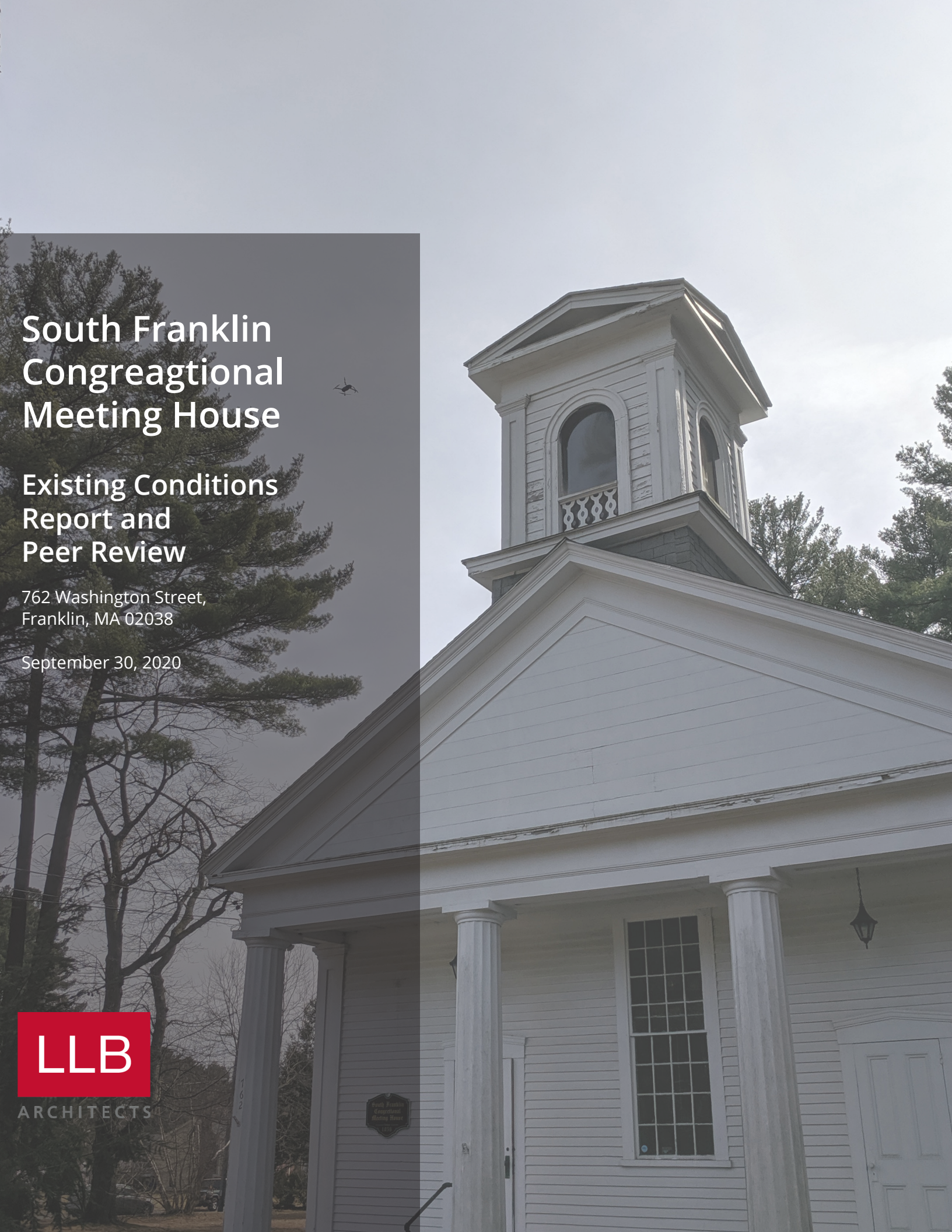

South Franklin Congreagtional Meeting House

Existing Conditions Report and Peer Review

762 Washington Street,
Franklin, MA 02038

September 30, 2020

LLB
ARCHITECTS


162
South Franklin
Congretional
Meeting House
1856

Project Team

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M/E/P/FP Engineer
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Andover, MA 01810
978.296.6200

Environmental Engineer
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Dedham, MA 02026
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PM&C
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Hingham, MA 02043
781.740.8007

Table of Contents

I . Executive Summary

Introduction

In the early spring of 2020, LLB Architects and their team of architectural, code, structural, mechanical, electrical, plumbing consultants along with environmental engineers conducted an Existing Conditions Assessment and Peer Review of the subject property, South Franklin Congregational Meeting House, located at 762 Washington Street.

This study was developed to inform interested parties of the viability of using this building as a future home for the Seven Hills Charter Public School. This report is accompanied with numerical and photographic information to support the findings, as well as recommendations where necessary.

The following report is presented in five parts, beginning with a high level summary and progressing into further detail. The first part of this report introduces the project, summarizes the findings, and describes the methodology used and assumptions made to aid future analysis and decision making. The second part of this report assesses the existing building from a building code, zoning, and accessibility standpoint. In the third part, this team has provided detailed descriptions of each major component of the existing building, including the roof, siding and windows. Here, this report provides a more focused understanding of the current conditions of the building. Included in each of these component assessments is our team's professional opinion as to the predicted life expectancy based on the current conditions observed. Following these, in a fourth part, are the supporting reports from the team's consulting engineers' assessments of the building and its associated parcels. In addition to the structural, mechanical, electrical and plumbing reports, a copy of the hazardous materials report created by FLI Engineering is included. Finally, copies of the building's 2015 Civitecs Comprehensive Investigationand Analysis documentation has been provided for reference as an exhibit at the end of this document.

Summary of Findings

Architectural Assessment

LLB Architects conducted a visual assessment of the existing building and its systems. The overall architectural assessment is described in detail in the Existing Conditions Survey (part III) of this report.

The roofing system is reaching the end of its life expectancy. Several areas of the roofing were observed to be covered with fallen clustered pine needles, contributing to shingle damage and potential for leaks.

Recommendation: Replace the roof during the initial building renovations.

Overall, the windows appear to be oringial and generally appear to be in good condition based on the age. Sealants and glazing putty in certain units, however, appear to be falling or have failed and caused visible water damage. A few window lights are cracked and broken and should be repaired immedaitly so that they do not fall out causing damage to obejcts or persons below.

Recommendation: The glazing putty and sealants should be replaced during the initial building renovations to prevent further damage, and complete repair and/or replacement should be done within 15-20 years.

The exterior enclosure of the building is painted wood clapboard and trim and granite. Repainting work on the exterior was completed during a previous renovation. Overall there are areas that are showing signs of deterioration and should be addressed to prevent further damage.

Recommendation: Further evaluation for a repainting project should be considered and roughly 5% of the exterior facade will require repair during the initial building renovations.

Structural Assessment

Structural conditions at the 762 Washington Street building were observed by Roome & Guarracino at the site (where accessible and exposed) on March 11, 2020. For the full report, refer to the Supporting Reports (part IV) of this report.

Granite block foundations appear to be performing adequately. There are no signs of significant total or differential settlements.

There are four main pillars, one of which showing signs of settlement due to moisture.

Generally speaking, floor and roof construction appear to be performing satisfactorily. There are no apparent signs of structural distress that would indicate significantly overstressed, deteriorated, or failed structural members.

The crawl space contians timber posts that appear to be subject to powder post beetle damage as well as splitting and crushing at their base.

The original, 1856 building was designed and constructed before the development of the Massachusetts State Building Code.

Recommendation: Known damaged wood girders and posts should be addressed regardless of a future, major renovation/reuse. Additional loading calculations will need to performed to determine any required structural improvements needed to satisfy the renovated scope and use.

Mechanical Assessment

HVAC Heating System:

The building heating system consists of existing electric cabinet unit heaters installed throughout the spaces which are approaching their life expectancy.

Recommendation: Provide an air handling unit (AHU) with gas heating and electric cooling located in the mechanical mezzanine. This AHU will be ducted to both the main open space as well as the entry foyer and will have economizing capability. The outside air ductwork to be routed to existing louver within the bell tower to maintain the historical appearance of the building.

Use of localized electric heating within the foyer and restroom(s) will be installed to offset air infiltration and/or localized heating.

These systems will replace the existing electric cabinet unit heaters installed throughout the spaces.

Toilet exhaust fan to be provided for the 1st floor restroom(s) and be ducted up to an existing louver within the bell tower.

The temperature control system to provide demand ventilation based on carbon monoxide levels to minimize energy use as well as networked into the Town's building management system for remote control.

Air handling unit (1 @ 4,000 CFM, 1,000 CFM Outdoor Air, 12.5 tons with associated outdoor condensing unit, economizer and gas fired duct furnace). This size assumes the current assembly occupancy and seating density will be maintained.

Ductwork supply, return, and exhaust distribution, diffusers and grilles for all areas.

Miscellaneous electric cabinet unit heaters and baseboard for the foyer and restroom(s).

Electrical Assessment

Normal Distribution System:

The building is serviced by a 120/240V single phase, 3 Wire service distributed through an Arrow Hart/ Murray 200 amp panelboard with 40 pole spaces. It is anticipated that this service size is insufficient for the recommended requirements of the building.

Recommendation: Install a new 208 V, 3 phase, 4-Wire, 200 amp service is recommended. Existing branch circuity to be renovated as needed to suit the updated electrical plans.

Site lighting consists of exterior egress lighting on daylight sensors and time clock controlled. These fixtures do not appear to meet the required 0.3 to 0.4 ft/candles standard and are recommended to be replaced. The interior lighting fixtures do not meet current codes and are recommended to be replaced along with an updating of switching and occupancy lighting control. There are emergency battery back-up lighting units serving the large open space and entry foyer which appear to be beyond their useful life expectancy – we recommend that these units be replaced with new. The existing exit signage does not meet current code and we recommend these units be replaced with new.

Recommendation: Install new emergency battery back-up lighting units along with exit signage and exterior lighting. New interior lighting can be retrofitted with higher output energy efficient bulbs or replaced with period specific replicas that are LED.

The fire alarm system serving the building consists of localized smoke detectors connected to a security panel with an automatic dialer to a security company. Current code does not require a fire alarm system in A-3 Assemblies occupancies with an occupant load less than 300 persons. It is assumed the existing security panel can accommodate the proposed upgrades.

Recommendation: Good design practice is to retain the existing smoke detection and add CO monitoring (based upon the proposed upgrade to gas heating) and the addition of horn/strobe notification appliances throughout.

This building is not equipped with a lightning protection system.

Plumbing Assessment

The current building has a ½" cold water service and a 4" waste that is reported to discharge to a septic system but it was noted that public sewer is evident in the street. There are two restrooms that are not code compliant as they lack hot water, accessible space, and ventilation.

Based on the proposed occupancy of Assembly (A-3) the plumbing code requires both a Men's and Women's restroom. We recommend that discussions be started with the local plumbing and building inspectional services to determine whether a variance request for an accessible unisex restroom is suitable given this study's goal of maintaining the current building size and historic character. A variance request will likely require multiple approvals from local jurisdictions, accessibility, and state plumbing board agencies.

Recommendation: We recommend that a new sanitary connection to the public system on Washington Street in front of the building be made. A separate site/civil consultant evaluation of the condition of the septic system be completed to determine whether it is viable for reuse however for purposes of this study it is assumed that the existing septic system is beyond its useful life expectancy.

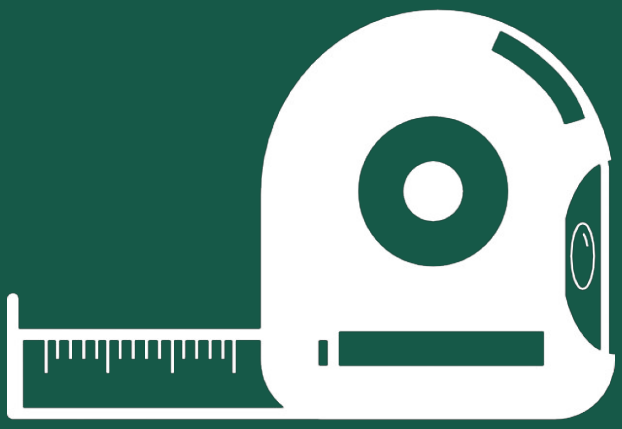
There is no gas service to the building but again it was noted that gas service appears evident within the neighborhood.

Recommendation: A new gas service is recommended for efficient heating connect to the existing utility infrastructure underneath the adjacent streets.

Plumbing systems, fixtures and equipment generally appear to be in good condition.

Fire Protection Assessment

The building does not have a fully automated sprinklered building. Per Massachusetts General Law c. 148 s. 26G, and the Massachusetts State Building Code, 780 CMR 9th edition, the building is not required to be sprinkler protected due to the size (<5,000 SF) and occupancy (Assembly A-3 with less than 300 occupants).



Methodology

This assessment includes documentation of building and site components at 762 Washington Street in Franklin, Massachusetts. The resulting analysis is a distillation of broad-range and detailed observations made by a team of consultants from architectural, ,code, structural, mechanical, electrical, plumbing, fire protection disciplines. The primary objective of the assessment was to identify and observe systems, assemblies, and/or components of the facility and adjacent parking lot and to provide an analysis of the existing conditions as well as additional short-term recommendations for deficient items that may impact or influence the purchase or negotiations of this property. All observations and recommendations made by the team were the result of existing document review, interviews, and field surveys.

The majority of information was collected via the investigation (walkthrough) process in which each team member visually observed the facility pertinent to their specific trade and expertise. Deficiencies that were visible and readily accessible were collected, noted, and organized by LLB Architects in the form of this consolidated report. Significant deficiencies regarding accessibility of public areas are identified ***(refer to the Existing Code Analysis, Part II of this report)***. Building components were photographed at interior and exterior locations, highlighting building envelope, roofing, structural systems (where readily accessible), representative interiors, and any unique or unusual spaces.

LLB also deployed a drone with a camera on this project which permitted us to more closely observe and evaluate conditions of the existing façade and roof area that would have otherwise been difficult and costly to see without the use of a lift. The drone was also able to capture clear overhead images of the site.

In an effort to collect and synthesize assessment information efficiently, LLB Architects has developed a process to execute and process the work. All collected information is organized by discipline, and then by building component (i.e. roofing, siding, windows, etc.). This includes summarized descriptions supported by supplemental reports (refer to the Existing Conditions Survey, Part III, and Supporting Reports, Part IV, of this report).

Observation Scope

Site and Civil: A general assessment of the existing site conditions for the project site was not conducted as part of this assessment.

Structural Frame and Building Envelope: Visual identification of primary type of structure (wood frame, etc.), substructure including foundation walls, enclosure, superstructure including floor and roof framing (where readily accessible), building envelope including facades, glazing systems, exterior sealants, porches and other architectural features of importance or noted as deficient. Observations of the building's exterior are generally viewed from the ground and not by special conveying, unless alternative vantage points from balconies or adjacent buildings were available. We did deploy our drone on this project and were able to grid out each facade and roof area and systematically photograph each area. Analysis from a licensed structural engineer was conducted and those findings are included in this report.

Roofing: Identification of the material of the exposed material. Observations were made to note any deficiencies in drainage, damage to the roofing

system, and signs of leaks occurring on the interior ceilings/attic. Roofing was only accessed via drone imaging.

Interior Elements: Visual inspection of typical occupied spaces including lobbies, corridors, assembly spaces, restrooms, and special or unusual areas. Observations and deficiencies are noted for typical floor, wall, and ceiling finishes. Analyses of furnishings, fixtures, equipment, space utilization, space suitability, and user comfort issues were not conducted.

Plumbing: Identification of the sanitary, storm, and supply piping material, fixtures, domestic hot water, and other special fixtures. Deficiencies are noted for any distribution and fixtures which are damaged or beyond apparent useful life.

Heating, Venting, and Cooling: Generation and distribution system, observed for components and assemblies past useful life or damaged. Any equipment that is shutdown or not operational is observed as an opinion of its condition or deficiency.

Electrical: Identification and observation of the service provided, size, visual of the distribution system including panels, transformers, meters, emergency generation, and exit signs, as exist.

Fire Protection: It should be noted that there is no sprinklers, standpipes or other suppression system currently in the building.

Life Safety: Visual identification related to building egress and their relationship to apparent conformance with original design intent. Application of fire protection systems including fire alarms, panels, smoke detectors, and other equipment.

Historic: Review of MACRIS material.

Exclusions

The following items have been excluded from the scope of this study:

- Utility infrastructure including but not limited to steam, chilled water, tunnel systems, filtration, transformers, telecommunications and subsurface storm/sewer, fiber optics.

- Structural analysis (loads, calculations, etc.)
- Roof testing

Additional Study and Monitoring Costs

Some observations suggested remedies that require further research, testing, exploratory work, design, engineering, or a combination thereof, all of which are outside the scope of this assessment. In these cases, the observation was noted as an item to study or monitor.

Opinions of remedies and costs should only be construed as preliminary, order-of-magnitude budgets. Actual costs will most likely vary from the consultant's opinions on matters such as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, phasing of the work, project delivery method, and market conditions.

Field survey processes

Walk-through surveys were conducted for the collection of facilities and features at 762 Washington Street in Franklin, Massachusetts.

The purpose of each field survey was to visually observe the facility to gather life cycle and short-term deficiency information that were visible and readily accessible through non-destructive testing.

The facility was photographed from the interior, exterior, and above the roof highlighting components, representative conditions, and any unique or unusual areas of interest.

Document review and interview processes

The purpose of including document review and interviews was to supplement the field survey and to assist the team's understanding of the facility and any pre-existing deficiencies or ongoing maintenance efforts.

A variety of existing documents, such as plans and reports, were obtained in the discovery stage of the project. Information of primary interest to the assessment included records indicating the age of building systems and components, studies, historical data, as-built conditions, and quantitative data.

Interviews with property managers were conducted before and during the field survey to aid in information collection, clarification on an observation, or to obtain access to areas not readily available to general building occupants.


Water is Off
Do Not Use.
Or Put
anythin down

II . Existing Code Analysis

Building Code Summary

Existing Building

The existing structure at 762 Washington Street is currently determined to be a type “A3” Assembly use inclusive of storage use as incidental use over 100 square feet. The construction consists of original wood structure with wood cladding. For further description of the existing building structure, please refer to the Preliminary Report completed by Roome & Guarricino (refer to the Supporting Reports, Part IV, of this report) This structural system classifies as Type VB, requiring the fire resistance ratings highlighted in the chart below:

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame[f] (see Section 202)	3[a]	2[a]	1	0	1	0	HT	1	0
Bearing walls Exterior[e, f] Interior	 3 3[a]	 2 2[a]	 1 1	 0 0	 2 1	 2 0	 2 1/HT	 1 1	 0 0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[d]	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	$1^{1}/_{2}$[b]	1[b,c]	1[b,c]	0[c]	1[b,c]	0	HT	1[b,c]	0

For SI: 1 foot = 304.8 mm.

a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.

b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

d. Not less than the fire-resistance rating required by other sections of this code.

e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).

f. Not less than the fire-resistance rating as referenced in Section 704.10.

Through on site observation and review of the construction documentation from the most recent 2015 report, CodeRed has performed a detialed code comparision to identify requirement changes as they relate to today’s code standards (refer to the Supporting Reports, Part IV, of this report)

Zoning

Existing Zoning Overview

762 Washington Street is within the Rural Residential I district. There are some use restrictions in this zone, but its current use should allow this building to be renovated for the same uses.

There is no real identifiable adjacent parking lot on this site. There is a gravel access road on the east and north.

185 Attachment 5

Town of Franklin

USE REGULATIONS SCHEDULE

PART IV

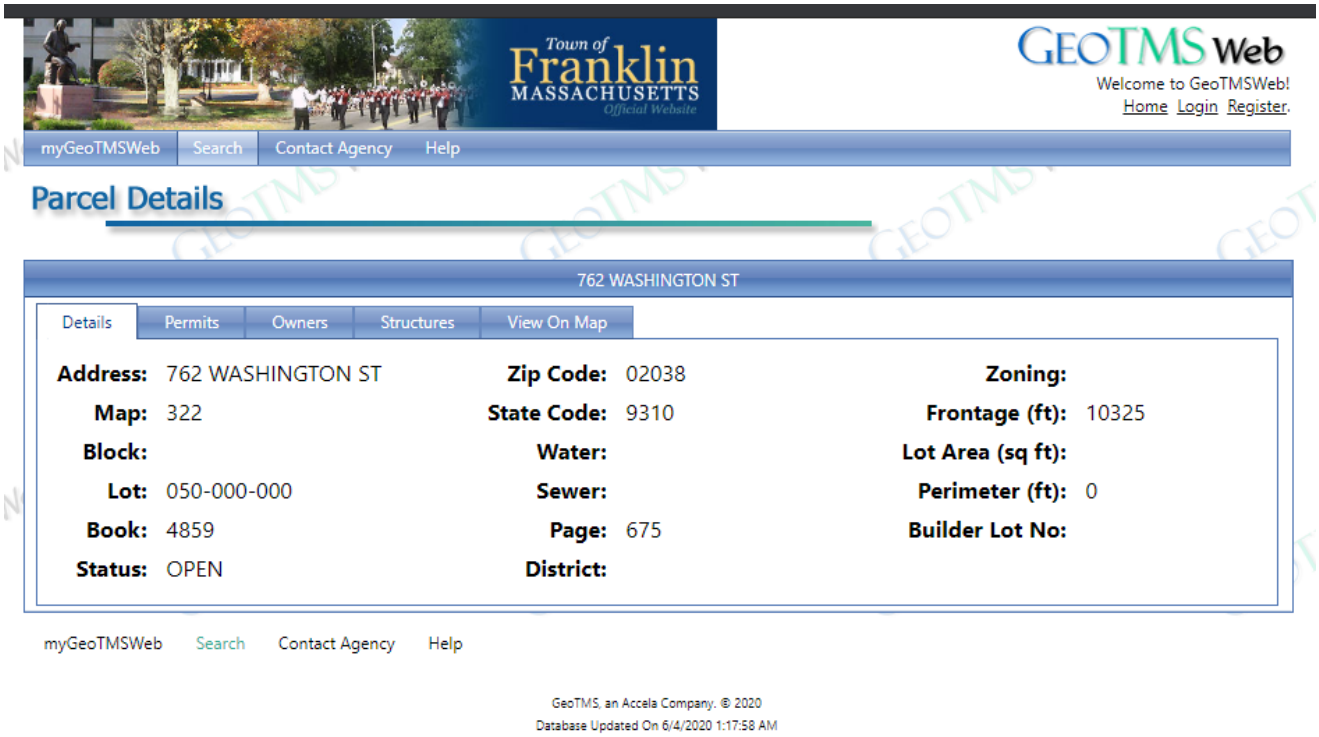
[Amended 3-25-1987 by Bylaw Amendment 87-91; 1-11-1999 by Bylaw Amendment 98-397-R; 7-11-2001 by Bylaw Amendment 01-468; 10-2-2002 by Bylaw Amendment 02-507; 6-11-2003 by Bylaw Amendment 03-511; 3-1-2006 by Bylaw Amendment 05-575; 7-13-2011 by Bylaw Amendment 11-653; 6-5-2013 by Bylaw Amendment 13-711; 10-16-2013 by Bylaw Amendment 13-723; 11-16-2016 by Bylaw Amendment 16-770; 2-15-2017 by Bylaw Amendment 17-782; 3-13-2019 by Bylaw Amendment 19-830]

Symbols in the Use Regulations Schedule shall mean the following:

Y = A permitted use.
N = An excluded or prohibited use.
BA = A use authorized under special permit from the Board of Appeals.
PB = A use authorized under special permit from the Planning Board.
P/SP = Permitted as of right. A special permit from the Board of Appeals is required if the proposed project results in an increase in estimated water consumption of more than 15,000 gallons per day.

Principal Uses (cont'd)	DISTRICT													
	RRI RRII RVI RVII	SFRIII	SFRIV	GRV	NC	RB	CI	CII	DC	B	I	LI	O	MBI
4. Institutional														
4.1 Cemetery	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N
4.2 Hospital	N	N	N	N	N	N	N	PB	N	PB	PB	N	N	N
a. Medical marijuana treatment facility	N	N	N	N	N	N	N	N	N	N	PB[3]	N	N	N
b. Medical marijuana testing facility	N	N	N	N	N	N	N	N	N	N	PB[3]	N	N	N
4.3 Charitable institution	N	N	N	PB	PB	N	Y	Y	PB	N	N	N	N	Y
4.4 Correctional facility	N	N	N	N	N	N	N	N	N	N	BA	N	N	N
4.5 Library, museum, art gallery	N	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y
4.6 Lodge, social nonprofit[1]	N	N	N	N	N	N	Y	Y	Y	Y	N	N	N	Y
4.7 Public use	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4.8 Religious or educational use:														
a. Exempt from zoning prohibition[2]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
b. Dormitories	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N

South Franklin Congregational Meeting House



City of Worcester, MA Zoning District map as amended May 3, 2016. 13 Sudbury Street is within the downtown BG-6.0 zone.

City of Worcester, MA Zoning Overlay District map as amended February 3, 2015. 13 Sudbury Street is within the downtown CCOD-D : downtown parking subarea.

CAI Property Card

Town of Franklin, Massachusetts

GENERAL PROPERTY INFORMATION

LOCATION: 762 WASHINGTON ST
ACRES: 0.6554
PARCEL ID: 322-050-000-000
LAND USE CODE: 931 - IMP - COUNCL
CONDO COMPLEX:
OWNER: FRANKLIN TOWN OF
CO - OWNER:
MAILING ADDRESS: 355 EAST CENTRAL STREET
FRANKLIN, MA 02038
ZONING:
PATRIOT ACCOUNT #: 779

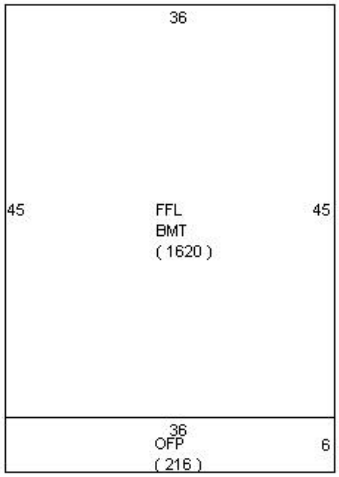
SALE INFORMATION

SALE DATE: 8/18/1972
BOOK & PAGE: 4859-675
SALE PRICE:
SALE DESCRIPTION:
SELLER:

PRINCIPAL BUILDING AREAS

GROSS BUILDING AREA: 3,456
FINISHED BUILDING AREA: 1,620
BASEMENT AREA: 1,620
 # OF PRINCIPAL BUILDINGS: 1

SKETCH



BUILDING EXTERIOR

BUILDING STYLE: GOV`T BLDG
YEAR BUILT: 1856
FRAME: WOOD
EXTERIOR WALL COVER: CLAPBOARD
ROOF STYLE: GABLE
ROOF COVER: ASPHALT SHGL

BUILDING INTERIOR

INTERIOR WALL: PLASTER
FLOOR COVER: CARPET
HEAT TYPE: FORCED H/A
FUEL TYPE: ELECTRIC
PERCENT A/C: 0
SOLAR HOT WATER: NO
CENTRAL VACUUM: NO
 # OF ROOMS: 0
 # OF BEDROOMS: 0
 # OF FULL BATHS: 0
 # OF HALF BATHS: 2
 # OF ADDITIONAL FIXTURES: 0
 # OF KITCHENS: 0
 # OF FIREPLACES: 0
 # OF WOOD STOVE FLUES: 0

OTHER FEATURES

ATTACHED GARAGE: 0
 # OF BASEMENT GARAGES: 0
DETACHED GARAGE:
POOL: NO

PHOTO

South Franklin Congregational Meeting House

Unofficial Property Record Card - Franklin, MA

General Property Data

Parcel ID	322-050-000-000	**Account Number**	022-080
Prior Parcel ID	-022-080-		
Property Owner	FRANKLIN TOWN OF	**Property Location**	762 WASHINGTON ST
		Property Use	IMP - COUNCL
Mailing Address	355 EAST CENTRAL STREET	**Most Recent Sale Date**	8/18/1972
		Legal Reference	4859-675
City	FRANKLIN	**Grantor**	
Mailing State	MA **Zip** 02038	**Sale Price**	0
ParcelZoning		**Land Area**	0.655 acres

Current Property Assessment

Card 1 Value	Building Value	Xtra Features Value	Land Value	Total Value
	125,200	3,000	221,400	349,600

Building Description

Building Style	GOV`T BLDG	**Foundation Type**	STONE/BRICK	**Flooring Type**	CARPET
# of Living Units	1	**Frame Type**	WOOD	**Basement Floor**	CONCRETE
Year Built	1856	**Roof Structure**	GABLE	**Heating Type**	FORCED H/A
Building Grade	AVERAGE	**Roof Cover**	ASPHALT SHGL	**Heating Fuel**	ELECTRIC
Building Condition	Average	**Siding**	CLAPBOARD	**Air Conditioning**	0%
Finished Area (SF)	1620	**Interior Walls**	PLASTER	**# of Bsmt Garages**	0
Number Rooms	0	**# of Bedrooms**	0	**# of Full Baths**	0
# of 3/4 Baths	0	**# of 1/2 Baths**	2	**# of Other Fixtures**	0

Legal Description

DEV-BLDR LOT 1A PLAN 3488 PINE GLEN ESTATES

Narrative Description of Property

This property contains 0.655 acres of land mainly classified as IMP - COUNCL with a(n) GOV`T BLDG style building, built about 1856 , having CLAPBOARD exterior and ASPHALT SHGL roof cover, with 1 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 2 half bath(s).

Property Images

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

Sales

Sale Date	Sale Price	Legal Reference	Grantor Last Name	Land Use Code at Sale
8/18/1972		4859-675		

Previous Assessments

Year	Code	Building	Yard Items	Land Value	Acres	Special Land	Total
2020	931 - IMP - COUNCL	125,200	3,000	221,400	0.66	0.00	349,600
2020	931 - IMP - COUNCL	125,200	3,000	221,400	0.66	0.00	349,600
2019	931 - IMP - COUNCL	125,300	3,000	200,600	0.66	0.00	328,900
2018	931 - IMP - COUNCL	125,300	3,000	206,300	0.66	0.00	334,600
2017	931 - IMP - COUNCL	125,300	3,000	189,300	0.66	0.00	317,600
2016	931 - IMP - COUNCL	125,300	3,100	186,200	0.66	0.00	314,600
2015	931 - IMP - COUNCL	125,300	3,100	181,600	0.66	0.00	310,000
2014	931 - IMP - COUNCL	125,300	3,100	152,600	0.66	0.00	281,000
2013	931 - IMP - COUNCL	125,300	3,500	135,700	0.66	0.00	264,500
2012	931 - IMP - COUNCL	125,300	3,500	134,100	0.66	0.00	262,900
2011	931 - IMP - COUNCL	125,300	3,500	162,400	0.77	0.00	291,200
2010	931 - IMP - COUNCL	124,700	3,600	158,700	0.77	0.00	287,000
2009	931 - IMP - COUNCL	124,700	3,600	159,700	0.77	0.00	288,000
2008	903 - FMR MUNICIPL	124,700	3,600	198,400	0.77	0.00	326,700
2007	903 - FMR MUNICIPL	149,500	3,600	218,200	0.77	0.00	371,300
2006	903 - FMR MUNICIPL	149,500	3,600	198,400	0.77	0.00	351,500
2005	903 - FMR MUNICIPL	124,700	500	178,400	0.77	0.00	303,600
2004	903 - FMR MUNICIPL	85,500	0	239,200	0.95	0.00	324,700
2003	903 - FMR MUNICIPL	0	125,000	239,200	0.95	0.00	364,200
2002	903 - FMR MUNICIPL	0	125,000	200,000	0.95		325,000

322-050

4859

675

22-80

The First Congregational Church of Franklin, a/k/a
The First Congregational Parish

of Franklin, Norfolk County, Massachusetts

for consideration paid, less than $100.00 grant to the Inhabitants of the Town of Franklin, a municipal corporation located in the County of Norfolk, Commonwealth of Massachusetts, pursuant to General Laws, Chapter 40, Section 8D,

~~xxx~~

with quitclaim covenants

~~xxxxxx~~ A certain tract of land lying on the south side of the public road leading from the house of Benjamin Foster to the house of Joseph B. Whiting (now known as Washington Street) in the southwesterly part of said Franklin, being the land on which the building for a meeting house now stands, containing three fourths of an acre more or less, bounded as follows:

Commencing at a stake and stones at the northwest corner of said lot on the southern boundary of the new made road; thence southwardly by a stone wall which divides said lot from lands belonging to Joseph B. Whiting twelve rods to a stake and stones; thence eastwardly ten rods to a stake and stones; thence northwardly twelve rods to a stake and stones at the southern location of said new road; thence westerly by said new road ten rods to the bound first mentioned.

Being the same premises conveyed ~~to grantor~~ by deed of ~~The South Franklin Congregational Meeting House Parish~~ BENJAMIN FOSTER dated NOVEMBER 5, 1857 recorded with Norfolk Deeds, in Book 260 Page 239.

This conveyance is made on the condition, however, that in the event the Town of Franklin, acting through the Historical Commission or its successor in office, determines by vote that the granted premises do not have sufficient historical value to warrant the cost of proper maintenance, the granted premises shall be reconveyed to the grantor, its successors and assigns, within one year thereafter.

~~Witness~~ our ~~hand~~ s and seal this 24th day of April 19 72

Robert C. MacKenzie

Charles H. Jenest

James A. Pegg

The Commonwealth of Massachusetts

Norfolk, ss. April 24, 1972

Then personally appeared the above named Charles H. Jenest, James A. Pegg and Robert C. MacKenzie

and acknowledged the foregoing instrument to be the free act and deed, ~~xxxxxx~~ of the First Congregational Church of Franklin, before me,

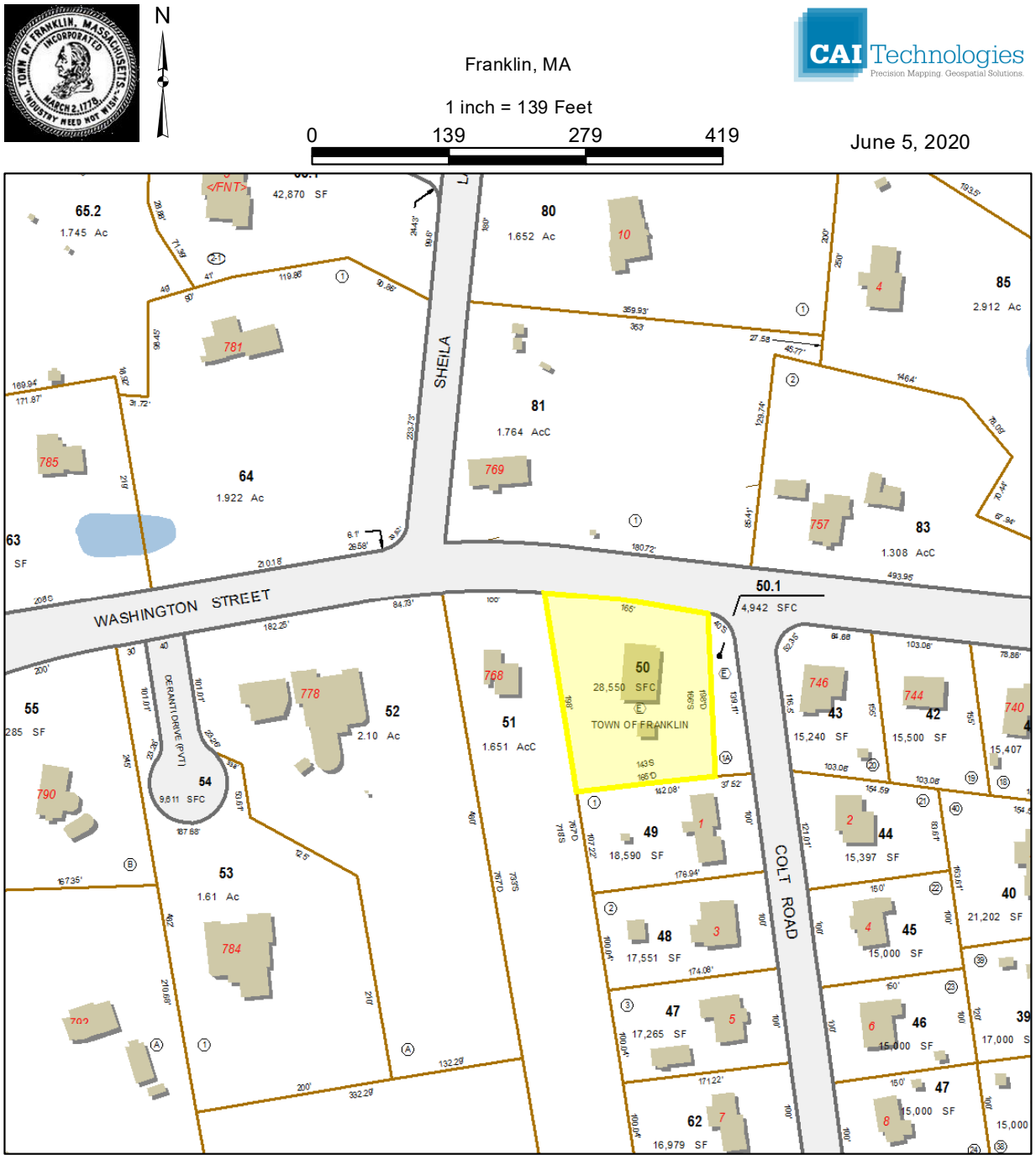
Paul A. Cataldo

Paul A. Cataldo Notary Public ~~xxxxxxxxxx~~

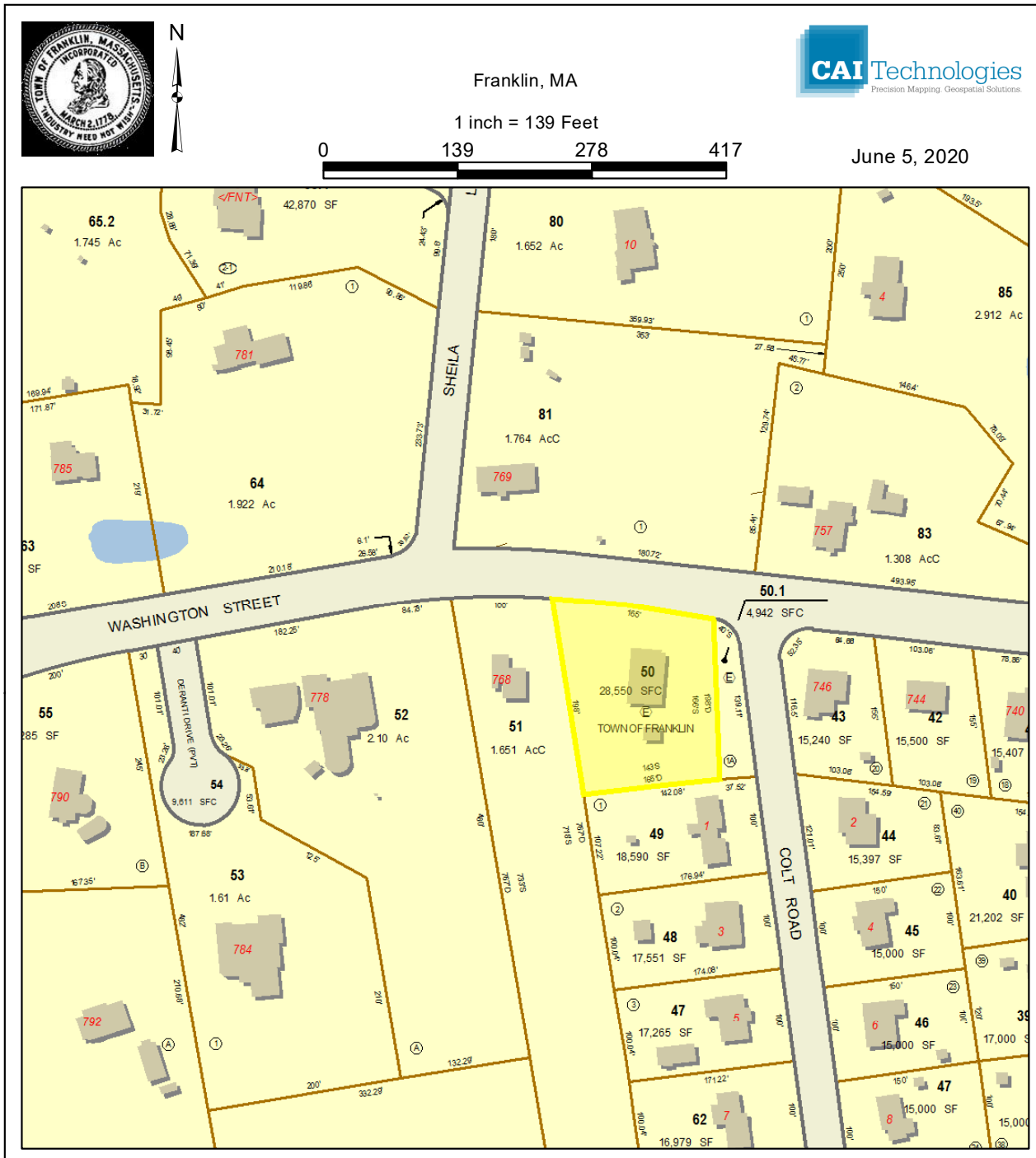
My Commission Expires April 16, 19 75

Recorded Aug. 18, 1972 at 11h. 22m. A. M.

Museum

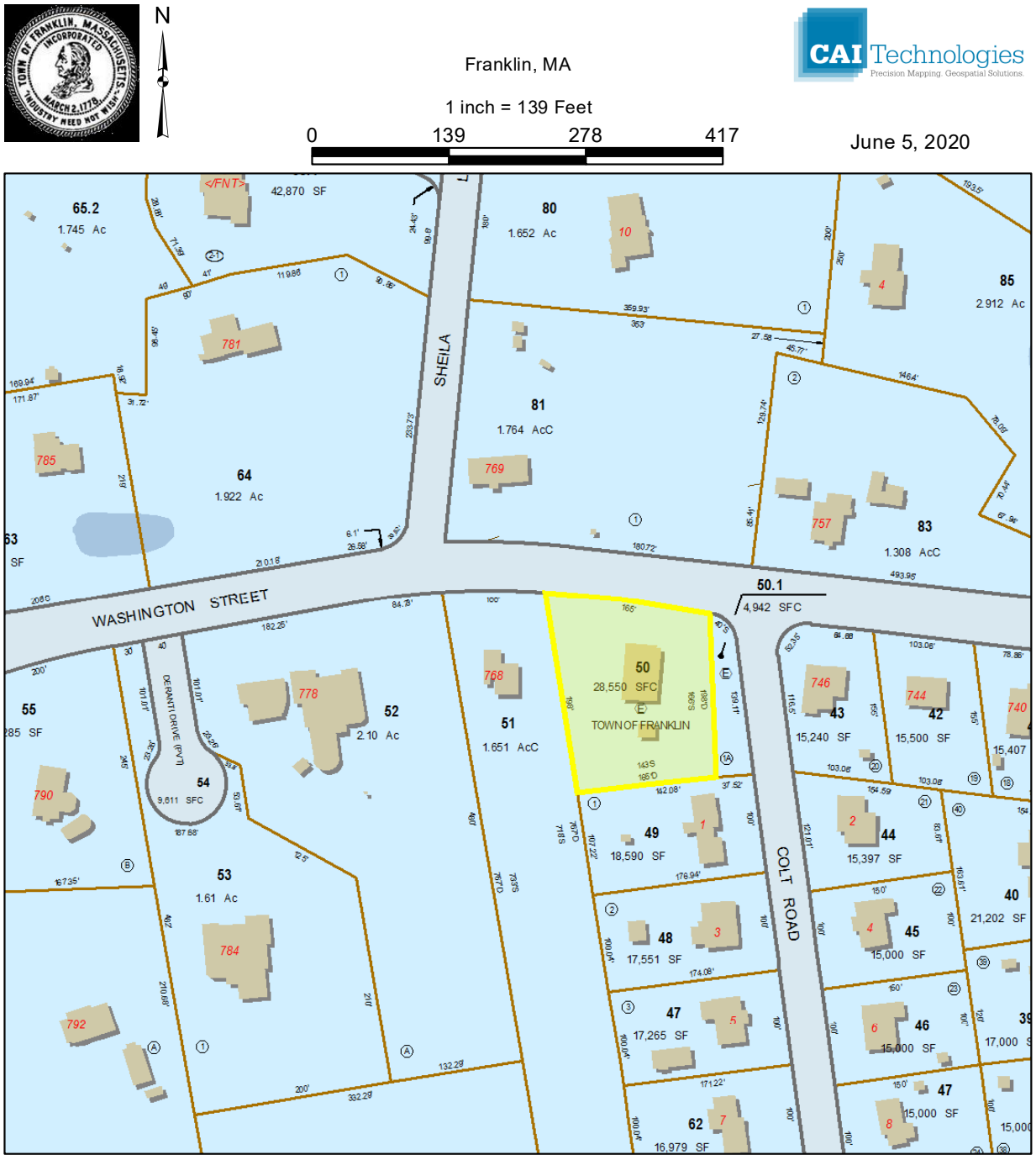


This information is believed to be correct but is subject to change and is not warranteed.

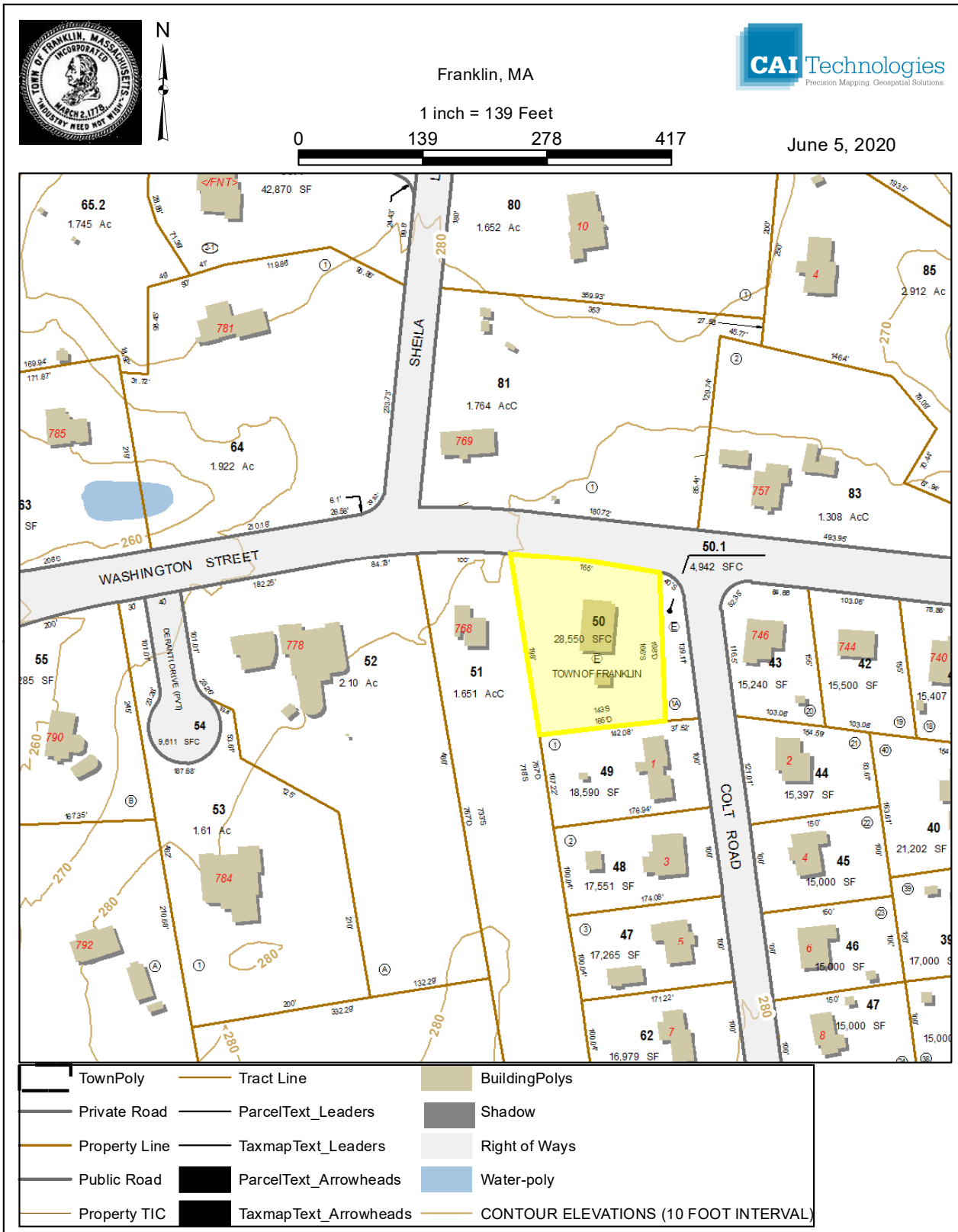


This information is believed to be correct but is subject to change and is not warranteed.

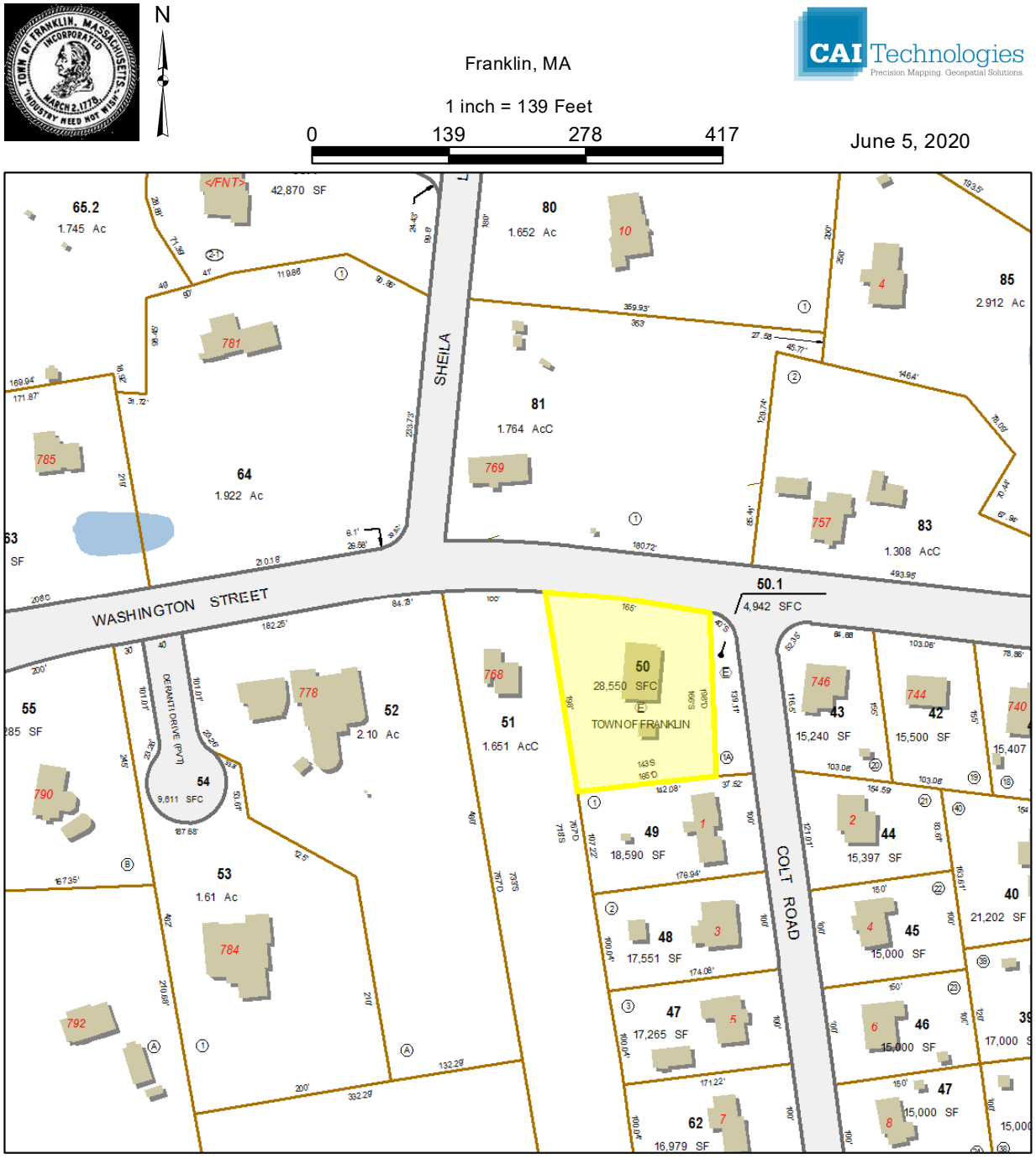
South Franklin Congregational Meeting House



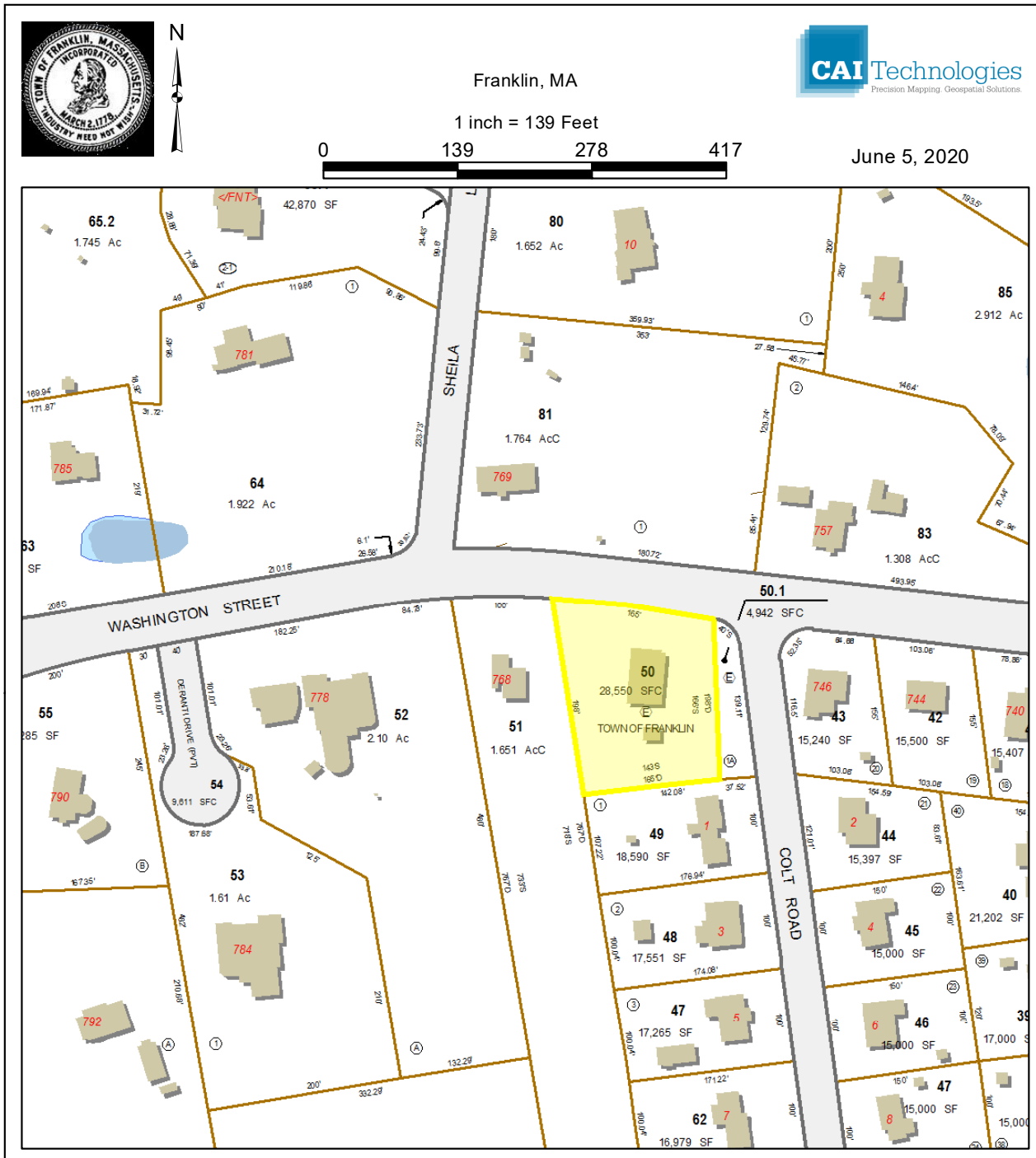
This information is believed to be correct but is subject to change and is not warranteed.



This information is believed to be correct but is subject to change and is not warranteed.



This information is believed to be correct but is subject to change and is not warranteed.



This information is believed to be correct but is subject to change and is not warranteed.

Accessibility

Existing Exterior Accessibility Conditions

This property consists of one parce and consists of a number of unmarked parking spaces as well as the existing pump house to the south. There is currently no access ramp to more directly connect this parking lot and the main building entry, this does not meets current accessibility codes.

The existing building is constructed on a relativly flat site. This should make accessiblity accomodations fairly straightforward . Currently, we could not find any variances granted to accommodate the lack of accessibility.

Additional information can be found later in this report under Code Red's assessment.

Existing Interior Accessibility Conditions

The existing vertical circulation consists of one stairwell along the Northwest corner of the building. The one stairwell serves as access and egress for the buildings second foor and attic/ belltower. Additionally, these stairs are winders and are not complaint with current stair dimensions and/or handrail requirements.

At the south end of the building there is a raised paltform with two stairs flanking either side to provide access. Providing wheelchair access to this platform would bring it up to compliance.

There are two single-occupant restrooms on the first floor. Each restroom has one toilet and one lavatory which are not ADA compliant. These facilities are not ADA compliant in their existing configuration.

III. Existing Conditions Survey

Close up detail at the cuploa and main roof connection. Note slite granular loss occuring on most shingles due to age.

Algea, moss and lichens visible on the cupola roof.

Algea, moss and lichens visible on the main roof, west side front.

Significant pine needle and tree branches have fallen and are collecting on the west rear roof.

Algea, moss and lichens visible on the main roof, east side rear.

Algea, moss and lichens visible on the main roof, east side front.

Roofing

Recommendation:

Replace

Timeline:

Immediate

Roofing system is reaching the end of its life expectancy; consider replacement.

Overhead view from LLB drone showing upper cupola roof, main roof and adjacent pump house roof.

Existing System Overview

The current roofing system consists of a traditional 3-tab asphalt shingle which is grey in color. The shingles are mechanically fastened (nailed) over wood sheathing.

Observed Conditions

This roofing system age is unknown, but given the visble granule loss the roof appears to be reaching the end of its useful life expectancy. Granule loss which is uniform across the roof is usually a result of normal weathering. Over time, the bond between the granules and asphalt deteriorates, and granules will be loosened and carried away by runoff.

Several areas of the roof were observed to have algea, moss and lichens, which over time can enhance water retention, and lead to premature deck rot. Algae grow fastest in shady, damp areas, such as under large trees, which this property has adjacent to the building (west). In addtion, this large pine tree has a large volume of needle drop which has fallen and stayed on the south west portion of the roof. This clumping of needles remains wet after a rain event and holds moisture, adding to premature shingle and deck damage. Future renovations should consider this condition carefully and impliment a seasonally appropriate cleaning schedule to remove debris from the roof.

Detail photo at siding lap joint, observed flaking, craquelure paint.

A number of horizontal splits occurring in the siding can be observed as well as paint loss.

Horizontal split occurring in a siding board can be observed as well as paint loss.

Paint loss at the bottom most siding and trim board.

Deterioration of the paint and exposed wood trim at original roof detailing.

Missing siding piece exposing sheathing behind.

Exterior Siding and Trim

Recommendation:

Repair + Maintaine

Timeline:

2-5 years

Some siding is failing or missing; roughly 5% of the exterior facade will require wood repair.

Paint loss at cupola exposing wood siding and trim. A number of siding pieces have split horizontally.

Existing System Overview

The exterior cladding system for this building is a wood lap siding and wood trim. Original siding appears to have been cleaned, repaired, repainted during a previous renovation. Subsequent sections are in need of repaire for materail loss and deterioration since this work occurred.

Observed Conditions

The original siding overall appears to be in good condition. Some siding pieces are failing or missing and will need to be repaired to prevent water infiltration and damage. Overall, the wood trim and decorative features appear in good condition.

There is observed wear of the surface paint finish throughout as well as some missing paint, expsosing the raw wood below. Left untreated, the wood can detertiorate at a faster rate. There is also vegetation and lichen growth on the west facade which should be removed to prevent further damage. The granite stone base are in good condition but should be cleaned and any open joints should be repointed. All sealants have reached their end of life expectancy and will need to be removed and replaced to ensure a weather tight building envelope.

Evidence of water damage and paint loss at window sill on east side.

Evidence of putty loss and damaged muntin on east side window.

Evidence of cracked light at second floor window.

The sash stile show signs of wear and damage at second floor. Sash bars are also deteriorating.

Evidence of cracked light at second floor window.

Windows

Recommendation:

Repair + Maintaine

Timeline:

5-7 Years

Windows are showing signs of age but can be repaired and maintained; consider repairs to avoid further damage.

Exterior picture of typical 12 over 12 window. Notice the damaged muntin rail referenced on opposite page.

Existing System Overview

All existing window units appear to be original to the building. Windows consist of single pane, non-insulated glazing units in wood sash and frames.

Observed Conditions

At the second floor, some window panes showed evidence of damage (cracked) glazing units. Some of the glazing putty have reached their life expectancy and have begun to loosen and fall. Exterior sealants have also reached life expectancy and are starting to show signs of age such as cracking. Failing sealant exposes raw wood or joints which in turn has the ability to begin to deteriorate.

Damaged interior finishes should be repaired and repainted. With these repairs and regular maintenance, the window units should last another 10-20 years until they will need to be repaired and repainted.

Close up detail at the ceiling showing paint and plaster cracks.

Close up detail at the ceiling showing paint and plaster cracks.

Paint cracking and peeling in main assemby room.

Cracked and peeling paint at wood trim in main assembly room.

Apparent water damage and peeling paint at second floor.

Apparent water damage to ceiling panel at second floor.

Interior Finishes

Recommendation:

Repair

Timeline:

2-5 years

The interior paint and plaster are showing signs of peeling and crakcing.

Wall supporting second floor mezzanine (opposite of stair) is bowing. This should be further evaluated.

Existing Overview

We observed visual evidence of peeling paint and craking plaster inside of the building.

Observed Conditions

The mezzanine showed signed of water damage on the ceiling, presumably from the cupola above. There are numrous areas in the main assebly room where paint loss is prevalant. Signs of cracked plaster can also be observed.

One wall, the northwest wall in the main assembly room, showed sign of bulgin out from vertical from starting about 36” above the floor to about 6’. This should be evaluated to determine its cause (water, damage, pest infstation, structural setteling) so that a repair can be determined.

A restoration project should include paint removal and plaster repair.

Close up detail at a window sill (typical) showing pest and animal waste.

Observed bird droppings inside of the bell tower.

Observed dead bat in the main lobby.

Observed bird droppings on the stair to the attic.

Evidence of animal droppings.

Evidence of mouse droppings.

Pests

Recommendation:

Clean + Mitigate

Timeline:

Immediate

There are numerous locations that have evidence of pests and/or animals.

Existing Overview

We found visual evidence of animal and pest waste inside of the building.

Observed Conditions

The attic showed signed of bird, bat and mouse excriment on the stairs, and floors. On the first floor there was a deceased bat in the main lobby. Window sills show sign mouse excriment as well as pests. Main assemebly floor area also showed signs of animals having been inside for a period of time.

Animal waste that becomes airborn can transmit disease. It is recommended that a thourough cleaning be performed to remoave all existing waste and a long term pest control plan be put into place to begin to get the situation under control.

IV . Supporting Reports

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CODE RED CONSULTANTS
(617) 500-7633 | INFO@CRCFIRE.COM
(617) 500-2074 | WWW.CRCFIRE.COM
154 TURNPIKE ROAD, SUITE 200
SOUTHBOROUGH, MA 01772

Memorandum

Date:	March 5, 2020	Project#:	198566
To:	Brian Valentine – LLB Architects		
From:	Paul Moan, P.E. – Code Red Consultants		
Re:	South Franklin Meeting House		
Cc:	Zach Blanchard, P.E. – Code Red Consultants		

This memorandum has been prepared to document our review of the "A Comprehensive Investigation & Analysis of Existing Conditions at the South Franklin Congregational Meeting House" report developed by Civitects. The report details the existing conditions as well as several upgrades to the South Franklin Meeting House building that may be needed as part of an upcoming renovation. The review of the report was limited to Chapter 2: *Existing Conditions Report: Architectural*; Chapter 5: *Codes and Standards*, and the Alternative Compliance Demo and Floor plans, Option 1 and Option 2.

The report was developed in 2015 and addressed several required upgrades in accordance with the 8th Edition of the 780 CMR, Massachusetts State Building Code, which is no longer in effect. As such, this memorandum includes code provisions in accordance with the 9th Edition of 780 CMR, which adopts and amends the 2015 International Building Code and 2015 International Existing Building Code.

The following table details the major comments on the plans and study as well as the key code changes as part of the adoption of the 9th Edition of 780 CMR:

Civitects Study	CRC Comments
Chapter 1: Existing Conditions Report: Architectural	
RELEVANT CODES AND REGULATIONS IBC 2009 International Building Code IEBC 2009 International Existing Building Code 780 CMR Massachusetts Amendments to the International Building Code, 8th Edition 521 CMR Massachusetts Architectural Access Board (MAAB) Rules and Regulations IECC 2012 International Energy Conservation Code ADAAG Americans with Disabilities Act 527 CMR 12 2011 Massachusetts Electrical Code NFPA 72 2010 National Fire Alarm Code NFPA 101 Life/Safety Code 248 CMR Massachusetts Fuel, Gas and Plumbing Code IMC 2009 International Mechanical Code ASHRAE Std 62 ASHRAE Standard 62 MGL Massachusetts General Laws	Updated Relevant Codes should read 780 CMR, Massachusetts State Buildi International Building Code and 2015 521 CMR, Massachusetts Architectura ADA, Americans with Disabilities Ac 2018 International Energy Conservati 248 CMR, Massachusetts Fuel, Gas, a 2015 International Mechanical Code w Reference to the Life Safety Code sho Massachusetts
Building Value: $125,300 Extra Features Value: $ 3,100 Land Value: $152,600 Total Value: $281,000	The updated FY 2020 property card h different: Bu Xtra Fe

d:

ng Code, with amendments to 2015
5 International Existing Building Code

al Access Board
ct

ion Code with MA amendments

nd Plumbing Code

with MA amendments

uld not be made as this is not applicable in

as an updated value, although not significantly

Card 1 Value
uilding Value 125,200
eatures Value 3,000
Land Value 221,400
Total Value 349,600

Calculation
N/A
85.125" / 18" = 4.72 [4 occ.]x(14 Rows) = 56 84.125" / 18" = 4.66 [4 occ.]x(12 Rows) = 48 168.5" / 18" = 9.36 [9 occ.]x(1 Row) = 9 93.5" / 18" = 5.19 [5 occ.]x(1 Row) = 5
149 NSF / 15 = 10
75 NSF / 5 = 15
65 NSF / 5 = 13
192 SF / 300 GSF = 1

It is recommended to round fract
whole number, as opposed to do
all occupant load calculations.

Exits and Exit Access Doorways

Per IBC Table 1015.1, the maximum occupant load allowable for spaces with one exit or exit access doorway for an A Use Group is 49. Based on our code analysis which assumes a continuation of the same use (A-3), the occupant load will exceed 49. **Therefore, a second means of egress will be required.**

This section has been updated to

Two interior exit access doorways are located along the north wall of the Meeting Room leading to the north vestibule. An exit access doorway is defined as a door along the path of egress travel from an occupied room, area or space where the path of egress enters an intervening room. The existing pair of exit access doorways from the Meeting Room to the Vestibule does not meet the remoteness criteria indicated in the code (Table D.3 below). Per IBC 1015.2.1 exit access doorways must be placed a distance apart equal to not less than one-half of the length of the overall diagonal dimension of the building or area to be served measured in a straight line between exit doors or exit access doorways.

Code Ref.	Section	Issue	Potential Options
IBC	1015.2.1	Remoteness of Exit Access Doorway	1. Sprinkler building throughout 2. Provide a 2nd means of egress along south elevation. 2nd means of egress could also be utilized as the accessible entrance for the building

This section has been updated to
noted in several locations throug

Table D. 5: Egress Width per IBC 1005.1:

Occupant Load*	Factor	Total Egress Width Required
205	0.2	**41 Inches**

**Note: Occupancy Load is based on the assumed continuation of the same Use Group (A-3 Assembly) and that there will be no fixed seating*

It is recommended that the egres
is above grade and may require s

Accessible parking spaces are presently not identified as there is no striping delineating parking spaces. It was also noted that there is no signage identifying accessible parking spaces.

When the total number of parkin
number of accessible parking spa

needed. Additionally, in order to address the existing 9-1/2" (+/-) differential between the portico level and the 1st floor, the portico level would need to be raised to meet the level of the 1st floor. Raising the portico level is technically feasible; the existing portico framing and stair can be modified to comply. However, raising the portico level and the inclusion of a ramp leading to the front portico would arguably detract from the façade's historic aesthetics (refer to drawing A1.1 – Alternative Compliance Option No. 1).

It is recommended that the reaso
likely be needed if the project see

Note that the building's classifica
basis/justification of accessibility
documentation from the MA His

accessible. However, per Exception No. 1 of this section, if a main entrance cannot be made accessible, an accessible non public entrance that is unlocked while the building is occupied shall be provided. Exception No. 2 offers an alternative to making the main entrance accessible by providing a locked accessible entrance with a notification system or remote monitoring (refer to drawing A1.1 – Alternative Compliance Option No. 2).

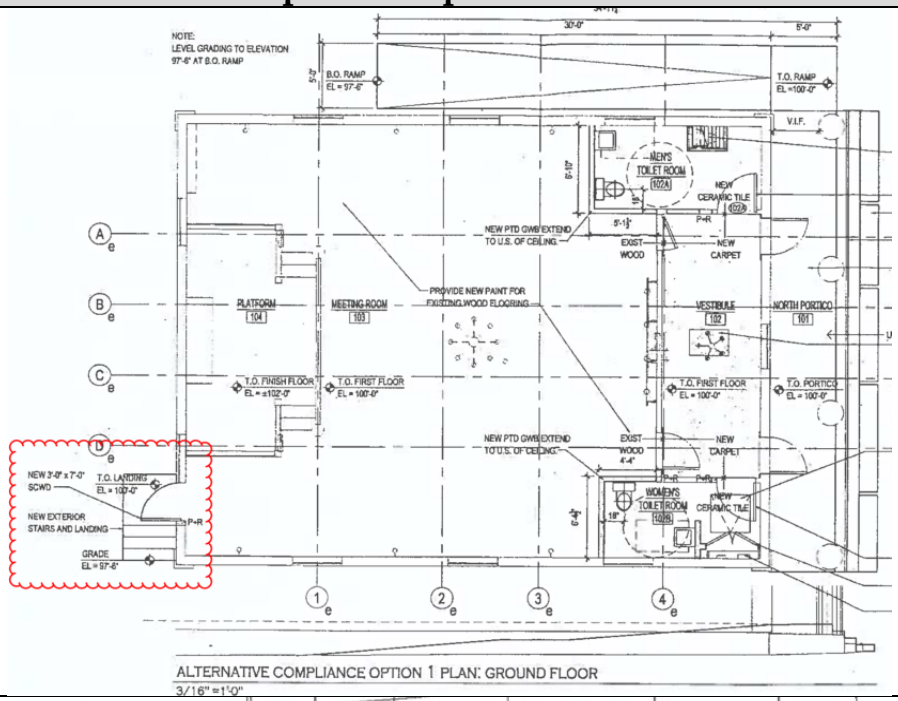
This approach would require a v
tripped, then all public entrances
to justify that the existing main e
(i.e. requiring upgrades to make

tional numbers for occupant load up to the nearest wn, to add a level of conservatism. This applies to
780 CMR Section 1006.2.1.
780 CMR Section 1007.1.1. This requirement is ghout the report.
s factor for stairs are added as well, as the building stairs for the upgrade.
g spots that will be provided is determined, the aces should comply with 521 CMR Section 23.2.1.
n for technical infeasibility be provided as this will eks any variances. ation as "Historical" could also form the variances, with the appropriate supporting storic Commission.
ariance from the AAB. If the 30% threshold is s are required to be accessible. It would be difficult ntrance is not the public entrance to the building it accessible).

No Place of Assembly requirements in accordance with 521 CMR are provided.	As the project will likely trip 30% and assembly greater than 49 occupants, sp assembly area in accordance with 521
General Accessiblity	If the project cost exceeds the 30% thre will need to be accessible.
Chapter 5: Codes and Standards	
Existing Conditions are as follows: Height: 33 feet (assumed) Area: 35'-0" x 52'-4" = 1,843 GSF (total building footprint) Allowable (Assuming A-3 Assembly Use Group) Height: 1 story, 40 feet Area: 6,000	Note that the height and area of the bu no change of occupancy or addition ar
3. **Historic Buildings** (IEBC 202) (IEBC Ch. 11) — The original building was constructed in 1861 (Massachusetts Historical Commission Form B dated March 2011.). The building is not currently listed on the Massachusetts Register of Historic Places. The town may consider nominating the building for inclusion on the register. Once listed, the building would comply with IEBC Ch. 11.	Note that a historical building's compl *option* for compliance and is not the re
Calculation N/A 85.125" / 18" = 4.72 [4 occ.]x(14 Rows) = 56 84.125" / 18" = 4.66 [4 occ.]x(12 Rows) = 48 168.5" / 18" = 9.36 [9 occ.]x(1 Row) = 9 93.5" / 18" = 5.19 [5 occ.]x(1 Row) = 5 149 NSF / 15 = 10 75 NSF / 5 = 15 65 NSF / 5 = 13 192 SF / 300 GSF = 1	It is recommended to round fractional whole number, as opposed to down, t all occupant load calculations.
12. **Stair Fire Resistance Rating:** (IBC 1022.1) 1-hour (non-sprinklered buildings, connecting less than four stories) (IEBC 1103.7) For buildings which can be classified as historic in accordance with IEBC Ch. 11, the required 1-hr. rating need not be provided where the existing wall and ceiling finish is wood or metal lath and plaster.	Currently, the building is not consider Commission. Therefore, this section is

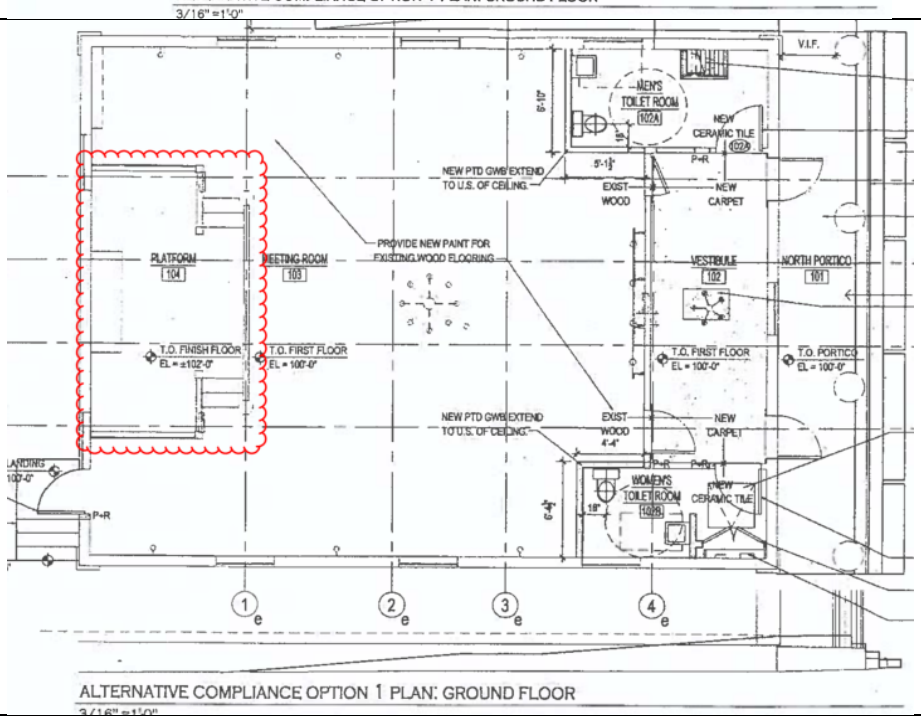
will continue to function as a place of pecific requirements associated with the CMR Chapter 14.00 should be provided.
eshold, then all public portions of the building
uilding are not required to be re-evaluated as re occurring.
liance with Chapter 11 of the MEBC is an quired *evaluation* method.
numbers for occupant load up to the nearest o add a level of conservatism. This applies to
red Historic by the Massachusetts Historical not applicable.

Alternative Compliance Options



ALTERNATIVE COMPLIANCE OPTION 1 PLAN: GROUND FLOOR
3/16" = 1'-0"

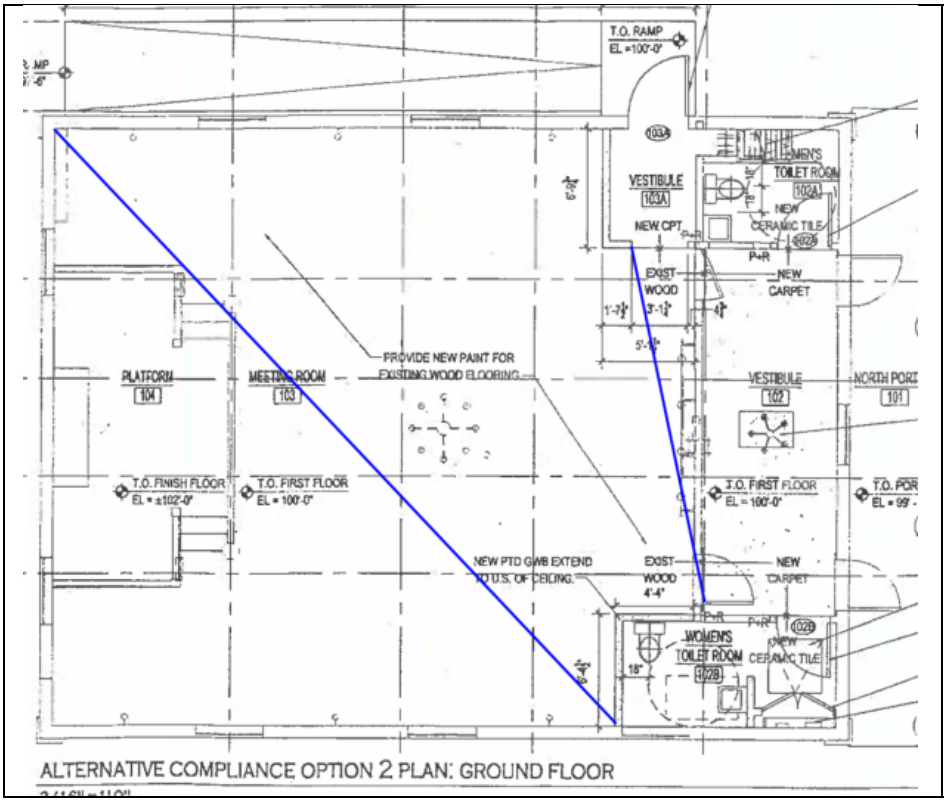
This floor plan shows the building b
egress. 780 CMR Section 1009.1 Exc
existing buildings. However, 521 C
means of egress anywhere that mor
past, the provisions of 780 CMR hav
However, recent experience is that t
spaces on the ground floor that disc
accessible means of egress is require



ALTERNATIVE COMPLIANCE OPTION 1 PLAN: GROUND FLOOR

An accessible route is required to th
options).

being provided with only one accessible means of eption 1 omits accessible means of egress in MR Section 20.11.1.a requires two accessible e than one means of egress is provided. In the ve outweighed this specific language in 521 CMR. the provisions of 521 CMR have been applied to charge directly to grade. Therefore, another ed to be provided from the space.
he existing stage/altar space (both compliance



ALTERNATIVE COMPLIANCE OPTION 2 PLAN: GROUND FLOOR

The existing egress points are not ren
diagonal of the floor. It is expected th
exit

Code Updates

The following table displays relevant code changes from the 8th Edition of 780 CMR to th
project.

notely located by at least 1/2 of the maximum
hat this will be addressed by means of the new

e 9th Edition of 780 CMR applicable to the

8th Edition Code Section	9th Edition Code Section
1015.1	1006.2.1
1015.2.1	1007.1.1
1008.1.2	1010.1.2
1008.1.9.8	1010.1.9.9 & 1010.1.10(1)

Conclusion

If you have any questions or comments about the information contained in this documen

Sincerely,

CODE RED CONSULTANTS

Zach Blanchard, P.E.

Paul J. Moan, P.E.

Code Requirement Change
No Functional change applicable to the project.
No Functional change applicable to the project.
The code change includes clarifying language that doors are required to swing in the direction of egress where the room serves more than 49 occupants, and not when the door itself serves 49 occupants. This is not expected to affect the project as it was a code "clarification" and not a code "change".
Added provisions that where panic hardware is required, operation of the panic hardware releases the lock on an electromagnetically locked door. This now allows for the ability to use electromagnetically locked egress where panic hardware is required.

t, please do not hesitate to contact us.

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ROOME & GUARRACINO, LLC

Consulting Structural Engineers

48 Grove Street Somerville, MA 02144
Tel: 617.628.1700 Fax: 617.628.1711

Structural Condition Assessment and Feasibility Report on South Franklin Congregational Meeting House at 762 Washington Street

Franklin, Massachusetts

Prepared for:

LLB Architects
161 Exchange Street
Pawtucket, RI 02860

ROOME & GUARRACINO, LLC
Consulting Structural Engineers
48 Grove Street Somerville, MA 02144
Tel: 617.628.1700 Fax: 617.628.1711

Date: March 11, 2020
To: Brian L. Valentine, AIA, NCARB, LEED AP – LLB Architects
From: Carmine Guarracino, P.E.
Project: South Franklin Congregational Meeting House
Location: Franklin, MA
Reference: Structural Conditions Assessment Report

Overview

This letter summarizes our findings regarding the present condition of the structure for the South Franklin Congregational Meeting House, located at 762 Washington Street in Franklin, Massachusetts, as well as, our recommendations regarding future uses of this structure. These observations and recommendations are based on information provided to us by your office and our field observations on March 11, 2020. Some existing architectural drawings were provided by LLB Architects, that outlined general dimensions of the building. In addition, LLB Architects provided an assessment conducted by DM Berg Consultants, P.C. in 2015. No existing structural drawings are available for the original building, and as such, our comments are based solely on our field observations and other information provided by LLB Architects. Our field observations were only visual surface observations and we have not cut any holes in building finishes to verify structure, nor have we done any testing to determine the structures underlying condition.

Existing Conditions

On Tuesday, March 11, 2020, I toured the existing building with you. The original building was a church built in 1856 and consists of a one-story wood frame. Above the entry space, there is a partial mezzanine. From the mezzanine space, there is access to the main steeple.

I first toured the perimeter of the building. The granite block, foundation wall is partially visible from the outside of building. No signs of cracking and or settlement was apparent. The foundation wall is in good condition. (See photo 1)

Four main pillars support the roof at the main entry of the building. The third pillar from the left (looking at the entry) has settled. The reason for settlement is because of damage due to moisture. (See photo 2)

Photo 1

Photo 2

We proceeded down into the crawl space and noted that it was relatively dry. The first floor sits above a 3-foot crawl space, and is framed with 3"x5" joist spaced at approximately 18" on center. The joist span north to south, from the front entrance of the building to the back wall. The joists are supported by the foundation walls at the exterior, and frame into four lines of 7"x7" wood girders at the interior. The girders are supported by along its length by four equally spaced timber posts. The posts sit on stone that bear directly on the ground.

It was noted the first line of girders and multiple timber posts were subject to powder post beetle damage. In addition, many posts are splitting and crushing at their base. (See photo 3.)

Photo 3

We proceeded up passed the mezzanine, to view the roof structure. The roof is made up of sloped rafters, supported at the top of the exterior bearing walls, the ridge beam, and midspan by purlins. The purlins are supported by wood and iron rod trusses. It was noted the some of the rafters were subject to light checking, but generally thee roof is in good condition. (See Photo 4)

Photo 4

We then proceeded up into the steeple. The steeple was framed with four corner posts and wood beams. It was noted that the steeple was also dry and in good condition.

Lastly, we proceeded down into the main assembly area. Although the wall framing was not visible to us, there was no evidence of racking of bowing of the bearing walls. (See Photo 5.)

Photo 5

Assessment of Existing Conditions

While only portions of the structure visible from inside, there is evidence of structural distress from inside the building. The areas of framing noted, which have failed at the first floor due to age and insect damage are concerning and require major structural repairs. The damaged wood girders and timber post in the crawl spaced need to be repaired and or replaced.

The roof and steeple framing appear to be in sound condition, however, as in most older buildings, certain areas could be compromised due to age, overloading or moisture from leaking pipes, etc.

This letter report addresses only those structural problems referred to above and observed during this walk-through. Other structural problems may be concealed behind finishes, plaster ceilings and walls, since few of the structures were exposed during the visit. Although care has been taken in the performance of the inspection, no representation regarding latent or concealed defects, which may exist, is made.

If you have any further questions, or if we can be of any further assistance, please feel free to call.

Very truly yours,
ROOME & GUARRACINO, LLC

Carmine Guarracino, P.E.
Partner

South Franklin Meeting House, Franklin, MA

MEP RECOMMENDATIONS –April 3, 2020

The proposed renovations to the South Franklin Meeting House located at 762 Washington Street, Franklin, MA include renovations to the plumbing, HVAC, and electrical systems.

The scope as outlined below is based upon Architectural drawings A-1 and A-2 dated January 16, 2015 and our site meetings on December 16, 2014 with the Town of Franklin's Building Inspector and a follow up visit on March 11, 2020.

HVAC:

Provide an air handling unit (AHU) with gas heating and electric cooling located in the mechanical mezzanine. This AHU will be ducted to both the main open space as well as the entry foyer and will have economizing capability. The outside air ductwork to be routed to existing louver within the bell tower to maintain the historical appearance of the building.

Use of localized electric heating within the foyer and restroom(s) will be installed to offset air infiltration and/or localized heating.

These systems will replace the existing electric cabinet unit heaters installed throughout the spaces.

Toilet exhaust fan to be provided for the 1st floor restroom(s) and be ducted up to an existing louver within the bell tower.

The temperature control system to provide demand ventilation based on carbon monoxide levels to minimize energy use as well as networked into the Town's building management system for remote control.

HVAC

- Air handling unit (1 @ 4,000 CFM, 1,000 CFM Outdoor Air, 12.5 tons with associated outdoor condensing unit, economizer and gas fired duct furnace). This size assumes the current assembly occupancy and seating density will be maintained
- Ductwork supply, return, and exhaust distribution, diffusers and grilles for all areas.
- Miscellaneous electric cabinet unit heaters and baseboard for the foyer and restroom(s).

Electrical

The building is serviced by a 120/240V single phase, 3 Wire service distributed through an Arrow Hart/Murray 200 amp panelboard with 40 pole spaces. It is anticipated that this service size is insufficient for the recommended requirements of the building and a new 208 V, 3 phase, 4-Wire, 200

amp service is recommended. Existing branch circuity to be renovated as needed to suit the updated electrical plans.

Site lighting consists of exterior egress lighting on daylight sensors and time clock controlled. These fixtures do not appear to meet the required 0.3 to 0.4 ft/candles standard and are recommended to be replaced. The interior lighting fixtures do not meet current codes and are recommended to be replaced along with an updating of switching and occupancy lighting control. There are emergency battery back-up lighting units serving the large open space and entry foyer which appear to be beyond their useful life expectancy – we recommend that these units be replaced with new. The existing exit signage does not meet current code and we recommend these units be replaced with new.

The fire alarm system serving the building consists of localized smoke detectors connected to a security panel with an automatic dialer to a security company. Current code does not require a fire alarm system in A-3 Assemblies occupancies with an occupant load less than 300 persons. Good design practice is to retain the existing smoke detection and add CO monitoring (based upon the proposed upgrade to gas heating) and the addition of horn/strobe notification appliances throughout. It is assumed the existing security panel can accommodate the proposed upgrades.

Plumbing

The current building has a ½" cold water service and a 4" waste that is reported to discharge to a septic system but it was noted that public sewer is evident in the street. There are two restrooms that are not code compliant as they lack hot water, accessible space, and ventilation. There is no gas service to the building but again it was noted that gas service appears evident within the neighborhood.

We recommend that a new sanitary connection to the public system on Washington Street in front of the building be made. A separate site/civil consultant evaluation of the condition of the septic system be completed to determine whether it is viable for reuse however for purposes of this study it is assumed that the existing septic system is beyond its useful life expectancy.

A new gas service is recommended for efficient heating connect to the existing utility infrastructure underneath the adjacent streets.

Based on the proposed occupancy of Assembly (A-3) the plumbing code requires both a Men's and Women's restroom. We recommend that discussions be started with the local plumbing and building inspectional services to determine whether a variance request for an accessible unisex restroom is suitable given this study's goal of maintaining the current building size and historic character. A variance request will likely require multiple approvals from local jurisdictions, accessibility, and state plumbing board agencies.

- Natural gas piping and service.
- New Plumbing fixtures and services for restroom(s) including sanitary, vents, and piping.
  - New domestic electric point of use water heater for restroom(s) and cold water piping plus insulation for each. New cold water for restroom(s) to be connected to the existing service.
  - New toilet(s) and lavatory(s), all with fixture carriers, sanitary and vent piping connecting to the existing service.

Fire Protection

Per Massachusetts General Law c. 148 s. 26G, and the Massachusetts State Building Code, 780 CMR 9th edition, the building is not required to be sprinkler protected due to the size (<5,000 SF) and occupancy (Assembly A-3 with less than 300 occupants).

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FLI Environmental

March 19, 2020

Brian Valentine
LLB Architects
161 Exchange Street
Pawtucket, Rhode Island 02860

RE: FLI Project #: 20-1311
Inspection for Asbestos Containing Materials at
South Franklin Congregational Meeting House
762 Washington Street Franklin, Massachusetts

Dear Mr. Valentine,

FLI Environmental, Inc. performed an inspection for asbestos containing materials (ACMs) at the property located at the address noted above. This report outlines the initial visual survey, sample collection and summary of analytical results provided by FLI.

Inspection Summary:

Asbestos Inspector:	Jody Freitas
License #:	AI900238
Date of Inspection:	March 11, 2020
Total Materials Sampled:	5
Samples Analyzed At:	Asbestos Identification Laboratory, Inc.
NIST/NVLAP Certification#:	200919-0
MassDLS Lab Certification#:	AA000208

Scope and Approach:

FLI provided a state licensed and EPA AHERA accredited asbestos inspector to perform an inspection of the subject area(s). The purpose of the inspection was to identify and sample building materials suspected to contain asbestos. Suspect materials include thermal system insulation, fireproofing, soundproofing, plasters, skimcoating, spray-applied or trowel applied finishes, ceiling & floor tiles, sheet flooring, caulking, glazing, mastics, adhesives, cement board products, roofing materials and numerous other products. Materials having the same function/application, similar color, texture or other observed similar characteristics were grouped together and sampled as one homogeneous material. A minimum of 2 samples of each homogenous material were collected.

Homogeneous materials determined to be non-suspect by the inspector (if observed), include concrete floors, wood flooring/joists, concrete block, black/brown vinyl flexible duct connectors, fiberglass insulation, armaflex (neoprene) insulation, rubber, plastic, ceramic tile, glass and metal.

If present, areas within walls, drywall encased columns and above ceilings were inspected where possible in accessible representative locations. However, each individual enclosed area was not inspected. Accessible areas beneath such surfaces were examined and sampled, and material quantities were estimated based on these observations.

Bulk Sampling:

Bulk samples were collected in a random manner and submitted via chain of custody to the analytical laboratory. The samples were analyzed by Polarized Light Microscopy per EPA Method 600/R-93-116, July 1993. The detection limit of the EPA recommended method is one percent asbestos by weight. Materials containing greater than one percent asbestos are treated as asbestos-containing as required by the EPA. The laboratory is accredited by the National Institute of Standards and Technologies NIST/NVLAP Program and licensed by the Massachusetts Department of Labor Standards (DLS) for asbestos analysis in bulk materials.

Asbestos Containing Materials:

Any homogeneous material having at least one (1) sample analytically identified as containing one percent (1%) asbestos or greater is categorized as an asbestos containing material. Any material analytically identified as containing any asbestos fibers is categorized as an asbestos containing waste material. None of the materials sampled and analyzed were determined to be asbestos containing. Laboratory Analytical Data Sheets for each sample analyzed are included in Appendix B.

Non-Asbestos Containing Materials:

Homogeneous materials where each sample analyzed was determined not to contain asbestos are categorized as non-asbestos. A summary of non-asbestos materials is provided in Appendix A. Laboratory Analytical Data Sheets for each sample analyzed are included in Appendix B.

Remarks and Limitations:

1. Additional suspect materials may be present beneath surfaces (multiple layers) or within chases or crawlspace areas that were unknown or unaccessible at the time of the inspection but may be discovered during demolition, renovation or maintenance activities. Any additional suspect materials not identified in this report that become exposed during building renovation, maintenance or demolition should be sampled and analyzed for asbestos content prior to disturbing.

2. Each identified asbestos containing material must be removed by a licensed asbestos abatement contractor prior to being disturbed by building maintenance, renovation or demolition activities.

3. This report is not meant to be used as an asbestos abatement plan or abatement specification. Material quantities and locations are estimates and approximations and should not be used to obtain pricing from contractors. FLI recommends contracting for abatement after an abatement specification is prepared by a licensed Asbestos Project Designer.

4. Roofing materials were not able to be accessed at the time of the survey. Suspect roofing materials sjould be sampled and analyzed to determine asbestos content prior to disturbance.

Should you have any questions or need additional information, please contact our office at (781) 251-0040. Thank you for the opportunity to provide you with our services and we look forward to working together in the future.

APPENDIX A

Suspect Materials Found Not to Contain Asbestos				
Sample # ('s)	**Material**	**Sample Location A**	**Sample Location B**	**Sample Location C**
01 A,B,C	Faux Tile Sheetflooring	Bathroom	Bathroom	Bathroom
02 A,B,C	Mosaid Sheetflooring	Bathroom	Bathroom	Bathroom
03 A,B,C	Gypsum	Stairwell	Stairwell	Stairwell
04 A,B,C	Joint Compound	Stairwell	Stairwell	Stairwell
05 A,B,C	Glazing	Window Exterior	Window Exterior	Window Exterior

APPENDIX B

BULK SAMPLE LABORATORY DATA SHEETS

Asbestos Identification Laboratory

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600
Web: www.asbestosidentificationlab.com
Email: mikemanning@asbestosidentificationlab.com

Batch: 51707

NVLAP® Lab Code: 200919-0

March 18, 2020

Jody Freitas
FLI Environmental
69 Bridge Street
Dedham, MA 02026

Project Name: *762 Washington St., Franklin, MA*
Project Number: 20-1311
Date Sampled: 2020-03-11
Work Received: 2020-03-16
Work Analyzed: 2020-03-18

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Jody Freitas,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.
Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Jody Freitas for your business.

Michael Manning
Owner/Director

March 18, 2020

Jody Freitas
FLI Environmental
69 Bridge Street
Dedham, MA 02026

Project Name: *762 Washington St., Franklin, MA*
Project Number: 20-1311
Date Sampled: 2020-03-11
Work Received: 2020-03-16
Work Analyzed: 2020-03-18

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
01A / 576595	Faux Tile Sheet Flooring	Bathroom	multi	Cellulose 30 Non-Fibrous 70	None Detected
01B / 576596	Faux Tile Sheet Flooring	Bathroom	multi	Cellulose 30 Non-Fibrous 70	None Detected
01C / 576597	Faux Tile Sheet Flooring	Bathroom	multi	Cellulose 30 Non-Fibrous 70	None Detected
02A / 576598	Mosaid Sheet Flooring	Bathroom	multi	Cellulose 30 Non-Fibrous 70	None Detected
02B / 576599	Mosaid Sheet Flooring	Bathroom	multi	Cellulose 30 Non-Fibrous 70	None Detected
02C / 576600	Mosaid Sheet Flooring	Bathroom	multi	Cellulose 30 Non-Fibrous 70	None Detected
03A / 576601	Gypsum	Stairwell	multi	Cellulose 10 Non-Fibrous 90	None Detected
03B / 576602	Gypsum	Stairwell	multi	Cellulose 10 Non-Fibrous 90	None Detected
03C / 576603	Gypsum	Stairwell	gray	Cellulose 2 Non-Fibrous 98	None Detected
04A / 576604	Joint Compound	Stairwell	white	Non-Fibrous 100	None Detected
04B / 576605	Joint Compound	Stairwell	white	Non-Fibrous 100	None Detected
04C / 576606	Joint Compound	Stairwell	white	Non-Fibrous 100	None Detected
05A / 576607	Glazing	Window Exterior	gray	Non-Fibrous 100	None Detected
05B / 576608	Glazing	Window Exterior	gray	Non-Fibrous 100	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
05C 576609	Glazing	Window Exterior	gray	Non-Fibrous 100	None Detected

Wednesday 18 March End of Report Page 2 of 2

Analyzed by: **Batch:** 51707

69 Bridge Street • Dedham • MA • 02026 (781) 251-0040 fax (781) 251-0901

FLI Environmental

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY RECORD

FLI Project #: 20-1311

Date: 3/11/2020

Client: LLB Architects

Site: South Franklin Congregational Meeting House
762 Washington Street Franklin, Massachusetts

Sampled by: Jody Freitas

License #: AI900238

Sample # (s)	Material	Location A	Location B	Location C	Asbestos Analysis			Positive (y/n)
					PLM	TEM	Point Count	
01 A,B,C	Faux Tile Sheetflooring	Bathroom	Bathroom	Bathroom	x			
02 A,B,C	Mosaid Sheetflooring	Bathroom	Bathroom	Bathroom	x			
03 A,B,C	Gypsum	Stairwell	Stairwell	Stairwell	x			
04 A,B,C	Joint Compound	Stairwell	Stairwell	Stairwell	x			
05 A,B,C	Glazing	Window Exterior	Window Exterior	Window Exterior	x			

Relinquished by: [signature] 3/11/2020 Date/Time

Received by: Edmer Blatus 3/11/2020 Date/Time

Relinquished by: Date/Time

Received by: Date/Time

Turnaround: Rush 24-Hr 48-Hr
3-Day 4-Day 5-Day

Date Needed

APPENDIX C

BULK SAMPLE LABORATORY DATA SHEETS

APPENDIX C

Other Hazardous Materials		
Material	**Location**	**Quantity**
4 ' Light Ballasts	2nd Floor	5 EA
4' Lamps	2nd Floor	5 EA

APPENDIX D

LICENSES AND CERTIFICATIONS


THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Michael Flanagan
Interim Director
Asbestos Inspector
JODY FREITAS
Eff. Date 02/19/20
Exp. Date 02/19/21
AI900238
Member of C.O.N.E.S.
HVR HV-02/07/21
21

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
19 STANIFORD STREET, BOSTON, MASSACHUSETTS 02114

CERTIFICATION FOR ASBESTOS ANALYTICAL SERVICES

ASBESTOS IDENTIFICATION LABORATORY
165 NEW BOSTON STREET
SUITE 227
WOBURN MA 01801

LICENSE: **AA000208** EXPIRES: **Tuesday, June 23, 2020**

IN ACCORDANCE WITH MGL CH. 149 § 6B AND 453 CMR 6.08 THIS CERTIFICATE IS ISSUED BY THE DEPARTMENT OF LABOR STANDARDS TO THE ABOVE NAMED ENTITIY TO PROVIDE THE ASBESTOS ANALYTICAL SERVICES SPECIFICALLY LISTED BELOW.

CLASS A CERTIFICATE CLASS C CERTIFICATE

WILLIAM D. MCKINNEY, DIRECTOR

Mailing Address:

ASBESTOS IDENTIFICATION LABORATORY
165 NEW BOSTON STREET
SUITE 227
WOBURN, MA 01801

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200919-0

Asbestos Identification Laboratory

Woburn, MA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2019-07-01 through 2020-06-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

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FLI Environmental

69 Bridge Street
Dedham, MA 02026
Phone 781.251.0040
Fax 781.251.0901

March 20, 2020

Mr. Brian Valentine
LLB Architects
161 Exchange Street
Pawtucket, Rhode Island 02860

RE: Paint Chip Sampling for Lead at
South Franklin Congregational Meeting House
Franklin, Massachusetts
FLI Project # 20-1311

Dear Ms. Powers,

FLI provided a technician to collect paint chip samples for lead analysis from the above referenced property as directed.

Inspection Summary:	Technician:	Jody Freitas
	Date of Sampling:	March 11, 2020
	Total Number of Samples:	5
	Samples Analyzed At:	SanAir Technologies Laboratory, Inc.
	AIHA LPAT Certification#:	162952

Samples were collected in a random manner and submitted via chain of custody to the analytical laboratory and analyzed by EPA Method SW846/3050B/7000B. MassDPH and Federal HUD guidelines consider paint containing lead concentrations greater than or equal to 0.5% by weight (5,000 ppm) to be lead-based paint (LBP). Laboratory Analytical Data Sheets are attached and provide details about each sample collected.

Remarks and Limitations:

1. Analysis showed that three paint samples collected from the subject areas were determined to be above the threshold for LBP. The sample locations are the "Brown on Floor", and "Yellow in Interior" and "White on Exterior". While only three samples were above the threshold for LBP, all samples had a detectable level of lead. Any detectable amount of lead requires that OSHA guidelines be followed while impacting these paints.

Should you have any questions or need additional information, please contact our office at (781) 251-0040. Thank you for the opportunity to provide you with our services.

Sincerely,
FLI Environmental, Inc.

Matthew Schreiber
Project Manager

SanAir Technologies Laboratory

The Identification Specialists

Analysis Report prepared for FLI Environmental, Inc.

Report Date: 3/20/2020

Project Name: South Franklin Congregational

Project #: 20-1311

SanAir ID#: 20012778

1551 Oakbridge Dr. Suite B | Powhatan, Virginia 23139-8061
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com

SanAir ID Number
20012778
FINAL REPORT
3/20/2020 9:54:56 AM

Name: FLI Environmental, Inc.
Address: 69 Bridge Street
Dedham, MA 02026
Phone: 781-251-0040

Project Number: 20-1311
P.O. Number:
Project Name: South Franklin Congregational
Collected Date: 3/11/2020
Received Date: 3/17/2020 9:50:00 AM

Dear Jody Freitas,

We at SanAir would like to thank you for the work you recently submitted. The 5 sample(s) were received on Tuesday, March 17, 2020 via FedEx. The final report(s) is enclosed for the following sample(s): 1, 2, 3, 4, 5.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Abisola Kasali
Metals Laboratory Director
SanAir Technologies Laboratory

Final Report Includes:
- Cover Letter
- Analysis on Test Family AA
- Disclaimers and Additional Information

Sample conditions:
- 5 samples in Good condition.

SanAir Technologies Laboratory

SanAir ID Number
20012778
FINAL REPORT
3/20/2020 9:54:56 AM

Name: FLI Environmental, Inc.
Address: 69 Bridge Street
Dedham, MA 02026
Phone: 781-251-0040

Project Number: 20-1311
P.O. Number:
Project Name: South Franklin Congregational
Collected Date: 3/11/2020
Received Date: 3/17/2020 9:50:00 AM

Analyst: Ortega, David
Test Method: SW846/M3050B/7000B

Lead Paint Analysis

PAINT Sample	Description	µg Pb In Sample	Sample Size (grams)	Calculated RL	Sample Results	Sample Results
20012778 - 1	1 White On Interior	< 10	0.1019	98.1	<98.1 µg/g (ppm)	<0.010 % By Weight
20012778 - 2	2 Brown On Floor	513	0.0576	173.6	8902 µg/g (ppm)	0.890 % By Weight
20012778 - 3	3 Grey On Floor	76	0.1105	90.5	690.7 µg/g (ppm)	0.069 % By Weight
20012778 - 4	4 Yellow On Interior	26050	0.1102	90.7	236300 µg/g (ppm)	23.630 % By Weight
20012778 - 5	5 White On Exterior	7613	0.104	96.2	73200 µg/g (ppm)	7.320 % By Weight

Method Reporting Limit <10 µg/0.1 g paint
Sample 5 matrix spike failed

Signature:
Date: 3/18/2020

Reviewed:
Date: 3/18/2020

SanAir ID Number
20012778
FINAL REPORT
3/20/2020 9:54:56 AM

Name: FLI Environmental, Inc.
Address: 69 Bridge Street
Dedham, MA 02026
Phone: 781-251-0040

Project Number: 20-1311
P.O. Number:
Project Name: South Franklin Congregational
Collected Date: 3/11/2020
Received Date: 3/17/2020 9:50:00 AM

Disclaimer

SanAir Technologies Laboratory, Inc. participates in the Environmental Lead Accreditation Program (ELAP) administered by AIHA-LAP, LLC (Lab ID162952). Refer to our accreditation certificate or www.aihaaccreditedlabs.org for an up to date list of the Fields of Testing for which we are accredited. SanAir also participates in the State of New York's DOH-ELAP (Lab Id 11983), and has met the EPA's NLLAP program standards. This report does not constitute endorsement by AIHA-LAP, LLC and/or any other U.S. governmental agencies; and may not be accredited by every local, state or federal regulatory agency.

This report is the sole property of the client named on the SanAir Technologies Laboratory chain-of-custody (COC). Neither results nor reports will be discussed with or released to any third party without our client's written permission. Final reports cannot be reproduced, except in full, without written authorization from SanAir Technologies Laboratory, Inc. The information provided in this report applies only to the samples submitted and is relevant only for the date, time, and location of sampling. SanAir is not responsible for sample collection or interpretation made by others. SanAir assumes no responsibility for information provided by the client on the COC such as project number, project name, collection dates, po number, special instructions, samples collected by, sample numbers, sample identifications, sample type, selected analysis type, flow rate, total volume or area, and start stop times that may affect the validity of the results in this report. SanAir Technologies Laboratory, Inc only assures the precision and accuracy of the data it generates and assumes no responsibility for errors or biasing that occur during collection prior to SanAir's receipt of the sample(s). SanAir's Method Detection Limits (MDL) and Reporting Limits (RL) have been derived using various materials meeting each accrediting agencies' standards. All quality control results are acceptable unless otherwise noted. Results are not corrected for blanks.

Lead Exposure Limits

Paint	
0.5% by weigh	HUD definition of lead based paint
1.0 mg/cm^2	
5000 ppm	

Revision Date 1/29/2020

SanAir Technologies Laboratory
1551 Oakbridge Dr STE B
Powhatan, VA 23139
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Metals & Lead Chain of Custody

Form 70, Revision 9, 01/19/2017

SanAir ID Number: 20012778

Company: FLI Environmental, Inc.	Project #: 20-1311	Phone #: 781-251-0040
Address: 69 Bridge St.	Project Name: South Franklin Congregational	Phone #:
City, St., Zip: Dedham, MA 02026	Date Collected: 3/11/2020	Fax #: 781-251-0401
Samples Collected By: Jody Freitas	P.O. Number:	Email:
Account #: 2799	U.S. State Collected in: Massachusetts	Email: jfreitas@flienv.com

Matrix Types

- ☐ **Air** (ug/m³)
- ☐ **Wipe** (ug/ft²)
- ■ **Paint** ☐**Soil** ☐**Bulk** (ug/g or ppm)
- ☐ **Other:**

Metals Analysis Types

- Total Concentration of Lead ■
- Total Concentration of RCRA 8 Metals ☐
- TCLP for Lead ☐
- TCLP for RCRA 8 Metals ☐
- ☐ ICP-total concentration of metals (please list metals):

Turn Around Time				
	Same Day ☐	1 Day ☐	2 days ☐	3 Days ■
	☐ Standard (5 day)	☐ Full TCLP (10d)		

Sample #	Collection Date & Time	Sample Identification/Location	Flow Rate	Start Time	Stop Time	Volume (L) Area (Sq ft)
1	3/11/2020 12:30	White on Interior	NA	NA	NA	NA
2	3/11/2020 12:30	Brown on Floor	NA	NA	NA	NA
3	3/11/2020 12:30	Grey on Floor	NA	NA	NA	NA
4	3/11/2020 12:30	Yellow on Interior	NA	NA	NA	NA
5	3/11/2020 12:30	White on Exterior	NA	NA	NA	NA

Special Instructions

Relinquished by	Date	Time	Received by	Date	Time
	3/16/2020	09:00	CB	3/17/20	9:50am

If no technician is provided, then the primary contact of your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm will begin at 8 am the next business morning. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the Rush TAT rate. There is a minimum charge of $100 for weekend work. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

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Peer Review / Schematic Estimate

South Franklin Congregational Meeting House

Preservation/Viability Project

Franklin, MA

PM&C LLC
20 Downer Ave, Suite 5
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

LLB Architects

September 30, 2020

PM&C

South Franklin Congregational Meeting House
Franklin, MA
Preservation/Viability Project
Peer Review / Schematic Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
OPTION 1				
	Oct-21			
RENOVATE EXISTING TOWN HALL		1,965	$339.87	$667,850
HAZARDOUS MATERIALS ABATEMENT/PEST WASTE				$25,000
GRADING/LANDSCAPE/HARDSCAPE REWORK & REPAIRS				$7,500
SUB-TOTAL		1,965	$356.41	$700,350
DESIGN AND PRICING CONTINGENCY	15.0%			$105,053
ESCALATION	4.00%			$28,014
SUB-TOTAL		1,965	$424.13	$833,417
GENERAL CONDITIONS/GR's	15.00%			$125,013
BOND	1.15%			$9,584
INSURANCE GL/PL	1.85%			$15,418
PERMIT				Waived
OVERHEAD + FEE	10.00%			$98,343
TOTAL OF ALL CONSTRUCTION	Oct-21	1,965	$550.52	**$1,081,775**

PM&C

South Franklin Congregational Meeting House
Franklin, MA
Preservation/Viability Project
Peer Review / Schematic Estimate

OPTION 2

	Oct-21			
RENOVATE EXISTING TOWN HALL		1,965	$317.41	$623,712
HAZARDOUS MATERIALS ABATEMENT/PEST WASTE				$25,000
GRADING/LANDSCAPE/HARDSCAPE REWORK & REPAIRS				$7,500
SUB-TOTAL		1,965	$333.95	$656,212
DESIGN AND PRICING CONTINGENCY	15.0%			$98,432
ESCALATION	4.00%			$26,248
SUB-TOTAL		1,965	$397.40	$780,892
GENERAL CONDITIONS/GR's	15.00%			$117,134
BOND	1.15%			$8,980
INSURANCE GL/PL	1.85%			$14,447
PERMIT				Waived
OVERHEAD + FEE	10.00%			$92,145
TOTAL OF ALL CONSTRUCTION	Oct-21	1,965	$515.83	**$1,013,598**

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South Franklin Congregational Meeting House
Franklin, MA
Preservation/Viability Project
Peer Review / Schematic Estimate

This Peer Review/Schematic Design cost estimate was produced from the report dated July 31st, 2020 prepared by LLB Architects and their design team. Design and engineering changes occurring subsequent to the issue of these documents and value engineering have not been incorporated in this estimate.

This estimate includes all direct construction costs, general contractors overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding to general contractors, sub-contractors, open specifications for materials and manufacturers.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

Land acquisition, feasibility, and financing costs
All professional fees and insurance
Site or existing conditions surveys investigations costs, including to determine subsoil conditions
All Furnishings, Fixtures and Equipment
Items identified in the design as Not In Contract (NIC)
Items identified in the design as by others
Owner supplied and/or installed items as indicated in the estimate
Utility company back charges, including work required off-site
Work to City streets and sidewalks, (except as noted in this estimate)
Construction contingency

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30-Sep-20

South Franklin Congregational Meeting House
Franklin, MA
Preservation/Viability Project
Peer Review / Schematic Estimate

CONSTRUCTION COST SUMMARY IN CSI FORMAT

	OPTION 1		*OPTION 2*	
RENOVATIONS				
DIV. 2 EXISTING CONDITIONS		**$65,713**		**$63,428**
024000 Demolition				
025000 Selective Demolition	$65,713		$63,428	
025100 Hazardous Abatement				
DIV. 3 CONCRETE		**$24,071**		**$20,179**
033000 Cast-in-Place Concrete	$24,071		$20,179	
DIV. 4 MASONRY		**$7,000**		
040002 Unit Masonry	$7,000			
DIV. 5 METALS		**$14,948**		**$14,456**
054000 Cold Form Metal Framing				
055000 Metal Fabrications	$14,948		$14,456	
DIV. 6 WOODS & PLASTICS		**$88,393**		**$72,738**
060312 Historic Wood Repair	$19,686		$19,436	
061000 Rough Carpentry	$57,332		$41,077	
064100 Architectural Woodwork	$11,375		$12,225	
DIV. 7 THERMAL & MOISTURE PROTECTION		**$62,216**		**$60,851**
070001 Waterproofing, Damp proofing and	$5,539		$4,112	
070002 Roofing and Flashing	$55,864		$55,864	
072100 Thermal Insulation	$313		$375	
078400 Fire stopping	$500		$500	
DIV. 8 DOORS & WINDOWS		**$27,195**		**$23,095**
081416 Flush Wood Doors	$5,545		$4,645	
083100 Access Doors and Frames	$2,250		$2,250	
085200 Wood Windows	$10,500		$9,500	
087100 Door Hardware	$8,900		$6,700	
089000 Louvers				
DIV. 9 FINISHES		**$121,592**		**$119,438**
090002 Tiling	$30,006		$28,806	
090007 Painting	$40,892		$41,558	
091230 Plaster Patching and Repair	$15,720		$15,720	
092900 Gypsum Board Assemblies	$16,958		$14,858	
096560 Wood Flooring	$14,500		$14,500	
096810 Carpet	$3,516		$3,996	
DIV 10 SPECIALTIES		**$3,183**		**$3,183**
101400 Signage	$983		$983	
102800 Toilet Accessories	$1,700		$1,700	
104400 Fire Protection Specialties	$500		$500	
DIV. 12 FURNISHINGS				

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CONSTRUCTION COST SUMMARY IN CSI FORMAT

		OPTION 1		*OPTION 2*
RENOVATIONS				
122100	Window Shades			
123553	Casework			
124810	Entrance Floor Mats			
DIV. 21 FIRE SUPPRESSION				
210000	Fire Protection			
DIV. 22 PLUMBING		**$36,278**		**$36,278**
220000	Plumbing	$36,278	$36,278	
DIV. 23 HVAC		**$111,178**		**$103,928**
230000	HVAC	$111,178	$103,928	
DIV. 26 ELECTRICAL		**$77,758**		**$78,683**
260000	Electrical	$77,758	$78,683	
DIV. 31 EARTHWORK		**$8,325**		**$7,455**
312000	Earthwork	$8,325	$7,455	
DIV. 32 EXTERIOR IMPROVEMENTS				
320000	Paving			
323000	Site Improvements			
329200	Landscaping			
DIV. 33 UTILITIES		**20,000**		**20,000**
331000	Water Utilities			
333000	Sanitary Sewerage Utilities	$15,000	$15,000	
334000	Storm Drainage Utilities			
335000	Gas services	$5,000	$5,000	
SUBTOTAL DIRECT (TRADE) COST		**$667,850**		**$623,712**

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South Franklin Congregational Meeting House 30-Sep-20
Franklin, MA
Preservation/Viability Project GFA 1,965

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	GROSS FLOOR AREA CALCULATION						
	First Floor			1,465			
	Mezzanine			500			
	TOTAL GROSS FLOOR AREA (GFA)				**1,965** ***sf***		
	02 - EXISTING CONDITIONS						
025000	**SELECTIVE DEMOLITION**						
	Exterior						
	Create new opening - exterior wall	**1**	ea	1,500.00	1,500		
	Remove/Salvage granite tread - north portico				w/ masonry		
	Strip portico deck finishes	**238**	sf	7.50	1,785		
	Remove existing handrail	**1**	ls	350.00	350		
	Expose existing structure to tie in ramp and stair landing	**2**	loc	500.00	1,000		
	Selective removal of wood siding - assumes 5%	**119**	sf	15.00	1,785		
	Remove existing roof asphalt roof, gutters and drip edge	**4,450**	sf	4.00	17,800		
	Remove/Prep for roofing/flashings at cupola	**1**	ls	1,500.00	1,500		
	Structural						
	Shore/Remove timber posts in crawl space - P1 & P2	**7**	ea	1,750.00	12,250		
	Create floor access openings for post replacement w/ temp railings				w/ rough carpentry		
	Shore/Remove wood girder	**1**	ea	1,500.00	1,500		
	Remove existing access door	**1**	ea	350.00	350		
	Interior						
	Demo and remove existing door, frame and threshold	**2**	ea	200.00	400		
	Remove, salvage and store existing historic trim for reinstallation	**1**	ls	750.00	750		
	Demo and remove stairs	**1**	ls	4,500.00	4,500		
	Gut existing bathroom	**50**	sf	25.00	1,250		
	Demolition of existing walls	**1**	ls	350.00	350		
	Remove existing pews	**28**	ea	350.00	9,800		
	Miscellaneous demolition/protection/shoring	**1,965**	gsf	2.00	3,930		
	Remove cut and capped MEP equipment, fixtures & fittings	**1,965**	gsf	2.50	4,913		
	SUBTOTAL					65,713	
025100	**HAZARDOUS ABATEMENT**						
	Abatment of hazardous materials			on executive summary			
	SUBTOTAL					-	
	TOTAL - DEMOLITION						**$65,713**
	03 - CONCRETE						
033000	**CAST IN PLACE CONCRETE**						
	Column Footings: 2'x2'X1' deep - posts						
	Footing, form/place/finish	**7**	ea	750.00	5,250		
	Concrete pump	**1**	ls	1,500.00	1,500		
	Slab on grade						
	Patch slab ar areas in crawl space	**7**	loc	500.00	3,500		
	Strip Footing - ramp						
	Formwork	**80**	sf	18.00	1,440		
	Re-bar	**150**	lbs.	1.20	180		
	Concrete material	**3**	cy	140.00	420		
	Placing concrete	**3**	cy	200.00	600		
	Foundation Walls - ramp						
	Formwork	**240**	sf	20.00	4,800		
	Re-bar	**720**	lbs	1.20	864		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	Concrete material, dowel into existing wall	**5**	cy	125.00	625		
	Placing concrete	**5**	cy	200.00	1,000		
	Strip Footing - stair/landing						
	Formwork	**32**	sf	18.00	576		
	Re-bar	**50**	lbs.	1.20	60		
	Concrete material	**1**	cy	140.00	140		
	Placing concrete	**1**	cy	200.00	200		
	Foundation Walls - stair landing						
	Formwork	**96**	sf	20.00	1,920		
	Re-bar	**288**	lbs	1.20	346		
	Concrete material, dowel into existing wall	**2**	cy	125.00	250		
	Placing concrete	**2**	cy	200.00	400		
	SUBTOTAL					24,071	
	TOTAL - CONCRETE						**$24,071**
	04 - MASONRY						
	Exterior						
	Remove/Salvage/Reset granite treads - north portico	**35**	lf	200.00	7,000		
	SUBTOTAL					7,000	
	TOTAL - MASONRY						**$7,000**
	05 - METALS						
055000	**METAL FABRICATIONS**						
	New tube steel posts/plates - crawl space	**7**	ea	1,500.00	10,500		
	Ships ladder	**1**	ls	1,500.00	1,500		
	Miscellaneous metals - HVAC unit/ramp/stairs	**1,965**	gsf	1.50	2,948		
	SUBTOTAL					14,948	
	TOTAL - METALS						**$14,948**
	06 - WOOD, PLASTICS AND COMPOSITES						
060312	**HISTORIC WOOD REPAIR**						
	Wood clapboard siding including corner boards	**119**	sf	34.00	4,046		
	Wood window trim repair - exterior	**9**	ea	250.00	2,250		
	New door trim replication - exterior	**1**	ea	650.00	650		
	Wood fascia/soffit trim	**158**	lf	30.00	4,740		
	Miscellaneous cupola/column/trim repair/prep for paint	**1**	ls	8,000.00	8,000		
	SUBTOTAL					19,686	
061000	**ROUGH CARPENTRY**						
	Exterior - Ramp & Stairs						
	Ramp & landing framing & wood decking	**175**	sf	40.00	7,000		
	Stair framing & wood decking at landing	**32**	sf	50.00	1,600		
	Stair treads/risers	**12**	lf	125.00	1,500		
	Ramp & Stair railings	**52**	lf	200.00	10,400		
	Ramp & Stair handrails - wall mounted	**34**	lf	75.00	2,550		
	Exterior - Portico						
	Minor framing/New decking to adjust floor elevation	**238**	sf	27.50	6,545		
	New wood tread & riser	**35**	lf	100.00	3,500		
	Exterior - Façade						
	Back-up/Sheathing replacement/repair at siding	**1**	ls	1,500.00	1,500		
	Back-up/Sheathing replacement/repair at cupola	**1**	ls	500.00	500		

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	OPTION 1						
	Create door opening	**1**	loc	500.00	500		
	Reset/adjust door sill at portico	**1**	loc	250.00	250		
	Floor Infills / Access Hatch						
	Infill existing access hatch to crawl space	**1**	loc	750.00	750		
	Create/Frame new opening for access hatch to crawl space	**1**	loc	750.00	750		
	Create/Frame new opening for access hatch to mechanical space	**1**	ls	750.00	750		
	Create floor access openings for post replacement w/ temp railings	**1**	ls	2,500.00	2,500		
	Structural						
	Replace/Repair existing wood girder	**1**	ls	1,750.00	1,750		
	Repairs are bowing mezzanine wall	**1**	ls	2,000.00	2,000		
	Minor framing a mezzanine for new mechanical unit	**1**	ls	1,500.00	1,500		
	Wall Framing						
	New wall framing	**25**	lf	24.00	600		
	Create new door opening - interior wall	**1**	ls	500.00	500		
	Miscellaneous blocking, sill plate,, boards etc.	**1**	ls	500.00	500		
	Roofing						
	Remove and replace roof sheathing - 25% replacement	**1,113**	sf	8.00	8,904		
	Miscellaneous interiors						
	Wood blocking at interiors	**1,965**	gsf	0.50	983		
	SUBTOTAL					57,332	
064020	**ARCHITECTURAL WOODWORK**						
	Finish Carpentry						
	Wood base at new walls	**25**	lf	25.00	625		
	Wainscot/Chair rail - new walls	**88**	sf	50.00	4,400		
	New door casings - exterior	**1**	loc	300.00	300		
	New single door casings - interior	**2**	loc	500.00	1,000		
	New double door casings - interior	**1**	loc	550.00	550		
	Repairs at existing window sills/aprons/casings	**9**	loc	500.00	4,500		
	Stairs						
	No work required						
	Casework						
	No work required						
	SUBTOTAL					11,375	
	TOTAL - WOOD, PLASTICS AND COMPOSITES						**$88,393**
	07 - THERMAL AND MOISTURE PROTECTION						
070001	**WATERPROOFING, DAMPPROOFING AND CAULKING**						
	Exterior						
	Air barrier/flashing at existing windows	**9**	ea	150.00	1,350		
	Air barrier/flashing at exterior new doors	**1**	ea	250.00	250		
	Air barrier/flashing at exterior wall repairs	**1**	ls	500.00	500		
	Miscellaneous sealants throughout building	**1,965**	gsf	0.75	1,474		
	Interior						
	Miscellaneous sealants throughout building	**1,965**	gsf	1.00	1,965		
	SUBTOTAL					5,539	
070002	**ROOFING AND FLASHING**						
	Sloped roof						
	New architectural asphalt roof including ice and water shield	**4,450**	sf	9.00	40,050		
	Asphalt shingles - vertical face at the cupola	**72**	sf	12.00	864		
	3/4" Plywood sheathing				w/ rough carpentry		
	6" Rigid insulation				assumed not required		
	Miscellaneous Roofing						
	Roof to wall flashing at cupola	**24**	lf	25.00	600		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	Miscellaneous flashings	**4,450**	sf	1.00	4,450		
	Gutters	**90**	lf	70.00	6,300		
	Downspouts	**60**	lf	60.00	3,600		
	SUBTOTAL					55,864	
072100	**THERMAL INSULATION**						
	Interior						
	Batt insulation ar interior walls	**250**	sf	1.25	313		
	SUBTOTAL					313	
078400	**FIRESTOPPING**						
	Fire stopping - allow	**1**	ls	500.00	500		
	SUBTOTAL					500	
TOTAL - THERMAL AND MOISTURE PROTECTION							**$62,216**
08 - OPENINGS							
081416	**FLUSH WOOD DOORS**						
	Frames						
	Single frame - exterior	**1**	ea	250.00	250		
	Single frame	**2**	ea	185.00	370		
	Double frame	**1**	ea	225.00	225		
	Door						
	Solid core wood door - single - exterior	**1**	ea	850.00	850		
	Solid core wood door - single	**2**	ea	500.00	1,000		
	Solid core wood door - double	**1**	ea	1,000.00	1,000		
	Door Installation						
	Solid core wood door - exterior	**1**	ea	250.00	250		
	Solid core wood door - exterior modify/new sills	**2**	ea	450.00	900		
	Solid core wood door - interior	**4**	ea	175.00	700		
	SUBTOTAL					5,545	
083100	**ACCESS DOORS AND FRAMES**						
	Access doors - floor	**1**	ls	1,250.00	1,250		
	Access doors - ceiling	**1**	ls	1,000.00	1,000		
	SUBTOTAL					2,250	
085200	**WINDOWS**						
	Repair windows - new glazing putty/sealants & replace broken panes	**9**	ea	1,000.00	9,000		
	Replace/Repair jambs/stops/sash where deteriorated	**1**	ls	1,500.00	1,500		
	SUBTOTAL					10,500	
087100	**DOOR HARDWARE**						
	Interior door hardware	**4**	leaf	800.00	3,200		
	Exterior door hardware - new	**1**	leaf	1,500.00	1,500		
	Exterior door sill - existing door HC	**1**	ea	3,500.00	3,500		
	Exterior door sill - existing door	**2**	ea	350.00	700		
	SUBTOTAL					8,900	
088000	**GLASS AND GLAZING**						
	No work required						
	SUBTOTAL					-	
089000	**FIXED LOUVERS**						
	No work required						
	SUBTOTAL					-	

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OPTION 1							
	TOTAL - OPENINGS						**$27,195**
	09 - FINISHES						
090002	**TILE**						
	Ceramic tile floor	**145**	sf	30.00	4,350		
	Tile base	**154**	lf	24.00	3,696		
	Ceramic wall tile	**616**	sf	35.00	21,560		
	Stone threshold	**2**	ea	200.00	400		
	SUBTOTAL					30,006	
090003	**ACT**						
	No work required						
	SUBTOTAL					-	
090005	**RESILIENT FLOORS**						
	No work required						
	SUBTOTAL					-	
090007	**PAINTING**						
	Exterior painting						
	Scrape prime and paint siding & trim	**2,370**	sf	6.50	15,405		
	Scrape prime and paint siding & trim - cupola	**1**	ls	3,500.00	3,500		
	Prep & paint existing portico and columns	**238**	sf	20.00	4,760		
	Prime & paint new portico wood deck	**238**	sf	4.00	952		
	Paint doors & windows	**12**	ea	250.00	3,000		
	Interior painting						
	Paint to new walls	**500**	sf	0.95	475		
	Prime and paint existing walls to remain including scraping, cleaning and removal of mastics, misc. fasteners, tacks, staples etc. - includes wainscot, base & trim	**1,965**	gsf	3.50	6,878		
	Prep & paint ceilings	**1,965**	sf	1.50	2,948		
	Prep & stain/paint doors and frames	**6**	lvs	250.00	1,500		
	Interior painting/touch-up	**1,965**	gsf	0.75	1,474		
	SUBTOTAL					40,892	
091230	**PLASTER PATCHING AND REPAIR**						
	Patch existing walls to remain	**1,965**	gsf	3.00	5,895		
	Patch existing veneer plaster ceiling	**1,965**	sf	5.00	9,825		
	SUBTOTAL					15,720	
092900	**GWB**						
	Interior Partitions						
	GWB & plaster on wood stud wall	**500**	sf	6.50	3,250		
	Patching/ furring existing walls	**1,965**	gsf	3.50	6,878		
	Ceilings						
	New GWB ceiling - moisture resistant at restrooms	**145**	sf	20.00	2,900		
	Patch/Repair existing ceilings and soffits	**1,965**	gsf	2.00	3,930		
	SUBTOTAL					16,958	
096560	**WOOD FLOORING**						
	Wood flooring - repair & paint existing	**900**	sf	15.00	13,500		
	Wood flooring - repair & paint existing platform stairs	**4**	ea	250.00	1,000		
	SUBTOTAL					14,500	
096810	**TILE CARPETING**						
	New carpet - vestibule	**146**	sf	12.00	1,752		
	New carpet - platform	**147**	sf	12.00	1,764		
	SUBTOTAL					3,516	

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	TOTAL - FINISHES						**$121,592**
	10 - SPECIALTIES						
101100	**VISUAL DISPLAY BOARDS**						
	Marker boards/ tack boards				FF+E		
	SUBTOTAL					-	
101400	**SIGNAGE**						
	Signage - allowance for code signage only	**1,965**	gsf	0.50	983		
	SUBTOTAL					983	
102800	**TOILET ACCESSORIES**						
	Single user bathrooms	**2**	ea	850.00	1,700		
	SUBTOTAL					1,700	
104400	**FIRE PROTECTION SPECIALTIES**						
	Fire extinguisher cabinets	**1**	ls	500.00	500		
	SUBTOTAL					500	
	TOTAL - SPECIALTIES						**$3,183**
	11 - EQUIPMENT						
	No Work In This Section						
	SUBTOTAL					-	
	TOTAL - EQUIPMENT						
	12 - FURNISHINGS						
122410	**WINDOW TREATMENT**						
	Window treatment allowance				FF+E		
	SUBTOTAL					-	
123000	**FIXED CASEWORK**						
	Included w Div.06						
	SUBTOTAL					-	
124810	**ENTRANCE MATS**						
	Walk-off carpet tile in vestibules				assumed not required		
	SUBTOTAL					-	
	TOTAL - FURNISHINGS						
	14 - CONVEYING SYSTEMS						
	No Work In This Section						
	SUBTOTAL					-	
	TOTAL - CONVEYING						
	21 - FIRE SUPPRESSION						
	No Work In This Section						
	SUBTOTAL					-	

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	TOTAL - FIRE SUPPRESSION						
	22 - PLUMBING						
220000	**PLUMBING**						
	Equipment						
	Electric water heater point of use	**2**	ea	1,750.00	3,500		
	Water meter assembly				ETR		
	Backflow preventer				ETR		
	Mixing valve				ETR		
	Floor drain				assumed not required		
	Hose bibb				ETR		
	Plumbing Fixtures & Specialties						
	Water closet	**2**	ea	1,400.00	2,800		
	Lavatory	**2**	ea	1,100.00	2,200		
	Janitor's sink				assumed not required		
	Domestic Water						
	Domestic water pipe with fittings & hangers	**100**	lf	40.00	4,000		
	Valves and accessories	**1**	ls	500.00	500		
	Sanitary Waste And Vent Pipe						
	UG San waste pipe with fittings & hangers - modification	**1**	ls	5,000.00	5,000		
	AG San waste pipe with fittings & hangers	**40**	lf	60.00	2,400		
	Gas Piping						
	Gas piping	**1,965**	sf	3.50	6,878		
	Pipe Insulation						
	Domestic water pipe insulation	**100**	lf	10.00	1,000		
	Miscellaneous						
	Demolition	**1**	ls	3,500.00	3,500		
	Coordination	**1**	ls	2,500.00	2,500		
	Coring, sleeves & fire stopping	**1**	ls	1,500.00	1,500		
	Commissioning support				assumed not required		
	Testing and sterilization	**1**	ls	500.00	500		
	Fees & permits				waived		
	SUBTOTAL					36,278	
	TOTAL - PLUMBING						**$36,278**
	23 - HVAC						
230000	**HVAC**						
	Equipment						
	AHU - 12.5 ton	**1**	ea	15,000.00	15,000		
	ACCU - 12.5 ton	**1**	ea	12,000.00	12,000		
	Furnace	**1**	ea	4,500.00	4,500		
	VAV indoor unit, vestibule	**1**	ea	2,500.00	2,500		
	VAV indoor unit, main open space	**1**	ea	4,000.00	4,000		
	Electric baseboard heat	**4**	ea	850.00	3,400		
	Air distribution						
	ERV 1000 CFM	**1**	ea	10,000.00	10,000		
	Bathroom exhaust	**2**	ea	50.00	100		
	Sheet metal & Accessories						
	Galvanized steel ductwork	**1,474**	lb	15.00	22,110		
	Duct insulation	**884**	sf	5.00	4,420		
	RGD's	**8**	ea	125.00	1,000		
	Louvers				ETR		
	Sheet metal accessories	**1**	ls	2,500.00	2,500		
	Piping						
	Refrigerant Piping						

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	Refrigerant piping, preinsulated lineset	**100**	lf	35.00	3,500		
	Condensate Drain Piping						
	Condensate drain piping with fittings & hangers	**50**	lf	24.00	1,200		
	Piping Insulation						
	Piping insulation	**50**	lf	10.00	500		
	Automatic Temperature Controls						
	Automatic Temperature Controls	**1**	ls	10,000.00	10,000		
	Balancing						
	System testing & balancing	**1,965**	gsf	1.50	2,948		
	Miscellaneous						
	Demolition	**1**	ls	1,500.00	1,500		
	Coordination	**1**	ls	1,000.00	1,000		
	Coring, sleeves & fire stopping	**1**	ls	2,500.00	2,500		
	Equipment start-up and inspection	**1**	ls	1,500.00	1,500		
	Rigging & equipment rental	**1**	ls	5,000.00	5,000		
	SUBTOTAL					111,178	
TOTAL - HVAC							**$111,178**
26 - ELECTRICAL							
260000	**ELECTRICAL**						
	GEAR & DISTRIBUTION						
	Normal Power						
	Meter socket	**1**	ea	350.00	350		
	200A 120/208V Main switchboard	**1**	ea	5,000.00	5,000		
	200A 120/208V lighting panelboard	**1**	ea	2,500.00	2,500		
	200A 120/208V panelboard	**1**	ea	2,350.00	2,350		
	200A feed	**80**	lf	50.00	4,000		
	Service grounding	**1**	ls	2,500.00	2,500		
	Emergency Power						
	Generator/ATS/Exhaust/Fuel supply				assumed not required		
	Equipment Wiring						
	AHU/ACCU/ERV/VAV - feeds/connections	**5**	ea	1,000.00	5,000		
	Furnace - feeds/connections	**1**	ea	1,500.00	1,500		
	Electric baseboard heat - feeds/connections	**4**	ea	925.00	3,700		
	Point of use water heater - feeds/connections	**2**	ea	925.00	1,850		
	Bathroom exhaust - feeds/connections	**2**	ea	500.00	1,000		
	Miscellaneous feeds/connections	**1**	sf	560.00	560		
	SUBTOTAL					30,310	
	LIGHTING & POWER						
	Lighting						
	Exit sign	**5**	ea	180.00	900		
	New bathroom light fixtures	**3**	ea	250.00	750		
	Chandelier - refurbrish	**2**	ea	1,500.00	3,000		
	Wall sconce - refurbrish	**8**	ea	750.00	6,000		
	Exterior light fixtures - refurbrish	**2**	ea	500.00	1,000		
	Exterior light fixtures	**2**	ea	350.00	700		
	Allow for additional fixtures	**1,965**	gsf	2.00	3,930		
	Emergency ballasts	**1**	ls	1,500.00	1,500		
	Lighting Control						
	Lighting control/switching	**1,965**	gsf	2.00	3,930		
	Lighting Circuitry						
	Device plate/boxes/cabling	**1,965**	gsf	2.50	4,913		
	Branch Devices						
	Duplex receptacle	**15**	ea	24.50	368		
	GFI duplex receptacle	**2**	ea	39.50	79		
	Allow for additional devices	**1,965**	gsf	0.50	983		
	Branch Circuitry						

PM&C

South Franklin Congregational Meeting House 30-Sep-20
Franklin, MA
Preservation/Viability Project GFA 1,965

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 1							
	Device plate/boxes/cabling	**1,965**	gsf	3.00	5,895		
	SUBTOTAL					33,948	
	COMMUNICATION & SECURITY SYSTEMS						
	Telecommunications						
	Telecommunication system				ETR		
	Fire Alarm						
	Existing system				ETR		
	CO detector - add to exisitng system	**1**	ls	500.00	500		
	AV device - add to existing system	**4**	ea	500.00	2,000		
	Visual device - add to exisitng system	**2**	ea	500.00	1,000		
	Audio Visual						
	AV equipment/Projection screens				By Others		
	Security System						
	Security System				ETR		
	SUBTOTAL					3,500	
	OTHER ELECTRICAL SYSTEMS						
	Miscellaneous						
	Demolition and make safe	**1**	ls	2,500.00	2,500		
	Temp power and lights	**1**	ls	5,000.00	5,000		
	Coordination	**1**	ls	2,500.00	2,500		
	Fees & Permits				waived		
	SUBTOTAL					10,000	
	TOTAL -ELECTRICAL						**$77,758**
31	**EARTHWORK**						
312000	**EARTH WORK**						
	Exterior Ramp						
	Excavation	**30**	cy	30.00	900		
	Store on site	**30**	cy	25.00	750		
	Backfill with existing material	**22**	cy	15.00	330		
	Compacted granular fill, 12"	**3**	cy	75.00	225		
	Exterior Stair						
	Excavation	**12**	cy	30.00	360		
	Store on site	**12**	cy	25.00	300		
	Backfill with existing material	**9**	cy	15.00	135		
	Compacted granular fill, 12"	**1**	cy	75.00	75		
	Basement Spread Footings						
	Excavate & dispose onsite /prep for new footings	**7**	ea	750.00	5,250		
	SUBTOTAL					8,325	
	TOTAL, DIVISION 31 - EARTHWORK						**$8,325**
33	**UTILITIES**						
333000	**SANITARY/SEWERAGE UTILITY**						
	New sanitary connection to Washington Street	**1**	ls	15,000.00	15,000		
335000	**GAS SERVICES**						
	Excavate/Backfill for new gas service provided by utlity company	**1**	ls	5,000.00	5,000		
337000	**ELECTRICAL UTILITY**						
	New electrical service				overhead service		
	SUBTOTAL					20,000	
	TOTAL, DIVISION 33 - UTILITIES						**$20,000**

PM&C

South Franklin Congregational Meeting House 30-Sep-20
Franklin, MA
Preservation/Viability Project GFA 1,965

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST

OPTION 1

	OPTION 1 TRADE SUBTOTAL	**$667,850**

PM&C

South Franklin Congregational Meeting House 30-Sep-20
Franklin, MA
Preservation/Viability Project GFA 1,965

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST

OPTION 2

GROSS FLOOR AREA CALCULATION

	First Floor			1,465			
	Mezzanine			500			
	TOTAL GROSS FLOOR AREA (GFA)				**1,965**	***sf***	
	02 - EXISTING CONDITIONS						
025000	**SELECTIVE DEMOLITION**						
	Exterior						
	Create new opening - exterior wall	**1**	ea	1,500.00	1,500		
	Remove existing handrail	**1**	ls	350.00	350		
	Expose existing structure to tie in ramp and landing	**1**	loc	500.00	500		
	Selective removal of wood siding - assumes 5%	**119**	sf	15.00	1,785		
	Remove existing roof asphalt roof, gutters and drip edge	**4,450**	sf	4.00	17,800		
	Remove/Prep for roofing/flashings at cupola	**1**	ls	1,500.00	1,500		
	Structural						
	Shore/Remove timber posts in crawl space - P1 & P2	**7**	ea	1,750.00	12,250		
	Create floor access openings for post replacement w/ temp railings				w/ rough carpentry		
	Shore/Remove wood girder	**1**	ea	1,500.00	1,500		
	Remove existing access door	**1**	ea	350.00	350		
	Interior						
	Demo and remove existing door, frame and threshold	**2**	ea	200.00	400		
	Remove, salvage and store existing historic trim for reinstallation	**1**	ls	750.00	750		
	Demo and remove stairs	**1**	ls	4,500.00	4,500		
	Gut existing bathroom	**50**	sf	25.00	1,250		
	Demolition of existing walls	**1**	ls	350.00	350		
	Remove existing pews	**28**	ea	350.00	9,800		
	Miscellaneous demolition/protection/shoring	**1,965**	gsf	2.00	3,930		
	Remove cut and capped MEP equipment, fixtures & fittings	**1,965**	gsf	2.50	4,913		
	SUBTOTAL					63,428	
025100	**HAZARDOUS ABATEMENT**						
	Abatment of hazardous materials				on executive summary		
	SUBTOTAL					-	
	TOTAL - DEMOLITION						**$63,428**
	03 - CONCRETE						
033000	**CAST IN PLACE CONCRETE**						
	Column Footings: 2'x2'X1' deep - posts						
	Footing, form/place/finish	**7**	ea	750.00	5,250		
	Concrete pump	**1**	ls	1,500.00	1,500		
	Slab on grade						
	Patch slab ar areas in crawl space	**7**	loc	500.00	3,500		
	Strip Footing - ramp						
	Formwork	**80**	sf	18.00	1,440		
	Re-bar	**150**	lbs.	1.20	180		
	Concrete material	**3**	cy	140.00	420		
	Placing concrete	**3**	cy	200.00	600		
	Foundation Walls - ramp						
	Formwork	**240**	sf	20.00	4,800		
	Re-bar	**720**	lbs	1.20	864		
	Concrete material, dowel into existing wall	**5**	cy	125.00	625		
	Placing concrete	**5**	cy	200.00	1,000		

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
	SUBTOTAL					20,179	
	TOTAL - CONCRETE						**$20,179**
	04 - MASONRY						
	Exterior						
	Remove/Salvage/Reset granite treads - north portico			assumed not required			
	SUBTOTAL					-	
	TOTAL - MASONRY						
	05 - METALS						
055000	**METAL FABRICATIONS**						
	New tube steel posts/plates - crawl space	**7**	ea	1,500.00	10,500		
	Ships ladder	**1**	ls	1,500.00	1,500		
	Miscellaneous metals - HVAC unit/ramp	**1,965**	gsf	1.25	2,456		
	SUBTOTAL					14,456	
	TOTAL - METALS						**$14,456**
	06 - WOOD, PLASTICS AND COMPOSITES						
060312	**HISTORIC WOOD REPAIR**						
	Wood clapboard siding including corner boards	**119**	sf	34.00	4,046		
	Wood window trim repair - exterior	**8**	ea	250.00	2,000		
	New door trim replication - exterior	**1**	ea	650.00	650		
	Wood fascia/soffit trim	**158**	lf	30.00	4,740		
	Miscellaneous cupola/column/trim repair/prep for paint	**1**	ls	8,000.00	8,000		
	SUBTOTAL					19,436	
061000	**ROUGH CARPENTRY**						
	Exterior - Ramp						
	Ramp & landing framing & wood decking	**175**	sf	40.00	7,000		
	Ramp railings	**40**	lf	200.00	8,000		
	Ramp handrails - wall mounted	**30**	lf	75.00	2,250		
	Exterior - Façade						
	Back-up/Sheathing replacement/repair at siding	**1**	ls	1,500.00	1,500		
	Back-up/Sheathing replacement/repair at cupola	**1**	ls	500.00	500		
	Create door opening	**1**	loc	500.00	500		
	Floor Infills / Access Hatch						
	Infill existing access hatch to crawl space	**1**	loc	750.00	750		
	Create/Frame new opening for access hatch to crawl space	**1**	loc	750.00	750		
	Create/Frame new opening for access hatch to mechanical space	**1**	ls	750.00	750		
	Create floor access openings for post replacement w/ temp railings	**1**	ls	2,500.00	2,500		
	Structural						
	Replace/Repair existing wood girder	**1**	ls	1,750.00	1,750		
	Minor framing a mezzanine for new mechanical unit	**1**	ls	1,500.00	1,500		
	Wall Framing						
	New wall framing	**30**	lf	24.00	720		
	Create new door opening - interior wall	**1**	ls	500.00	500		
	Miscellaneous blocking, sill plate,, boards etc.	**1**	ls	500.00	500		
	Wall Framing						
	New wall framing	**30**	lf	24.00	720		
	Create new door opening - interior wall	**1**	ls	500.00	500		
	Miscellaneous blocking, sill plate,, boards etc.	**1**	ls	500.00	500		

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
	Roofing						
	Remove and replace roof sheathing - 25% replacement	**1,113**	sf	8.00	8,904		
	Miscellaneous interiors						
	Wood blocking at interiors	**1,965**	gsf	0.50	983		
	SUBTOTAL					41,077	
064020	**ARCHITECTURAL WOODWORK**						
	Finish Carpentry						
	Wood base at new walls	**55**	lf	25.00	1,375		
	Wainscot/Chair rail - new walls	**88**	sf	50.00	4,400		
	New door casings - exterior	**1**	loc	300.00	300		
	New single door casings - interior	**2**	loc	500.00	1,000		
	New double door casings - interior	**1**	loc	550.00	550		
	New door cased openings - inerior	**1**	loc	600.00	600		
	Repairs at existing window sills/aprons/casings	**8**	loc	500.00	4,000		
	Stairs						
	No work required						
	Casework						
	No work required						
	SUBTOTAL					12,225	
	TOTAL - WOOD, PLASTICS AND COMPOSITES						**$72,738**
	07 - THERMAL AND MOISTURE PROTECTION						
070001	**WATERPROOFING, DAMPPROOFING AND CAULKING**						
	Exterior						
	Air barrier/flashing at existing windows	**8**	ea	150.00	1,200		
	Air barrier/flashing at new doors	**1**	ea	250.00	250		
	Air barrier/flashing at exterior wall repairs	**1**	ls	500.00	500		
	Miscellaneous sealants throughout building	**1,965**	gsf	0.75	1,474		
	Interior						
	Miscellaneous sealants throughout building	**1,965**	gsf	0.35	688		
	SUBTOTAL					4,112	
070002	**ROOFING AND FLASHING**						
	Sloped roof						
	New architectural asphalt roof including ice and water shield	**4,450**	sf	9.00	40,050		
	Asphalt shingles - vertical face at the cupola	**72**	sf	12.00	864		
	3/4" Plywood sheathing				w/ rough carpentry		
	6" Rigid insulation				assumed not required		
	Miscellaneous Roofing						
	Roof to wall flashing at cupola	**24**	lf	25.00	600		
	Miscellaneous flashings	**4,450**	sf	1.00	4,450		
	Gutters	**90**	lf	70.00	6,300		
	Downspouts	**60**	lf	60.00	3,600		
	SUBTOTAL					55,864	
072100	**THERMAL INSULATION**						
	Interior						
	Batt insulation ar interior walls	**300**	sf	1.25	375		
	SUBTOTAL					375	
078400	**FIRESTOPPING/ FIREPROOFING**						
	Fire stopping floors	**1**	ls	500.00	500		
	SUBTOTAL					500	

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
	TOTAL - THERMAL AND MOISTURE PROTECTION						**$60,851**
	08 - OPENINGS						
081416	**FLUSH WOOD DOORS**						
	Frames						
	Single frame - exterior	**1**	ea	250.00	250		
	Single frame	**2**	ea	185.00	370		
	Double frame	**1**	ea	225.00	225		
	Door						
	Solid core wood door - single - exterior	**1**	ea	850.00	850		
	Solid core wood door - single	**2**	ea	500.00	1,000		
	Solid core wood door - double	**1**	ea	1,000.00	1,000		
	Door Installation						
	Solid core wood door - exterior	**1**	ea	250.00	250		
	Solid core wood door - interior	**4**	ea	175.00	700		
	SUBTOTAL					4,645	
083100	**ACCESS DOORS AND FRAMES**						
	Access doors - floor	**1**	ls	1,250.00	1,250		
	Access doors - ceiling	**1**	ls	1,000.00	1,000		
	SUBTOTAL					2,250	
085200	**WINDOWS**						
	Repair windows - new glazing putty/sealants & replace broken panes	**8**	ea	1,000.00	8,000		
	Replace/Repair jambs/stops/sash where deteriorated	**1**	ls	1,500.00	1,500		
	SUBTOTAL					9,500	
087100	**DOOR HARDWARE**						
	Interior door hardware	**4**	leaf	800.00	3,200		
	Exterior door hardware	**1**	leaf	3,500.00	3,500		
	SUBTOTAL					6,700	
088000	**GLASS AND GLAZING**						
	No work required						
	SUBTOTAL					-	
089000	**FIXED LOUVERS**						
	No work required						
	SUBTOTAL					-	
	TOTAL - OPENINGS						**$23,095**
	09 - FINISHES						
090002	**TILE**						
	Ceramic tile floor	**105**	sf	30.00	3,150		
	Tile base	**154**	lf	24.00	3,696		
	Ceramic wall tile	**616**	sf	35.00	21,560		
	Stone threshold	**2**	ea	200.00	400		
	SUBTOTAL					28,806	
090003	**ACT**						
	No work required						
	SUBTOTAL					-	
090005	**RESILIENT FLOORS**						

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
	No work required						
	SUBTOTAL					-	
090005	**RESILIENT FLOORS**						
	No work required						
	SUBTOTAL					-	
090007	**PAINTING**						
	Exterior painting						
	Scrape prime and paint siding & trim	**2,370**	sf	6.50	15,405		
	Scrape prime and paint siding & trim - cupola	**1**	ls	3,500.00	3,500		
	Prep & paint existing portico and columns	**238**	sf	20.00	4,760		
	Prep & paint existing portico wood deck	**238**	sf	5.00	1,190		
	Paint doors & windows	**11**	ea	250.00	2,750		
	Interior painting						
	Paint to new walls	**180**	sf	0.95	171		
	Prime and paint existing walls to remain including scraping, cleaning and removal of mastics, misc. fasteners, tacks, staples etc. - includes wainscot, base & trim	**1,965**	gsf	4.00	7,860		
	Prep & paint ceilings	**1,965**	sf	1.50	2,948		
	Prep & stain/paint doors and frames	**6**	lvs	250.00	1,500		
	Interior painting/touch-up	**1,965**	gsf	0.75	1,474		
	SUBTOTAL					41,558	
091230	**PLASTER PATCHING AND REPAIR**						
	Patch existing walls to remain	**1,965**	gsf	3.00	5,895		
	Patch existing veneer plaster ceiling	**1,965**	sf	5.00	9,825		
	SUBTOTAL					15,720	
092900	**GWB**						
	Interior Partitions						
	GWB & plaster on wood stud wall	**300**	sf	6.50	1,950		
	Patching/ furring existing walls	**1,965**	gsf	3.50	6,878		
	Ceilings						
	New GWB ceiling - moisture resistant at restrooms	**105**	sf	20.00	2,100		
	Patch/Repair existing ceilings and soffits	**1,965**	gsf	2.00	3,930		
	SUBTOTAL					14,858	
096560	**WOOD FLOORING**						
	Wood flooring - repair & paint existing	**900**	sf	15.00	13,500		
	Wood flooring - repair & paint existing platform stairs	**4**	ea	250.00	1,000		
	SUBTOTAL					14,500	
096810	**TILE CARPETING**						
	New carpet - vestibule	**186**	sf	12.00	2,232		
	New carpet - platform	**147**	sf	12.00	1,764		
	SUBTOTAL					3,996	
TOTAL - FINISHES							**$119,438**
10 - SPECIALTIES							
101100	**VISUAL DISPLAY BOARDS**						
	Marker boards/ tack boards				FF+E		
	SUBTOTAL					-	
101400	**SIGNAGE**						
	Signage - allowance for code signage only	**1,965**	gsf	0.50	983		
	SUBTOTAL					983	

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
102800	**TOILET ACCESSORIES**						
	Single user bathrooms	**2**	ea	850.00	1,700		
	SUBTOTAL					1,700	
104400	**FIRE PROTECTION SPECIALTIES**						
	Fire extinguisher cabinets	**1**	ls	500.00	500		
	SUBTOTAL					500	
	TOTAL - SPECIALTIES						**$3,183**
	11 - EQUIPMENT						
	No Work In This Section						
	SUBTOTAL						
	TOTAL - EQUIPMENT						
	12 - FURNISHINGS						
122410	**WINDOW TREATMENT**						
	Window treatment allowance				FF+E		
	SUBTOTAL					-	
	TOTAL - FURNISHINGS						
	14 - CONVEYING SYSTEMS						
144000	**ELEVATORS**						
	No Work In This Section						
	SUBTOTAL					-	
	TOTAL - CONVEYING						
	21 - FIRE SUPPRESSION						
	No Work In This Section						
	SUBTOTAL					-	
	TOTAL - FIRE SUPPRESSION						
	22 - PLUMBING						
220000	**PLUMBING**						
	Equipment						
	Electric water heater point of use	**2**	ea	1,750.00	3,500		
	Water meter assembly				ETR		
	Backflow preventer				ETR		
	Mixing valve				ETR		
	Floor drain				assumed not required		
	Hose bibb				ETR		
	Plumbing Fixtures & Specialties						
	Water closet	**2**	ea	1,400.00	2,800		
	Lavatory	**2**	ea	1,100.00	2,200		
	Janitor's sink				assumed not required		

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
	Domestic Water						
	Domestic water pipe with fittings & hangers	**100**	lf	40.00	4,000		
	Valves and accessories	**1**	ls	500.00	500		
	Sanitary Waste And Vent Pipe						
	UG San waste pipe with fittings & hangers - modification	**1**	ls	5,000.00	5,000		
	AG San waste pipe with fittings & hangers	**40**	lf	60.00	2,400		
	Gas Piping						
	Gas piping	**1,965**	sf	3.50	6,878		
	Pipe Insulation						
	Domestic water pipe insulation	**100**	lf	10.00	1,000		
	Miscellaneous						
	Demolition	**1**	ls	3,500.00	3,500		
	Coordination & BIM	**1**	ls	2,500.00	2,500		
	Coring, sleeves & fire stopping	**1**	ls	1,500.00	1,500		
	Commissioning support	**1**	ls		assumed not required		
	Testing and sterilization	**1**	ls	500.00	500		
	Fees & permits				waived		
	SUBTOTAL					36,278	
	TOTAL - PLUMBING						**$36,278**
	23 - HVAC						
230000	**HVAC**						
	Equipment						
	AHU - 12.5 ton	**1**	ea	15,000.00	15,000		
	ACCU - 12.5 ton	**1**	ea	12,000.00	12,000		
	Furnace	**1**	ea	4,500.00	4,500		
	VAV indoor unit, vestibule	**1**	ea	2,500.00	2,500		
	VAV indoor unit, main open space	**1**	ea	4,000.00	4,000		
	Electric baseboard heat	**5**	ea	850.00	4,250		
	Air distribution						
	ERV 1000 CFM	**1**	ea	1,000.00	1,000		
	Bathroom exhaust	**2**	ea	500.00	1,000		
	Sheet metal & Accessories						
	Galvanized steel ductwork	**1,474**	lb	15.00	22,110		
	Duct insulation	**884**	sf	5.00	4,420		
	RGD's	**8**	ea	125.00	1,000		
	Louvers				ETR		
	Sheet metal accessories	**1**	ls	2,500.00	2,500		
	Piping						
	Refrigerant Piping						
	Refrigerant piping, preinsulated lineset	**100**	lf	35.00	3,500		
	Condensate Drain Piping						
	Condensate drain piping with fittings & hangers	**50**	lf	24.00	1,200		
	Piping Insulation						
	Piping insulation	**50**	lf	10.00	500		
	Automatic Temperature Controls						
	Automatic Temperature Controls	**1**	ls	10,000.00	10,000		
	Balancing						
	System testing & balancing	**1,965**	gsf	1.50	2,948		
	Miscellaneous						
	Demolition	**1**	ls	1,500.00	1,500		
	Coordination	**1**	ls	1,000.00	1,000		
	Coring, sleeves & fire stopping	**1**	ls	2,500.00	2,500		
	Equipment start-up and inspection	**1**	ls	1,500.00	1,500		
	Rigging & equipment rental	**1**	ls	5,000.00	5,000		
	SUBTOTAL					103,928	

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	OPTION 2						
	TOTAL - HVAC						**$103,928**
	26 - ELECTRICAL						
260000	**ELECTRICAL**						
	GEAR & DISTRIBUTION						
	Normal Power						
	Meter socket	**1**	ea	350.00	350		
	200A 120/208V Main switchboard	**1**	ea	5,000.00	5,000		
	200A 120/208V lighting panelboard	**1**	ea	2,500.00	2,500		
	200A 120/208V panelboard	**1**	ea	2,350.00	2,350		
	200A feed	**80**	lf	50.00	4,000		
	Service grounding	**1**	ls	2,500.00	2,500		
	Emergency Power						
	Generator/ATS/Exhaust/Fuel supply				assumed not required		
	Equipment Wiring						
	AHU/ACCU/ERV/VAV - feeds/connections	**5**	ea	1,000.00	5,000		
	Furnace - feeds/connections	**1**	ea	1,500.00	1,500		
	Electric baseboard heat - feeds/connections	**5**	ea	925.00	4,625		
	Point of use water heater - feeds/connections	**2**	ea	925.00	1,850		
	Bathroom exhaust - feeds/connections	**2**	ea	500.00	1,000		
	Miscellaneous feeds/connections	**1**	sf	560.00	560		
	SUBTOTAL					31,235	
	LIGHTING & POWER						
	Lighting						
	Exit sign	**5**	ea	180.00	900		
	New bathroom light fixtures	**3**	ea	250.00	750		
	Chandelier - refurbrish	**2**	ea	1,500.00	3,000		
	Wall sconce - refurbrish	**8**	ea	750.00	6,000		
	Exterior light fixtures - refurbrish	**2**	ea	500.00	1,000		
	Exterior light fixtures	**2**	ea	350.00	700		
	Allow for additional fixtures	**1,965**	gsf	2.00	3,930		
	Emergency ballasts	**1**	ls	1,500.00	1,500		
	Lighting Control						
	Lighting control/switching	**1,965**	gsf	2.00	3,930		
	Lighting Circuitry						
	Device plate/boxes/cabling	**1,965**	gsf	2.50	4,913		
	Branch Devices						
	Duplex receptacle	**15**	ea	24.50	368		
	GFI duplex receptacle	**2**	ea	39.50	79		
	Allow for additional devices	**1,965**	gsf	0.50	983		
	Branch Circuitry						
	Device plate/boxes/cabling	**1,965**	gsf	3.00	5,895		
	SUBTOTAL					33,948	
	COMMUNICATION & SECURITY SYSTEMS						
	Telecommunications						
	Telecommunication system				ETR		
	Fire Alarm						
	Existing system				ETR		
	CO detector - add to exisitng system	**1**	ls	500.00	500		
	AV device - add to existing system	**4**	ea	500.00	2,000		
	Visual device - add to exisitng system	**2**	ea	500.00	1,000		
	Audio Visual						
	AV equipment/Projection screens				By Others		
	Security System						
	Security System				ETR		
	SUBTOTAL					3,500	

PM&C

South Franklin Congregational Meeting House 30-Sep-20
Franklin, MA
Preservation/Viability Project GFA 1,965

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2							
	OTHER ELECTRICAL SYSTEMS						
	Miscellaneous						
	Demolition and make safe	**1**	ls	2,500.00	2,500		
	Temp power and lights	**1**	ls	5,000.00	5,000		
	Coordination	**1**	ls	2,500.00	2,500		
	Fees & Permits				waived		
	SUBTOTAL					10,000	
TOTAL -ELECTRICAL							**$78,683**
31	**EARTHWORK**						
312000	**EARTH WORK**						
	Exterior Ramp						
	Excavation	**30**	cy	30.00	900		
	Store on site	**30**	cy	25.00	750		
	Backfill with existing material	**22**	cy	15.00	330		
	Compacted granular fill, 12"	**3**	cy	75.00	225		
	Basement Spread Footings						
	Excavate & dispose onsite /prep for new footings	**7**	ea	750.00	5,250		
	SUBTOTAL					7,455	
TOTAL, DIVISION 31 - EARTHWORK							**$7,455**
33	**UTILITIES**						
333000	**SANITARY/SEWERAGE UTILITY**						
	New sanitary connection to Washington Street	**1**	ls	15,000.00	15,000		
335000	**GAS SERVICES**						
	Excavate/Backfill for new gas service provided by utlity company	**1**	ls	5,000.00	5,000		
337000	**ELECTRICAL UTILITY**						
	New electrical service				overhead service		
	SUBTOTAL					20,000	
TOTAL, DIVISION 33 - UTILITIES							**$20,000**
OPTION 2 TRADE SUBTOTAL							**$623,712**

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V. Exhibits

TOWN OF F

SOUTH FRANKLIN CONGREGA

PROJECT NO.:
11 MAY 2(

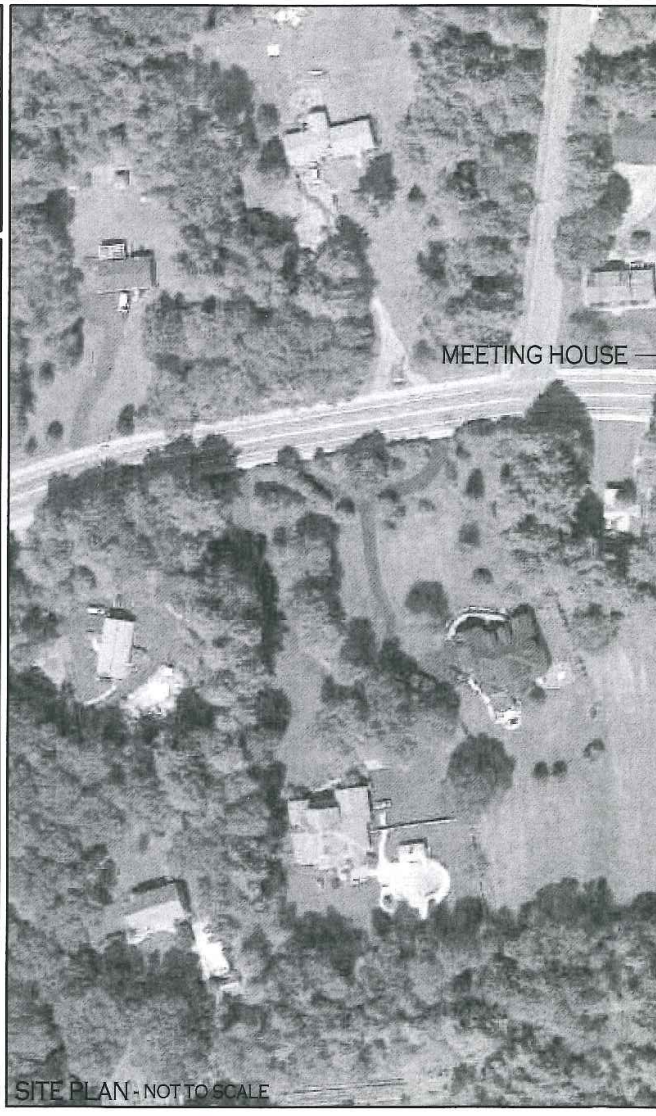
DRAWING LIST

ARCHITECTURAL

T1.1	TITLE SHEET
EX1.0	EXISTING CONDITIONS PLAN: CRAWLSPACE
EX1.1	EXISTING CONDITIONS PLAN: GROUND FLOOR
EX1.2	EXISTING CONDITIONS PLAN: MEZZANINE
D1.1 OPTION 1	OPTION 1 DEMOLITION PLAN: GROUND FLOOR
A1.1 OPTION 1	OPTION 1: ACCESSIBILITY CONCERNS
D1.1 OPTION 2	OPTION 2 DEMOLITION PLAN: GROUND FLOOR
A1.1 OPTION 2	OPTION 2: ACCESSIBILITY CONCERNS

ABBREVIATIONS

ACP.	- ACOUSTICAL CEILING PANEL
ADJ.	- ADJACENT
A.F.F.	- ABOVE FINISHED FLOOR
ALUM.	- ALUMINUM
APV'D	- APPROVED
B.O.	- BOTTOM OF
CH.	- CHAPTER
CS	- CABLE SLOTS
C.S.C.	- CLEAR SEALED CONCRETE
COORD.	- COORDINATE
CONT.	- CONTINUOUS
D.	- DEEP
D/B	- DESIGN BUILD
DEMO.	- DEMOLISH/DEMOLITION
DET.	- DETAIL
DWG(S)	- DRAWING(S)
E.C.	- ELECTRICAL CONTRACTOR
E.J.	- EXPANSION JOINT
ELEC.	- ELECTRICAL
ETC.	- ET CETERA
ETR	- EXISTING TO REMAIN
EXIST.	- EXISTING
F.D.	- FLOOR DRAIN
FIN.	- FINISH(ED)
FL.	- FLOOR
F.O.	- FACE OF
F.R.	- FIRE RATED
F.R.T.W	- FIRE TREATED WOOD
G.C.	- GENERAL CONTRACTOR
G.C.F.I.	- GENERAL CONTRACTOR FURNISHED AND INSTALLED
GYP.	- GYPSUM
GWB.	- GYPSUM WALL BOARD
H.C.	- HANDICAP
H.M.	- HOLLOW METAL
H.V.A.C.	- HEATING, VENTILATION, & AIR CONDITIONING
INSUL.	- INSULATION
L.F.	- LINEAL FEET
MAX.	- MAXIMUM
M.E.P	- MECHANICAL, ELECTRICAL & PLUMBING
MIN.	- MINIMUM
MISC.	- MISCELLANEOUS
M.R.	- MOISTURE RESISTANT
MTL.	- METAL
N/A	- NOT APPLICABLE
N.I.C.	- NOT IN CONTRACT
NOM.	- NOMINAL
O.A.E	- OR APPROVED EQUAL
O.C.	- ON CENTER
O.C.V.	- ON CENTER VERTICALLY
O.F.I.	- OWNER FURNISHED AND INSTALLED
O.F.G.C.I	- OWNER FURNISHED, GENERAL CONTRACTOR INSTALLED
OPP.	- OPPOSITE
P.M.	- PRESSED METAL
P+R	- PATCH & REPAIR
P.T.	- PRESSURE TREATED
PT.	- PAINT
PTD.	- PAINTED
R.C.P.	- REFLECTED CEILING PLAN
REQ'D	- REQUIRED
SCWD	- SOLID CORE WOOD DOOR
S.S.	- STAINLESS STEEL
STRUCT.	- STRUCTURE/STRUCTURAL
T.M.E.	- TO MATCH EXISTING
T.O.	- TOP OF
TYP.	- TYPICAL
U.N.O.	- UNLESS NOTED OTHERWISE
U.S.	- UNDERSIDE
VCB	- VINYL COVE BASE
V.C.T.	- VINYL COMPOSITION TILE
V.H.I.	- VERY HIGH IMPACT
V.I.F.	- VERIFY IN FIELD
W	- WITH



SITE PLAN - NOT TO SCALE

RANKLIN

ATIONAL MEETING HOUSE

14124.99
015

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T.508.291.0050 F.508-291-0153

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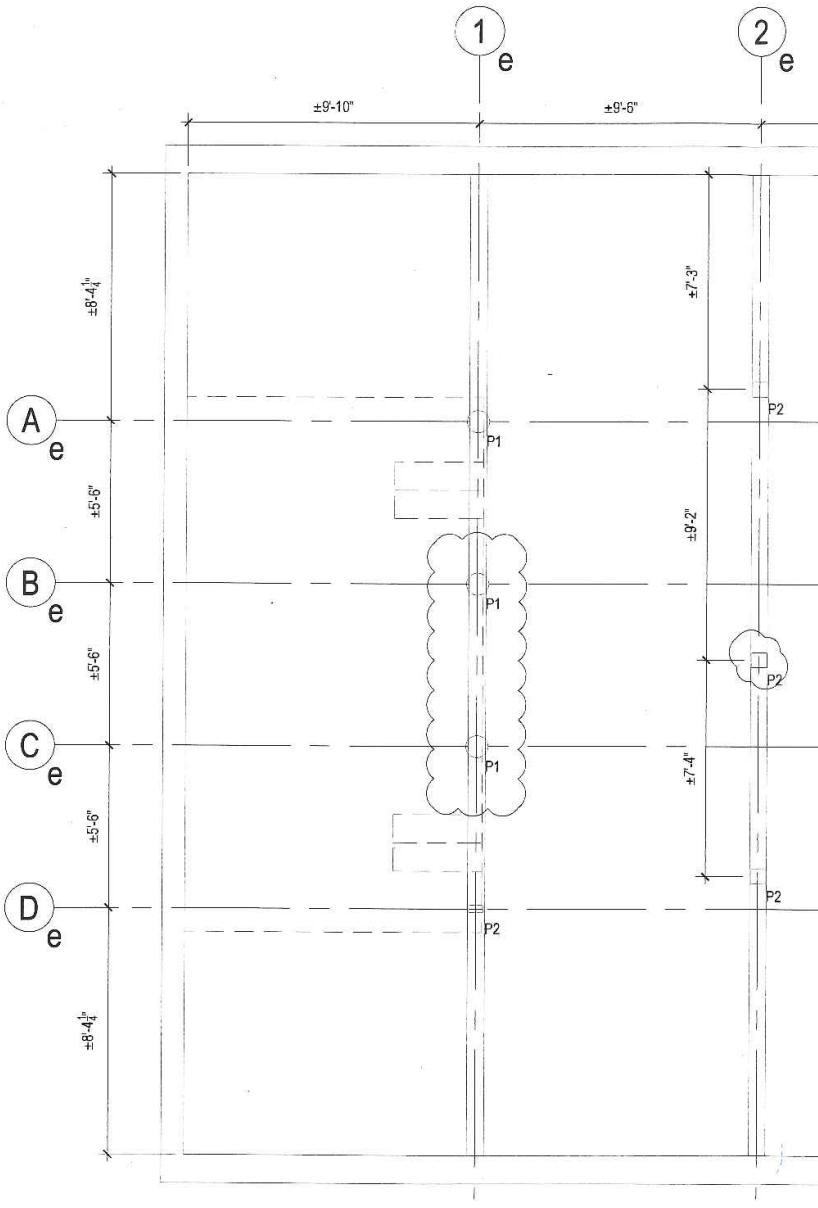
RDK ENGINEERS
200 BRICKSTONE SQUARE
ANDOVER, MA 01810
TEL: (978) 296-6200
FAX: (978) 475-5768
WWW.RDKENGINEERS.COM

STRUCTURAL ENGINEER

DM BERG CONSULTANTS
100 CRESCENT ROAD, SUITE 1A
NEEDHAM, MA 02494-1457
TEL: (781) 444-5156
FAX: (781) 444-5157
WWW.DMBERG.COM

T1.1



EXISTING PLAN: FOUND

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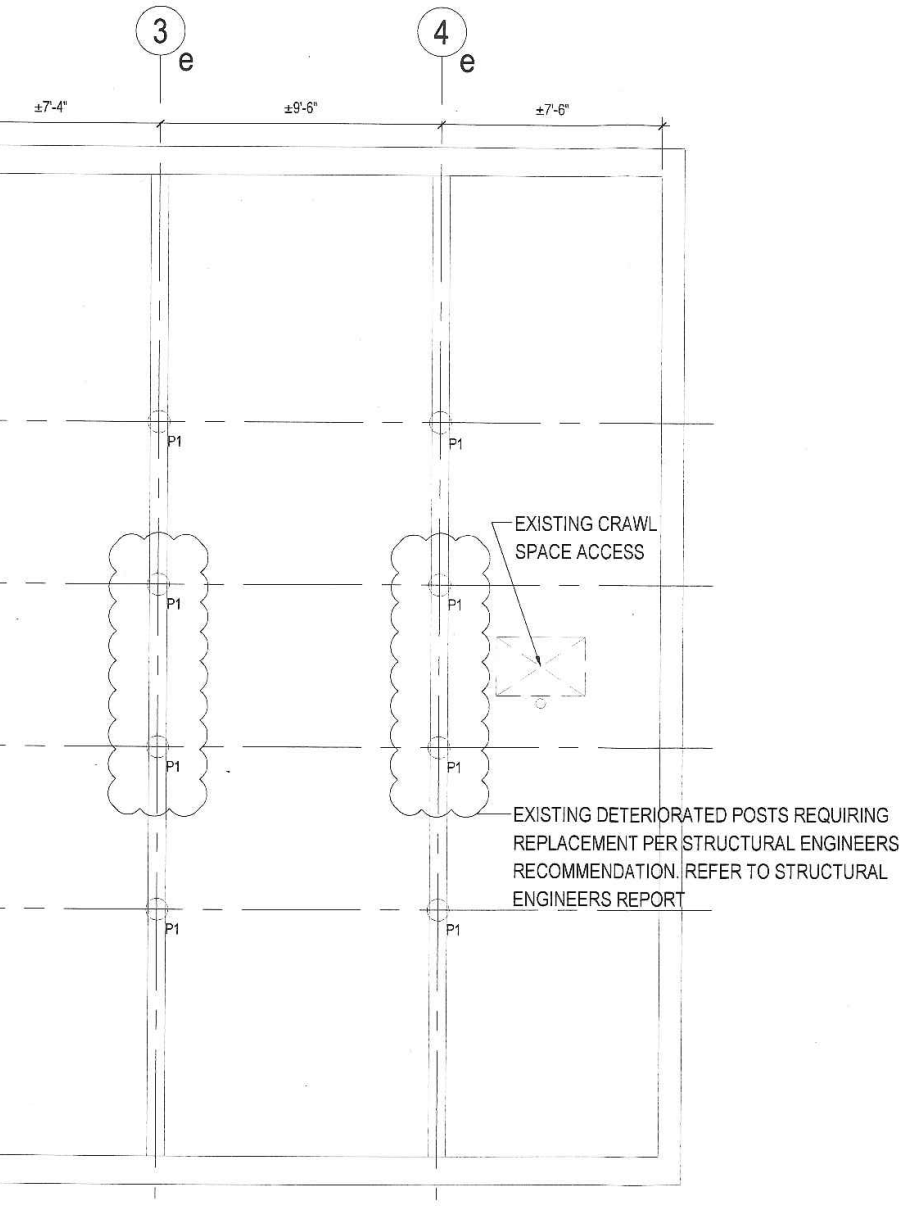

DATION

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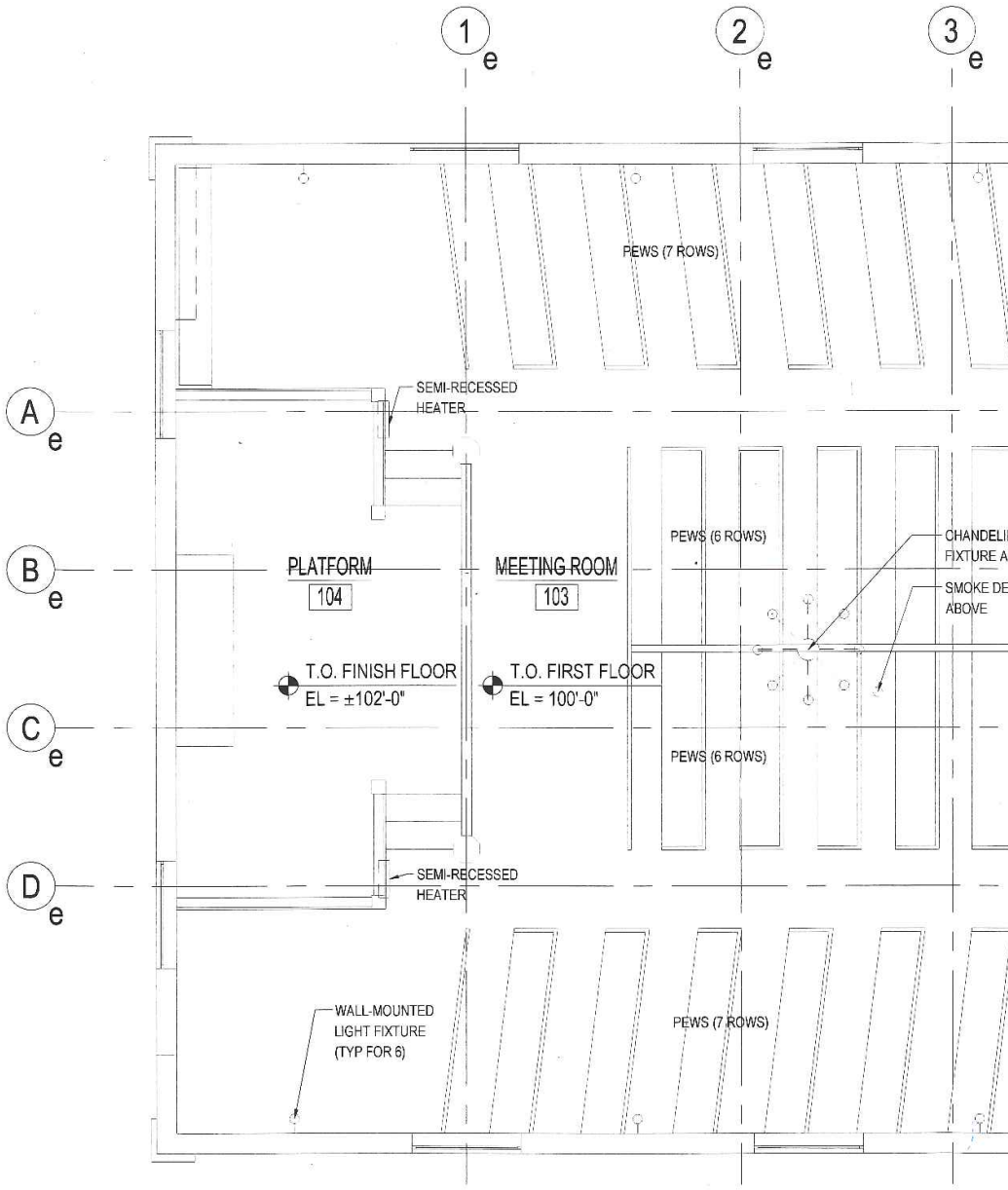
TOWN OF FRANKLIN
SOUTH FRANKLIN CONGREGATIONAL CHURCH
762 WASHINGTON STREET
FRANKLIN, MA

EXISTING CONDITIONS
PLAN: CRAWLSPACE

PROJECT NO.: 14124.99
SCALE: 3/16"=1'-0"
DATE: 11 MAY 2015
REVISIONS:

EX
1.0



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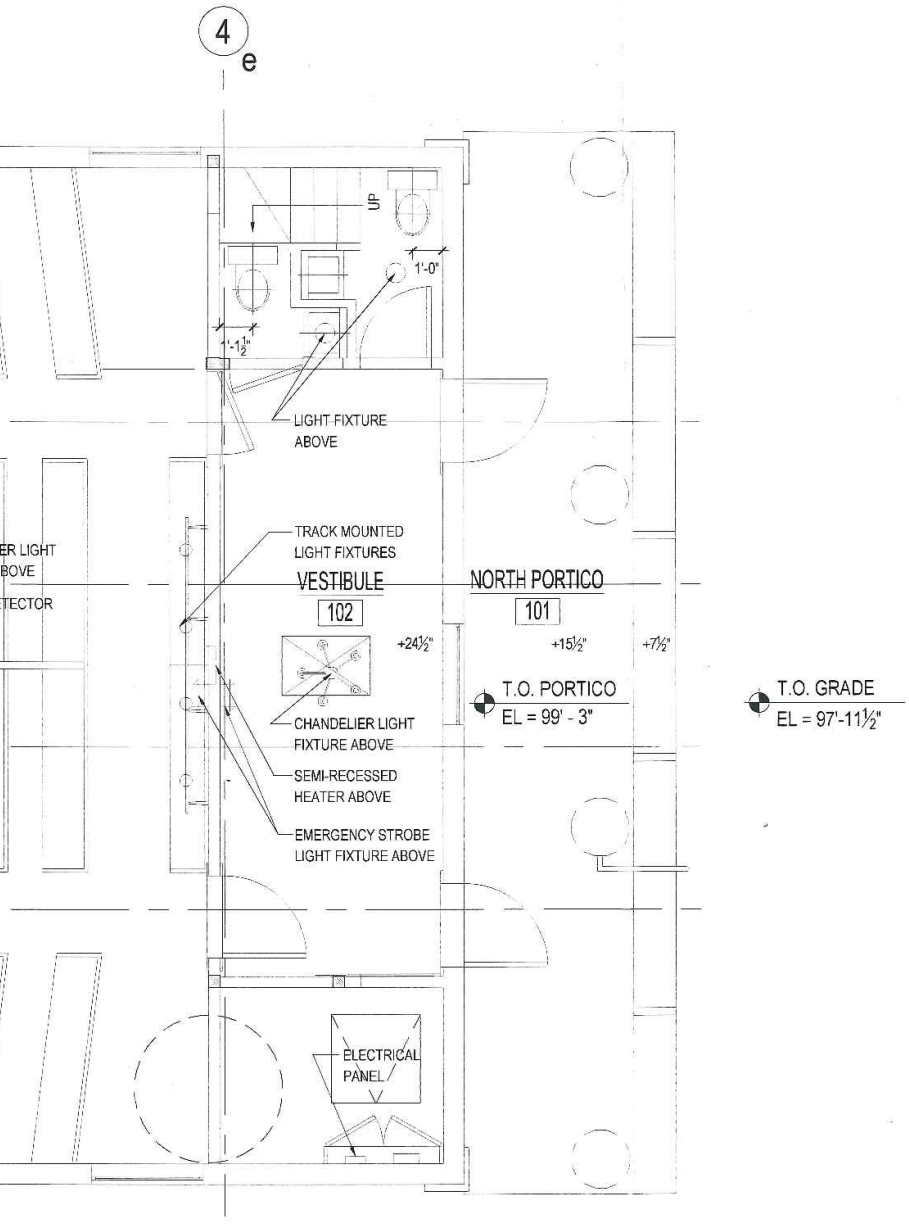

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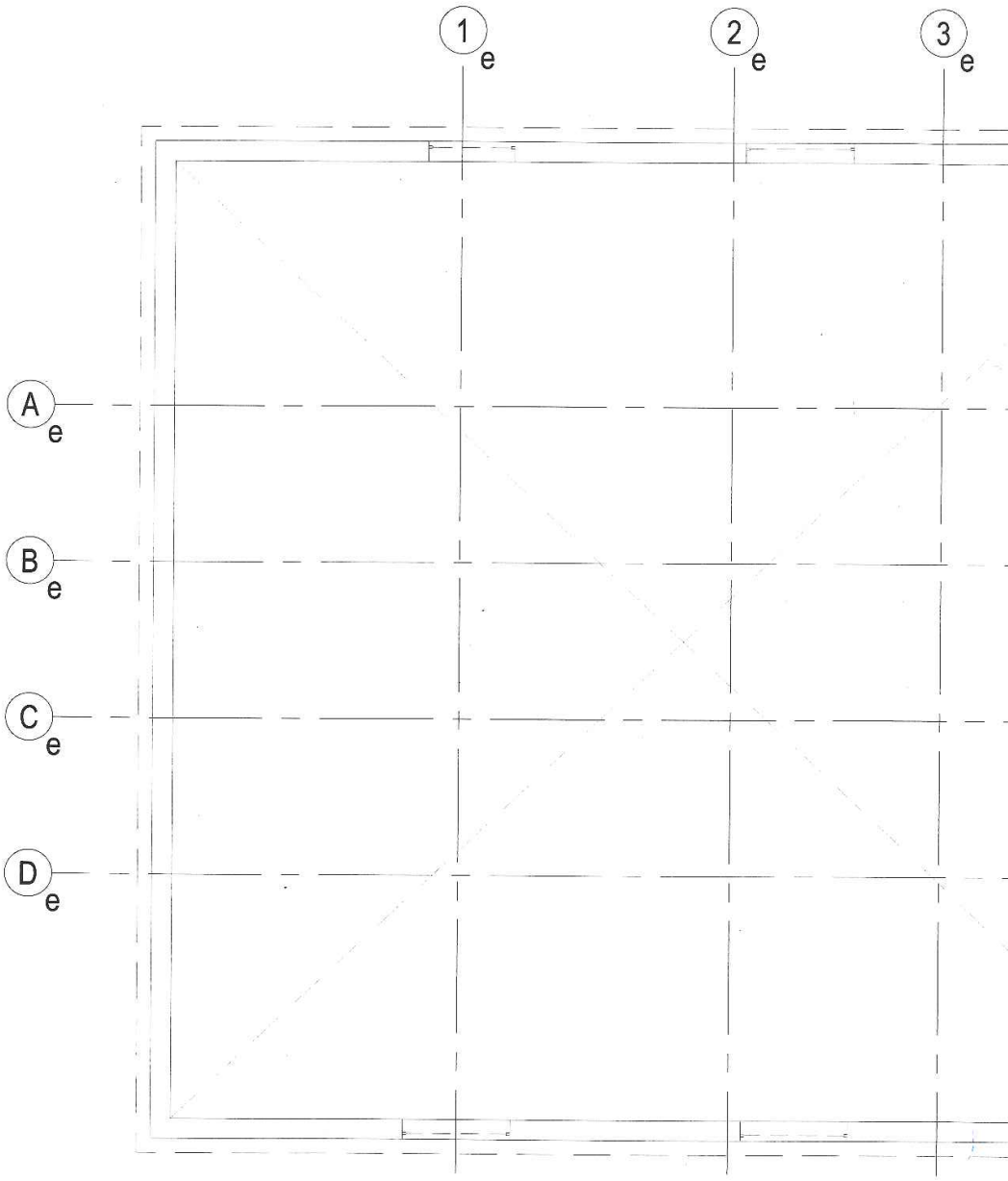
TOWN OF FRANKLIN
SOUTH FRANKLIN CONGREGATIONAL CHURCH
762 WASHINGTON STREET
FRANKLIN, MA

EXISTING CONDITIONS
PLAN: GROUND FLOOR

PROJECT NO.: 14124.99
SCALE: 3/16"=1'-0"
DATE: 11 MAY 2015
REVISIONS:

EX 1.1



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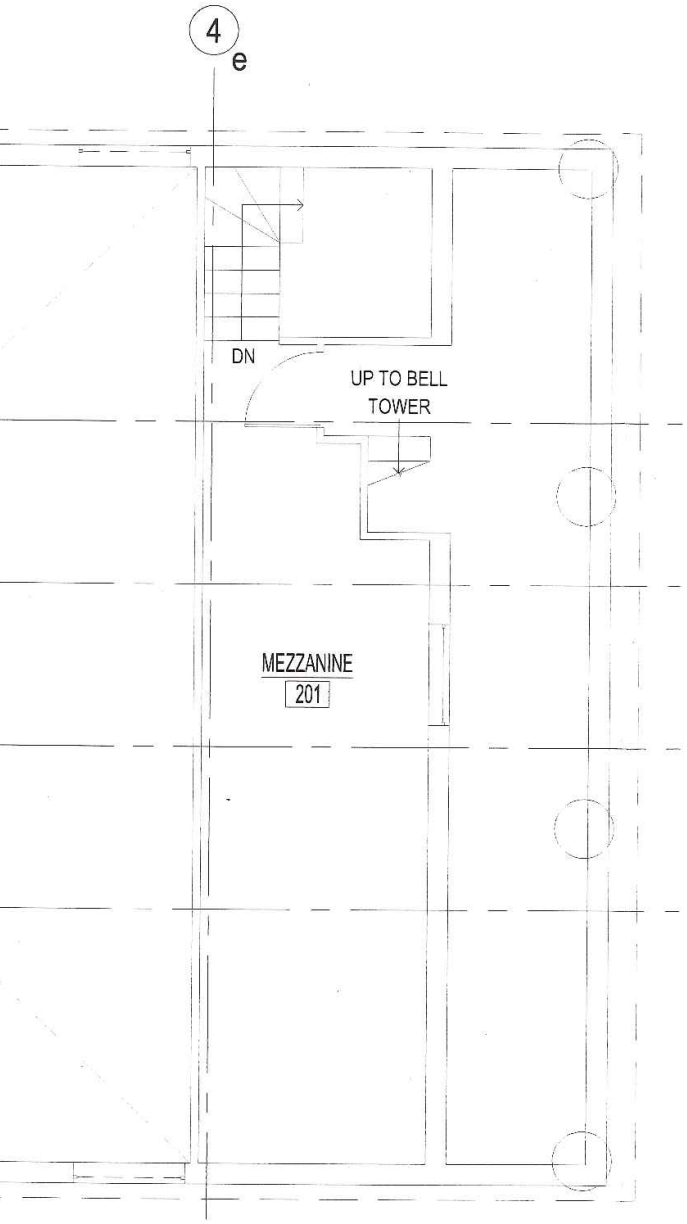

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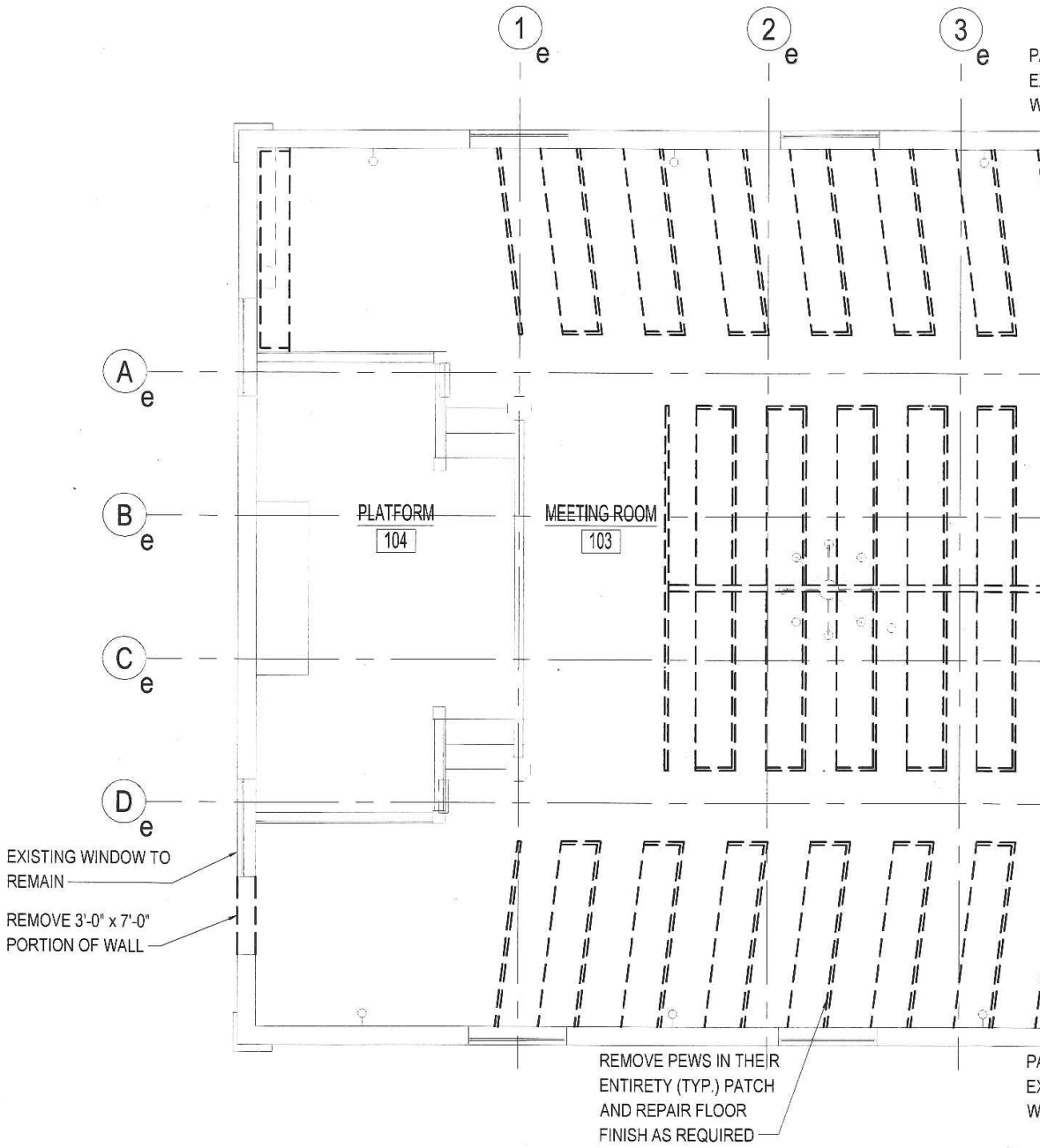
TOWN OF FRANKLIN
SOUTH FRANKLIN CONGREGATIONAL CHURCH
762 WASHINGTON STREET
FRANKLIN, MA

EXISTING CONDITIONS
PLAN: MEZZANINE

PROJECT NO.: 14124.99
SCALE: 3/16"=1'-0"
DATE: 11 MAY 2015
REVISIONS:

EX
1.2



ALTERNATIVE COMPLIANCE OPTION 1 DEMO PLAN: GROUN

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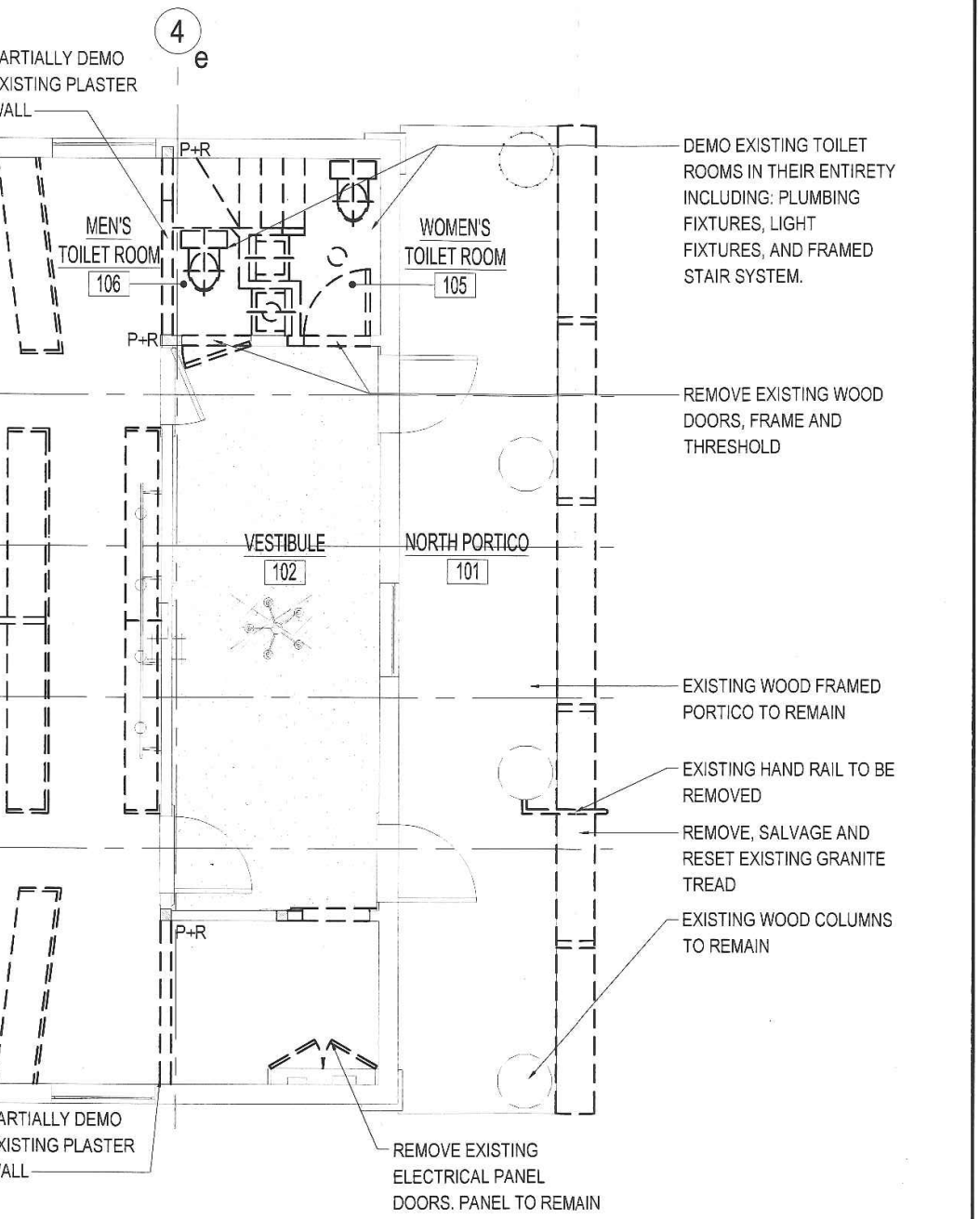

ED FLOOR

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TOWN OF FRANKLIN
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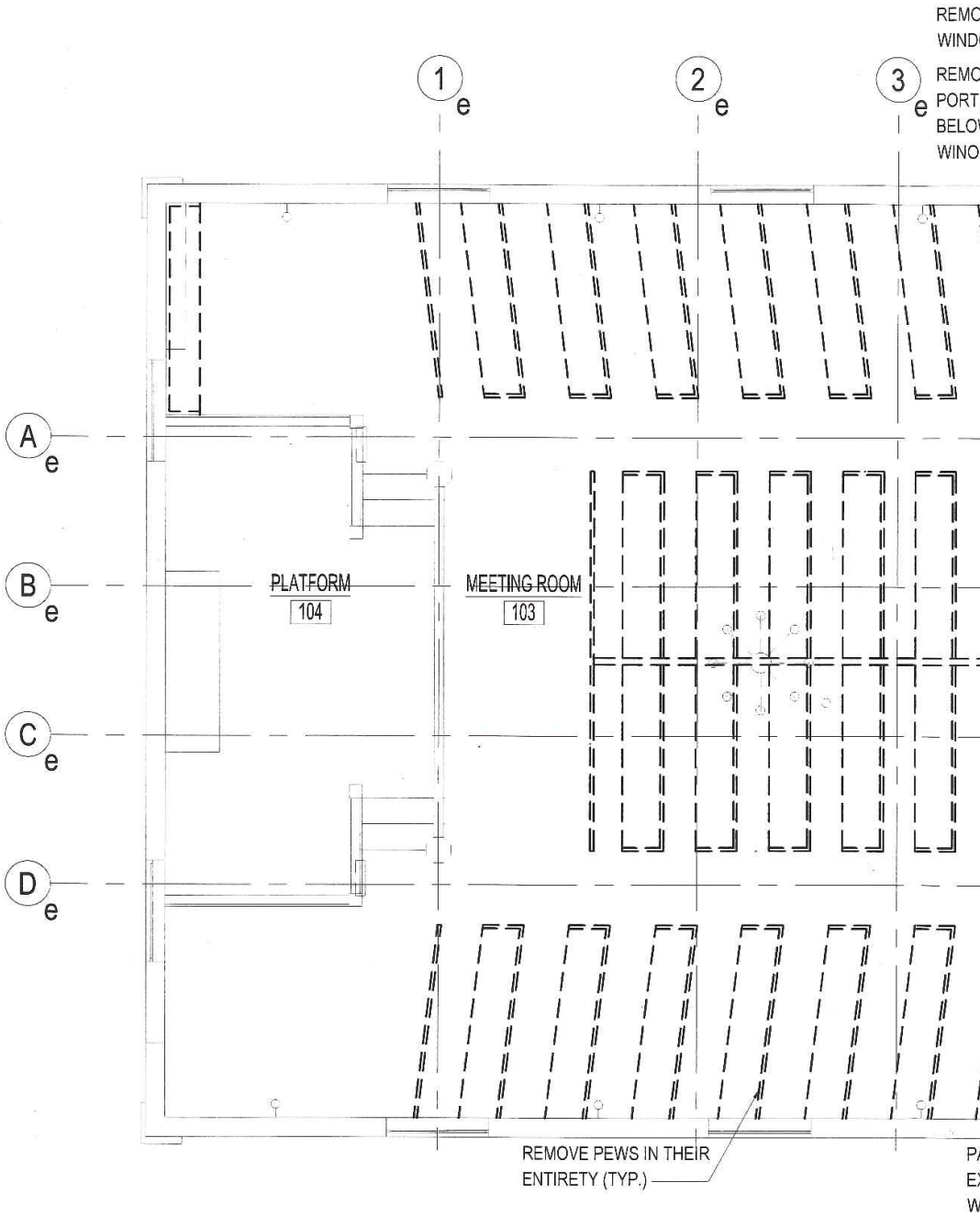
762 WASHINGTON STREET
FRANKLIN, MA

ALTERNATIVE OPTION 1
DEMOLITION PLAN: GROUND FLOOR

PROJECT NO.: 14124.99
SCALE: 3/16"=1'-0"
DATE: 11 MAY 2015
REVISIONS:

D1.1
OPTION 1



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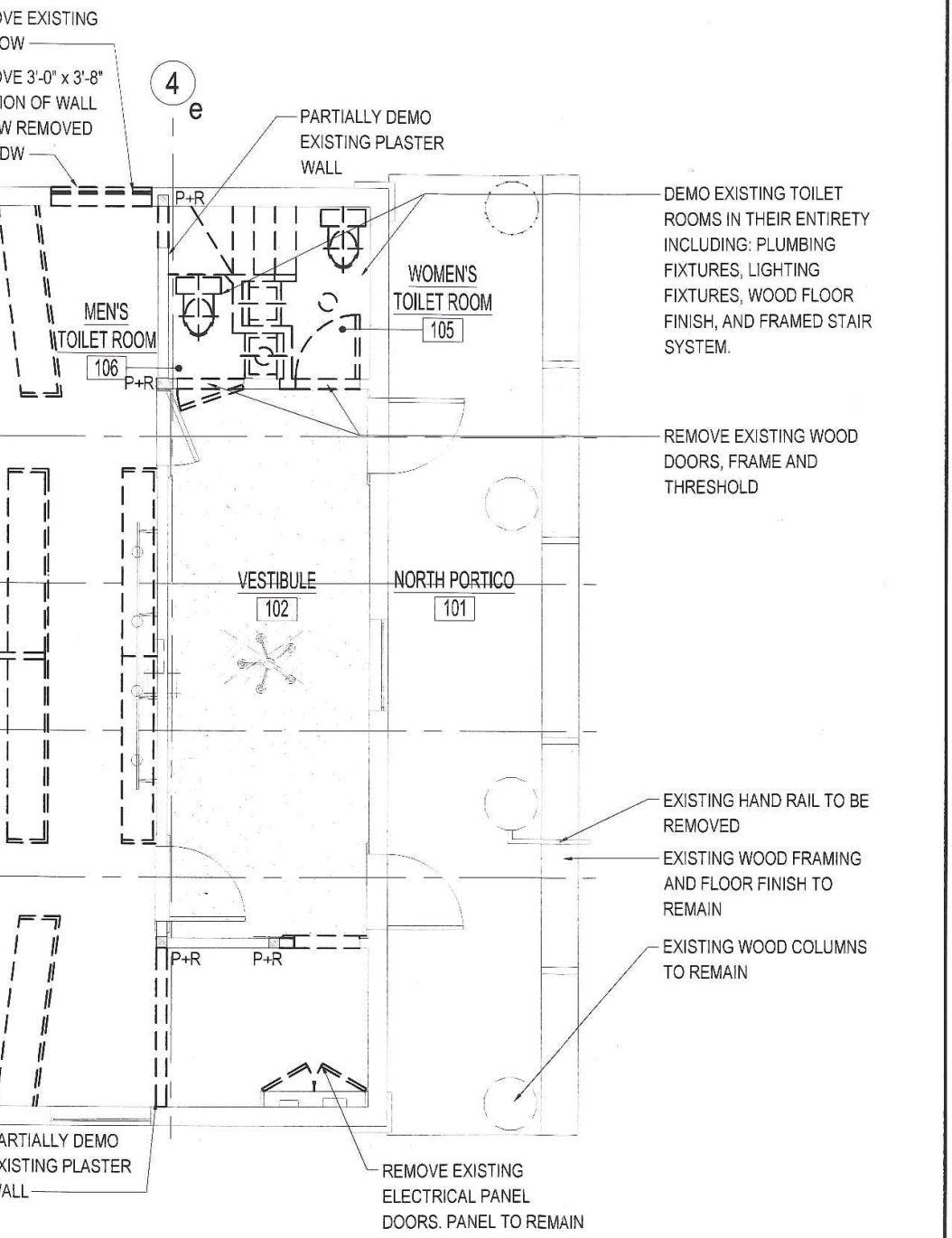

ID FLOOR

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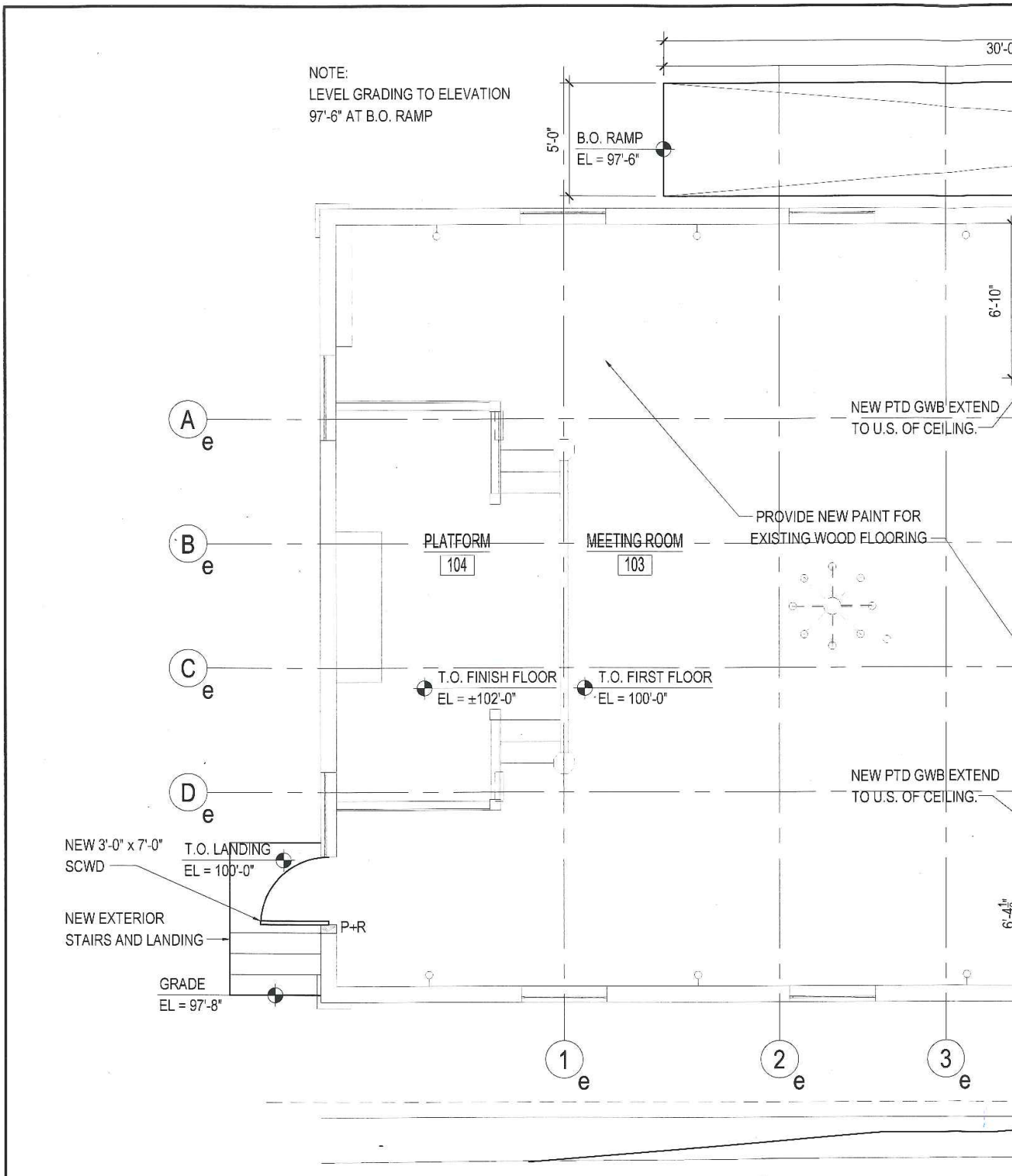
TOWN OF FRANKLIN
SOUTH FRANKLIN CONGREGATIONAL CHURCH
762 WASHINGTON STREET
FRANKLIN, MA

ALTERNATIVE OPTION 2
DEMOLITION PLAN: GROUND FLOOR

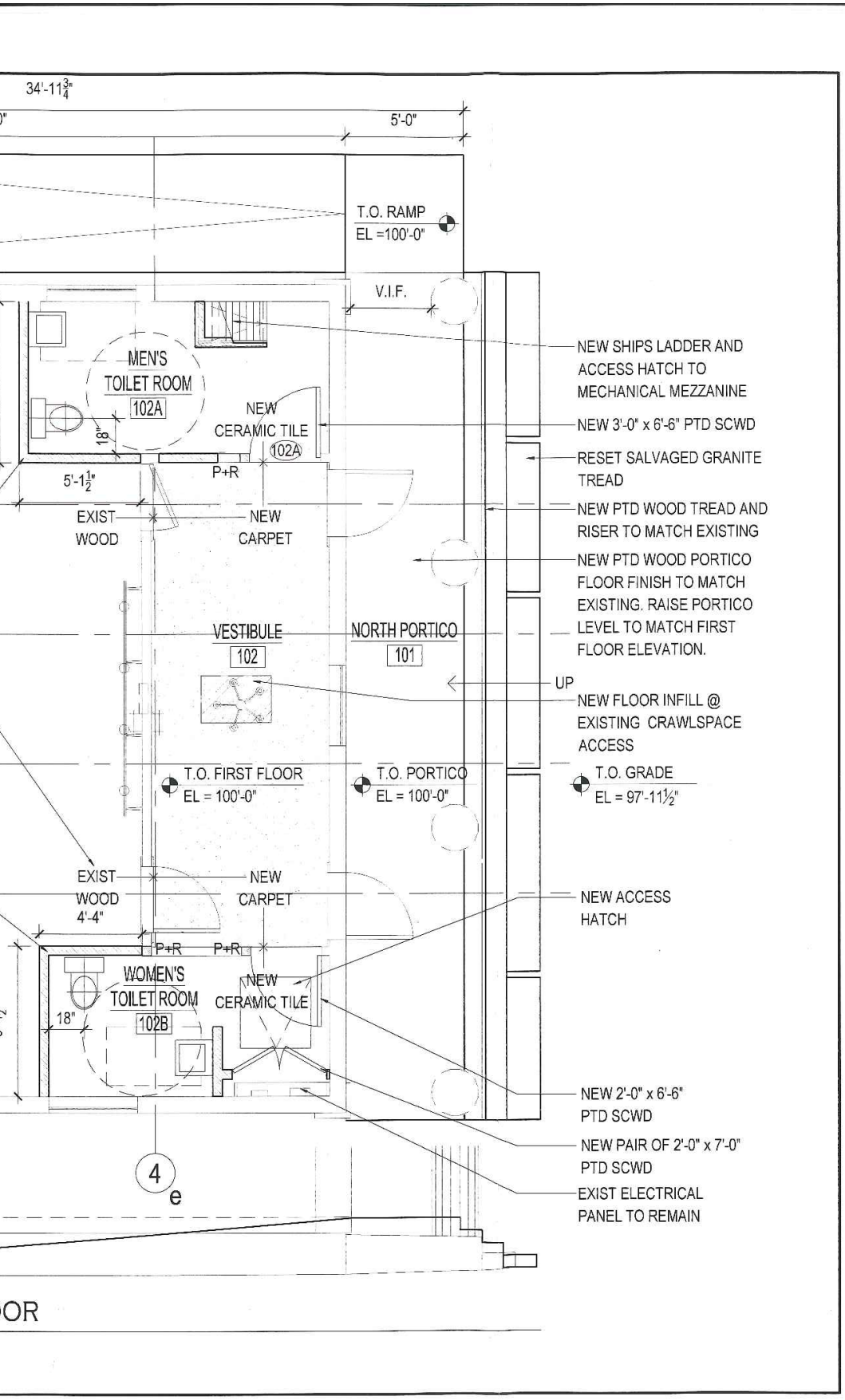
PROJECT NO.: 14124.99
SCALE: 3-16"=1'-0"
DATE: 11 MAY 2015
REVISIONS:

D1.1
OPTION 2



ALTERNATIVE COMPLIANCE OPTION 1 PLAN: GROUND FLO

3/16" =1'-0"



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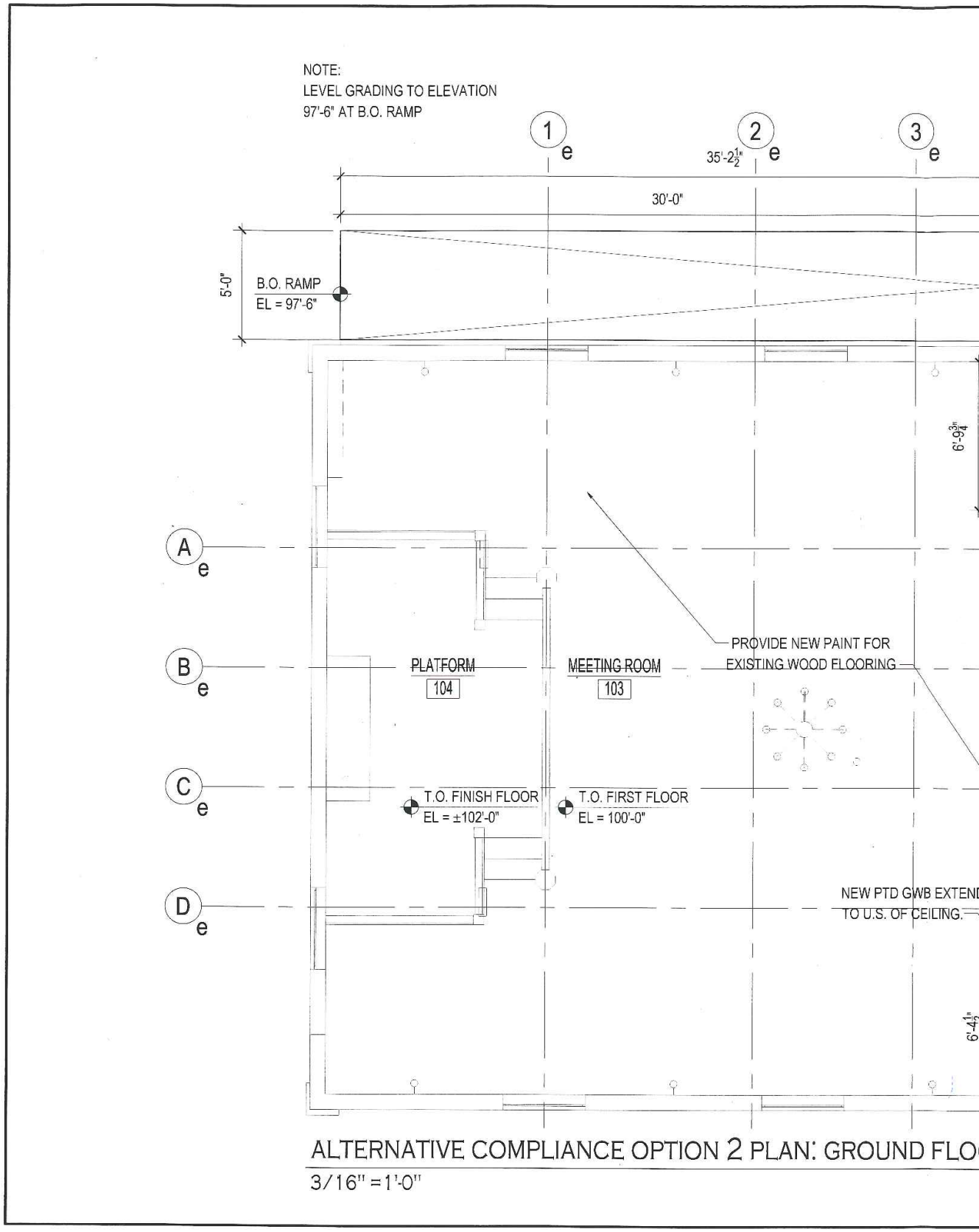
TOWN OF FRANKLIN
SOUTH FRANKLIN CONGREGATIONAL CHURCH
762 WASHINGTON STREET
FRANKLIN, MA

ALTERNATIVE OPTION 1
RENOVATION PLAN: GROUND FLOOR

PROJECT NO.: 14124.99
SCALE: 3/16"=1'-0"
DATE: 11 MAY 2015
REVISIONS:

A1.1
OPTION 1



ALTERNATIVE COMPLIANCE OPTION 2 PLAN: GROUND FLO

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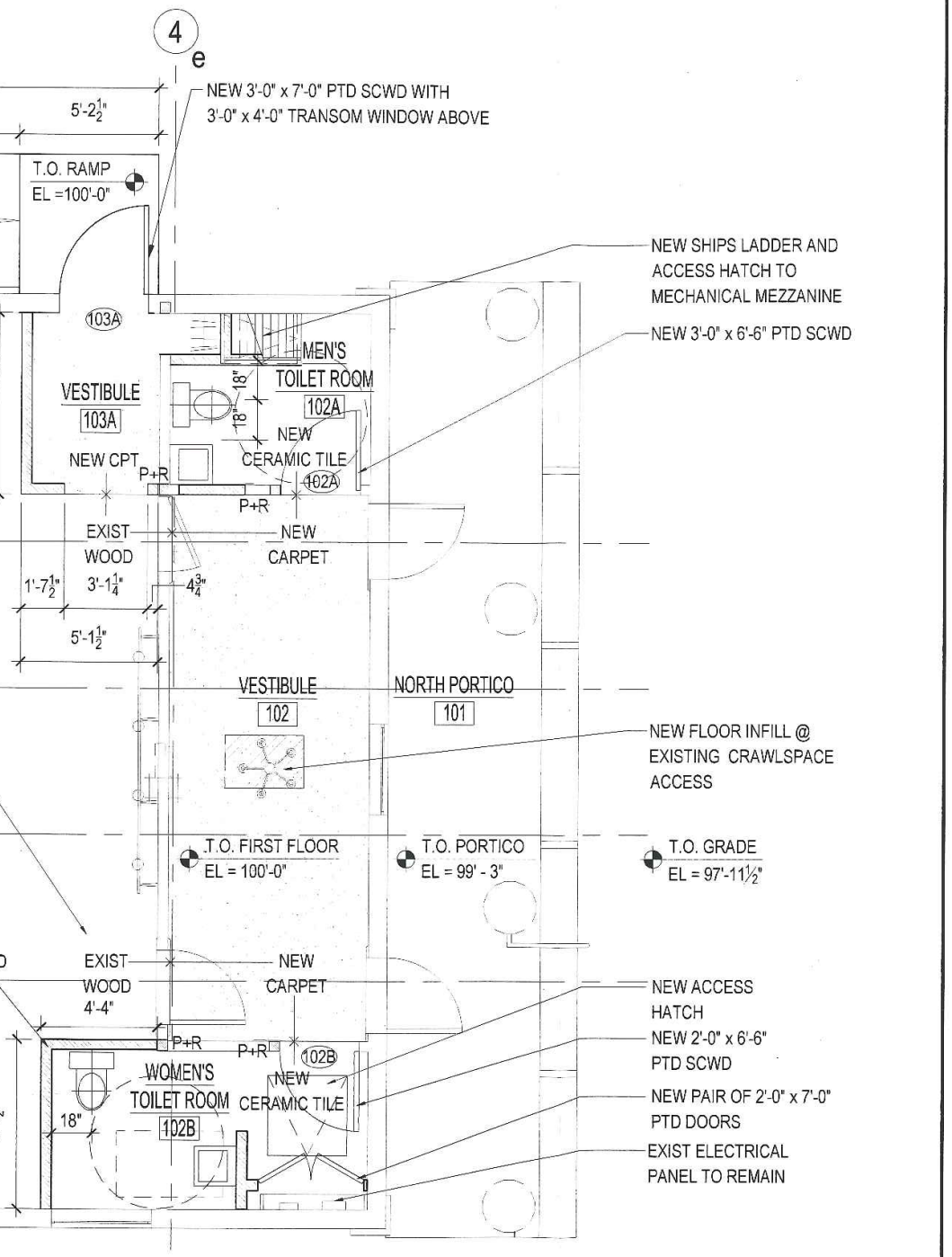

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TOWN OF FRANKLIN
SOUTH FRANKLIN CONGREGATIONAL CHURCH
762 WASHINGTON STREET
FRANKLIN, MA

ALTERNATIVE OPTION 2
RENOVATION PLAN: GROUND FLOOR

PROJECT NO.: 14124.99
SCALE: 3/16" = 1'-0"
DATE: 11 MAY 2015
REVISIONS:

A1.1
OPTION 2

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Massachusetts Cultural Resource Information System

Scanned Record Cover Page

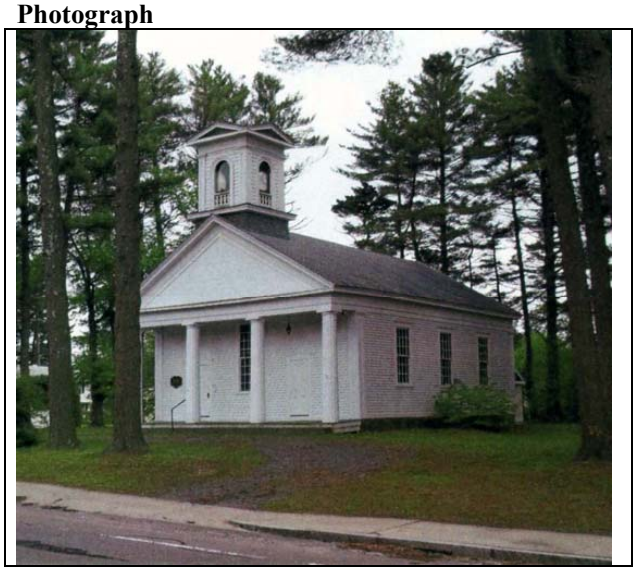
Inventory No:	FRN.325
Historic Name:	Union Congregational Parish of South Franklin
Common Name:	First Congregational Parish Church
Address:	762 Washington St
City/Town:	Franklin
Village/Neighborhood:	South Franklin - Wadsworth
Local No:	305, 322-050
Year Constructed:	1861
Architect(s):	
Architectural Style(s):	Greek Revival
Use(s):	Abandoned or Vacant; Church; Museum
Significance:	Architecture; Community Planning; Education; Religion
Area(s):	FRN.E: South Franklin
Designation(s):	
Building Materials(s):	Roof: Asphalt Shingle Wall: Wood; Wood Clapboard Foundation: Stone, Uncut

FORM B – BUILDING

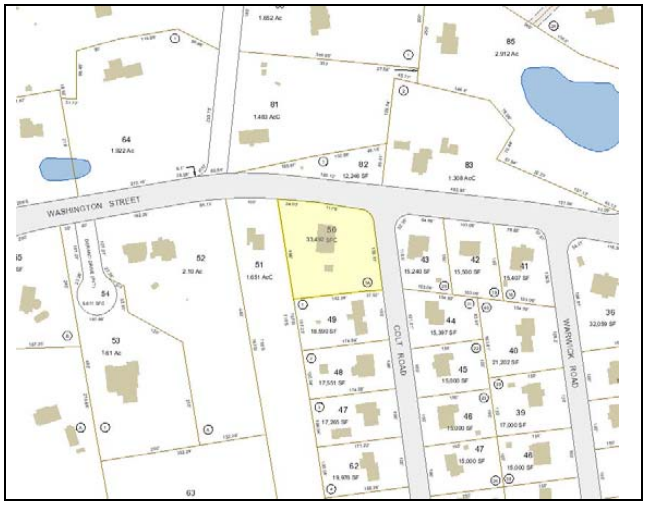
MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Assessor's Number	USGS Quad	Area(s)	Form Number
322-050-000-000		E	FRN.325

Photograph



Locus Map



Town/City: Franklin

Place: *(neighborhood or village)*: South Franklin
a.k.a. Wadsworth

Address: 762 Washington Street

Historic Name: Union Congregational Parish of South Franklin / Old South Meeting House

Uses: Present: vacant, former town museum

Original: Congregationalist meeting house

Date of Construction: 1861

Source: Horace Mann Museum; Previously Union Evangelical Meeting House- Minutes of member.

Style/Form: Greek Revival

Architect/Builder: unknown

Exterior Material:
Foundation: stone
Wall/Trim: wood
Roof: asphalt shingles

Outbuildings/Secondary Structures: small unrelated structure houses water department apparatus

Major Alterations *(with dates)*:
addition of running water and toilet, probably early 20th century

Condition: Excellent

Moved: no ☒ yes ☐ **Date:**

Acreage: 0.769 acres

Setting: residential area

Recorded by: Eamon McCarthy Earls, Associate Member
Organization: Franklin Historical Commission
Date (*month / year*): March 2011

☒ Recommended for listing in the National Register of Historic Places.
If checked, you must attach a completed National Register Criteria Statement form.

Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.

ARCHITECTURAL DESCRIPTION:

Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.
A Greek revival, Congregationalist church, and the oldest church building in the Town of Franklin. The Union Evangelical Meeting House is part of an agrarian legacy left by the villagers of Wadsworth and the greater South Franklin area, and a substantially unchanged landmark in a city that has seen extensive growth and property development. The building is rectangular, approximately two-stories with a large attic and a bell tower. It is not ornate except for the five Doric columns at its front. There are no similar structures in the community.

HISTORICAL NARRATIVE

Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.

Planned by the Congregationalist community of South Franklin in 1856, a committee prepared minutes in 1857 outlining the plan for a community meeting house and religious center. The new building would fill a niche. The devout Congregationalists of South Franklin were separated by several miles from the main Congregationalist church in the center of Franklin, and during inclement weather, or harvest seasons it could be difficult to attend far off church services.

The center of South Franklin was located less than a mile away from the planned meetinghouse, where a small village (usually referred to as Wadsworth, but also more broadly as South Franklin) had taken shape. The village took its name from the Wadsworth family, who moved from Milton, Massachusetts to Franklin in the early 1800s and soon established a small farming village, that later hosted a railroad station on New York, New Haven & Hartford Railroad's Midland Division, a post office, blacksmith shop, village store, and even a watch repair shop, owned by a member of the Wadsworth family who contracted poliomyelitis (rendering him partially paralyzed).

Wadsworth, and the Union Evangelical Meeting House were associated with the 'flowering of New England.' During the late 1850s, a one-room school house between Wadsworth and the Meeting House hosted a "Lycaeum" and debating society. George Wadsworth, a member of the Wadsworth family who lived from the 1830s until 1906 kept a detailed day-to-day journal of Franklin agricultural life and society between 1857, culminating shortly after the blizzard of 1888. Wadsworth describes farming practices, and gives a detailed portrait of the farm country of South Franklin and its religious life, as well the development of the village of Wadsworth.

The Union Evangelical Meeting House continued as a center of Franklin life far into the 20th century, and a site for lively debate. Debates were commonly held when religious services were not in session, and farmers are documented as having debated controversial topics such as national prohibition of alcohol, in the *Franklin Sentinel* (community newspaper, 1878-1978). The church was spared significant damage in the hurricane of 1938, although Franklin's main Congregationalist church became the Federated Church as the Baptist and Congregationalist communities were merged following the destruction of the Baptist church.

Citing the declining Congregationalist community in Franklin, and the costs of maintaining the Meeting House, the Franklin Federated Church began seeking new uses for its building in the early 1970s. Services continued at the Union Evangelical Meeting House until 1972, at which point the Federated Church, supervising the Meeting House, reached an agreement to deed the building to the Town of Franklin, on condition that it be used solely as a religious meeting center, or as a community museum. In the run up to the national and town bicentennials, the Franklin Historical Commission was formed and occupied the building, that was renamed the Horace Mann Museum. A wide of artifacts, documents, and photographs were preserved here and placed on display, and the museum opened to the public in 1975.

In 2007, the museum was closed to the public in preparation for an expected move to a more accessible location. After the former town hall (built 1842, rebuilt 1916), later senior center, was closed, the Franklin Historical Commission was allowed to use the new building to house its collection. Museum artifacts were moved in 2010. The Franklin Historical Commission continues to oversee the preservation of this building, and archive photographs, and written records of the Meeting House, including the complete Union Sunday School library collection. The Union Evangelical Meeting House has never been extensively remodeled, after the installation of electric lighting, heating and plumbing systems. Today, the Meeting House is the oldest church in Franklin, and still possesses all the functional elements of a Congregational church included pews, a bell, bell rope, and steeple.

BIBLIOGRAPHY and/or REFERENCES

Horace Mann Museum; Previously Union Evangelical Meeting House- Minutes of member meetings during planning and building, March 1857-April 1861. (manuscript photocopy)

Johnston, James C. *Odyssey in the Wilderness*. Medway: Wayside Press, 1978. Print.

Blake, Mortimer. *A History of the Town of Franklin, Mass. : From its Settlement to the Completion of its First Century.* Franklin: Committee of the Town. 1878. Print.

Lembo, Gail V., ed., *Diaries of George M. Wadsworth: 1857-1893*. Franklin, 1998. Print.

Continuation sheet 2

National Register of Historic Places Criteria Statement Form

Check all that apply:

☒ Individually eligible ☐ Eligible **only** in a historic district

☐ Contributing to a potential historic district ☐ Potential historic district

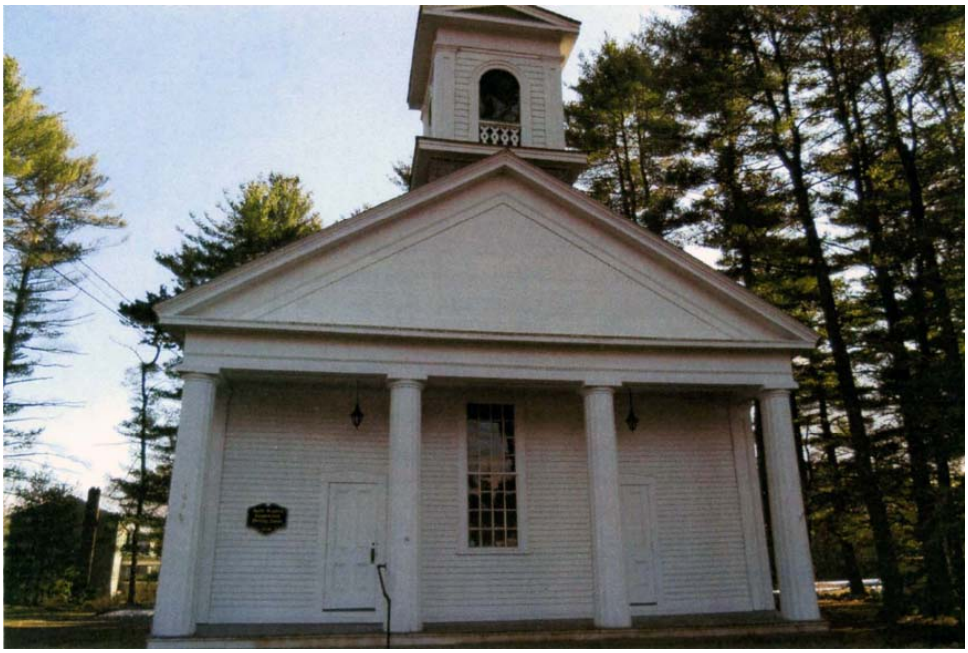
Criteria: ☒ **A** ☐ **B** ☒ **C** ☐ **D**

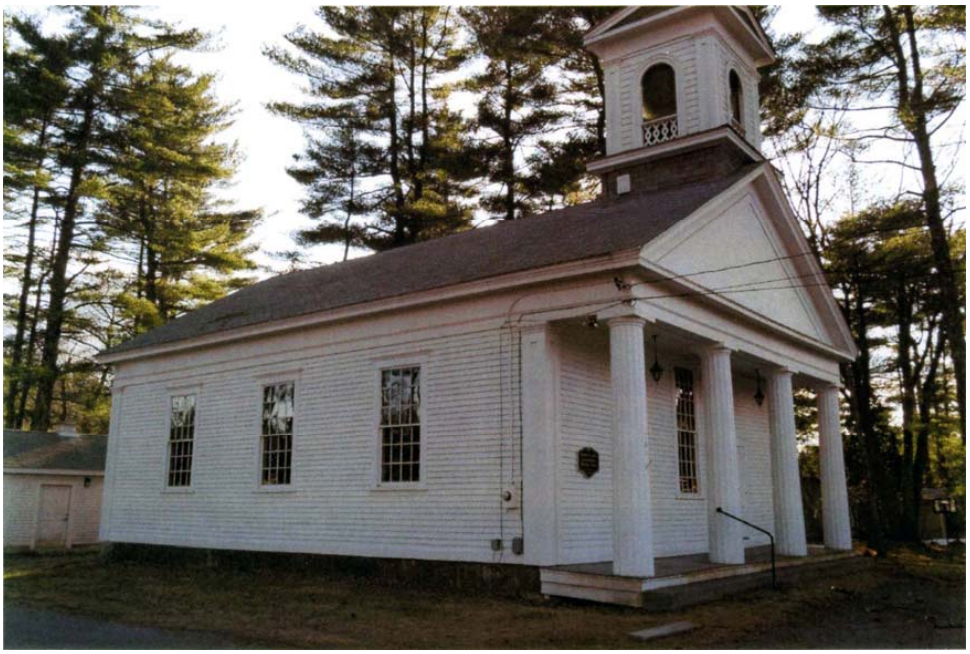
Criteria Considerations: ☐ **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E** ☐ **F** ☐ **G**

Statement of Significance by James McCarthy Earls
The criteria that are checked in the above sections must be justified here.

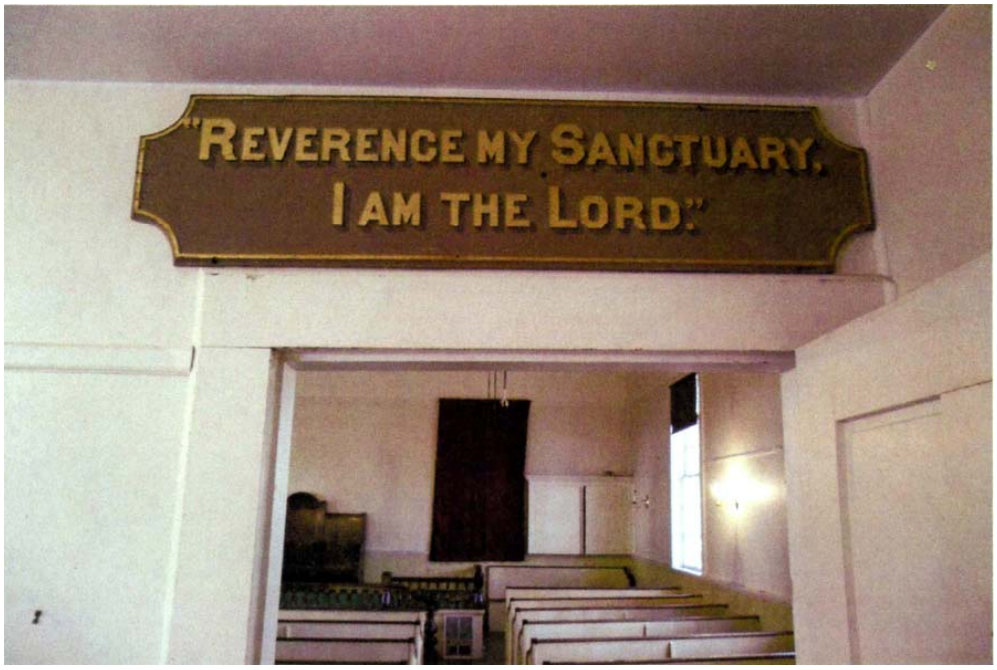
The Union Evangelical Meeting House, located in South Franklin, Massachusetts is an example of 1850s American Greek revival architecture. The Meeting House is a unique architectural reminder of the early agricultural and Congregationalist heritage of Franklin.

Supplementary images

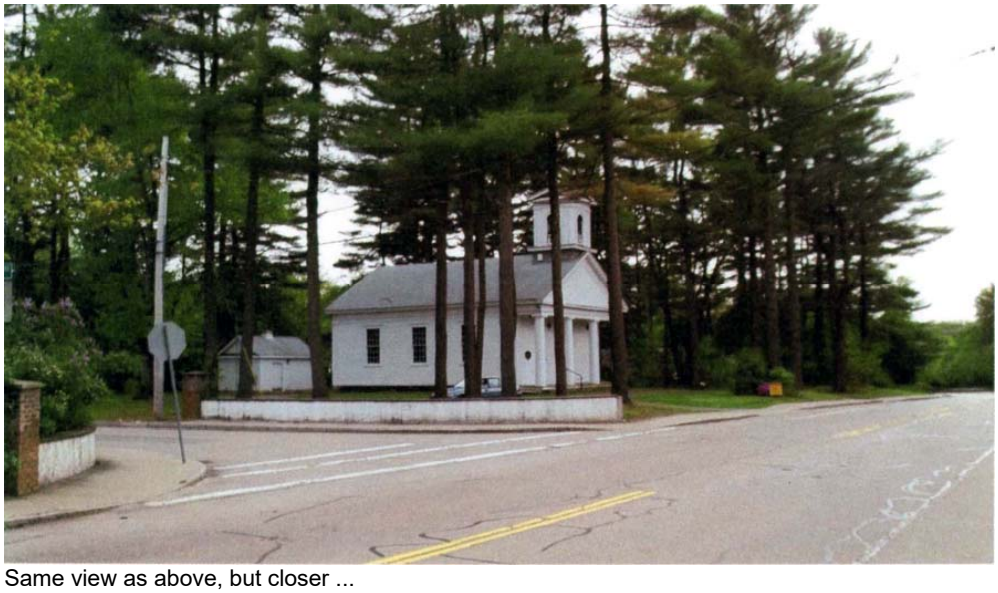




Continuation sheet 4


"REVERENCE MY SANCTUARY,
I AM THE LORD."

View of Old South Meeting House, Franklin from the northeast, across Washington St., with Colt Rd. intersection in foreground.

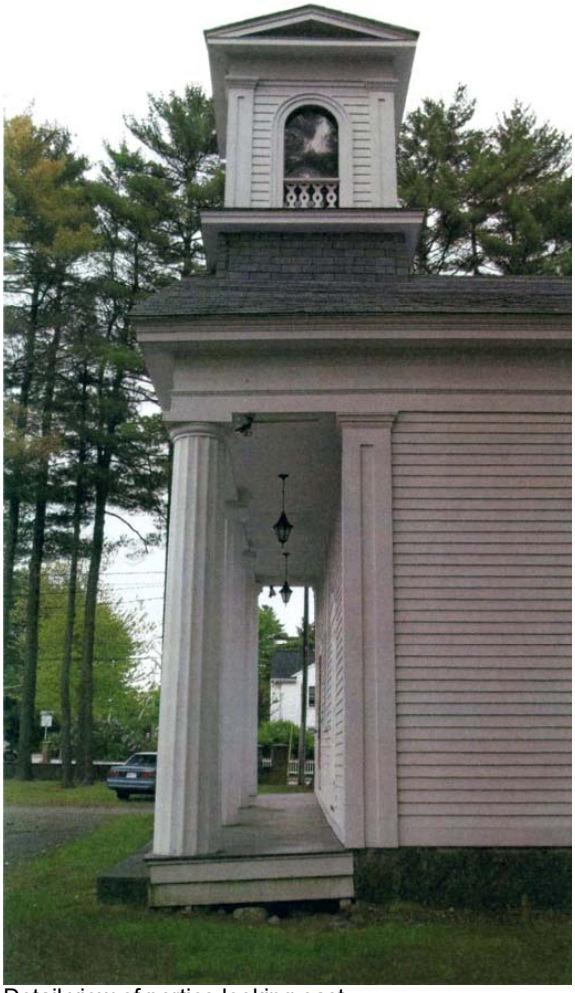


Same view as above, but closer ...

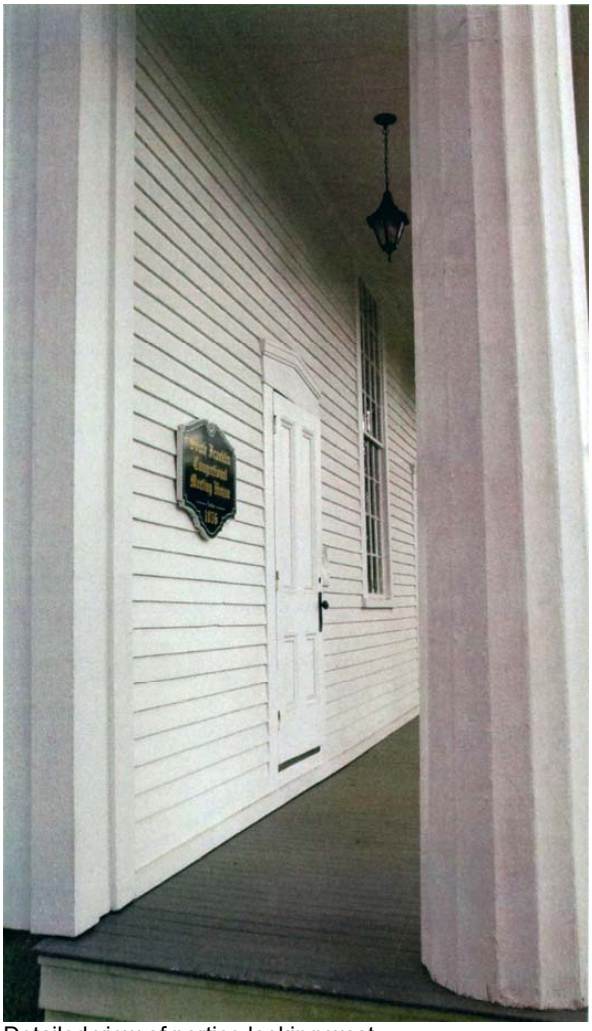
View of Old South Meeting House from northwest, Washington St. in foreground.

View of rear of structure looking toward north. Recent outbuilding from late 1990s is to right.

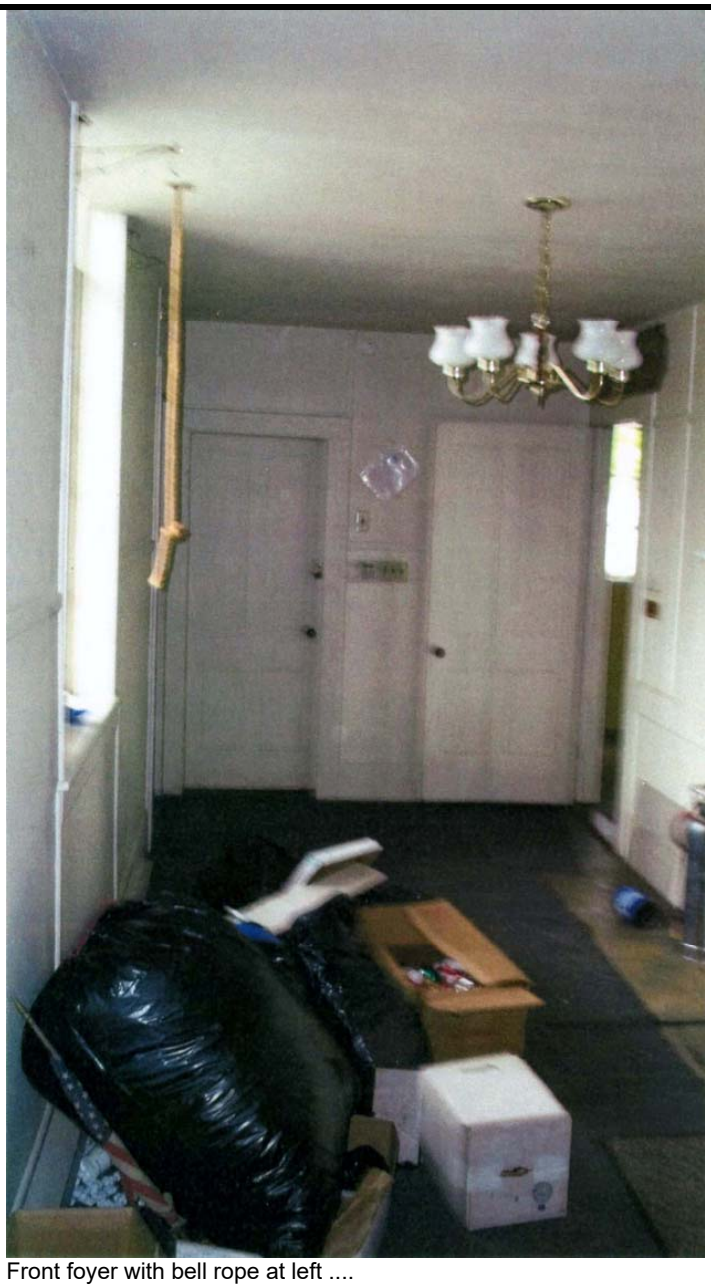
Close view of east side of Old South, looking toward Washington St and the north.



Detail view of portico looking east



Detailed view of portico looking west



Front foyer with bell rope at left ....

View looking up stairs in attic at interior of steeple, bell and bell rope

Attic interior looking toward belfry.

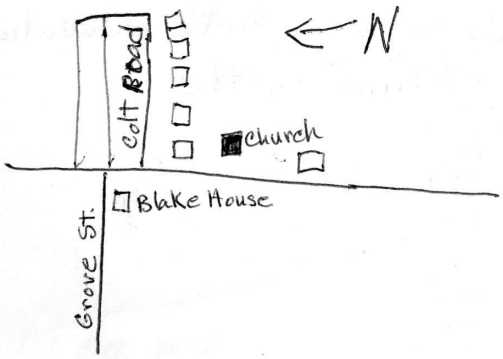
SECT A PL-S. FRANK-WADS

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, State House, Boston

In Area no.	Form no.
3 E	305 325

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.



DO NOT WRITE IN THIS SPACE
USGS Quadrant Franklin (46)
MHC Photo no.

1. Town Franklin
Address Washington Street
Name First Congregational Parish
Present use Franklin Historical Commission Property
Present owner Franklin

3. Description:
Date 1856
Source Blake's History P. 97
Style Country Greek Revival
Architect
Exterior wall fabric wood
Outbuildings (describe) NONE
Other features steeple

Altered Date
Moved no Date

5. Lot size:
Less than one acre Over one acre
Approximate frontage
Approximate distance of building from street
50. feet

6. Recorded by James C. Johnston Jr.
Organization Franklin Historical Comm
Date May 10, 1973

(over)

JUN 28 1973

FRN. 325

7. Original owner (if known) Council of the First Parish

Original use Church

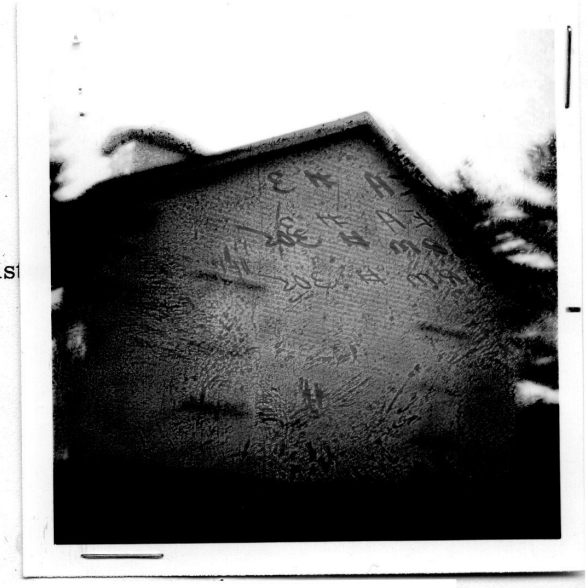
Subsequent uses (if any) and dates Historical Commission

8. Themes (check as many as applicable)

Aboriginal		Conservation		Recreation	
Agricultural	✓	Education	✓	Religion	✓
Architectural		Exploration/ settlement		Science/ invention	
The Arts		Industry		Social/ Humanitarian	✓
Commerce		Military		Transportation	
Communication		Political			
Community development					

9. Historical Significance (include explanation of themes checked above)

The Church was founded because travel of Three miles to the center of the town to the other church was too far for comfort of the citizens of South Franklin. It is a nice example of a country interpretation of Greek Revival, and reflects the Faith and Puritan Ethic intrinsic to the people who built it for their worship. It will hold a collection of historical objects connected with the history of the town and its relationship to Common wealth and nation thus serving both educational and humanitarian needs existing in the community.



10. Bibliography and/or references (such as local hist early maps, etc.)

Blake, Mortimer. History

3/73

Original yellow form: Eligibility file
Copies: Inventory form
Town file(w/corresp.)
Macris
NR director ____

FRN.325

Community: Franklin

MHC OPINION: ELIGIBILITY FOR NATIONAL REGISTER

Date Received: 6 June 2011 Date Due: Date Reviewed: 15 June 2011

Type: _x_ Individual __District (Attach map indicating boundaries)

Name: Union Evangelical Meeting House Inventory Form: FRN.325

Address: 762 Washington St

Requested by: Eamon McC. Earls. LHC

Action: __Honor __ITC __Grant __R & C __Other:

Agency: Staff in charge of Review:

INDIVIDUAL PROPERTIES

_x_ Eligible
__ Eligible, also in district
__ Eligible only in district
__ Ineligible
__ More information needed

DISTRICTS

__ Eligible
__ Ineligible
__ More information needed

CRITERIA: _x_ A __B _x_ C __D

LEVEL: _x_ Local __State ___National

STATEMENT OF SIGNIFICANCE by Phil Bergen

Relatively preserved modest mid 19th century Congregational meetinghouse, reflecting the rural area in which it sat, the property was built as a relief for South Franklinites removed from the town center. Oldest church building in town. Rectangular, with preserved bell and steeple, it has four Doric columns on its front façade.

The church was closed in 1972, donated to the town, and used as museum until 2007. It is currently vacant.

Additional photos show the outside on all sides, attic and bell, and provide some more information, although outbuildings are not satisfactorily documented. Although vacant, building appears to be in good condition.

FRN.325

Original yellow form: Eligibility file
Copies: Inventory form
Town file(w/corresp.)
Macris
NR director _____

Community: Franklin

MHC OPINION: ELIGIBILITY FOR NATIONAL REGISTER

Date Received: 9 May 11 Date Reviewed: 18 May 11

Type: _x_ Individual __District (Attach map indicating boundaries)

Name: Union Evangelical Meeting House Inventory Form: FRN.325

Address: 762 Washington Street

Requested by: Eamon Earls, LHC

Action: __Honor __ITC __Grant __R & C __Other:

Agency: Staff in charge of Review:

INDIVIDUAL PROPERTIES

__ Eligible
__ Eligible, also in district
__ Eligible only in district
__ Ineligible
_x_ More information needed

DISTRICTS

__ Eligible
__ Ineligible
__ More information needed

CRITERIA: __A __B __C __D

LEVEL: __Local __State __National

STATEMENT OF SIGNIFICANCE by Phil Bergen

A relatively preserved modest mid 19th-century Congregational meeting house, reflecting the rural area in which it sat, the property was built as a relief for South Franklinites removed from the town center.
It is the oldest church building in the town. Rectangular, with preserved steeple and bell, it has four Doric columns on its front façade.

The church was closed in 1972, donated to the town, and was used as a town museum until 2007.

Questions arose about the outbuildings on site, the lack of substantial interior and exterior photos, and the surrounding area. The church appears to be in good condition, even though the building is currently vacant.

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A Comprehensive Investigation & Analysis of Existing Conditions at the South Franklin Congregational Meeting House

762 Washington St
Franklin, MA

Prepared for
The Town of Franklin, MA
by

CIVITECTS

ARCHITECTURE
PLANNING + LANDSCAPE
PROFESSIONAL CORPORATION

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11 May 2015

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email: jnutting@franklin.ma.us

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Fax: 508-520-4906
email: gbrown@franklin.ma.us

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Fax: 508-686-2799
Email: tbrown@nbaycc.com

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- EX1.1 Existing Conditions Plan: Ground Floor
- EX1.2 Existing Conditions Plan: Mezzanine

Alternative Option No. 1
- D1.1 Option No.1 Demo Plan: Ground Floor
- A1.1 Option No.1 Renovation Plan: Ground Floor

Alternative Option No. 2
- D1.1 Option No. 2 Demo Plan: Ground Floor
- A1.1 Option No. 2 Plan: Ground Floor

1. INTRODUCTION

South Franklin Congregational Meeting House
Constructed in 1861, the South Franklin Congregational Meeting House (SFCMH) also known as Union Evangelical Meeting House originally functioned as a Congregationalist church. The building is designed in the Greek revival style with 4 Doric columns along the north façade. The building is rectangular in footprint and is approximately 2 stories tall with an attic and bell tower. Located within what is currently designated as the greater South Franklin Area, the church was originally intended to provide the Congregationalists of South Franklin a place to commune when inclement weather or the harvest season made worshiping at the main Congregationalist church in the center of Franklin difficult. When religious services were not in session, the building also served as a debate hall for the South Franklin area. In 1972, the Federated Church deeded the building to the Town of Franklin. The building housed the Franklin Historical Museum from 1975 until 2007 when the museum relocated.

The typical exterior wall construction is wood framed with painted clapboard siding and corner boards on the exterior and painted lath and plaster on the interior.

Scope & Project History
The objective of this study is to evaluate the conditions of major building systems, including existing MEP systems; assess structural conditions; evaluate the condition of the building envelope; identify code concerns; review accessibility issues; and to recommend appropriate repairs and improvements with associated costs.

The Town of Franklin solicited Civitects, PC for a proposal to perform a comprehensive investigation of the existing conditions at the Meeting House. On December 16th, 2014, Civitects met with the Town's Building Commissioner/Zoning Officer, Gus Brown, to conduct the initial field survey. The Scope of work requested by the Town of Franklin included the following:

1. Provide a comprehensive field investigation of the existing conditions.
2. Review existing conditions with the Town's Building Commissioner and perform an assessment of the repairs needed.
3. Prepare a report with written description and analysis of the current conditions and issues. Make recommendations for remediation of the conditions/issues, including a prioritization for immediate and long-term action with cost estimates for repair/replacement of same, for review by the Town of Franklin.
4. Meet with Building Commissioner, Gus Brown and Town Administrator, Jeffrey Nutting as required, to present and discuss the report/recommendations.

Methodology
Civitects began a comprehensive field investigation of both the exterior and interior conditions, noting and photo-documenting observations on December 16, 2014. As part of the investigation, Civitects reviewed existing conditions with respect to the current editions of the International Building Code (IBC), the International Existing Building Code (IEBC) and Massachusetts State Building Code (MSBC – 8th Edition) and the requirements of the Massachusetts Architectural Access Board (MAAB). After the initial survey work, Civitects developed recommendations for short-term and long-term goals for repair and replacement of major building systems, including cost estimates. We have not included sampling and testing of potentially hazardous materials in our scope of work. It is understood that the Town will bear the responsibility for retaining the services of a qualified environmental engineering consultant to perform a thorough review of existing conditions to determine the quantities and locations of potentially hazardous materials prior to undertaking any work.

END OF SECTION

2. EXISTING CONDITIONS REPORT: ARCHITECTURAL

A. GENERAL

Designed in the Greek Revival style, the Meeting House is considered the town's oldest religious structure. Originally known as the Union Congregationalist Meeting House, the building is rectangular in massing and consists of a single story with a mezzanine storage space and bell tower. The overall design is relatively simple. The gabled roof extension along the north façade overhangs the open portico below. The roof extension is supported by five Doric columns.

First floor spaces include a vestibule at the north entrance with both male and female toilet rooms at the west end of the vestibule (Photo A.3). Electrical service is fed to a storage space at the east end of the vestibule where the electrical panel is located. To the southern of the vestibule is the meeting room with fixed pews and a raised platform at the south end of the space (Photos A.1 and A.2). Interior walls and ceiling finishes consist of painted plaster over wood lathe. The existing wood floor boards are painted. The building also contains a crawlspace with a dirt floor which is accessed by removing several floor boards in the north vestibule. A detailed structural assessment of the condition of existing 1st floor framing members was completed by structural engineering consultant DM Berg and is included herein.

Access to the mezzanine and bell tower is by way of an interior winding stair located within the women's toilet room at the northwest corner of the building.

Photo A.1 – Meeting Room

Photo A.2 – Meeting Room Platform

Photo A.3 – North Vestibule

The structure is wood framed with wood clapboard exterior siding; the Construction Type is assumed to be VB. The building measures approximately 52'-4 feet long x 35 feet wide x approximately 33 feet high; the building footprint measured in gross square feet (GSF) is around 1,843 GSF.

The unofficial property record card for 2014 lists the total value of the property at $281,000. The record card breaks the property value down as follows:

Building Value:	$125,300
Extra Features Value:	$ 3,100
Land Value:	$152,600
Total Value:	$281,000

B. SITE

The Meeting House is located in South Franklin at 762 Washington Street on approximately 0.655 acres at the intersection of Washington Street and Colt Road. The property is bounded by Colt Road to the east and Washington Street to the north. Situated in a residential neighborhood near the Franklin State Forest (Photo B.1), the Meeting House is surrounded by large pine trees with single family residences to the south and west of the structure. It was observed that Washington Street experiences heavy vehicular traffic throughout the day. Located on the property approximately 24 feet south of the Meeting House is an 18' x 14' booster station for the Town of Franklin Water Department.

The parking area and driveway appears to consist primarily of gravel (Photo B.2). Pine needles scattered around the perimeter of the building obscure much of the site; no impervious paved surfaces were noted. Parking spaces are not identified; there is no striping delineating either accessible or non-accessible parking spaces. There is no signage identifying accessible parking spaces.

Photo B.1 – Aerial photograph

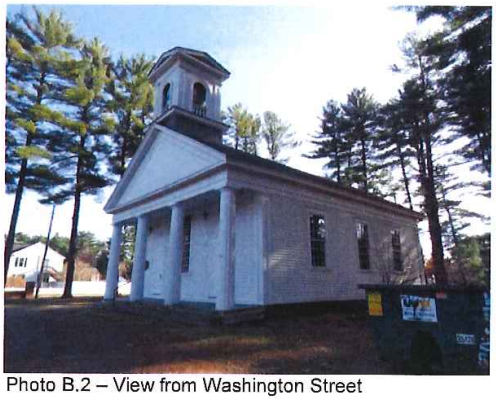
Photo B.2 – View from Washington Street

C. EXTERIOR ENVELOPE

Walls

Exterior walls consist of wood framing with white painted clapboard siding and corner boards at each of the building's four corners (Photo C.1). Both the wood framing and siding appear to be in good condition. The foundation wall is comprised of large granite slabs over stone rubble (Photo C.2). The joints between the granite slabs are not sealed and are open to the crawlspace below the first floor. The granite units themselves are in good condition with no visible cracks observed.

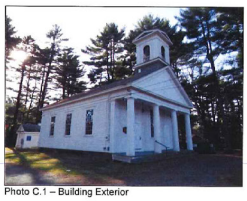

Photo C.1 – Building Exterior

Photo C.2 – Corner Board and Granite Foundation

Windows and Doors

There are a total of nine exterior windows; one window at the north elevation, three windows at both east and west elevations, and two windows at the south elevation. The window at the north elevation, located in the vestibule, is a 16 over 16 double hung wood window and is in good condition. The remaining windows, located in the Meeting Hall space, are 12 over 12 double-hung wood windows and are also in good condition (Photo C.3). Windows at the south façade are provided with exterior shutters. The existing windows are not energy efficient by current energy standards; glazing is single paned. The windows do not appear to be in immediate need of replacement or repair.

Exterior doors consist of two egress doors along the north elevation (Photo C.4). Both doors and frames are wood and assumed to be original to the building and are in fairly good condition. Existing door hardware does not meet accessibility regulations.

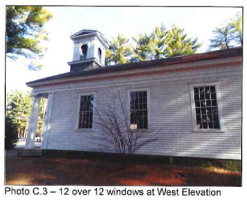

Photo C.3 – 12 over 12 windows at West Elevation

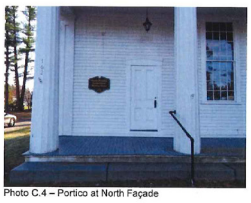

Photo C.4 – Portico at North Façade

Roof

The gable roof is comprised of asphalt shingles over wood board sheathing over sloped wood rafters. A wood-framed bell tower is located at the north end of the roof above the main entrance. In keeping with the Greek Revival style, the gabled roof extends over the north portico and is supported by four Doric columns. The asphalt roof shingles are in fair condition. It is not know when the roof shingles were installed, however they appear to be approaching the end of their lifespan. There are no gutters or downspouts.

Sampling and testing of existing building materials for hazardous materials are not part of this study. Any modifications to existing systems should include an evaluation of building materials such as mastic associated with the existing roof shingles. It is recommended that an inspection for hazardous materials be performed by the Town's licensed environmental consultant.

D. BUILDING INGRESS AND EGRESS

Stairs and ramps
The main entrance to the Meeting House is located along the north elevation. Access to the first floor is by way of a painted wood-framed portico and granite risers which span the full width of the north façade (Photos C.4 and D.1). First floor egress is limited to two single doors which exit from the north vestibule to the portico; there are no other egress doors servicing the first floor. The overall condition of the portico framing, wood floor boards, and granite risers is good (Photo D.1).

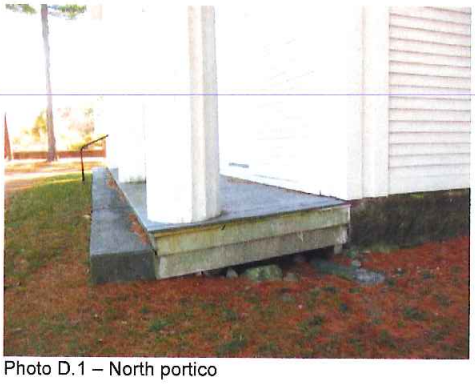

Photo D.1 – North portico

The building does not have an accessible entrance. The main entrance is not considered accessible as there is no accessible route from grade to the portico. Additionally, the level change from the portico to first floor represents an architectural barrier. The level change from grade to portico is approximately 15-1/2" and the differential between the portico and first floor vestibule is 9". Therefore, the total differential between grade and first floor is approximately 24-1/2".

Occupancy Load: Existing
The existing occupancy load calculation, including fixed seating located in the Meeting Room, is as follows (Table D.1):

Table D.1: Building Occupancy Load: Existing

Space	Max. Floor Area per Occupant	Calculation	Occupants
Vestibule (102)	N/A	N/A	N/A
Meeting Room (103)	1 Occ. per 18" (continuous fixed seating)	85.125" / 18" = 4.72 [4 occ.]x(14 Rows) = 56 84.125" / 18" = 4.66 [4 occ.]x(12 Rows) = 48 168.5" / 18" = 9.36 [9 occ.]x(1 Row) = 9 93.5" / 18" = 5.19 [5 occ.]x(1 Row) = 5	118
Platform / Altar (104)	1 Occ. per 15 NSF (stages + platforms)	149 NSF / 15 = 10	10
Standing Area (east of platform)	1 Occ. per 5 NSF (standing area)	75 NSF / 5 = 15	15
Standing Area (west of platform)	1 Occ. per 5 NSF (standing area)	65 NSF / 5 = 13	13
Electric Closet (Accessory Area)	N/A		0
Toilet Rooms (Accessory Area)	N/A		0
Mechanical Mezzanine (Accessory Area)	1 Occ. per 300 GSF	192 SF / 300 GSF = 1	1
Total			**157 Existing Occupants**

Occupancy Load: Allowable
It is understood that the existing fixed seating will be removed with any planned renovation. Therefore, for the following Occupancy Load calculation based on IBC Table 1004.1.1 (Table D.2 below), we have assumed an occupant load with no fixed seating and a continuation of the same use (A-3).

Table D.2: Building Occupancy Load: Proposed Allowable*

Space	Max. Floor Area per Occupant	Calculation	Occupants
Vestibule (102)	N/A	N/A	N/A
Meeting Room (103) *(excludes Vestibule 103A)*	1 Occ. per 5 NSF (standing area)	970 NSF / 5 = 194	194**
Platform / Altar (104)	1 Occ. per 15 NSF (stages + platforms)	149 NSF / 15 = 10	10
Electric Closet (Accessory Area)	N/A		0
Toilet Rooms (Accessory Area)	N/A		0
Mechanical Mezzanine (Accessory Area)	1 Occ. per 300 GSF	192 SF / 300 GSF = 1	1
Total			**205 Proposed Allowable Occupants**

Note:
**Allowable Occupancy Load Calculation is based on the assumption that the building's existing Use Group* Classification of A-3 Assembly will remain unchanged and that there will be no fixed seating
** Proposed Allowable Occupancy Load is based on schematic design provided for Compliance Alternative Option No. 2

As a result of the removal of the existing fixed seating, the maximum allowable occupancy load will increase from 157 to 205.

Exits and Exit Access Doorways
Per IBC Table 1015.1, the maximum occupant load allowable for spaces with one exit or exit access doorway for an A Use Group is 49. Based on our code analysis which assumes a continuation of the same use (A-3), the occupant load will exceed 49. **Therefore, a second means of egress will be required.**

Two interior exit access doorways are located along the north wall of the Meeting Room leading to the north vestibule. An exit access doorway is defined as a door along the path of egress travel from an occupied room, area or space where the path of egress enters an intervening room. The existing pair of exit access doorways from the Meeting Room to the Vestibule does not meet the remoteness criteria indicated in the code (Table D.3 below). Per IBC 1015.2.1 exit access doorways must be placed a distance apart equal to not less than one-half of the length of the overall diagonal dimension of the building or area to be served measured in a straight line between exit doors or exit access doorways.

Table D.3: Remoteness analysis based on the existing non-sprinklered building as follows:

Space	Egress Component	Overall Diagonal Dimension (Existing)	1/2 Diagonal Dimension (Min. Required)	Actual	Determination
Meeting Room	Exit Access Doorway	49'-0" (+/-)	24'-6"	17'-0" (+/-)	**Non-Compliant**
Vestibule	Exit Door	22'-0" (+/-)	11'-0"	17'-0" (+/-)	**Compliant**

Code Ref.	Section	Issue	Potential Options
IBC	1015.2.1	Remoteness of Exit Access Doorway	1. Sprinkler building throughout 2. Provide a 2nd means of egress along south elevation. 2nd means of egress could also be utilized as the accessible entrance for the building

To comply with the remoteness criteria indicated in IBC 1015.2.1, an option would be to install an automatic sprinkler system throughout the building. Per Exception No. 2 of this section, the separation distance for exit doors or exit access doorways is reduced to 1/3 of the length of the maximum overall diagonal dimension of the area served for buildings equipped throughout with an automatic sprinkler system in accordance with IBC 903.3.1.1 or 903.3.1.2 (Table D.4 below). However, as noted in the report prepared by RDK Engineers, a sprinkler system is not required based on the building size and where the occupancy load is less than 300.

Table D.4: Remoteness analysis based on a fully sprinklered building as follows:

Space	Egress Component	Overall Diagonal Dimension (Existing)	1/3 Diagonal Dimension (Min. Required)	Actual	Determination
Meeting Room	Exit Access Doorway	49'-0" (+/-)	16'-4"	17'-0" (+/-)	**Compliant**
Vestibule	Exit Door	22'-0" (+/-)	7'-4"	17'-0" (+/-)	**Compliant**

An alternative compliance option would be to provide a second means of egress per IBC 1015.2.1 Exception No. 1. Since a second means of egress will be required for the Meeting Hall as a result of the building's occupancy load exceeding 49, provisions for a second means of egress meeting the remoteness criteria would be a more cost-effective alternative to the installation of a sprinkler system. The required second means of egress could also function as the accessible entrance for the building (refer to Section F: Accessibility). We have provided two schematic designs which incorporate the addition of a second means of egress (Alternative Compliance Option Nos. 1 and 2).

The pair of existing exterior doors at the north façade swings in the direction of the path of travel and are approximately 34" wide each. Per IBC 1005, the total means of egress width shall be as follows:

Table D. 5: Egress Width per IBC 1005.1:

Occupant Load*	Factor	Total Egress Width Required
205	0.2	**41 inches**

**Note: Occupancy Load is based on the assumed continuation of the same Use Group (A-3 Assembly) and that there will be no fixed seating*

Existing door openings less than those specified in the code may be approved by the AHJ in accordance with IEBC 1103.3 if there is sufficient width and height for a person to pass through or traverse the means of egress.

E. INTERIOR

Stairs and Guards

Access to the mezzanine storage space is by way of a single winding stair at the west end of the north vestibule. From the mezzanine level another stair leads to the bell tower. Per IBC 505.3 - Exception No. 1, a single means of egress is permitted for mezzanines in accordance with Section 1015.1.

The stair is not enclosed and walls are not rated. The code criteria for a new stair connecting 3 stories or less require a 1-hour fire rated enclosure. However, for buildings which can be classified as historic in accordance with IEBC Ch. 11, the required 1-hr. rating need not be provided where the existing wall and ceiling finish is wood or metal lath and plaster (IEBC 1103.7). Additionally, existing handrails and guards at all stairs shall be permitted to remain in historic buildings provided they are not structurally dangerous (IEBC 1103.9).

Since the mezzanine is currently being underutilized as storage for non-essential items, it is recommended that this space be converted into a mechanical mezzanine to house the new air handling unit (AHU) proposed by RDK. Demolition of the existing stair to the mezzanine would allow for the construction of a new ship's ladder to provide access to the mezzanine.

As noted in IEBC 705.8.1 exit signs shall be provided in accordance with the requirements of the IBC. For buildings classified as historic, where exit signs marking location would damage the historic character of the building, alternative exit signs are permitted with the approval of the AHJ (IEBC 1103.11).

Photo E.1 – Mezzanine

Photo E.2 – Attic above Meeting Room

Interior Finishes
The intent of this study is to focus on code compliance concerns and the evaluation of major building systems; interior finishes have not been addressed as part of this study.

F. ACCESSIBILTY / MAAB

Jurisdiction
Per MAAB Ch. 3.3.1.b, when the work being performed amounts to less than 30% of the full and fair cash value of the building and costs $100,000 or more, then the work being performed is required to comply with 521 CMR. Additionally, an accessible public entrance and an accessible toilet room, telephone, drinking fountain (if toilets, telephones, and drinking fountains are provided) shall also be provided in compliance with 521 CMR).

> **Exception**: Whether performed alone or in combination with each other, the following types of alterations are not subject to 521 CMR Section 3.3.1 unless the cost of the work exceeds $500,000 within a thirty-six month period.
>
> i. Alteration work which is limited solely to electrical, mechanical, or plumbing systems; to the abatement of hazardous materials; or retrofit of automatic sprinklers and does not involve the alteration of any elements for spaces required to be accessible under 521 CMR. Where electrical outlets and controls are altered, they must comply with 521 CMR.
>
> ii. Roof repair or replacement, window repair or replacement, re-pointing and masonry repair work.

In the event that work performed, including exempted work, amounts to 30% or more of the full and fair cash value of the building, the entire building is required to comply with 521 CMR.

When the work performed on a building is divided into separate phases or projects, or is under separate building permits, the total cost of such work in any 36 month period shall be added together in applying 521 CMR 3.3, Existing Buildings to determine jurisdiction.

Accessible Route
For all spaces designated for public use, an accessible route shall be provided in accordance with MAAB 20.1: Accessible Route. An accessible route shall provide a continuous unobstructed path connecting accessible spaces and elements both inside and outside a facility. Based on our review of existing conditions, neither the interior nor exterior comply with the requirements of MAAB 20.1.

Accessible Route: Site
The existing driveway is gravel and there are no defined parking spaces on site. The number of accessible spaces will need to be determined in accordance with MAAB Section 23.2.1 based on the number of parking spaces that will be required for the building. Additionally, one van accessible space will be needed. A van accessible space shall be provided for one in every eight accessible spaces, but not less than one (MAAB 23.2.2).

Accessible parking spaces are presently not identified as there is no striping delineating parking spaces. It was also noted that there is no signage identifying accessible parking spaces.

Accessible Route: Building
The existing main entrance at the north façade is not considered accessible due to the elevation changes between the portico and first floor and the portico and grade. To meet MAAB requirements, the construction of either a ramp or vertical lift to provide access to the portico from grade would be needed. Additionally, in order to address the existing 9-1/2" (+/-) differential between the portico level and the 1st floor, the portico level would need to be raised to meet the level of the 1st floor. Raising the portico level is technically feasible; the existing portico framing and stair can be modified to comply. However, raising the portico level and the inclusion of a ramp leading to the front portico would arguably detract from the façade's historic aesthetics (refer to drawing A1.1 – Alternative Compliance Option No. 1).

Should the town decide to nominate the building for inclusion in the Massachusetts Register of Historic Places and the nomination is approved by the Massachusetts Historical Commission, the requirements of IEBC Ch. 11: Historic Buildings would apply. As such, alternative options for compliance with MAAB 20.1: Accessible Route may be considered. Per IEBC 1104.1.3 for historic buildings that undergo alterations (Level 1, 2, or 3), at least one main entrance is required to be accessible. However, per Exception No. 1 of this section, if a main entrance cannot be made accessible, an accessible non public entrance that is unlocked while the building is occupied shall be provided. Exception No. 2 offers an alternative to making the main entrance accessible by providing a locked accessible entrance with a notification system or remote monitoring (refer to drawing A1.1 – Alternative Compliance Option No. 2).

As noted in Section D, a second means of egress will be required as a result of the occupancy load exceeding 49. The addition of a second means of egress would allow an opportunity to meet the requirements of an accessible entrance as described in IEBC 1104.1.3.

For both Options 1 and 2, a ramp is included along the west elevation to minimize its visual impact from Colt Road and Washington Street. Per MAAB, a 1:12 slope (1" of rise for every 12" of run) is required. Due to an elevation differential of approximately 24" between grade and 1st Floor, a minimum horizontal length of 24'-0" will be required for both options in order to achieve a 1:12 slope. Signage identifying both accessible and inaccessible entrances would need to be provided in accordance with IBC 1110.

For alterations affecting an area containing a primary function, additional accessibility considerations should be considered. For the subject project, the Meeting Room would be considered the building's primary function area. Per IEBC 605.2, where an alteration affects the accessibility to a, or contains an area of, primary function, the route to the primary function area should be made accessible. Exceptions to this include the following:

1. Exception No. 1: Costs of accessible route are more than 20% of the cost of the alterations of the prime function
2. Exception No. 2: the provisions does not apply to alterations limited solely to windows, hardware, operating controls elect outlets and signs.

3. Exception No. 3: alterations limited to mechanical, electrical, or fire projections systems or hazardous materials abatement
4. Exception No. 4: alterations for the primary purpose of increasing the accessibility of an existing building facility or element.

Door Hardware
Existing interior and exterior doors are not equipped with hardware that complies with accessibility regulations. MAAB stipulates that door latch sets must be operable with one hand without requiring tight grasping, tight pinching, or twisting of the wrist to operate, thus lever-type operation. The installation of MAAB-compliant hardware will be required for doors associated with the accessible entrance and toilet rooms. Installation of MAAB-compliant hardware for the remaining doors within the building is recommended for doors affected by future renovations.

Drinking Fountains
There are no accessible drinking fountains present. Future accessibility upgrades will need to ensure that drinking fountains meet the quantity and dimensional requirements of the MAAB.

Toilet Rooms
Existing toilet rooms consist of one male and one female toilet room comprised of one toilet and one sink each. Both toilet rooms are located at the west end of the 1st floor Vestibule; there are no toilet rooms present at the mezzanine. It is not clear when these toilet rooms were installed however, the locations of these toilet rooms are not considered acceptable per code. The male toilet room is underneath the stair to the mezzanine. Usable spaces under stairs require 1-hour fire-resistance-rated walls and soffits per IBC 1009.6.3; existing walls and soffits are not rated. The female toilet room is located at the bottom of the stairs; stair egress is through the female toilet room. IBC 1009.6.3 does not permit access to enclosed spaces within the stair enclosure.

Neither toilet room is code compliant and do not meet MAAB regulations; sinks controls consist of knobs; mounting heights are non-conforming and, in general, the rooms do not meet the dimensional requirements of the MAAB. As noted in RDK's report, the plumbing code requires both a male and female toilet room. The town may wish to explore the option of a unisex toilet room however, a variance requiring multiple approvals would be required.


Photo F.1 – Men's toilet room


Photo F.2 – Women's toilet room

IEBC 1104.1.4 requires at least one accessible family or assisted-use toilet room complying with Section 1109.2.1 of the IBC shall be provided (*note: the Massachusetts amendments to the IBC delete section 1109.2.1 and instead requires conformance with the requirements of 521 CMR: Massachusetts Architectural Access Board*). Provisions for an accessible toilet room can be integrated into the required toilet room upgrades (Refer to A1.1 Options 1 and 2). Additionally, signage must be provided at accessible toilet rooms in accordance with IBC Section 1110.

END OF SECTION

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South Franklin Meeting House, Franklin, MA

MEP RECOMMENDATIONS –January 19, 2015

The proposed renovations to the South Franklin Meeting House located at 762 Washington Street, Franklin, MA include renovations to the plumbing, HVAC, and electrical systems.

The scope as outlined below is based upon Civitecs PC drawings A-1 and A-2 dated January 16, 2015 and our site meetings on December 16, 2014 with the Town of Franklin's Building Inspector.

HVAC:

Provide an air handling unit (AHU) with gas heating and electric cooling located in the mechanical mezzanine. This AHU will be ducted to both the main open space as well as the entry foyer and will have economizing capability. The outside air ductwork to be routed to existing louver within the bell tower to maintain the historical appearance of the building.

Use of localized electric heating within the foyer and restroom(s) will be installed to offset air infiltration and/or localized heating.

These systems will replace the existing electric cabinet unit heaters installed throughout the spaces.

Toilet exhaust fan to be provided for the 1st floor restroom(s) and be ducted up to an existing louver within the bell tower.

The temperature control system to provide demand ventilation based on carbon monoxide levels to minimize energy use as well as networked into the Town's building management system for remote control.

HVAC

- Air handling unit (1 @ 3,000 CFM, 7.5 tons with economizer).
- Ductwork supply, return, and exhaust distribution, diffusers and grilles for all areas.
- Miscellaneous electric cabinet unit heaters and baseboard for the foyer and restroom(s).

Electrical

The building is serviced by a 120/240V single phase, 4W service distributed through an Arrow Hart/Murray 200 amp panelboard with 40 pole spaces. It is anticipated that this service size is appropriate for the recommended requirements of the building and no revisions are recommended. Existing branch circuity to be renovated as needed to suit the updated electrical plans.

Site lighting consists of exterior egress lighting on daylight sensors and time clock controlled. These fixtures do not appear to meet the required 0.3 to 0.4 ft/candles standard and are recommended to be replaced. The interior lighting fixtures do not meet current codes and are recommended to be replaced along with an updating of switching and occupancy lighting control. There are emergency battery back-up lighting units serving the large open space and entry foyer which appear to be beyond their useful life expectancy – we recommend that these units be replaced with new. The existing exit signage does not meet current code and we recommend these units be replaced with new.

The fire alarm system serving the building consists of localized smoke detectors connected to a security panel with an automatic dialer to a security company. Current code does not require a fire alarm system in A-3 Assemblies occupancies with an occupant load less than 300 persons. Good design practice is to retain the existing smoke detection and add CO monitoring (based upon the proposed upgrade to gas heating) and the addition of horn/strobe notification appliances throughout. It is assumed the existing security panel can accommodate the proposed upgrades.

Plumbing

The current building has a ½" cold water service and a 4" waste that is reported to discharge to a septic system but it was noted that public sewer is evident in the street. There are two restrooms that are not code compliant as they lack hot water, accessible space, and ventilation. There is no gas service to the building but again it was noted that gas service appears evident within the neighborhood.

We recommend that a new sanitary connection to the public system on Washington Street in front of the building be made. A separate site/civil consultant evaluation of the condition of the septic system be completed to determine whether it is viable for reuse however for purposes of this study it is assumed that the existing septic system is beyond its useful life expectancy.

A new gas service is recommended for efficient heating connect to the existing utility infrastructure underneath the adjacent streets.

Based on the proposed occupancy of Assembly (A-3) the plumbing code requires both a Men's and Women's restroom. We recommend that discussions be started with the local plumbing and building inspectional services to determine whether a variance request for an accessible unisex restroom is suitable given this study's goal of maintaining the current building size and historic character. A variance request will likely require multiple approvals from local jurisdictions, accessibility, and state plumbing board agencies.

- Natural gas piping and service.
- New Plumbing fixtures and services for restroom(s) including sanitary, vents, and piping.
  - New domestic electric point of use water heater for restroom(s) and cold water piping plus insulation for each. New cold water for restroom(s) to be connected to the existing service.
  - New toilet(s) and lavatory(s), all with fixture carriers, sanitary and vent piping connecting to the existing service.

Fire Protection

Per the Massachusetts General Laws Chapter 27 and state building code, chapter 9, table 903.2, based on the building size and occupancy (less than 300), the building is not required to have an automatic wet sprinkler system.

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January 19, 2015

Mr. Michael Keane
Civitects PC
245 Main Street
Wareham, MA 02571

RE: OLD SOUTH MEETING HOUSE
FRANKLIN, MASSACHUSETTS

SUBJECT: STRUCTURAL EXISTING CONDITION STUDY AND STRUCTURAL FEASIBILITY STUDY FOR RENOVATIONS AND ADDITIONS

Dear Mike;

We have completed our structural existing condition study and the analysis of the existing building for the feasibility to renovate and construct an addition. We have based our study on field measured structural components and the structural requirements of Chapter 11, Historic Structures of the 2009 International Existing Building Code (IEBC). Additionally, we have attached the "Code Analysis Worksheet for the 2009 International Existing Building Code with the latest Massachusetts Amendments which summarizes the structural requirements required to comply with the code.

The building was constructed in 1856 and is a one-story, and is approximately 1500 sf +/-, with a partial 250 sf mezzanine above the front entry foyer. There is a no basement, only a crawl space below the first floor. The building is constructed of wood. The first floor is framed with 3 x 5 and 2x6 joists spaced at an average spacing of approximately 17 inches on center and running front to rear. The joists span from the exterior sill to four lines of an interior 7x7 wood girders running side to side. The girders are supported typically on four, 9-inch +/- diameter timber posts spaced along the girder. One girder was observed to be supported by three square 6x6 timber posts spaced along the beam. All interior timber posts are supported on single stones directly on the ground. The joists and girders are supported at the perimeter on a wood sill that bears on the foundation wall constructed of granite blocks supported on a mortared stone foundation. The exterior walls are wood framed and are bearing. The roof structure is constructed of sloped rafters supported at the ridge, at a mid-span purlin and at the top of the exterior wall. The mid-span purlin is supported by two queen rod trusses that span side to side of the over the assembly space and the front exterior bearing wall. Lateral wind and seismic loads have been and will be resisted by the exterior sheathed bearing walls.

During our existing condition site visit we made the following observations about the structure:

- We observed the first interior first floor girder line to have sections of girder with powder post beetle damage. We observed the beetle emergence holes along the girder as well as soft wood that could be pried loose with a screwdriver (Photos 1 and 2).

- We observed several timber posts to have powder post beetle damage. These posts seemed to be located towards the front of the building on the first interior girder line. We observed the beetle emergence holes on the entire length of the posts (Photos 3 and 4).

- We observed the insect damaged timber posts to be crushing and splitting at the base (Photo 4).
- We observed the timber posts to be bearing on loose stones. There is no connection from the posts to stones (Photos 5 and 6). At one post we observed the post to be supported only on one corner of the post (Photo 7).
- At the square interior post we observed the base to rotted with split and soft wood (Photo 8).
- We observed the ceiling plaster and ceiling joists are support from the bottom chord of the queen rod truss (Photo 9).
- We observed the roof purlins to be supported at its end on a diagonal strut that bears on the front exterior bearing wall (Photo 10).

The following is a summary the structural requirements based on our IEBC Chapter 11 Historic Buildings code study and structural analysis and a Level 3 work defined in IEBC Chapter 4:

1. Massachusetts amendments dated 4/11/14 replace IEBC section 1101.1 in its entirety. There a sentence in Massachusetts amendments section 1101.1 that states, "There is no obligation for the owners of historic buildings to use the provisions of this chapter". We interpret this to mean it is the owner's choice to make structural upgrades to the building but unsafe structural elements identified will need to be repaired or replaced.
2. IEBC section 1102.2 Dangerous buildings, states "...no work shall be required except as necessary to correct identified unsafe conditions." Structurally this means that the insect and rotted wood joists, sills, girders and posts of the first floor framing will need to replaced or strengthened.
3. IEBC section 1106 Structural, subsection 1106.1 requires the structural work to comply with structural provisions for the Level or work classified in IEBC Chapter 4. As we understand the building will undergo a complete restoration/renovation and as such the "Work Area" will exceed 50% of the building floor area, therefore, this will be defined as "Level 3 Work". Structurally it will be required to comply with the structural requirements contained in IEBC Chapters 6, 7 and 8. Based on our IEBC Code Summary Worksheet, the structural requirements for this project will be the following:
    - The existing exterior wall acts as the lateral load resisting system and shall not be altered such that the shear resistance of the walls are not weakened greater than 10 Percent. This means it is highly recommended that the renovations do not add new exterior wall openings.

- The structural elements of the building should be inspected and measured. All deteriorated structural elements replaced or reinforced. During our field visit we observed first floor framing to be insect and moisture damaged. Our inspection was limited due to access and time and as such there may additional structural elements throughout the building that will need to repaired and/or replaced.

- We analyzed the floor framing we measured to determine the limiting live load capacity of the first floor. The first floor joists have a calculated live load capacity of 85 pounds per square foot (psf) and the first floor 7x7 girders have a calculated live load capacity of 75 psf. The current Massachusetts referenced IBC code requires buildings of public assembly to be designed for a live load of 100 psf. Both the existing floor joists and girders will need structurally upgraded in order to meet the 100 psf live load requirement. Alternately, under the exception listed in IEBC subsection 1106.1, the code official may allow the lower live load capacity to continue provided a floor live load control limit method is implemented.

4. IEBC section 1106.2 Unsafe Structural Elements, requires all identified unsafe structural components such as the observed insect damaged and rotted wood joists, sills, girders and posts of the first floor framing to be replaced or strengthened.

If you have any questions or comments, please do not hesitate to contact our office.

Sincerely,

DM BERG CONSULTANTS, P.C.

Thomas G. Heger P.E. Mass Structural P.E. License #35084
President

p:\proj14\200-299\14214\clerical\14214 old south mtg church.docx

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

DMBC STRUCTURAL ENGINEERS

DM BERG CONSULTANTS, P.C.

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Code Analysis worksheet for the 2009 International Existing Building Code with 4/11/14 Massachusetts Amendments

OLD SOUTH MEETING HOUSE
FRANKLIN, MASSACHUSETTS

Existing:

The building is approximately a 1500 sf +/-, 1 with a partial 250 sf +/- mezzanine above the entry foyer. There is a no basement only a crawl space below the first floor. The building is constructed entirely of wood. The lateral load resisting system is the wood sheathed exterior shear walls. This building was constructed circa 1856 and is considered historic. The foundation walls are constructed of granite blocks supported on a mortared stone foundation. The building was originally permitted as a church meeting house and is currently vacant,

Planned:

Planned alterations – complete restoration of the building to be used as a public use meeting hall. Restoration work will likely involve removal and replacement of all interior finishes, reroofing the building, new MEP systems. A horizontal addition may be added to the building. There will likely be no change of use from the original permitted building.

Summary

Work Area Compliance Method: This is the selected method for this code review.

Chapter 1: Scope and Administration		
Section	**Title**	**N/A and comments**
101	**GENERAL**	
101.5.4.0	**Mass amendment – Investigation and Evaluation.** Subject to Mass amendment 107.6 to the IBC, a written report is required to be submitted to the Building Official.	Yes
101.9	**Cumulative effects.**	This building and the proposed restoration/renovation work does not included any planned structural work that would exceed the exception listed therefore 101.9 is not applicable.
101.9 Exceptions	**Cumulative effects must be considered except when all:** 1. Structural work does not involve more than 2% of the total tributary area of horizontal framing members of any existing framed floor or roof. 2. Structural work does not alter shear walls above the foundation. 3. Structural work does not alter columns or diagonal braces. 4. Structural work does not create an opening in any framed floor or roof that has an area more than 2% of the framed floor or roof. 5. Structural work does not alter any floor or roof diaphragm and its connections such that in-plane shear resistance is reduced by more than 5%. 6. Structural work does not remove or reconfigure lateral load resisting frames, or foundations supporting them.	This building and the proposed restoration/renovation work does not included any planned structural work that would exceed the exception listed therefore 101.9 is not applicable.

Chapter 4: Classification of Work (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
402	**REPAIRS**	
403	**ALTERATIONS—LEVEL 1**	Level 1 work applies for the proposed renovation/restoration project. Comply with structural requirements of IEBC Chapter 6.
404	**ALTERATIONS—LEVEL 2**	Level 2 work applies for the proposed renovation/restoration project. Comply with structural requirements of IEBC Chapters 6 and 7.
405	**ALTERATIONS—LEVEL 3**	Level 3 work applies for the proposed renovation/restoration project. Comply with structural requirements of IEBC Chapters 6, 7 and 8.
406	**CHANGE OF OCCUPANCY**	N/A no Change in occupancy
407	**ADDITIONS**	Any new additions will be structurally separated and will not impact the existing building.
408	**HISTORIC BUILDINGS**	Building is Historic. Comply with structural requirements of IEBC Chapter 11.
409	**RELOCATED BUILDINGS**	N/A

Chapter 6: Alterations—Level 1 (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
601	**GENERAL**	
601.3	**Flood hazard areas**	
606	**STRUCTURAL**	
606.1	**General**	
606.2	**Addition or replacement of roofing or replacement of equipment**	Comply - replacement of existing roofing.
606.2 Exceptions	1. Dead load increase ≤ 5%? 2. Conventional light-frame construction and dead load increase ≤ 5%? 3. Second layer of roofing ≤ 3 psf?	1. No dead load increase 2. N/A 3. N/A existing roofing will be stripped and replaced
606.2.1	**Wall anchors for concrete and masonry buildings**	N/A not a masonry building
606.3	**Additional requirements for reroof permits**	
606.3.1	**Bracing for unreinforced masonry bearing wall parapets**	N/A no unreinforced masonry parapets
606.3.2	**Roof diaphragms resisting wind loads in high-wind regions** 1. Basic wind speed greater than 115 mph and occupancy category type IV	Occupancy Category II and Basic Wind Speed in Franklin is 105 mph. So the existing roof structure **does not** need to be checked for wind uplift and diaphragm shear connectors.

Chapter 7: Alterations—Level 2 (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
701	**GENERAL**	
701.2	**Alteration Level 1 compliance** (all Level 2 work must also comply with Level 1 requirements)	Will comply
701.3	**Compliance** (all new construction must comply with IBC)	Will comply
707	**STRUCTURAL**	
707.2	**New structural members**	Any new structural members added within the building will be design per the latest addition of IBC
707.3	**Minimum design loads**	Use minimum design loads applicable to the time the building was constructed to check existing structural elements.
707.4	**Existing structural elements carrying gravity load**	
707.4 Exceptions	1. Stress increase $\leq$ 5%? 2. Group R? Less than 6 units? And conventional light-frame construction?	Renovations/restoration will not add additional loads to the existing framing members therefore exception applies.
707.5	**Existing structural elements resisting lateral load**	Renovations/restoration to the lateral load resisting elements will not increase the demand-capacity greater than 10%, therefore compliance with this section is not required.
707.5.1	**Irregularities**	No irregularities
707.6	**Voluntary lateral-force-resisting system alterations**	N/A

Chapter 8: Alterations—Level 3 (Work Area Compliance Method)

(Required Greater than 50% Work Area)

Section	Title	N/A and comments
801	**GENERAL**	
801.2	**Compliance** (all Level 3 work must also comply with Levels 1 and 2 requirements)	Will comply.
807	**STRUCTURAL**	
807.1	**General**	
807.2	**New structural elements**	Any new structural members added within the building will be design per the latest addition of IBC.
807.3	**Existing structural elements carrying gravity load**	Renovations/restoration will not add additional loads to the existing framing members therefore exception applies.
807.4	**Structural alterations**	
807.4 And 707.5 Exceptions	1. Group R? Less than 6 units? And conventional light-frame construction?	Renovations/restoration to the lateral load resisting elements will not increase the demand-capacity greater than 10%, section 707.5 was not triggered, therefore, compliance with this section is not required.
807.4.1	**Evaluation and analysis**	Current proposed structural work will be to repair and reinforce substandard and damaged structural framing. Alterations to the lateral load resisting system are not planned at this time.
807.4.2	**Substantial structural alterations**	Structural alterations will not exceed 30 percent of the total floor area. Compliance to this subsection is not required
807.4.3	**Limited structural alteration**	Use minimum design loads applicable to the time the building was constructed to check existing structural elements.
807.5 (MA Amendments	**Seismic Hazards (for concrete and masonry buildings only)**	NA Building is not a concrete or masonry structure.

DMBC STRUCTURAL ENGINEERS

DM BERG CONSULTANTS, P.C.

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Chapter 9: Change of Occupancy (Work Area Compliance Method) (N/A No Change in Occupancy)		
Section	**Title**	**N/A and comments**
902	**SPECIAL USE AND OCCUPANCY**	
902.1	**Compliance with the building code** (changes to certain occupancies require full compliance with the IBC)	
902.2	**Underground buildings**	
907	**STRUCTURAL**	
907.1	**Gravity loads**	
907.1 Exception	Stress increase $\leq$ 5%?	
907.2	Snow or wind loads	
907.2 Exception	Is new occupancy with higher importance factor $\leq$ 10% of the total floor area?	
907.3	**Seismic loads**	
907.3.1	Compliance with the IBC level seismic forces	
907.3.1 Exceptions	1. Group M building to start with and is < six stories and in Seismic Design Category A, B, or C? 2. Equivalent level of performance and seismic safety approved by the building official? 3. Is occupancy with the higher hazard category $\leq$ 10% of total building floor area and not classified as Occupancy Category IV? 4. Unreinforced masonry in Occupancy Category III and in Seismic Design Category A or B? If so may use Appendix A1.	
907.3.2	**Access to Occupancy Category IV**	

Chapter 10: Additions (Work Area Compliance Method) (N/A Additions will be structurally seperated)		
Section	**Title**	**N/A and comments**
1001	**GENERAL**	
1001.1	**Scope** (additions to comply with IBC; only that portion of existing building impacted by addition needs to comply with IEBC unless otherwise specified in IEBC)	
1003	**STRUCTURAL**	
1003.1	**Compliance with the IBC**	
1003.2	**Additional gravity loads**	
1003.2 Exceptions	1. Stress increase $\leq$ 5%? 2. Group R? Less than 6 units? And conventional light-frame construction?	
1003.3	**Lateral force-resisting system.**	
1003.3 Exceptions	1. Group R? Less than 6 units? And conventional light-frame construction? 2. Lateral-force story shear increase in any story $\leq$ 10% cumulative	
1003.3.1	**Vertical additions**	
1003.3.2	**Horizontal additions**	
1003.3.3	**Voluntary addition of structural elements to improve the lateral-force-resisting system**	
1003.3.4	**Irregularities**	
1003.4	**Snow drift loads**	
1003.4 Exceptions	1. Element stress increase $\leq$ 5%? 2. Group R? Less than 6 units? And conventional light-frame construction?	

Chapter 11: Historic Buildings (Work Area Compliance Method) (N/A Not a Historic Building)		
Section	**Title**	**N/A and comments**
1101	**GENERAL**	
1101.2	**Report** (report to building official required if necessary in the opinion of the code official)	Report will be submitted with this summary
1101.4	**Flood hazard areas** (historical buildings are exempt)	NA
1102	**REPAIRS**	
1102.1	**General** (repairs may be made with original or like materials subject to provisions of Ch. 11)	
1102.2	**Dangerous Buildings**	Correct all identified unsafe structural conditions.
1106	**STRUCTURAL**	
1106.1	**General** (must satisfy requirements for non-historical buildings, except code official may accept operational controls that limit live loads on floors that do not meet IBC LL requirements)	Floors will be structurally evaluated for the current Live Load capacity. The may require reinforcement to meet IBC LL requirements. As an option the code official may accept a lower LL and require a LL limit control method for the building.
1106.2	**Unsafe Structural Elements**	Repair and/or replace all identified unsafe structural conditions.

5. CODES & STANDARDS

This project falls under the jurisdiction of the Town of Franklin. Permitting and oversight for the renovations falls to the local inspectors. Relevant building codes and regulations are listed at the end of this section.

1. **Use Group**:
   (IBC 302.1, 303.1)
   A-3 Assembly (museum):
   (Assumed Use Group based on previous occupancy)

2. **Construction Type**:
   (IBC 602.0)
   Type VB (assumed)

3. **Historic Buildings**
   (IEBC 202)
   (IEBC Ch. 11)
   The original building was constructed in 1861 (Massachusetts Historical Commission Form B dated March 2011.). The building is not currently listed on the Massachusetts Register of Historic Places. The town may consider nominating the building for inclusion on the register. Once listed, the building would comply with IEBC Ch. 11.

4. **Height and Area Limit**:
   (IEBC 1002)
   (IBC Table 503)
   Existing Conditions are as follows:
   Height: 33 feet (assumed)
   Area: 35'-0" x 52'-4" = 1,843 GSF (total building footprint)

   Allowable (Assuming A-3 Assembly Use Group)
   Height: 1 story, 40 feet
   Area: 6,000

5. **Occupant Load**:
   (IBC 1004.0)
   (IBC Table 1004.1.1)
   (IBC 1004.7)

Building Occupancy Load: Existing

Space	Max. Floor Area per Occupant	Calculation	Occupants
Vestibule (102)	N/A	N/A	N/A
Meeting Room (103)	1 Occ. per 18" (continuous fixed seating)	85.125" / 18" = 4.72 [4] (14 Rows) = 56 84.125" / 18" = 4.66 [4] (12 Rows) = 48 168.5" / 18" = 9.36 [9] (1 Row) = 9 93.5" / 18" = 5.19 [5] (1 Row) = 5	118
Platform / Altar (104)	1 Occ. per 15 NSF (stages + platforms)	149 NSF / 15 = 10	10
Standing Area (east of platform)	1 Occ. per 5 NSF (standing area)	75 NSF / 5 = 15	15
Standing Area (west of platform)	1 Occ. per 5 NSF (standing area)	65 NSF / 5 = 13	13
Electric Closet (Accessory Area)	N/A		0
Toilet Rooms (Accessory Area)	N/A		0
Mechanical Mezzanine (Accessory Area)	1 Occ. per 300 GSF	192 SF / 300 GSF = 1	1
Total			**157 Existing Occupants**

Building Occupancy Load: Proposed Allowable*

Space	Max. Floor Area per Occupant	Calculation	Occupants
Vestibule (102)	N/A	N/A	N/A
Meeting Room (103) *(excludes Vestibule (103A)*	1 Occ. per 5 NSF (standing area)	970 NSF / 5 = 194	194**
Platform / Altar (104)	1 Occ. per 15 NSF (stages + platforms)	149 NSF / 15 = 10	10
Electric Closet (Accessory Area)	N/A		0
Toilet Rooms (Accessory Area)	N/A		0
Mechanical Mezzanine (Accessory Area)	1 Occ. per 300 GSF	192 SF / 300 GSF = 1	1
Total			**205 Proposed Allowable Occupants**

Note:
**Allowable Occupancy Load Calculation is based on the assumption that the building's existing Use Group* Classification of A-3 Assembly will remain unchanged and that there will be no fixed seating
** Proposed Allowable Occupancy Load is based on schematic design provided for Compliance Alternative Option No. 2

6. **Hazardous Index Rating:** (IEBC Table 912.4) — 3 (A-Assembly)

7. **Egress:**
   Required Egress Width per Occupant: (IEBC 1301.6.11.1) (IEBC Table 1301.6.11) (IBC 1005.1)
   .3 in stairs (non-sprinklered buildings)
   .2 in doors (non-sprinklered buildings)
   Existing:
   157 occ. x 0.2= 31.4 inches
   Proposed Allowable:
   205 occ. x 0.2= 41 inches

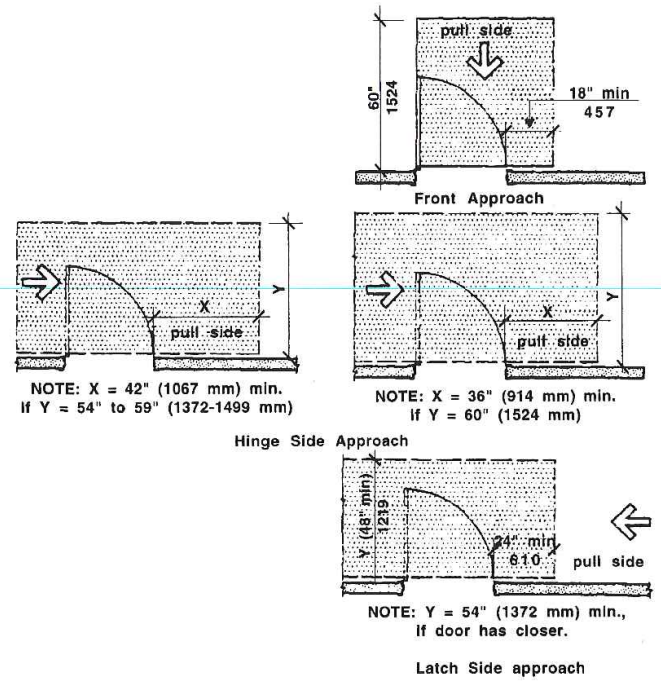
8. **Exits or Exit Access Doorways from Spaces:**
   (IBC Table 1015.1)
   Required: the maximum occupant load allowable for spaces with one exit or exit access doorway for an A Use Group is 49.

   Existing: The existing occupancy load (157 occupants) exceeds the maximum allowable.

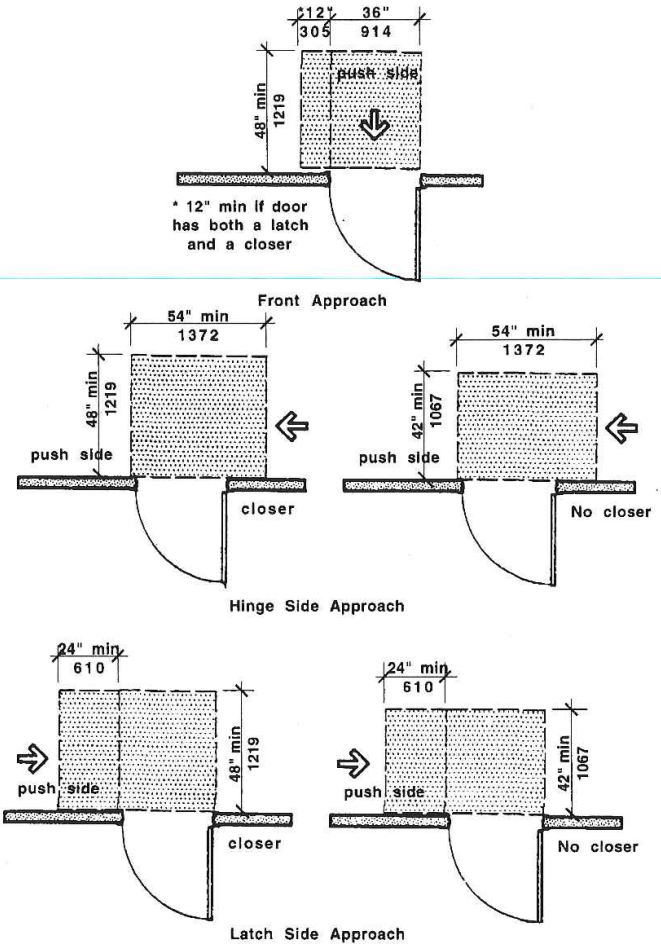
   Proposed: The proposed allowable occupancy load (205 occupants) exceeds the maximum allowable; therefore, a second means of egress will be required.

9. **Exit and Exit Access Doorway Arrangements:**
   (IBC 1015.2.1)
   Required: Exit access doorways must be placed a distance apart equal to not less than one-half of the length of the overall diagonal dimension of the building or area to be served measured in a straight line between exit doors or exit access doorways.

	Existing: the existing pair of exit access doorways from the Meeting Room to the Vestibule does not meet the remoteness criteria. Proposed: inclusion of a second means of egress (as required per 1015.1) will allow for compliance with remoteness criteria.
10. **Travel Distance:** (IBC 1016 and Table 1016.1)	Required: 200 feet (non-sprinklered buildings) Existing: Building is less than 50 feet wide in either direction.
11. **Minimum Number of Exits:** (IBC Table 1021.1)	Required: 2 exits for 1-500 occupants Actual: 2 exits
12. **Stair Fire Resistance Rating:** (IBC 1022.1)	1-hour (non-sprinklered buildings, connecting less than four stories)
(IEBC 1103.7)	For buildings which can be classified as historic in accordance with IEBC Ch. 11, the required 1-hr. rating need not be provided where the existing wall and ceiling finish is wood or metal lath and plaster.
13. **Minimum Guard Rail Height:** (780 CMR 1012)	42" where open sided walkways, mezzanines, platforms, stairways, ramps and landings are located more than 30" above the floor or grade below Existing: There are no existing guard rails. The existing portico does not exceed 30"; proposed ramp would be approximately 24" above grade.
14. **Accessibility:** a. Push/Pull Clearances: (521 CMR 26.00)	Push and Pull Side Clearance Diagrams from the current edition of 521 CMR



Maneuvering Clearance at Doors (Pull Side)
Figure 26d



Maneuvering Clearance at Doors (Push Side)
Figure 26e

b. Hardware:
(521 CMR 26.11)

Handles, Pulls, Latches, locks, and other operating devices on accessible doors shall have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.

Existing:
Existing door hardware does not comply with current MAAB requirements.

c. Ramps:
(521 CMR 24.2.1)

The maximum slope of a ramp shall be 1:12.

Existing:
There are no existing ramps.

Any new ramp construction shall comply with 521 CMR 24.2.1

d. Toilet Rooms: (521 CMR 30.1.a.)

In each adult toilet room, at least one water closet and one sink shall be accessible to persons in wheelchairs, or a separate accessible unisex toilet room shall be provided at each location.

Existing:
Existing first toilet rooms do not conform to current MAAB requirements and shall be made to comply.

RELEVANT CODES AND REGULATIONS

IBC	2009 International Building Code
IEBC	2009 International Existing Building Code
780 CMR	Massachusetts Amendments to the International Building Code, 8th Edition
521 CMR	Massachusetts Architectural Access Board (MAAB) Rules and Regulations
IECC	2012 International Energy Conservation Code
ADAAG	Americans with Disabilities Act
527 CMR 12	2011 Massachusetts Electrical Code
NFPA 72	2010 National Fire Alarm Code
NFPA 101	Life/Safety Code
248 CMR	Massachusetts Fuel, Gas and Plumbing Code
IMC	2009 International Mechanical Code
ASHRAE Std 62	ASHRAE Standard 62
MGL	Massachusetts General Laws

END OF SECTION

6. RECOMMENDATIONS

Evaluation of Alternative Compliance Options
Early meetings with the town included discussions on the advantages and disadvantages of placing the building on the Massachusetts State Register of Historic Places. Initiating the process for placing the building on the state register would require the submission of an updated "Survey B" Form to the Massachusetts Historical Commission (MHC) for review and approval. A survey B form was completed in March 2011 but never submitted to the MHC (Appendix B).

An advantage of having the structure listed on the state register is that renovations would not require full compliance with the code for new construction. In accordance with IEBC Chapter 11: Historic Buildings, existing conditions would be maintained, at a minimum, to their current level of compliance, or conditions would be improved as required in accordance Chapter 11.

While the schematic designs presented for both Alternative Compliance Option Nos. 1 and 2 could be considered viable options for addressing existing code and life/safety issues, it was agreed with the town that Alternative Compliance Option No. 1 would have a greater impact on the overall historic appearance of the building. Unless a variance is obtained from the Massachusetts Architectural Access Board (MAAB), in order to meet MAAB requirements, the main entrance will need to be made accessible. This would require raising the level of the north portico to meet the 1st floor level. Additional stairs would be needed and the original Doric columns would be affected. A new ramp along the west elevation would provide an accessible route to the raised portico. A new second means of egress, including new door and exit stairs, would be constructed at the southeast corner of the building.

The schematic design for Option No. 2 assumes listing the building on the state's historic register. This scheme would allow for the second entrance to be used as the accessible entrance for the building which is allowable per IEBC 1104.1.3. In addition to bringing the building into compliance with code and life/safety requirements, Option No. 2 would be less costly than Option No. 1. During subsequent discussions with the town, the consensus was that placing the building on the state register may be an option to explore further. As such, it was agreed to have the cost estimate reflect Option No. 2 and to provide separate line items reflecting the added costs associated with Option No. 1.

NORTH BAY
CONSTRUCTION CONSULTANTS

South Franklin Meeting House Renovations

762 Washington Street, Franklin, MA

Schematic Design Cost Estimate

May 11, 2015

Architect: Civitects, PC

Prepared For: Town of Franklin

North Bay Company, Inc.
125 Church Street, Suite 90123
Pembroke, MA 02359

T 508-686-2781
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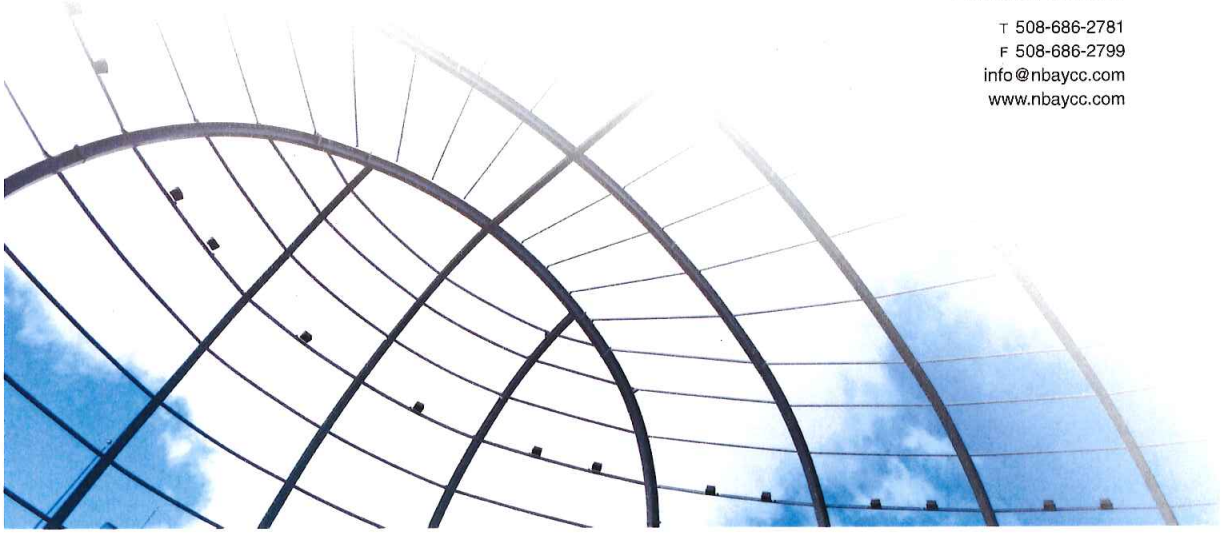
info@nbaycc.com
www.nbaycc.com



NORTH BAY
CONSTRUCTION CONSULTANTS

Project: South Franklin Congregational Church
Prime Architect/Engineer: Civitects, PC
Cost Estimator: North Bay Company, Inc., 125 Church St., Unit 90-123, Pembroke, MA
Date: May 11, 2015

STUDY PHASE COST ESTIMATE

INTRODUCTION

PROJECT DESCRIPTION:

Renovation to existing church/meeting house.

PROJECT PARTICULARS:

Schematic drawings dated March 9, 2015 prepared by Civitects, PC
Quantities are from direct takeoff of items, when possible, according to ASPE recommended Standard Estimating Practice

PROJECT ASSUMPTIONS:

Construction will be phased to allow each trade to perform their work with least amount of impact on other trades and occupants.
The project will be publicly bid and performed by a Prime General Contractor certified by DCAM using prevailing wage rates.
Costs are based on a competitive bid process in all trades and sub-trades.
Unit costs and labor are based on current construction costs in Franklin, MA.
General Requirements value covers bonding and insurances for the GC.

PROJECT EXCLUSIONS:

Escalation beyond 1 year from now for completion of bid documents
Design Fees and other soft costs
Project Administration
Site or existing conditions surveys
Window replacement
Roof replacement
Geotechnical Engineering
Hazardous materials survey, report and removal
Police detail and street/sidewalk permits
Printing and Advertising
Testing and Inspections

NORTH BAY
CONSTRUCTION CONSULTANTS

Project: South Franklin Congregational Church
Date: May 11, 2015

STUDY PHASE COST ESTIMATE

GRAND SUMMARY

TOTAL DIRECT COSTS	**$**	**330,134**
GENERAL REQUIREMENTS (10%)	$	33,013
OVERHEAD AND PROFIT (15%)	$	54,472
TOTAL - DIRECT COST AND OH&P	**$**	**417,620**
CONTINGENCY (15%)	$	62,643
BOND & INSURANCE (1%)	$	4,803
ESCALATION (1 year to mid-point of construction) (5%)	$	24,253
TOTAL - SCHEMATIC DESIGN ESTIMATE	**$**	**509,319**
TOTAL $/SF	$	350.77
ALLOWANCE PORTICO MODIFICATIONS	$	28,800.00

NORTH BAY
CONSTRUCTION CONSULTANTS

Project: South Franklin Congregational Church
Date: May 11, 2015

STUDY PHASE COST ESTIMATE

MAIN SUMMARY

DIV.	ELEMENT	TOTAL SF TOTAL COST	1,452.00 COST / SF
02	EXISTING CONDITIONS	$ 23,145	$ 15.94
03	CONCRETE	$ 17,896	$ 12.33
04	MASONRY	$ -	$ -
05	METALS	$ 23,450	$ 16.15
06	WOOD, PLASTICS AND COMPOSITES	$ 14,653	$ 10.09
07	THERMAL AND MOISTURE PROTECTION	$ 9,138	$ 6.29
5	OPENINGS	$ 10,215	$ 7.04
09	FINISHES	$ 24,160	$ 16.64
10	SPECIALTIES	$ 1,600	$ 1.10
11	EQUIPMENT	$ -	$ -
12	FURNISHINGS	$ -	$ -
14	CONVEYOR SYSTEMS	$ -	$ -
21	FIRE SUPPRESSION	$ -	$ -
22	PLUMBING	$ 31,300	$ 21.56
23	HVAC	$ 39,906	$ 27.48
26	ELECTRICAL	$ 45,123	$ 31.08
27	COMMUNICATIONS	$ -	$ -
28	ELECTRONIC SAFETY AND SECURITY	$ 6,970	$ 4.80
31	EARTHWORK	$ 20,447	$ 14.08
32	SITE IMPROVEMENTS	$ 21,133	$ 14.55
33	UTILITIES	$ 41,000	$ 28.24
	TOTAL DIRECT COSTS	$ 330,134	$ 227.37
	ALLOWANCE: PORTICO MODIFICATIONS	$ 28,800.00	

NORTH BAY
CONSTRUCTION CONSULTANTS

Project: South Franklin Congregational Church
Date: May 11, 2015

STUDY PHASE COST ESTIMATE

DIRECT COST DETAIL

DIV.	ELEMENT	QTY	UNIT	UNIT COST	SUBTOTAL	TOTAL
02	**EXISTING CONDITIONS**					**$ 23,145**
	Shoring and jacking	1	ls	$ 8,000.00	$8,000	
	Remove existing timber posts	15	ea	$ 110.00	$1,650	
	Remove existing deteriorated wood girder, 7x7	34	lf	$ 35.00	$1,190	
	CONTINGENCY (15%)	15	ea	$ 400.00	$6,000	
	Remove existing 1st floor insulation	1,452	sf	$ 3.00	$4,356	
	Remove existing window	1	ea	$ 90.00	$90	
	Demolish portion of exterior wall below window	12	sf	$ 8.00	$96	
	Partially demo existing plaster walls, assume 9'h	180	sf	$ 5.00	$900	
	Remove existing doors, frames, thresholds	2	ea	$ 120.00	$240	
	Remove existing panel doors	1	pr	$ 70.00	$70	
	Demolish existing wood staircase	1	flt	$ 400.00	$400	
	Remove existing exterior handrail	3.5	lf	$ 8.00	$28	
	Remove existing wood flooring	50.0	sf	$ 2.50	$125	
03	**CONCRETE**					**$ 17,896**
03 30	**Cast-In-Place Concrete**					
	Concrete Footings at Replaced Posts, assume 2'x2'x1'					
	Form and strip	120	SFCA	$ 12.00	$ 1,440.00	
	Place and finish	18	CY	$ 398.00	$ 7,164.00	
	Concrete	18	CY	$ 119.00	$ 2,142.00	
	Rebar	1.6	TN	$ 2,000.00	$ 3,150.00	
	Pump	1.0	EA	$ 1,500.00	$ 1,500.00	
	Concrete footings at ramp	1.0	LS	$ 2,500.00	$ 2,500.00	

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DIV.	ELEMENT	QTY	UNIT	UNIT COST	SUBTOTAL	TOTAL
04	**MASONRY**					**$ -**
05	**METALS**					**$ 23,450**
05 12	**Structural Steel Framing**					
	6"x6"x1/4" Steel Tube Columns, approx 3' (assumed)	15.00	EA	$ 980.00	$14,700	
	Column base plates	15	EA	$ 80.00	$1,200	
	Column top plates/wood connectors	15	EA	$ 250.00	$3,750	
05 50	**Miscellaneous Metals**					
	Ships ladder	1	EA	$ 3,800.00	$3,800	
06	**WOOD, PLASTICS AND COMPOSITES**					**$ 14,653**
06 05	**Rough Carpentry**					
	Wood framed ramp	180	SF	$ 36.00	$6,480	
	Wood guardrail w/ handrail	41	LF	$ 170.00	$6,970	
	Wall mounted handrail	31	LF	$ 36.00	$1,116	
	Misc. blocking at walls (ALLOWANCE)	25	BF	$ 3.46	$87	
7	**THERMAL AND MOISTURE PROTECTION**					**$ 9,138**
07 21	**Thermal Insulation**					
	Fibergalss batt insulation, underside of 1st fl (difficult conditions)	1,452	SF	$ 5.26	$7,638	
07 52	**Roofing and Flashing**					
	New architectural asphalt shingles & flashing (ALLOWANCE)	N.I.C.				
	Roof repair at plumbing vents	1	ls	$ 1,200.00	$1,200	
07 84	**Firestopping**					
	ALLOWANCE	1	LS	$ 300.00	$300	
08	**OPENINGS**					**$ 10,215**
08 10	**Doors and Frames**					
	Interior wood door, frame & hardware, single 3'x6.5' w/ wood frame & hardware	2	EA	$ 1,850.00	$3,700	

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DIV.	ELEMENT	QTY	UNIT	UNIT COST	SUBTOTAL	TOTAL
	Interior wood door, frame & hardware, double 2'x7'	1	EA	$ 1,850.00	$1,850	
	Exterior wood door, frame & hardware, single 3'x7' w/3'x4' transom	1	EA	$ 2,105.00	$2,105	
	Window replacement -- (ALLOWANCE)	N.I.C.				
	Access door at toilet rm floor	1	EA	$ 2,560.00	$2,560	
09	**FINISHES**					**$ 24,160**
09 21	**Gypsum Wallboard Systems**					
	3-5/8" LGMF with 1/2" GWB both sides	396	SF	$ 8.00	$3,168	
09 50	**Gypsum Board Ceilings**					
	GWB ceilings (assume at Toilet rooms & Vestibule)	310	SF	$ 10.00	$3,100	
09 60	**Flooring**					
	Carpet at Vestibule (minimum quantity)	200	SF	$ 10.00	$2,000	
	Ceramic tile with cove base, at Toilet Rm floors	110	SF	$ 20.00	$2,200	
09 65	**Resilient Wall Base**					
	Resilient wall base	20	LF	$ 4.55	$91	
09 91	**Painting and Finishing**					
	Paint steel columns	15	EA	$ 150.00	$2,250	
	Paint new GWB walls	792	SF	$ 1.40	$1,109	
	Paint new GWB ceilings & soffits	310	SF	$ 1.60	$496	
	Paint doors & frames	4	EA	$ 90.00	$360	
	Paint interior throughout - Allowance	1,500	SF	$ 1.60	$2,400	
	Paint ceilings, existing	2,210	SF	$ 1.60	$3,536	
	Paint existing flooring	1,150	SF	$ 3.00	$3,450	
	Paint exterior	N.I.C.				

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DIV.	ELEMENT	QTY	UNIT	UNIT COST	SUBTOTAL	TOTAL
10	**SPECIALTIES**					**$ 1,600**
10 81	**Toilet Accessories**					
	Toilet accessories	2	EA	$ 800.00	$1,600	
11	**EQUIPMENT**					**$ -**
12	**FURNISHINGS**					**$ -**
14	**CONVEYING EQUIPMENT**					**$ -**
21	**FIRE SUPPRESSION**					**$ -**
22	**PLUMBING**					**$ 31,300**
	Demo existing water toilets	2	EA	$ 300.00	$600	
	Demo existing lavatories	2	EA	$ 250.00	$500	
	Distribution piping to new toilet rooms (allowance)	1	LS	$ 7,500.00	$7,500	
	Sanitary piping to new toilet rooms (allowance)	1	LS	$ 4,800.00	$4,800	
	Vent stacks to roof	70	LF	$ 44.00	$3,080	
	Water closet	2	EA	$ 2,100.00	$4,200	
	Lavatory	2	EA	$ 1,350.00	$2,700	
	Domestic electric point of use water heater	2	EA	$ 2,200.00	$4,400	
	Natural gas piping	80	LF	$ 44.00	$3,520	
23	**HVAC**					**$ 39,906**
	Remove existing electric cabinet unit heaters	1	LS	$ 750.00	$750	
	Air handling unit, gas heat, elec cooling, 3,000 CFM, 7.5 ton with economizer	1	EA	$ 15,000.00	$15,000	
	Condensing unit	1	EA	$ 3,000.00	$3,000	
	Refrigerant piping	100	LF	$ 32.00	$3,200	
	Electric baseboard heating (ALLOWANCE)	1	LS	$ 2,500.00	$2,500	
	Toilet exhaust fans, ducting and venting	2	EA	$ 800.00	$1,600	
	Temperature control system	1	LS	$ 3,000.00	$3,000	

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DIV.	ELEMENT	QTY	UNIT	UNIT COST	SUBTOTAL	TOTAL
	Ductwork supply, return, exhaust distribution, diffusers and grilles	1,452	SF	$ 3.00	$4,356	
	Exhaust fan	1	EA	$ 1,500.00	$1,500	
	Controls	1	LS	$ 5,000.00	$5,000	
26	**ELECTRICAL**					**$ 45,123**
26 01	**Selective Electrical Demolition**					
	Disconnect existing light fixtures, make safe for demo	2	EA	$ 155.00	$310	
26 07	**Equipment Wiring, Motor Circuits**					
	Mechanical equipment connections (Allowance)	1	LS	$ 4,500.00	$4,500	
26 24	**Infrastructure and Panelboards**					
	Existing to remain			$ -	$0	
26 33	**Wiring & devices**	1,575		$ 10.00	$15,750	
26 50	**Lighting**					
	Electrical lighting fixtures and branch wiring (Allowance)	1,575	SF	$ 7.50	$11,813	
	Emergency Battery Pack Lighting (Allowance)	2	EA	$ 480.00	$960	
	Exit Signs (Allowance)	5	EA	$ 300.00	$1,500	
	Site lighting	1	LS	$ 5,000.00	$5,000	
	Exterior building mounted lighting at ramp (Allowance)	1	EA	$ 290.00	$290	
	Lighting controls and switching	1	LS	$ 5,000.00	$5,000	
27	**COMMUNICATIONS**					**$ -**
28	**ELECTRONIC SAFETY AND SECURITY**					**$ 6,970**
28 31	**Fire Detection and Alarm**					
	Fire alarm and devices	1,452	SF	$ 4.80	$6,970	
31	**EARTHWORK**					**$ 20,447**
	Excavate for footings (hand work, difficult conditions)	18	CY	$ 500.00	$8,889	

NORTH BAY
CONSTRUCTION CONSULTANTS

DIV.	ELEMENT	QTY	UNIT	UNIT COST	SUBTOTAL	TOTAL
	Structural fill	9	CY	$ 600.00	$5,333	
	Backfill and compaction	9	CY	$ 625.00	$5,625	
	Trucking & disposal	1	LS	$ 600.00	$600	
32	**EXTERIOR IMPROVEMENTS**					**$ 21,133**
	New asphalt paving -- Allowance	567	SY	$ 32.00	$18,133	
	New driveway at Colt Rd -- Allowance	NIC				
	Clear&Grub/Tree removal	NIC				
	Parking lot striping and signage allowance	1	LS	$ 3,000.00	$3,000	
	Fence around pump house w/ 6' of clearance	NIC				
33	**UTILITIES**					**$ 41,000**
	New natural gas service from street to building	1	LS	$ 6,000.00	$6,000	
	New gas meter	By Utility			$0	
	Replace exising septic system	1	LS	$ 35,000.00	$35,000	
	TOTAL DIRECT COSTS					**$ 330,134**
	Alternate: Portico Modifications					
	Raise elevation of portico by replacing deck and adding riser (ALLOWANCE)	1	LS	$ 15,000.00	$15,000	
	Relocate granite step	35	LF	$ 120.00	$4,200	
	Wood framed stair at rear for 2nd means of egress, 4R, landing and railings	1	LS	$ 9,600.00	$9,600	
	Total Alternate:				**$28,800**	

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

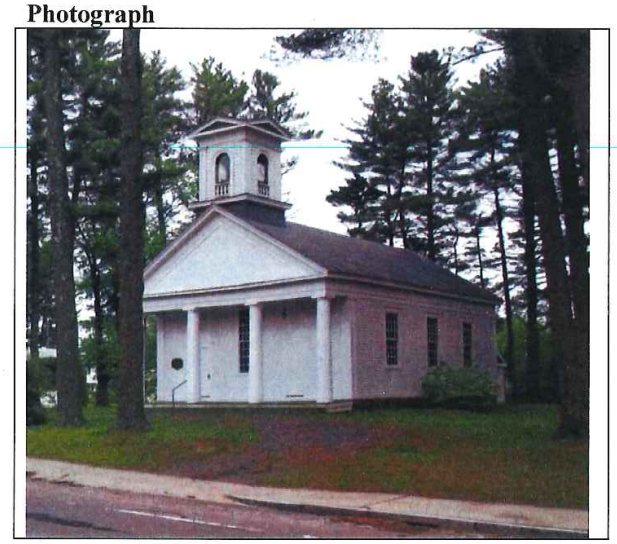
Inventory No:	FRN.325
Historic Name:	Union Congregational Parish of South Franklin
Common Name:	First Congregational Parish Church
Address:	762 Washington St
City/Town:	Franklin
Village/Neighborhood:	South Franklin - Wadsworth
Local No:	305; 322-050
Year Constructed:	
Architect(s):	
Architectural Style(s):	Greek Revival
Use(s):	Abandoned or Vacant; Church; Museum
Significance:	Architecture; Community Planning; Education; Religion
Area(s):	frn.e: South Franklin
Designation(s):	
Building Materials(s):	Roof: Asphalt Shingle Wall: Wood Clapboard; Wood Foundation: Stone, Uncut

FORM B – BUILDING

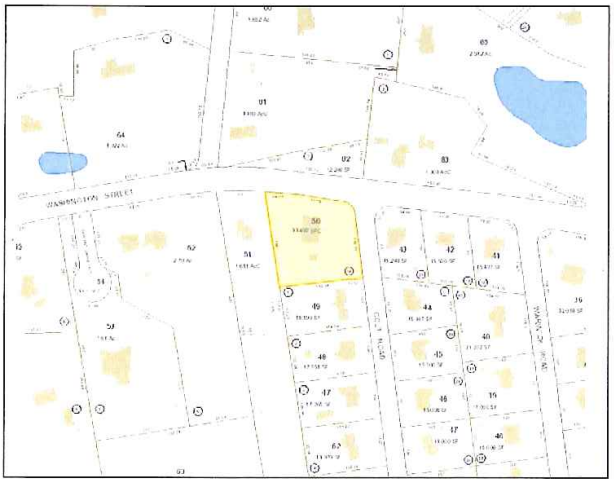
MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Assessor's Number	USGS Quad	Area(s)	Form Number
322-050-000-000		E	FRN.325

Photograph



Locus Map



Town/City: Franklin

Place: *(neighborhood or village)*: South Franklin
a.k.a. Wadsworth

Address: 762 Washington Street

Historic Name: Union Congregational Parish of South Franklin / Old South Meeting House

Uses: Present: vacant, former town museum

Original: Congregationalist meeting house

Date of Construction: 1861

Source: Horace Mann Museum; Previously Union Evangelical Meeting House- Minutes of member.

Style/Form: Greek Revival

Architect/Builder: unknown

Exterior Material:

Foundation: stone

Wall/Trim: wood

Roof: asphalt shingles

Outbuildings/Secondary Structures: small unrelated structure houses water department apparatus

Major Alterations *(with dates)*:
addition of running water and toilet, probably early 20th century

Condition: Excellent

Moved: no ☒ yes ☐ **Date:**

Acreage: 0.769 acres

Setting: residential area

Recorded by: Eamon McCarthy Earls, Associate Member
Organization: Franklin Historical Commission
Date *(month / year)*: March 2011

RECEIVED
JUN 06 2011
MASS. HIST. COMM.

INVENTORY FORM B CONTINUATION SHEET

FRANKLIN | 762 WASHINGTON ST

MASSACHUSETTS HISTORICAL COMMISSION
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

Area(s) | Form No.
E | 325

☒ Recommended for listing in the National Register of Historic Places.
If checked, you must attach a completed National Register Criteria Statement form.

Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.

ARCHITECTURAL DESCRIPTION:

Describe architectural features. Evaluate the characteristics of this building in terms of other buildings within the community.
A Greek revival, Congregationalist church, and the oldest church building in the Town of Franklin. The Union Evangelical Meeting House is part of an agrarian legacy left by the villagers of Wadsworth and the greater South Franklin area, and a substantially unchanged landmark in a city that has seen extensive growth and property development. The building is rectangular, approximately two-stories with a large attic and a bell tower. It is not ornate except for the five Doric columns at its front. There are no similar structures in the community.

HISTORICAL NARRATIVE

Discuss the history of the building. Explain its associations with local (or state) history. Include uses of the building, and the role(s) the owners/occupants played within the community.

Planned by the Congregationalist community of South Franklin in 1856, a committee prepared minutes in 1857 outlining the plan for a community meeting house and religious center. The new building would fill a niche. The devout Congregationalists of South Franklin were separated by several miles from the main Congregationalist church in the center of Franklin, and during inclement weather, or harvest seasons it could be difficult to attend far off church services.

The center of South Franklin was located less than a mile away from the planned meetinghouse, where a small village (usually referred to as Wadsworth, but also more broadly as South Franklin) had taken shape. The village took its name from the Wadsworth family, who moved from Milton, Massachusetts to Franklin in the early 1800s and soon established a small farming village, that later hosted a railroad station on New York, New Haven & Hartford Railroad's Midland Division, a post office, blacksmith shop, village store, and even a watch repair shop, owned by a member of the Wadsworth family who contracted poliomyelitis (rendering him partially paralyzed).

Wadsworth, and the Union Evangelical Meeting House were associated with the 'flowering of New England.' During the late 1850s, a one-room school house between Wadsworth and the Meeting House hosted a "Lycaeum" and debating society. George Wadsworth, a member of the Wadsworth family who lived from the 1830s until 1906 kept a detailed day-to-day journal of Franklin agricultural life and society between 1857, culminating shortly after the blizzard of 1888. Wadsworth describes farming practices, and gives a detailed portrait of the farm country of South Franklin and its religious life, as well the development of the village of Wadsworth.

The Union Evangelical Meeting House continued as a center of Franklin life far into the 20th century, and a site for lively debate. Debates were commonly held when religious services were not in session, and farmers are documented as having debated controversial topics such as national prohibition of alcohol, in the *Franklin Sentinel* (community newspaper, 1878-1978). The church was spared significant damage in the hurricane of 1938, although Franklin's main Congregationalist church became the Federated Church as the Baptist and Congregationalist communities were merged following the destruction of the Baptist church.

Continuation sheet 1

Citing the declining Congregationalist community in Franklin, and the costs of maintaining the Meeting House, the Franklin Federated Church began seeking new uses for its building in the early 1970s. Services continued at the Union Evangelical Meeting House until 1972, at which point the Federated Church, supervising the Meeting House, reached an agreement to deed the building to the Town of Franklin, on condition that it be used solely as a religious meeting center, or as a community museum. In the run up to the national and town bicentennials, the Franklin Historical Commission was formed and occupied the building, that was renamed the Horace Mann Museum. A wide of artifacts, documents, and photographs were preserved here and placed on display, and the museum opened to the public in 1975.

In 2007, the museum was closed to the public in preparation for an expected move to a more accessible location. After the former town hall (built 1842, rebuilt 1916), later senior center, was closed, the Franklin Historical Commission was allowed to use the new building to house its collection. Museum artifacts were moved in 2010. The Franklin Historical Commission continues to oversee the preservation of this building, and archive photographs, and written records of the Meeting House, including the complete Union Sunday School library collection. The Union Evangelical Meeting House has never been extensively remodeled, after the installation of electric lighting, heating and plumbing systems. Today, the Meeting House is the oldest church in Franklin, and still possesses all the functional elements of a Congregational church included pews, a bell, bell rope, and steeple.

BIBLIOGRAPHY and/or REFERENCES

Horace Mann Museum; Previously Union Evangelical Meeting House- Minutes of member meetings during planning and building, March 1857-April 1861. (manuscript photocopy)

Johnston, James C. *Odyssey in the Wilderness.* Medway: Wayside Press, 1978. Print.

Blake, Mortimer. *A History of the Town of Franklin, Mass. : From its Settlement to the Completion of its First Century.* Franklin: Committee of the Town. 1878. Print.

Lembo, Gail V., ed., *Diaries of George M. Wadsworth: 1857-1893.* Franklin, 1998. Print.

Continuation sheet 2

National Register of Historic Places Criteria Statement Form

Check all that apply:

☒ Individually eligible ☐ Eligible **only** in a historic district

☐ Contributing to a potential historic district ☐ Potential historic district

Criteria: ☒ **A** ☐ **B** ☒ **C** ☐ **D**

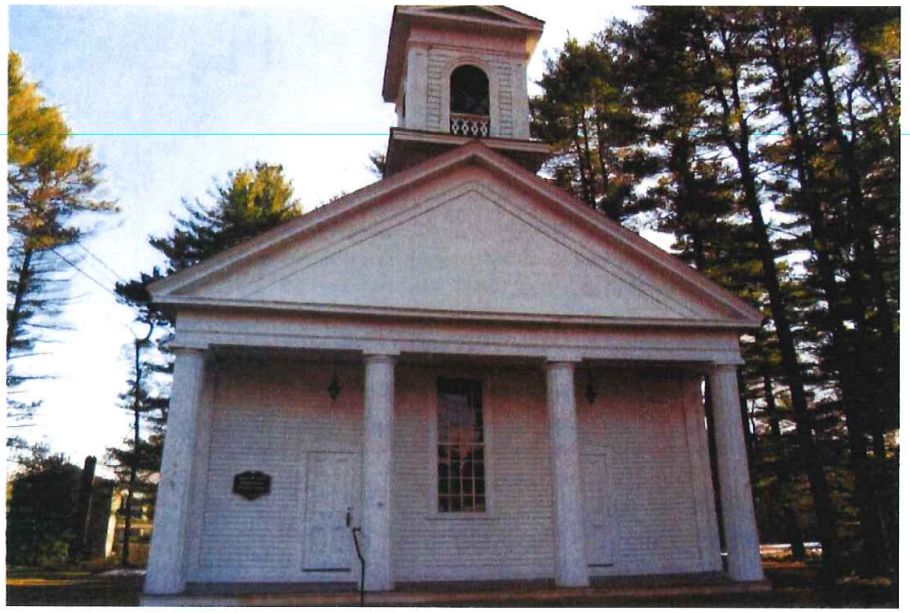
Criteria Considerations: ☐ **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E** ☐ **F** ☐ **G**

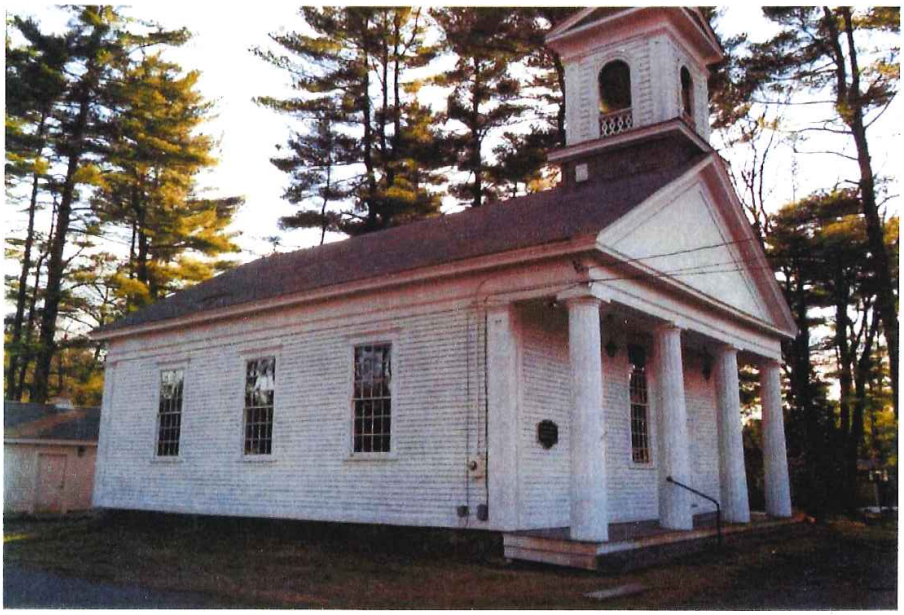
Statement of Significance by James McCarthy Earls
The criteria that are checked in the above sections must be justified here.

The Union Evangelical Meeting House, located in South Franklin, Massachusetts is an example of 1850s American Greek revival architecture. The Meeting House is a unique architectural reminder of the early agricultural and Congregationalist heritage of Franklin.

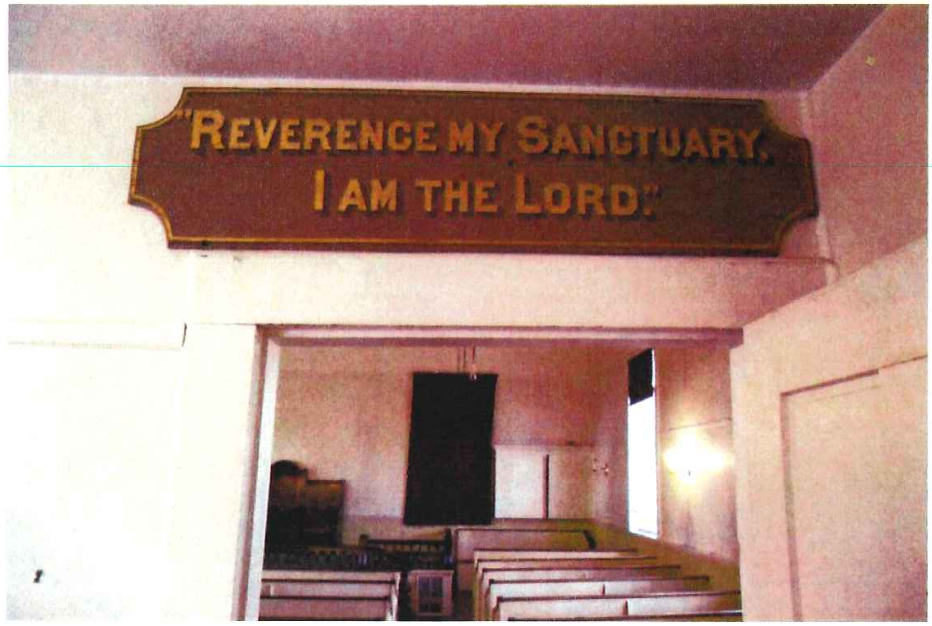
Continuation sheet 3

Supplementary images





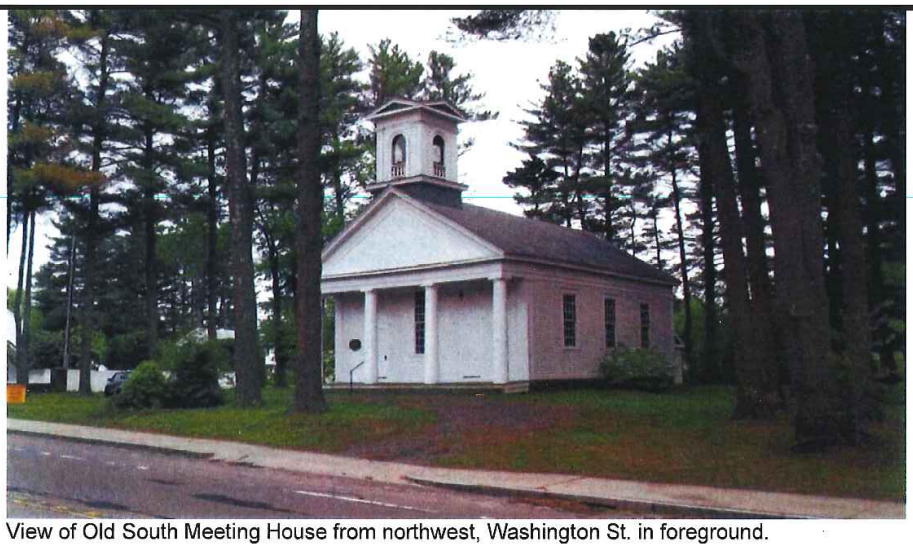
South Franklin Congregational Meeting House



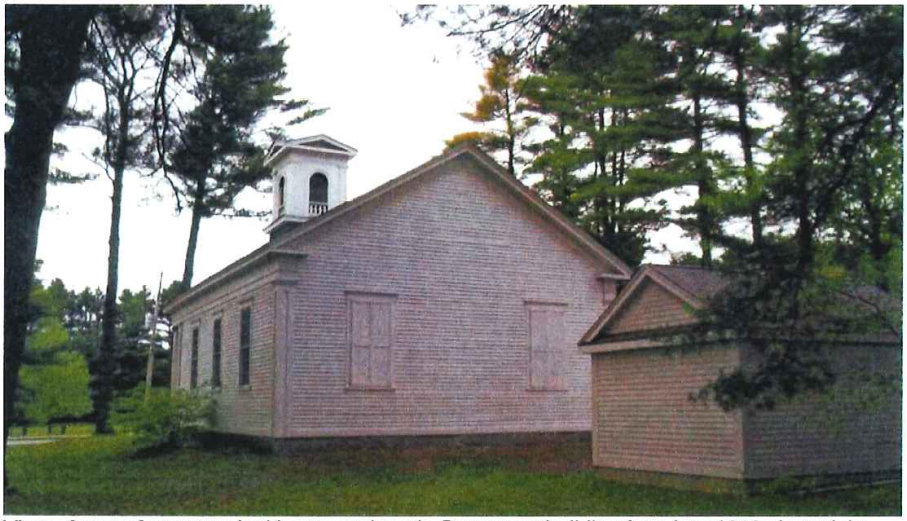
Continuation sheet 5

View of Old South Meeting House, Franklin from the northeast, across Washington St., with Colt Rd. intersection in foreground.

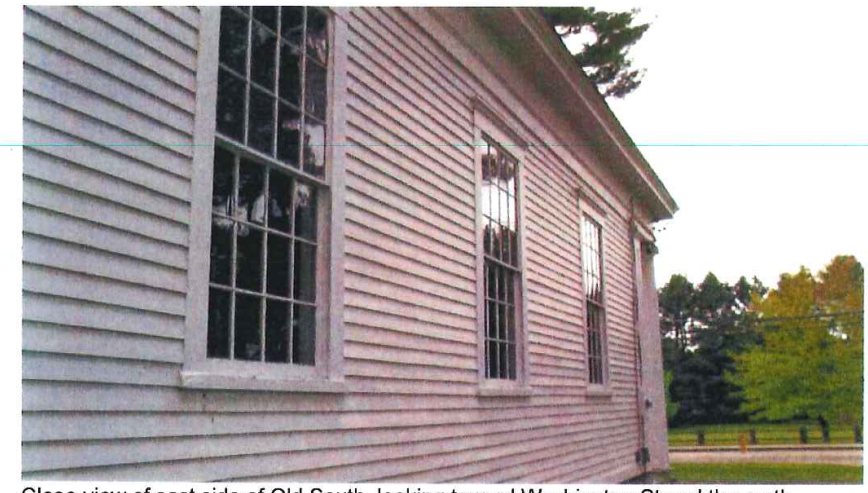
Same view as above, but closer ...



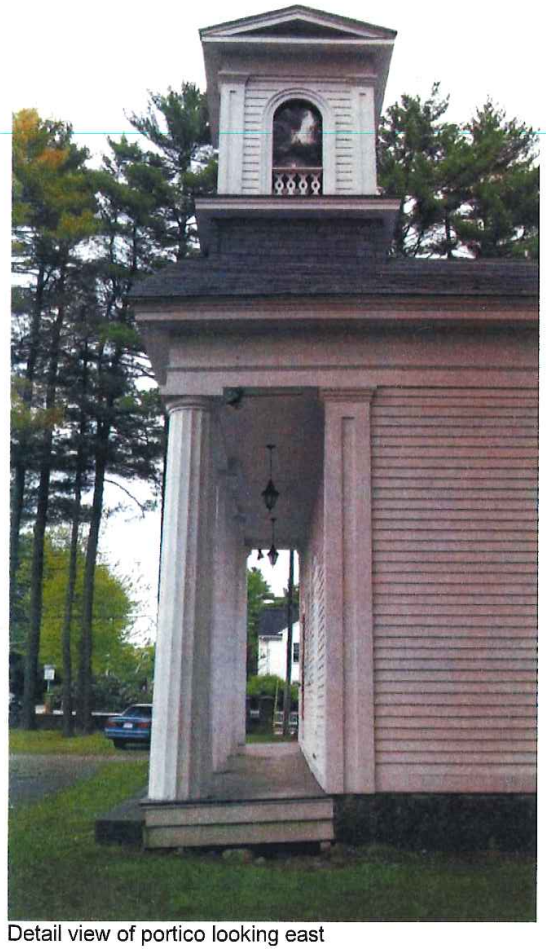
View of Old South Meeting House from northwest, Washington St. in foreground.



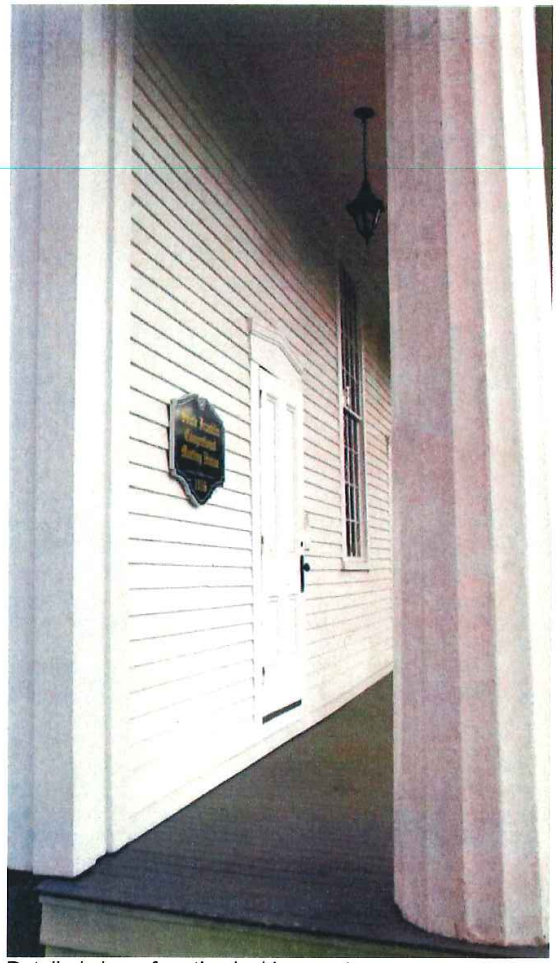
View of rear of structure looking toward north. Recent outbuilding from late 1990s is to right.



Close view of east side of Old South, looking toward Washington St and the north.

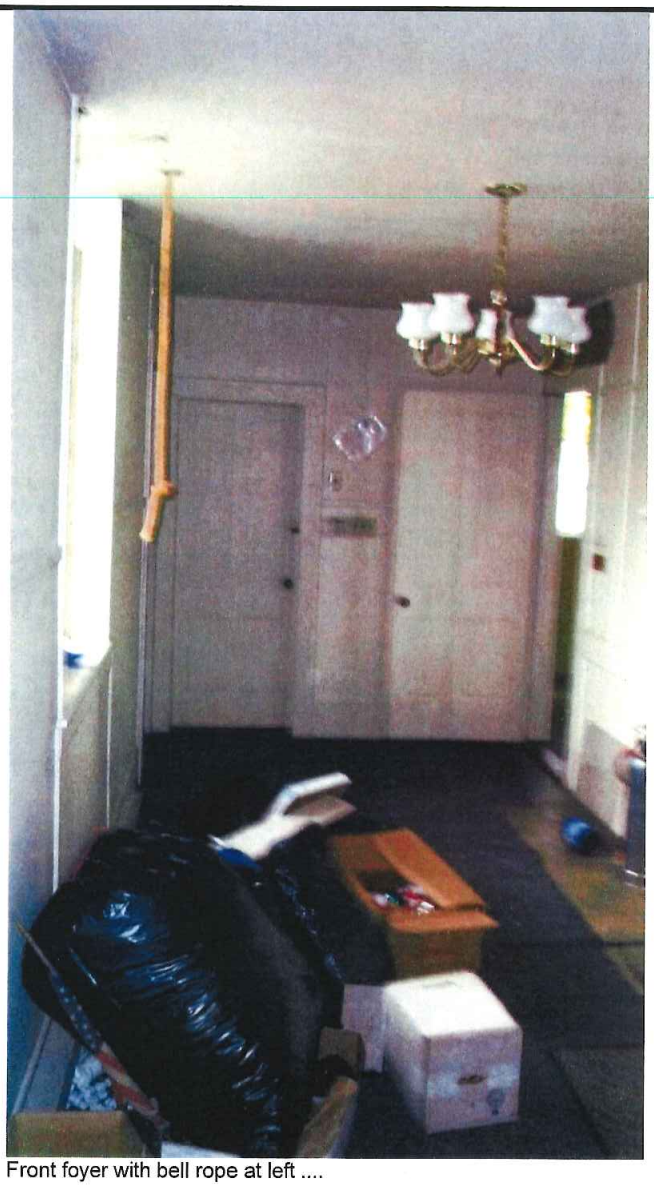


Detail view of portico looking east

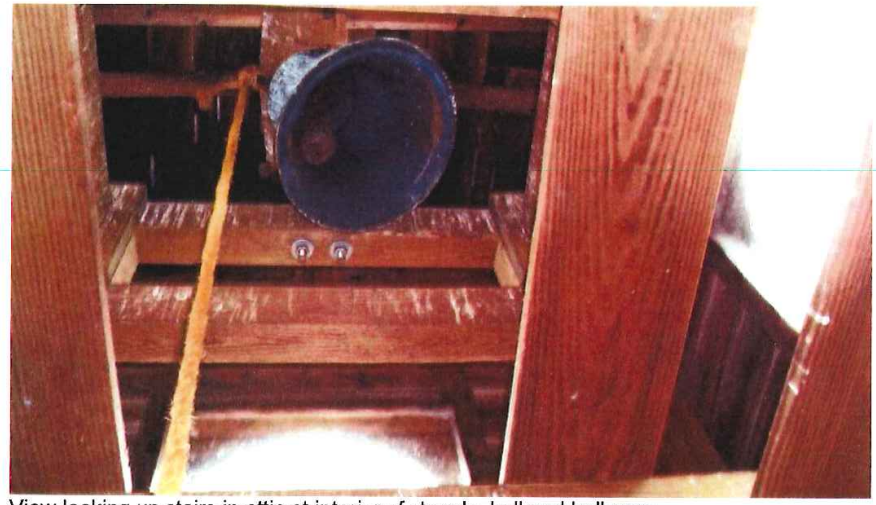


Detailed view of portico looking west

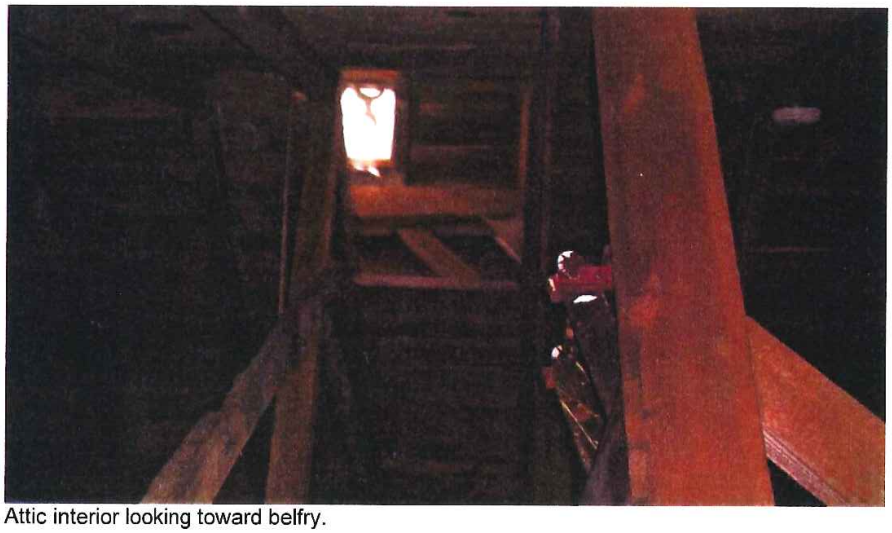
Continuation sheet 9



Front foyer with bell rope at left ....



View looking up stairs in attic at interior of steeple, bell and bell rope



Attic interior looking toward belfry.

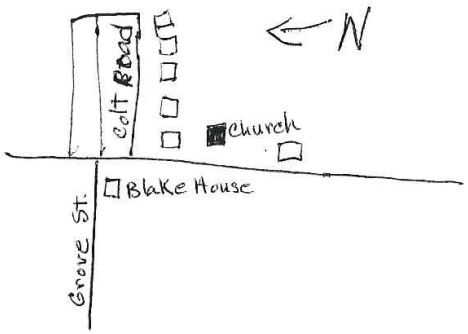
SECT A PL-S.FRANK-WAD 6

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, State House, Boston

In Area no.	Form no.
~~3~~ E	~~305~~ 325

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.



DO NOT WRITE IN THIS SPACE
USGS Quadrant Franklin (46)
MHC Photo no.

(over)

1. Town Franklin
Address Washington Street
Name First Congregational Parish
Present use Franklin Historical Commission Property
Present owner Franklin

3. Description:
Date 1856
Source Blake's History P. 97
Style Country Greek Revival
Architect
Exterior wall fabric wood
Outbuildings (describe) NONE
Other features steeple

Altered Date
Moved no Date

5. Lot size:
Less than one acre Over one acre
Approximate frontage
Approximate distance of building from street
50 feet

6. Recorded by James C. Johnston Jr.
Organization Franklin Historical Comm
Date May 10, 1973

JUN 28 1973

FRN. 325

7. Original owner (if known) Council of the First Parish

Original use Church

Subsequent uses (if any) and dates Historical Commission

8. Themes (check as many as applicable)

Aboriginal		Conservation		Recreation	
Agricultural	✓	Education	✓	Religion	✓
Architectural		Exploration/ settlement		Science/ invention	
The Arts		Industry		Social/ Humanitarian	✓
Commerce		Military		Transportation	
Communication		Political			
Community development					

9. Historical Significance (include explanation of themes checked above)

The Church was founded because, travel of three miles to the center of the town to the other church was too far for comfort of the citizens of South Franklin. It is a nice example of a country interpretation of Greek Revival, and reflects the Faith and Puritan Ethic intrinsic to the people who built it for their worship. It will hold a collection of historical objects connected with the history of the town and its relationship to Commonwealth and nation thus serving both educational and humanitarian needs existing in the community.

10. Bibliography and/or references (such as local hist early maps, etc.)

Blake, Mortimer. History

3/73

Original yellow form: Eligibility file
Copies: Inventory form
Town file(w/corresp.)
Macris
NR director ____

FRN.325

Community: Franklin

MHC OPINION: ELIGIBILITY FOR NATIONAL REGISTER

Date Received: 6 June 2011 Date Due: Date Reviewed: 15 June 2011

Type: _x Individual _District (Attach map indicating boundaries)

Name: Union Evangelical Meeting House Inventory Form: FRN.325

Address: 762 Washington St

Requested by: Eamon McC. Earls. LHC

Action: __Honor __ITC __Grant __R & C __Other:

Agency: Staff in charge of Review:

INDIVIDUAL PROPERTIES

x Eligible
__ Eligible, also in district
__ Eligible only in district
__ Ineligible
__ More information needed

DISTRICTS

__ Eligible
__ Ineligible
__ More information needed

CRITERIA: _x A __B _x C __D

LEVEL: _x Local __State __National

STATEMENT OF SIGNIFICANCE by Phil Bergen

Relatively preserved modest mid 19th century Congregational meetinghouse, reflecting the rural area in which it sat, the property was built as a relief for South Franklinites removed from the town center. Oldest church building in town. Rectangular, with preserved bell and steeple, it has four Doric columns on its front façade.

The church was closed in 1972, donated to the town, and used as museum until 2007. It is currently vacant.

Additional photos show the outside on all sides, attic and bell, and provide some more information, although outbuildings are not satisfactorily documented. Although vacant, building appears to be in good condition.

FRN.325

Original yellow form: Eligibility file
Copies: Inventory form
Town file(w/corresp.)
Macris
NR director _____

Community: Franklin

MHC OPINION: ELIGIBILITY FOR NATIONAL REGISTER

Date Received: 9 May 11 Date Reviewed: 18 May 11

Type: _x_Individual _District (Attach map indicating boundaries)

Name: Union Evangelical Meeting House Inventory Form: FRN.325

Address: 762 Washington Street

Requested by: Eamon Earls, LHC

Action: __Honor __ITC __Grant __R & C __Other:

Agency: Staff in charge of Review:

INDIVIDUAL PROPERTIES

__ Eligible
__ Eligible, also in district
__ Eligible only in district
__ Ineligible
_x_ More information needed

DISTRICTS

__ Eligible
__ Ineligible
__ More information needed

CRITERIA: __A __B __C __D

LEVEL: __Local __State __National

STATEMENT OF SIGNIFICANCE by Phil Bergen

A relatively preserved modest mid 19th-century Congregational meeting house, reflecting the rural area in which it sat, the property was built as a relief for South Franklinites removed from the town center. It is the oldest church building in the town. Rectangular, with preserved steeple and bell, it has four Doric columns on its front façade.

The church was closed in 1972, donated to the town, and was used as a town museum until 2007.

Questions arose about the outbuildings on site, the lack of substantial interior and exterior photos, and the surrounding area. The church appears to be in good condition, even though the building is currently vacant.

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ARCHITECTS

Lerner Ladds Bartels

Design. Live. Thrive.