ORLEANS TOWN HALL ANNEX RENOVATION FEASIBILITY STUDY REPORT

Prepared for
The Town of Orleans

07/25/2023

TABLE OF CONTENTS

PROJECT BACKGROUND 4

EXISTING CONDITIONS 5

EXISTING PLANS 6

EXISTING EXTERIOR CONDITIONS 7

EXISTING EXTERIOR CONDITIONS 8

EXISTING INTERIOR CONDITIONS 9

EXISTING INTERIOR CONDITIONS 10

PROPOSED RENOVATION PLANS 11

PROPOSED DEMOLITION PLANS 12

PROPOSED RENOVATION PLANS 13

DEMO & PROPOSED ROOF PLANS 14

PROPOSED DEMOLITION ELEVATIONS 15

PROPOSED RENOVATION ELEVATIONS 16

MEP/FP NARRATIVE 17

MEP/FP NARRATIVE 18

MEP/FP NARRATIVE 19

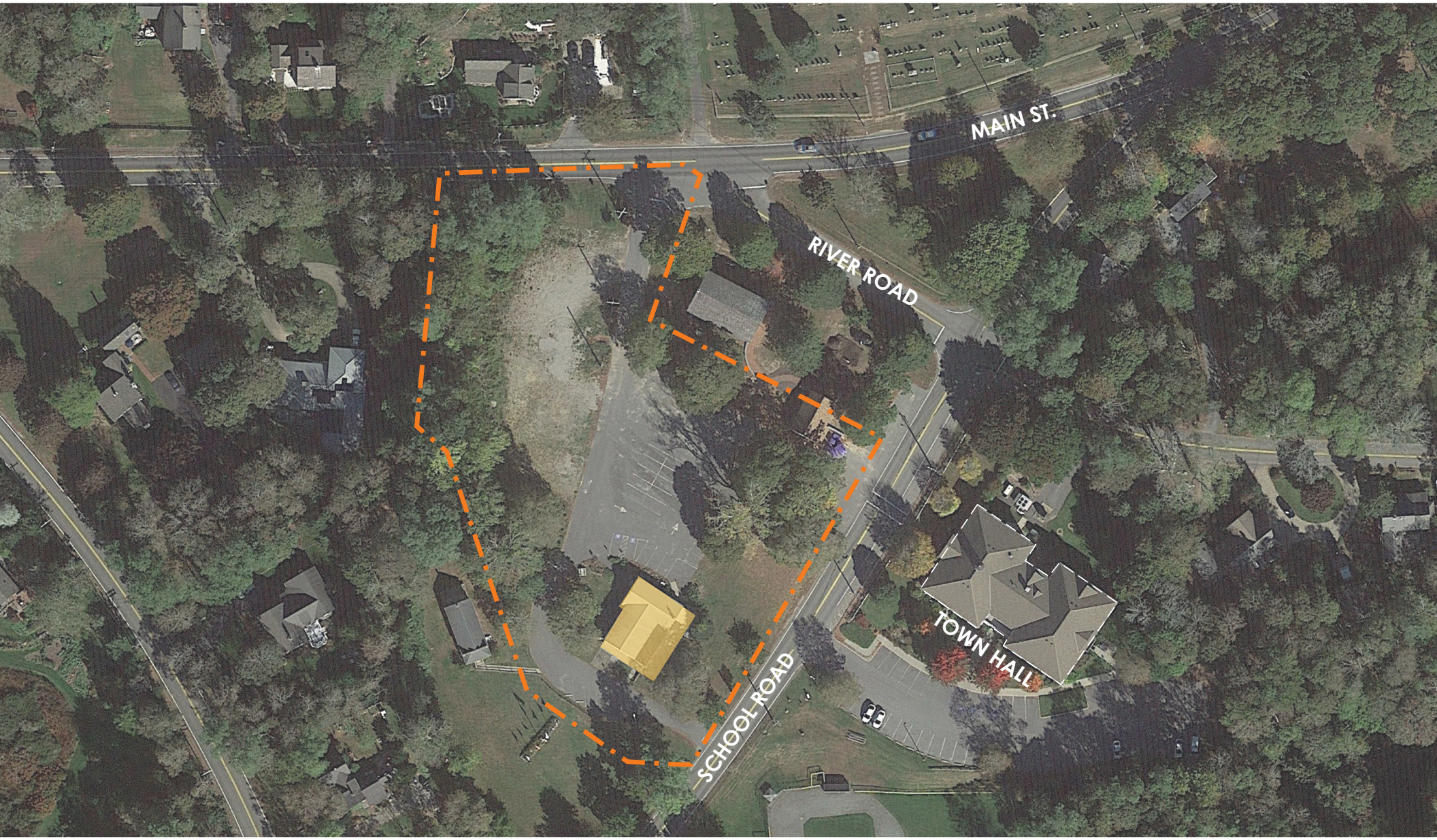
COST ESTIMATE 20

COST ESTIMATE SUMMARY 21

RECOMMENDATIONS AND NEXT STEPS 22

APPENDIX 23

SITE PLAN AND CONTEXT



PROJECT BACKGROUND 01

The Town Hall Annex at 139 Main Street was built in 1960 for private use and is across School Road from Town Hall. The building was purchased by the Town of Orleans as space needs expanded beyond the ability of Town Hall to meet them.

It provides storage space, office space, and meeting space, but much of the building is underutilized because its condition and configuration are not suitable for many of the Town's needs.

Building drawbacks noted by the Town include:

- It is poorly insulated and the envelope does not provide a tight enclosure demanded by today's building codes.
- It's oil fired boiler, forced hot air furnace and largely uninsulated ducts are not efficient from an energy usage perspective or in line with Town and State policy.
- Window air conditioners are not effective for public uses and are relatively inefficient.
- Electrical systems and lighting are inadequate in relation to current expectations.
- The vinyl siding and awkward building proportions are unattractive and not up to Town standards..
- The low ceilings and poor condition of interiors are again unattractive and inappropriate given their public use.
- Bathrooms, doors, and other elements do not meet ADA, MAAB and building code requirements.
- Entry porches and ramps are rudimentary and out of line with Orleans standards.
- The site does not provide the kind of welcoming character expected in a public building.

Given these inadequacies the Town issued a Request for Qualifications in October, 2022 to study renovation options. Abacus Architects + Planners - noted as The Consultant - was selected based on their experience doing similar studies, and previous work with Orleans on a community center feasibility study completed earlier in 2022.

The Town's goals as articulated in the RFQ and in subsequent discussions between Consultant and the Town include:

- Redesign the interior to provide two public meeting rooms, archives meeting or approaching Federal Standards for Record Storage and support spaces.
- Code and ADA/MAAB compliant access and interior rooms appropriate for public use.
- A more welcoming presence and connection to Town Hall - given the building's function as a Town Hall Annex.
- Design standards inside and outside comparable to Town Hall in terms of functionality, finishes and overall perception.
- Building envelope and building systems that at minimum comply with current building code.

The pages that follow illustrate existing building conditions, proposed renovations, a conceptual design cost estimate and recommendations for meeting Town goals for Annex uses and for the site.

Note that hazardous materials testing indicated the presense of asbestos with an estimated $15,000 remediation cost.

EXISTING CONDITIONS 02

A field review of the existing building indicates the following deficiencies. Note that this is a partial list based on a preliminary examination of plans and existing construction.

LEVEL 1

1. The one story wing containing the Boiler Room, Bathrooms and stairs are separated from the adjoining building area by a masonry bearing wall making changes to these spaces difficult.
2. Bathrooms and stairs have insufficient space to meet current code requirements without major modifications.
3. The central circulation spine noted as Prep Area is cluttered with small closets and partitions that make it difficult to use.
4. The largest of the rooms noted as Meeting Hall and Storage have low ceilings, little natural light and are in poor condition. They are unsuitable for most Town uses.

LEVEL 2

1. The Entry Lobby is undersized in relation to the size of the Meeting/Assembly Halls and is awkwardly configured to facilitate public entry, egress and uses.
2. Bathroom are too small to meet MAAB/ADA requirements and cannot be easily expanded given the current layout.
3. Meeting/Assembly Hall 2 has been built out with drywall and stud office partitions – not shown in the drawings – that do not meet current Town needs.
4. Ceilings are very low for public spaces of the sizes shown and anticipated - functional but not pleasant.

EXTERIOR

1. Cladding materials are in poor condition and relatively poor condition in terms of appearance and weather resistance.
2. Windows are in poor condition and are insufficiently sized in relation to rooms sizes inside.
3. Building proportions are awkward and lacking in civic character with a series of massing elements that appear tacked on.

SITE

1. Building sits awkwardly on the sloping site.
2. Retaining wall is collapsing.
3. Entries, ramps and stairs are unattractive and in poor condition.
4. Site has no civic presence and is unwelcoming.
5. The building has no relationship to surrounding public buildings – Town Hall across School Road, and the adjacent Historical Society buildings.
6. Site is underutilized and could serve additional Town needs if properly planned.

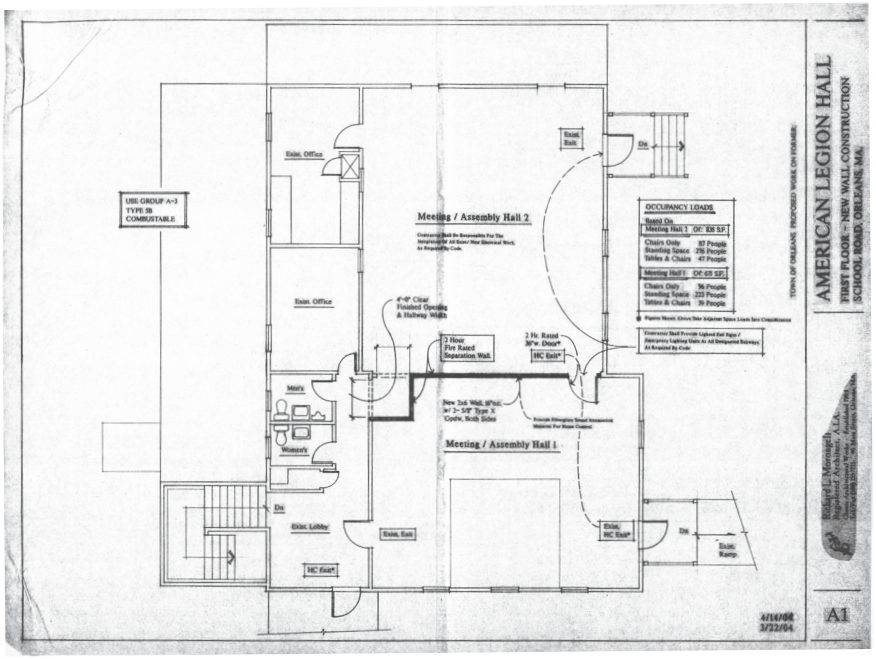
BUILDING SYSTEMS

1. 200 amp electrical system, lighting, plumbing, heating and life safety systems are not building code compliant and are beyond the end of their useful lives.
2. There is no fire protection system. Although a building this size and use does not require one, Town documents and personnel are not protected.

EXISTING PLANS

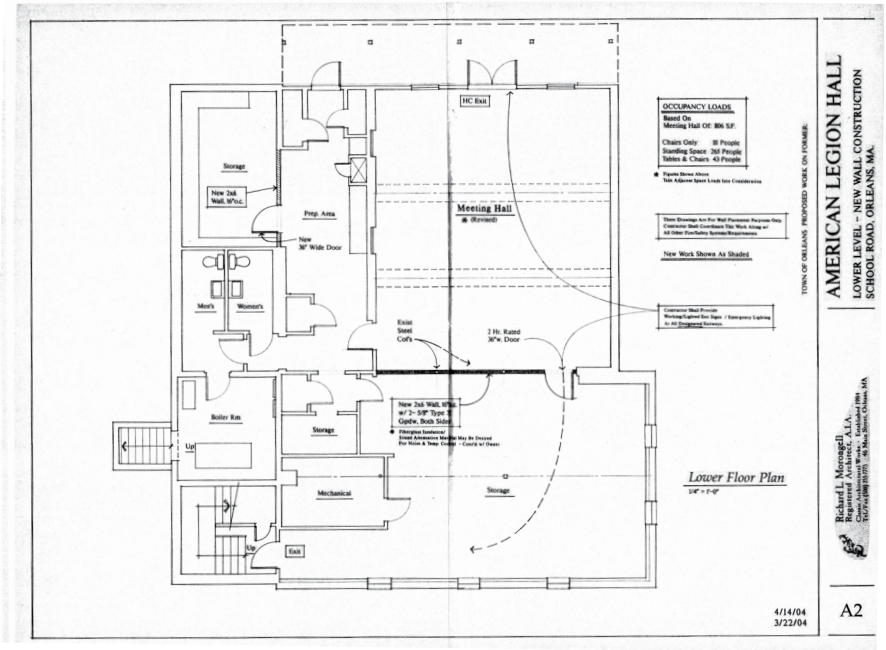
Upper Level Floor Plan:

Plans provided by the Town of Orleans formed the basis for this study's building documentation but were supplement by field measurements and observations.



Lower Level Floor Plan:

The building was originally the American Legion Hall, which has relocated to a small building on an adjacent site.



EXISTING EXTERIOR CONDITIONS

South Facade:

The lower level entry doesn't address Town Hall across School Road to the right. The retaining wall and fence on the left are in poor condition. The brick is in good condition but relates poorly to other materials. The front porch and entry are lacking in civic character.

North Facade:

The upper level entry doesn't address Town Hall or nearby Historical Society buildings. The access ramp is unattractive and in poor condition and overall building proportions and massing are awkward.

EXISTING EXTERIOR CONDITIONS

West Facade:

Entries are unwelcoming with unattractive stairs and porches. The building is utilitarian and without the civic presence that one would expect from a Town Hall Annex across the street from Town Hall.

South Facade:

Massing elements on the slope and across School Road from Town Hall look tacked on and are unwelcoming. There is no clear pathway to building entries on either floor. Detailing is poorly executed.

EXISTING INTERIOR CONDITIONS

◀ Lower Level Storage:

Low ceilings, poor quality finishes and the overall jumble of small closets and utility areas make use of these areas difficult.

◀ Lower Level Storage/Offices:

The larger of the lower level areas is adequate as utility space but lacks natural light. The low ceiling makes public use for civic purposes inappropriate.

EXISTING INTERIOR CONDITIONS

◀ Upper Level Offices:

One of the upper level meeting rooms was subdivided with partitions. These no longer provide usable spaces for the Town.

◀ Upper Level Assembly Hall:

The low ceilings create an oppressive environment with little civic character. Finishes are in poor condition and building systems are out of date.

PROPOSED RENOVATION PLANS 03

To help remedy the drawbacks of the building and site as noted above, the Consultant prepared renovation plans for 139 Main Street to better address Town needs. The low ceilings and awkward location on the site are not addressed in the renovation – they would require demolition and replacement with new construction.

LEVEL 1

1. The unattractive one story addition containing the inadequately sized stairs and bathrooms is demolished. These elements have been relocated to adjacent areas.
2. A series of non-functional partitions and closets are removed and the building spaces reorganized to increase functionality.
3. All finishes are replaced in conjunction with replacement of electrical, plumbing and HVAC systems.
4. Alternative storage system options – conventional steel shelving and compact storage – are noted for pricing.
5. New ADA and MAAB compliant bathrooms are constructed within the existing building shell.

LEVEL 2

1. New ADA and MAAB compliant bathrooms are constructed with appropriate relationships to public circulation and meetings rooms.
2. The building plan has been reorganized to provide more effective meeting rooms and entry lobby in relation to the entry, bathrooms and stairs
3. All finishes are replaced in conjunction with replacement of electrical, plumbing and HVAC systems.

EXTERIOR

1. New siding and trim are installed on all sides - leaving the small section of brick in place.
2. All walls are insulated to meet current code requirements.
3. Windows are replaced, enlarged or added to improve exterior appearance, interior lighting and meet current building codes.
4. New dormers are installed to provide civic presence and architectural character and bring light into meeting rooms. This will raise ceilings in some areas and improve the appeal of the meeting rooms for the public.
5. Roofing is replaced in all areas
6. Porches, ramps and steps are replaced with more attractive detailing.

SITE

1. Collapsing retaining wall is replaced and fencing replaced.
2. Minor improvements are made around the building.
3. Most of the site is not included in the work shown.

BUILDING SYSTEMS

1. All electric air source heat pump heating and cooling installed. Geothermal is another option.
2. Code compliant ventilation system installed.
3. All new building electrical and lighting installed.
4. Plumbing replaced to accommodate new bathrooms.
5. Life safety systems installed.
6. Sprinkler system installed – although not required by code.

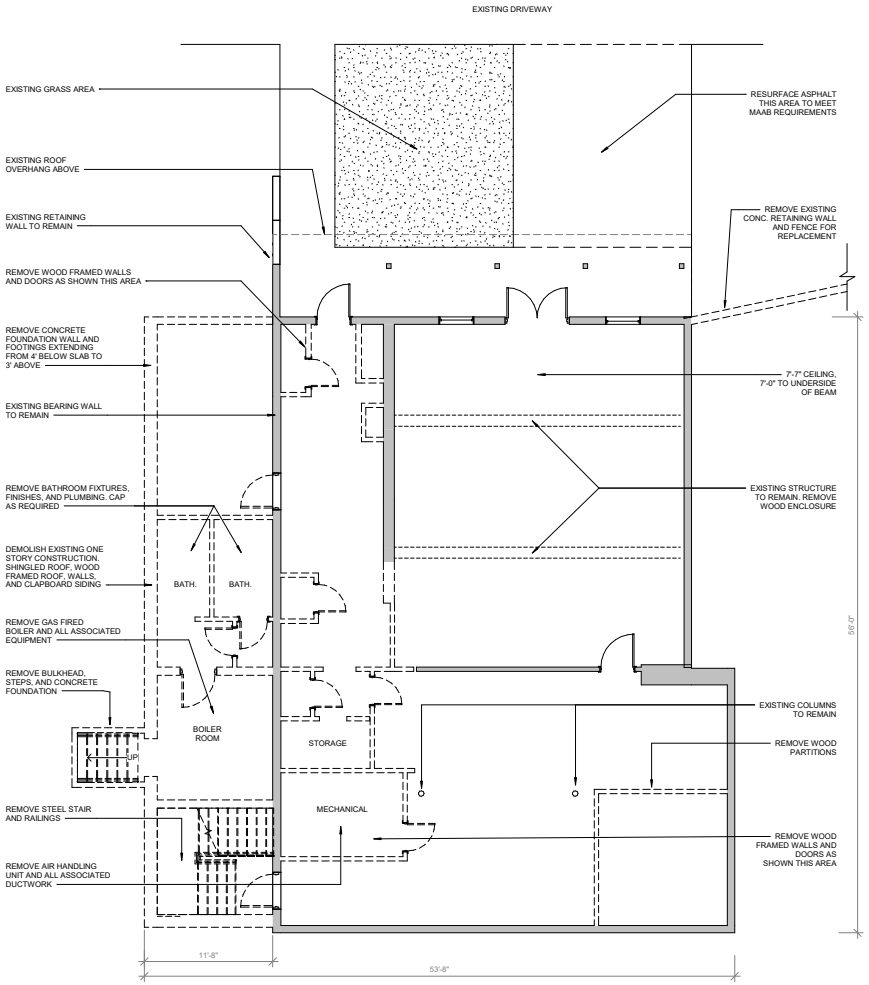
PROPOSED DEMOLITION PLANS

CONDITIONS LEGEND

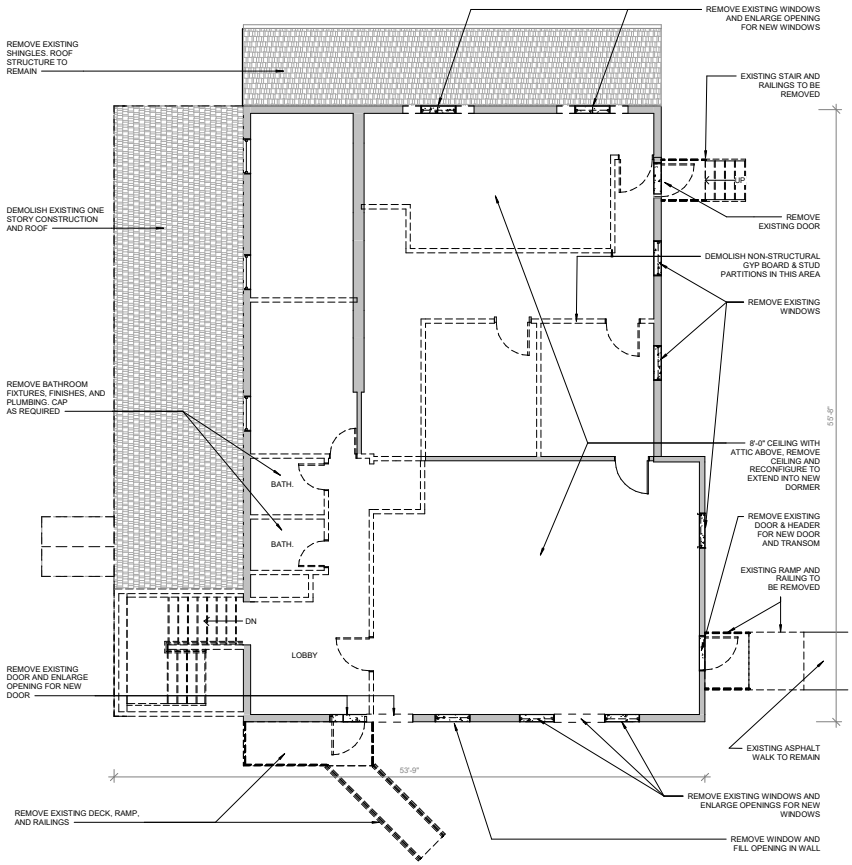
- EXISTING TO REMAIN
- TO BE REMOVED
- NEW CONSTRUCTION

NOTES

1. DEMOLISH FLOOR AS REQUIRED FOR INSTALLATION OF NEW SANITARY LINES
2. REMOVEA ALL SUPPLY LINES AND REPLACE
3. REMOVE ALL ELECTRICAL AND REPLACE
4. REMOVE ALL HEATING, VENTILATION, AND AIR CONDITIONING SYSTEMS
5. REMOVE ALL INTERIOR WALLS AND CEILING SURFACES FOR THE INSTALLATION OF NEW INSULATION AND M.E.P. / F.P. SYSTEMS



1 DEMO PLAN - LOWER LEVEL
3/16" = 1'-0"



2 DEMO PLAN - UPPER LEVEL
3/16" = 1'-0"

ABACUS [ARCHITECTS + PLANNERS]
119 Braintree Street Boston MA 02134
tel 617.562.4446 fax 617.254.0004
contact@abacusarchitects.com

CHECKED: DE
DRAWN: DK
STATUS: SD
SCALE: As indicated
DATE: 12/9/2023

NO.	REVISIONS	DATE

TOWN OF ORLEANS
139 Main Street, Orleans, MA 02653
Orleans Archive Building Renovation Study

DEMOLITION FLOOR PLANS

A 101

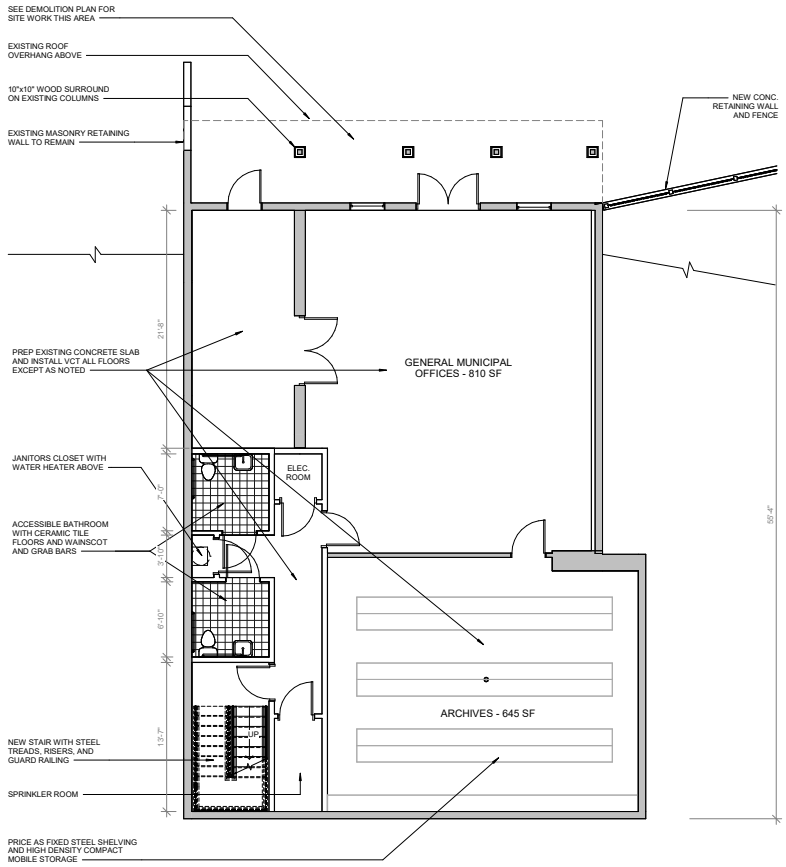
PROPOSED RENOVATION PLANS

CONDITIONS LEGEND

- EXISTING TO REMAIN
- TO BE REMOVED
- NEW CONSTRUCTION

NOTES

1. BACKFILL AND INSTALL NEW CONCRETE AT NEW SANITARY LINES.
2. INSTALL AIR SOURCE HEAT PUMPS TO SERVE ALL AREAS OF THE BUILDING BOTH FLOORS.
3. INSTALL NEW PLUMBING MEETING CURRENT PLUMBING CODE.
4. INSTALL NEW ELECTRICAL MEETING CURRENT ELECTRICAL CODE.
5. INSTALL NEW FIRE PROTECTION SYSTEM MEETING CURRENT CODE.
6. INSTALL LIFE SAFETY SYSTEMS TO MEET CURRENT CODE.
7. ALL EXTERIOR WALL STUD CAVITIES TO HAVE 3.5" CELLULOSE INSULATION.
8. ALL EXTERIOR WALLS TO RECEIVE AIR AND VAPOR BARRIER, 2" OF RIGID INSULATION, STRAPPING, AND FIBER CEMENT LAP SIDING.
9. INSTALL NEW GYPSUM WALL BOARD AT ALL WALLS AND CEILINGS.
10. INSTALL BEAD BOARD WAINSCOT AND CHAIR RAIL AT MEETING ROOMS AND ENTRY HALL.
11. ALL WINDOWS AND DOORS TO MEET CURRENT CODE PERFORMANCE STANDARDS. WOOD WITH ALUMINUM CLADDING. DOORS TO HAVE GLAZING WHERE INDICATED.
12. DOORS TO MEETING ROOMS TO BE GLAZED. ALL OTHER INTERIOR DOORS TO BE FLUSH. PAINT.
13. ALL NEW ENTRY RAMPS, STAIRS, AND RAILINGS - WOOD FIBER COMPOSITE ON PT FRAMING WITH STEEL HANDRAILS AT 18' & 36"
14. ALL NEW GUARDRAILS TO BE 1 1/4" X 1 1/4", BALUSTERS AT 5" O.C. WITH TOP AND BOTTOM RAILS. 4 1/2" X 4 1/2" POSTS AT 5' O.C. WHITE PAINT FINISH.
15. BACKFILL AND COMPACT AT DEMOLISHED AREA OF BUILDING. LOAM AND SEED.
16. PROVIDE ALLOWANCE FOR SITE UTILITY CONNECTIONS TO DOWNSPOUTS AND SANITARY LINES.
17. PROVIDE ALLOWANCE FOR LIGHT FIXTURES INSIDE AND OUTSIDE.
18. NOTE THAT BUILDING DOES NOT CURRENTLY HAVE A FIRE PROTECTION SYSTEM. INSTALL SYSTEM AND CONNECTIONS TO THE STREET.
19. PROVIDE ALLOWANCE FOR LIMITED ASPHALT WALK REPAIR AND LOAM AND SEED.
20. NEW SHINGLES AT ALL ROOF AREAS WITH ALUMINUM DRIP EDGE. INSTALL 40' FELT ENTIRE ROOF WITH 3' BITUTHENE AT ALL EAVES ABD VALLEYS. INSTALL ALUMINUM FLASHING AT ALL VALLEYS AND DORMERS.



1 PROPOSED PLAN - LOWER LEVEL
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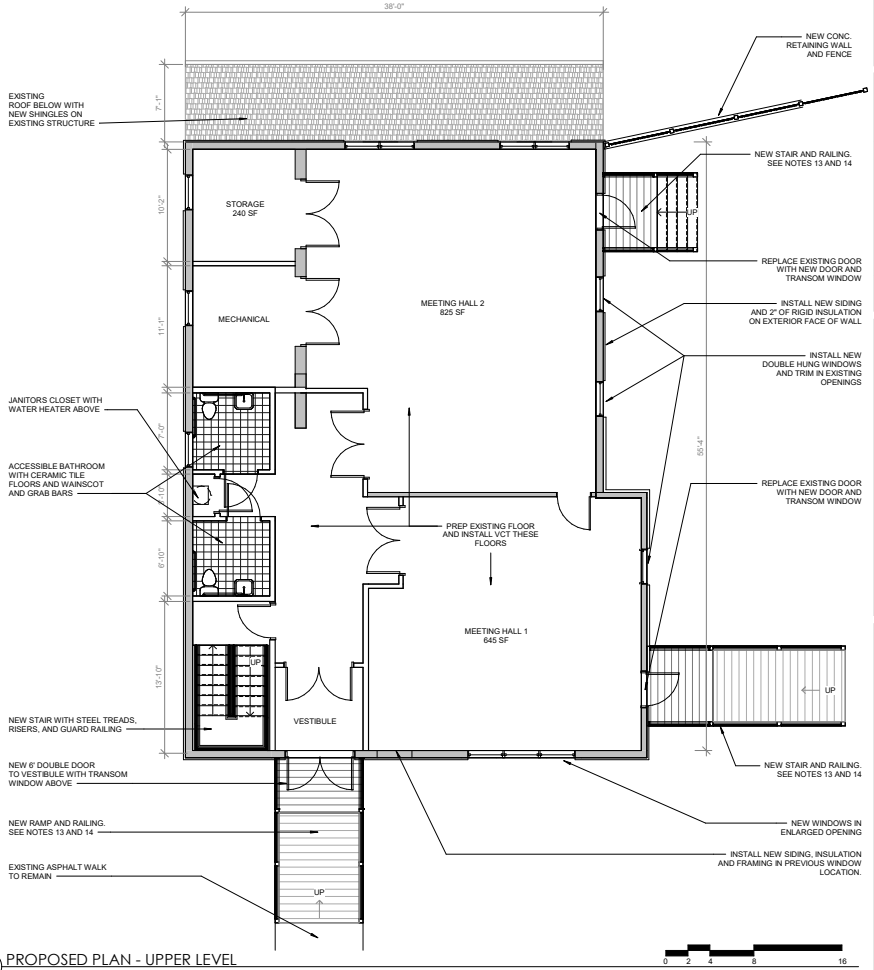

2 PROPOSED PLAN - UPPER LEVEL
3/16" = 1'-0"

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TOWN OF ORLEANS
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Orleans Archive Building Renovation Study

PROPOSED FLOOR PLANS

A 102

DEMO & PROPOSED ROOF PLANS

CONDITIONS LEGEND

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- TO BE REMOVED
- NEW CONSTRUCTION

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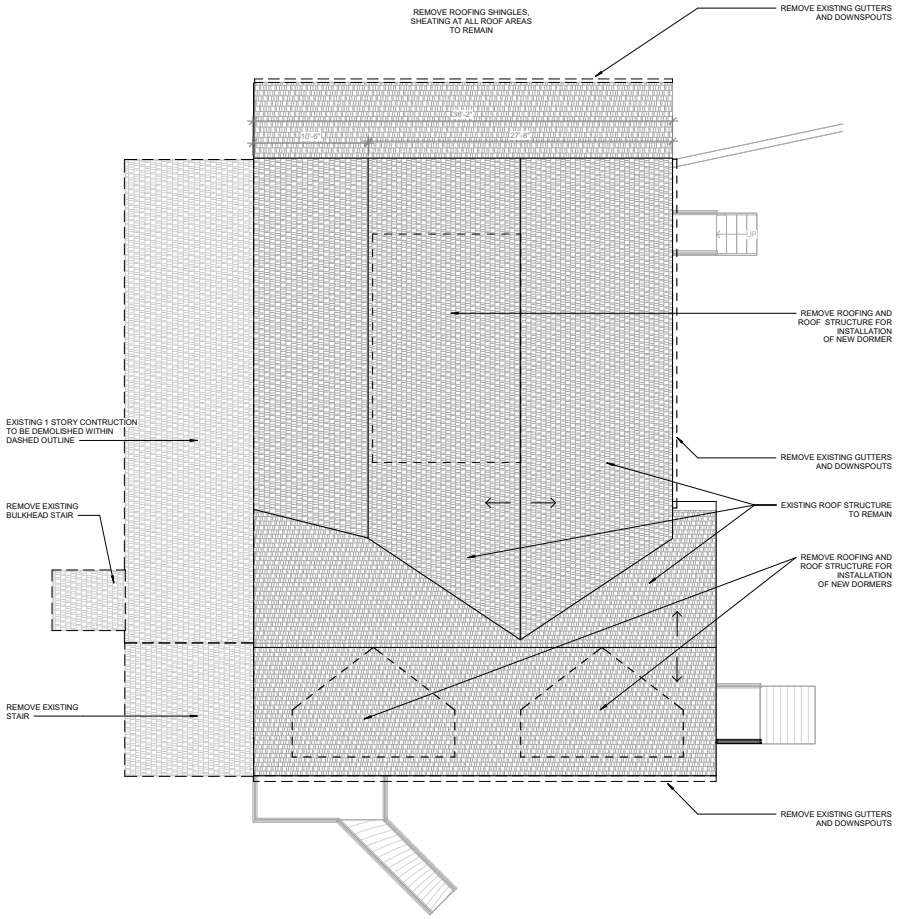

1 DEMO - ROOF PLAN
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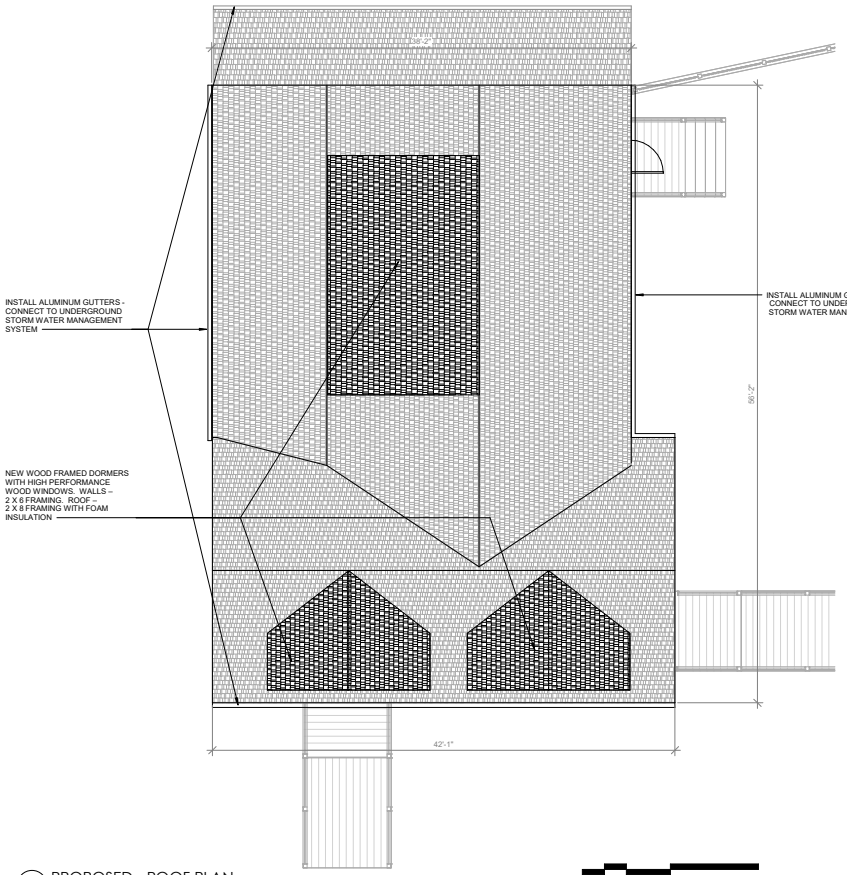

2 PROPOSED - ROOF PLAN
3/16" = 1'-0"

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STATUS: SD

TOWN OF ORLEANS
139 Main Street, Orleans, MA 02653
Orleans Archive Building Renovation Study

DATE: 12/9/2023
SCALE: As indicated

DEMO & PROPOSED ROOF PLAN

A 103

PROPOSED DEMOLITION ELEVATIONS

CONDITIONS LEGEND

- EXISTING TO REMAIN
- TO BE REMOVED
- NEW CONSTRUCTION

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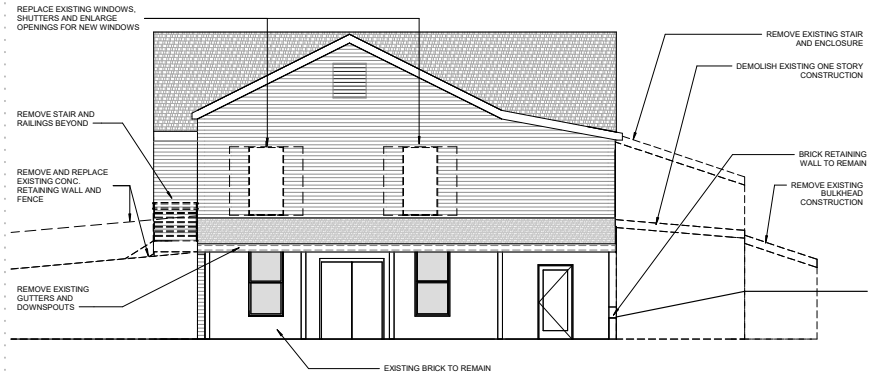
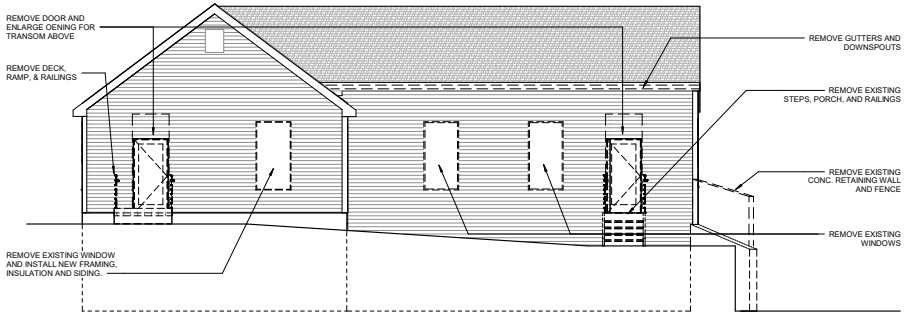
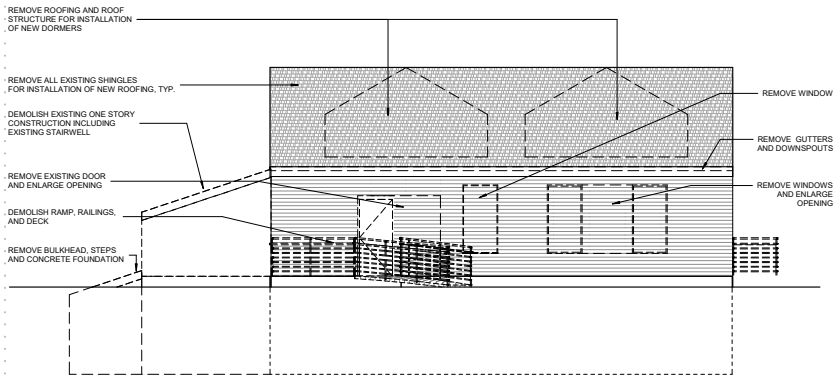


1 SOUTH ELEVATION - DEMO
3/16" = 1'-0"



2 WEST ELEVATION - DEMO
3/16" = 1'-0"



3 NORTH ELEVATION - DEMO
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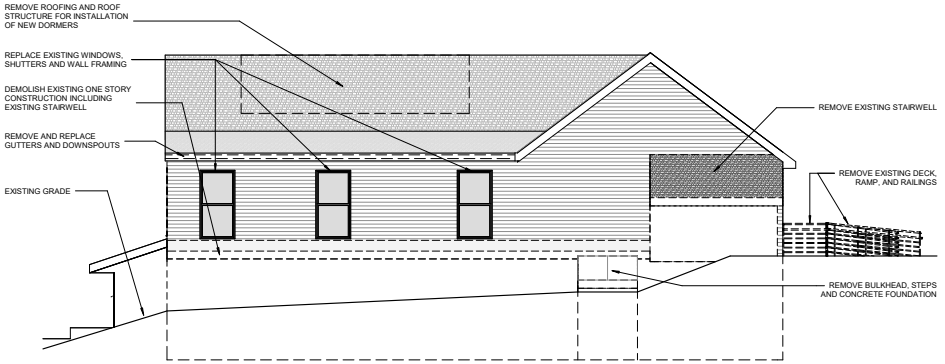

4 EAST ELEVATION - DEMO
3/16" = 1'-0"

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TOWN OF ORLEANS
139 Main Street, Orleans, MA 02653
Orleans Archive Building Renovation Study

DATE: 12/9/2023 SCALE: As indicated

DEMOLITION ELEVATIONS

A 301

PROPOSED RENOVATION ELEVATIONS

CONDITIONS LEGEND

- EXISTING TO REMAIN
- TO BE REMOVED
- NEW CONSTRUCTION

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1 SOUTH ELEVATION - PROPOSED
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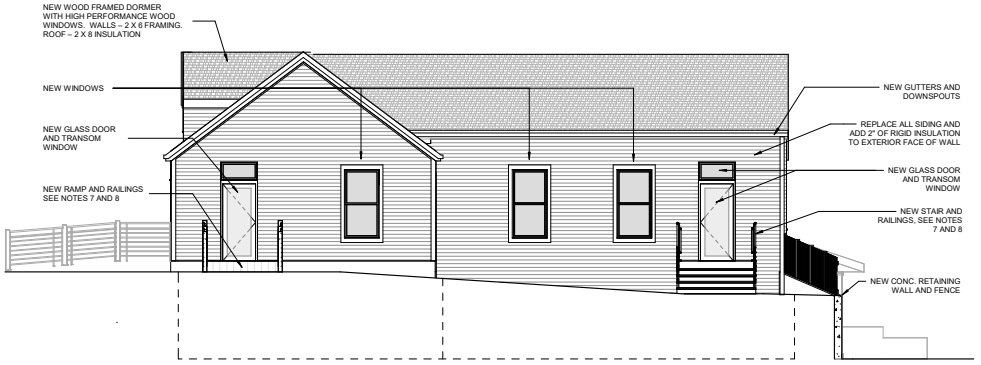
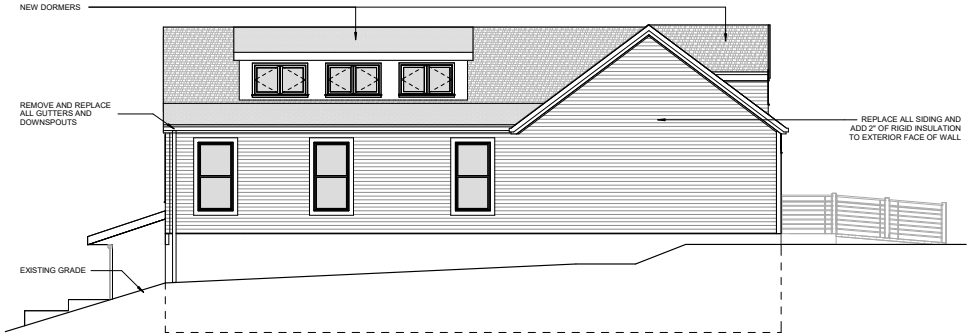


2 WEST ELEVATION - PROPOSED
3/16" = 1'-0"

3 NORTH ELEVATION - PROPOSED
3/16" = 1'-0"



4 EAST ELEVATION - PROPOSED
3/16" = 1'-0"

ABACUS [ARCHITECTS + PLANNERS]
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DRAWN: DK CHECKED: DE

NO. REVISIONS DATE

STATUS: SD

TOWN OF ORLEANS
139 Main Street, Orleans, MA 02653
Orleans Archive Building Renovation Study

DATE: 12/6/2023 SCALE: As indicated

PROPOSED ELEVATIONS

A 302

MEP/FP NARRATIVE

NORIAN / SIANI ENGINEERING, INC.
43 Bradford Street, Concord, MA 01742-2972 • Tel: 781-398-2250

Project: **ORLEANS ARCHIVE BUILDING - RENOVATION**
Date: May 19, 2023

MEP AND FP SCHEMATIC DESIGN

Based on discussions with the architect the following outline specification describes the systems and equipment which are being proposed for the building. This document is intended to allow for preliminary pricing to be performed, which will allow for confirmation that the systems described below are within the project budget.

DIVISON 21: FIRE SUPPRESSION

1. Sprinkler system for all spaces per NFPA-13 and the Massachusetts State Building Code (780 CMR). Coordinate with local authorities having jurisdiction.
2. Tier 2 and Tier 3 shop drawings in accordance with NFPA-13, NFPA-14 and Massachusetts State Building Code (780 CMR). Shop drawings to include, revised plans and hydraulic calculations stamped by the FS contractor's PE and filed with the fire department.
3. Submittals and shop drawings.
4. Coordination with all trades.
5. System testing per NFPA-25 and arrange for test observation by local authorities and the engineer.
6. One-year system warranty.
7. Required spare sprinkler heads, tools, parts, and associated sprinkler head cabinet.
8. Backflow preventer, alarm valves with all accessories located in fire/water room.
9. Fire alarm system flow and tamper switches and connections. Coordinate with electrical contractor.
10. Wet sprinkler coverage for all rooms, hallways, entries, closets, attics, combustible void spaces and other areas.
11. Complete piping system with hangers, test stations, drains, vents and accessories.
12. Concealed ceiling sprinkler heads at all areas. Exposed sprinkler piping and upright heads with cages in mechanical room and attics.
13. Siemens type fire department connection at building exterior. Mount adjacent to main entry door.
14. Electric bell at building exterior above fire department connection.
15. Drain riser and main drain to building exterior located adjacent to mechanical room door.
16. Dry sidewall sprinkler heads to protect overhangs at front and rear of building.
17. Fire and smoke and water proofing for penetrations made by GC.
18. Size and supply access panels for required access to the fire protection system components. Installation by GC.

220000 – PLUMBING
Note: All plumbing installations, fixtures and fittings shall be water saver type to meet Water Sense requirements.

1. Plumbing systems as specified per Massachusetts Plumbing Code (CMR 248), conform to all applicable NFPA requirements, and the Massachusetts State Building Code (780 CMR). Coordinate with local authorities having jurisdiction.
2. Submittals and shop drawings.
3. Coordination with all trades.
4. One-year system warranty.

5. System testing per code and arrange for test observation by local authorities and the engineer.
6. Coordinate with the local water department supplying the service and meter concerning installation requirements; pay all related fees.
7. Buried potable water service and meter provided by local water department, isolation and remote read; coordinate with civil engineer and utility.
8. Water meter fit for (1) building water meter and (1) abatement type irrigation meter. All associated valving and piping.
9. RPZ and water connection to GC provided irrigation system.
10. All new waste, vent & potable water plumbing systems.
    a. All waste and vent piping to be cast iron waste.
    b. Potable water shall be type-L copper above grade and type K copper below grade.
    c. Pipe insulation for cold and hot water piping systems using continuous fiberglass with continuous vapor barrier outer including valves and fittings. Insulation to run continuously through hangers.
11. Plumbing fixtures, hangers, fittings, isolation stops, escutcheons and connections. See architectural plans for fixture quantities. All applicable fixtures shall be water sense labeled. See specific area descriptions for details on plumbing fixtures.
12. Single occupancy Restrooms/Comp Toilet
    a. Plumbing fixtures, hangers, fittings, isolation stops, escutcheons and connections. See architectural plans for fixture quantities. All applicable fixtures shall be water sense labeled.
    b. Lavatories to be wall mounted, ADA compliant with floor mounted recessed arm carriers. Faucet to be hardwired touchless type. Each lavatory to have ½" point-of-use tempering valve and ADA impact protection.
    c. Toilets to be wall mounted with heavy duty wall carrier. Flush valve to be hardwired touchless type.
13. Janitors Closet
    a. Janitors Mop Sink with facet.
14. Mechanical Room
    a. DHW System
        i. 50-gallon glass lined storage tank {AO Smith HPTU-50N}
        ii. 10-gal potable water expansion tank
        iii. Stainless Steel DHW recirculation pump {Grundfos Alpha2 15-55F}
        iv. 3/4" DHW tempering valve. {Caleffi Mixcal}
        v. Associated piping and valving.
    b. Hose bibb (Qty-1)
    c. Floor drain with trap primer (Qty-1)
15. Water fountain with bottle filler
16. Freeze proof hose bibs at building sidewall. (Qty-4)
17. Indirect waste connections with trap primer for condensate drainage from all air conditioning units. (Qty-3)
18. Fire and smoke and water proofing for penetrations made by GC.
19. Size and supply access panels for installation by GC and as required for access to the plumbing system components.
20. Test and balance all systems.
21. Record drawings in CAD.

MEP/FP NARRATIVE

230000 - HEATING, VENTILATING AND AIR CONDITIONING

1. Mechanical heating ventilating and air conditioning (HVAC) system to serve all areas of the work per The International Mechanical Code (IMC 2015), International Energy Conservation Code (IECC 2018), National Electric Code (NFPA-70), all applicable NFPA requirements, and the Massachusetts State Building Code (780 CMR). Coordinate with local authorities having jurisdiction.
2. New, complete mechanical systems to serve all areas.
3. One-year system warranty.
4. System testing per code and arrange for test observation by local authorities and the engineer.
5. Coordinate with Commissioning Agent. Onsite technical time as required to facilitate commissioning.
6. Coordination with all trades.
7. Submittals and shop drawings.
8. Heating and Air Conditioning System
    a. Provide heat pump system for each meeting hall (Qty-2) consisting of the following:
        i. (1) Outdoor 5-ton HP unit [Mitsubishi MXZ-SM60NAM] with 24" Bigfoot support frame. Unit will include snow/hail guards, snow hoods and base pan heaters located adjacent to the building.
        ii. (2) 2.5-ton ceiling cassette style fan coils. {Mitsubishi PLA-A30EA7R1.TH}
        iii. Individual wall hung controller with occupancy sensor. {Mitsubishi PAR-40MAAU}
        iv. Insulated refrigerant suction and liquid piping from condensing unit to each fan coil unit.
        v. Disconnect and power connection.
        vi. Provide 1-1/4” insulated condensate drains from each fan coil to floor drain at janitors closet or mechanical room.
    b. Provide heat pump system for the office area, hallways, etc (Qty-1) consisting of the following:
        i. (1) Outdoor 5-ton HP unit [Mitsubishi MXZ-SM60NAM] with 24" Bigfoot support frame. Unit will include snow/hail guards, snow hoods and base pan heaters located adjacent to the building.
        ii. (3) 1 ton ceiling cassette style fan coils. {Mitsubishi PLFY-P12}
        iii. (2) 1/2-ton ceiling cassette style fan coils. {Mitsubishi PLFY-P05}
        iv. (1) branch box controller. {Mitsubishi PAC-MKA52BC}
        v. Central controller {Mitsubishi AE-200} and individual wall hung controller to control each fan coil. {Mitsubishi PAR-40MAAU}
        vi. (1) refrigerant distribution branch box with (1) sub-branch box controller and associated electrical connection.
        vii. Insulated refrigerant suction and liquid piping from condensing unit to each fan coil unit.
        viii. Disconnect and power connection.
        ix. Provide 1-1/4” insulated condensate drains from each fan coil to floor drain at janitors closet or mechanical room.
    c. Provide heat pump system for archives room (Qty-1) consisting of the following:
        i. (1) Outdoor 2-ton HP unit [Mitsubishi PUZ-HA24NHA1] with 24" Bigfoot support frame. Unit will include snow/hail guards, snow hoods and base pan heaters located adjacent to the building.

        iii. Individual wall hung controller. {Mitsubishi PAR-40MAAU}
        iv. Insulated refrigerant suction and liquid piping from condensing unit to fan coil unit.
        v. Disconnect and power connection.
        vi. 1-1/4” insulated condensate drains from each fan coil to floor drain at janitors closet or mechanical room.
    d. Bathrooms, Mechanical Room, Janitor Closet, Vestibule and Stairs: 3 KW electric unit heater. (Qty-9) {Qmark MUH0381}
9. Ventilation Systems
    a. Offices, hallways and bathrooms
        i. 300 CFM ERV System with timeclock control. {Lossnay LGH-F470RVX2-E}
        ii. Disconnect and power connection.
        iii. Associated distribution ductwork and diffusers and grilles. One exhaust grille shall be located in each bathroom, and janitor’s closet. One diffuser located in the municipal office and each hallway.
    b. Meeting Halls (Qty-2 Systems)
        i. 300 CFM ERV System with occupancy sensor and CO2 control. {Lossnay LGH-F470RVX2-E}
        ii. 2 KW electric reheat coil with ERV supply ductwork.
        iii. Disconnect and power connection.
        iv. Associated distribution ductwork and diffusers and grilles. One exhaust grille in the meeting room. One diffuser located at the opposite side of the meeting room.
10. Archives Dehumidification System
    a. (1) Ceiling mounted dehumidifier {Sante Fe Compact70}
    b. 1” condensate drain to janitors’ closet
    c. Disconnect and power connection.
11. Fire stopping for penetrations made by GC.
12. Size and provide access panels for required access to the mechanical system components.
13. Test and balance all systems.
14. Record drawings in CAD.

DIVISION 26: ELECTRICAL
260000 – Electrical

1. Electrical systems to serve all areas of the work per The National Electric Code (NFPA-70), NFPA-72 all other applicable NFPA requirements, and the Massachusetts State Building Code (780 CMR). Coordinate with local authorities having jurisdiction.
2. New, complete electrical systems to serve all areas.
3. One-year system warranty.
4. System testing per code and arrange for test observation by local authorities and the engineer.
5. Coordination with all trades.
6. Submittals and shop drawings.
7. All wiring to be RoHS compliant where possible.
8. Pad mounted transformer on site. Contractor to provide pad and conduits. Coordinate location with utility.
9. Secondary underground duct banks from new primary power sources (transformers provided by electric utility company).
10. Telephone and cable television services from City Street in underground duct banks from

MEP/FP NARRATIVE

11. Interior secondary distribution systems, including all branch circuit wiring, switching devices, cables, wiring, junction and pull boxes, wire ways and all other components required for complete and operational system.
12. 600-amp, 230/115 V, 1 ph service and associated switch gear within the building electric room. Electric service shall be encased in concrete from where it enters the building to the electrical main switch gear.
13. Panel boards and power wiring circuits to serve all areas.
14. Wiring devices (Decora switching and receptacles)
15. Wiring and devices to all areas.
16. Power for HVAC, plumbing and fire protection equipment.
17. PV Solar Ready: EC to provide 4" conduit from the roof to the main electric room and breaker space at the MDP for PV breaker.
18. Future Car Charging: EC to provide (2) 40-amp 2 pole breakers for future car charging. (2) 1" conduits from the parking lot to main electric room MDP.
19. All lighting systems (indoor and outdoor, normal, emergency) including all fixtures, lamps, etc. All lighting shall meet Energy Star requirements with either hardwired or screw-in LED or compact fluorescent bulbs.
20. Exit signs and egress lighting shall include emergency power batteries and shall use LED's.
21. LED building mounted exterior lighting. (All fixtures to be dark-sky compliant.)
22. Plywood back boards and with duplex receptacle for Cable TV and Telephone at main electrical room. (Typ-2)
23. Data and TV wiring
    a. Network installed for telephone use with CAT6 or better wiring. Wire from outlet to punch down block at main electric room. (8 locations)
    b. Network installed for data at office areas use with CAT6 or better wiring. (8 locations)
    c. Network for TV services using COAX cable. (3 locations)
    d. Coordinate with all providers involved.
24. Power to electrified door hardware. (6 locations)
25. Power to key fob system. (9 locations)
26. Fire Alarm
    a. NFPA-72 compliant addressable fire alarm systems coordinated with code and the Fire Department.
    b. Two telephone lines per monitored fire alarm system.
    c. Conduits for future installation of bi-directional amplifier.
    d. Smoke and carbon dioxide protection per code.
    e. Notification devices in all areas.
    f. Monitoring of fire sprinkler system flow, pressure and tamper switches.
    g. Remote annunciator at entry vestibule.
    h. Main panel and battery system in electrical room.
27. Exterior outlets at building sidewall. (Qty-4)
28. Alternate E-1: Bi-directional amplifier system including antennas, power supply, etc. If required GC to provided dedicated 2hr rated room for equipment.

END OF OUTLINE SPECIFICATIONS

COST ESTIMATE

04

The architectural plans and building system narratives shown on the previous pages were developed with sufficient information for conceptual design cost estimating. PM & C – an experienced cost estimating firm – utilized this information to prepare what we consider an all inclusive estimate of what renovation would cost.

The architectural scope of work and associated costs itemized allocate funding for what is known, and for the kind of work that may not be known but is likely to emerge with more detailed investigations, design, engineering and construction.

Note that minimal site work is included in the scope and any significant renovation would likely required additional work to the paved and unpaved areas along with site lighting and landscaping.

To supplement the scope of architectural work shown the Consultant had Mechanical, Electrical, Plumbing, Fire Protection engineers Norian/Siani Engineering prepare MEP/FP narratives for the cost estimator and the Town's use for future planning.

The estimate suggests renovation costs approaching those for new construction. The condition of the building is poor, and the value of the foundations and framing that will remain may be less than the cost of demolition and working around the existing construction that is to remain as new work is constructed to meet current and anticipated needs.

Although the proposed work remedies many of the problems with the building there are issues that have not and cannot be addressed through renovation. The most critical of these are:

- The low ceilings will continue to detract from the character of the public spaces on the upper level, and will make the installation of storage systems difficult at the lower level.
- The building continues to sit awkwardly on the sloping site, addressing neither Town Hall nor the adjacent Historical Society buildings in a way the fulfills the promise of a civic campus composed of public buildings.
- The Town of Orleans has many municipal needs that are not being met due to the lack of available land. Affordable housing is in short supply. A 2022 Community Center Feasibility Study identified the need for community meeting and recreation space and suggested 139 Main Street as a possible site. The adjacency of Town Hall and the Historic Society buildings suggest that this site could play a more pivotal role in the civic life of the Town. The location and configuration of the current building make this potential difficult or impossible to realize.

The cost estimate suggests that the renovation of the current building, along with site improvements, will be costly and will be unlikely to provide an adequate return on investment.

In addition, there is the opportunity cost of a prominent piece of Town owned property being underutilized. This should be taken into account when planning for the future of 139 Main Street and considering the expenditure of significant amounts of money for renovation.

COST ESTIMATE SUMMARY

RENOVATION OF ADMINISTRATION BUILDING

	May-24	SF	Cost per SF	
RENOVATION SUBTOTAL		3,492	$480.94	$1,679,438
HAZMAT ALLOWANCE				$10,000
SUB-TOTAL		3,492	$483.80	$1,689,438
ESCALATION	7.0%			$118,261
DESIGN AND PRICING CONTINGENCY	10.0%			$180,770
SUB-TOTAL		3,492	$569.44	$1,988,469
GENERAL CONDITIONS	8.0%			$159,078
GENERAL REQUIREMENTS	2.0%			$39,769
PHASING PREMIUM				
BONDS	1.00%			$19,885
INSURANCE	1.80%			$39,730
PERMIT				Waived
OVERHEAD + PROFIT	6.0%			$134,816
TOTAL OF ALL CONSTRUCTION		3,492	$682.06	**$2,381,747**

ALTERNATES: Costs below include all markups

High Density Storage ILO of fixed shelving	ADD	**$122,529**

RECOMMENDATIONS AND NEXT STEPS

05

As the building survey, conceptual building plans and cost estimate suggest, the Town may determine that the renovation of the Town Hall Annex is not a cost effective endeavor. The Consultant supports that conclusion.

Recent experience in municipalities throughout the region indicate that older buildings, including many schools of this vintage, cannot be cost effectively renovated to meet changed functional requirements and demanding building code and energy code changes.

There is also an emerging understanding that there is limited municipally owned land and/or privately owned land available to municipalities to meet a broad range of needs. Orleans' difficulties finding appropriate land for a public safety building are a case in point. This suggests that the highest and best use of every property be considered.

The Consultant's contract has been structured to follow up on these kinds of determination based on initial discussions with the Town about potentially high renovation costs. The Consultant has expended significantly less on this study to date than the Town has allocated, and we propose that Abacus continue their work exploring how to optimize the use of this property. Some possible areas for exploration include:

- In 2022 the Consultant prepared a study for a Community Center. Given the slope of the land a lower level at School Road elevation could accommodate storage and other non-public functions under the community center, and multi-purpose rooms above could be used for the meetings anticipated for the Town Hall Annex and Community Center uses.
- The connection between Town Hall and the Annex could be designed to create a strong physical and experiential connection between the two - typical of multi-building town centers.
- Affordable housing continues to be needed in Orleans. The site could accommodate a significant development at the site's upper level, while a lower level, similar to above, could meet the needs of Town Hall Annex uses. Meeting rooms could be at the upper or lower levels.
- A Lifeboat House has been proposed for the site. With appropriate planning that need could be addressed while allowing the remainder of the site to serve other functions. This would require careful coordination and planning.
- There may be other Town property needs that need to be accommodated. The Consultant could survey Town personnel and develop a comprehensive list, and then explore the appropriateness of 139 Main Street to address them.

The Consultant recommends that the Town continue this investigation using the allocated funding to find the best alternatives for providing Town Hall Annex space - while using the 139 Main Street property to provide the maximum benefits to Orleans.

APPENDIX 06

1. Full Cost Estimate
2. Hazardous Materials Report
3. Assessor Field Card

Schematic Design Estimate

Administration Building Renovation

139 Main Street

Town of Orleans, MA

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

Prepared for:

Abacus [Architects + Planners]

June 1, 2023

PM&C

Administration Building Renovation
139 Main Street
Town of Orleans, MA

1-Jun-23

Schematic Design Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
RENOVATION OF ADMINISTRATION BUILDING				
	May-24			
RENOVATION SUBTOTAL		3,492	$480.94	$1,679,438
HAZMAT ALLOWANCE				$10,000
SUB-TOTAL		3,492	$483.80	$1,689,438
ESCALATION	7.0%			$118,261
DESIGN AND PRICING CONTINGENCY	10.0%			$180,770
SUB-TOTAL		3,492	$569.44	$1,988,469
GENERAL CONDITIONS	8.0%			$159,078
GENERAL REQUIREMENTS	2.0%			$39,769
PHASING PREMIUM				
BONDS	1.00%			$19,885
INSURANCE	1.80%			$39,730
PERMIT				Waived
OVERHEAD + PROFIT	6.0%			$134,816
TOTAL OF ALL CONSTRUCTION		3,492	$682.06	**$2,381,747**

ALTERNATES: Costs below include all markups

High Density Storage ILO of fixed shelving		ADD	**$122,529**

PM&C

Administration Building Renovation
139 Main Street
Town of Orleans, MA

1-Jun-23

Schematic Design Estimate

This Schematic Design cost estimate was produced from drawings, narratives and other documentation prepared by Abacus and their design team dated May 12, 2023. Design and engineering changes occurring subsequent to the issue of these documents 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 under C.149 to DCAMM certified general contractors, and DCAMM certified 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
- Contaminated soils removal

PM&C

Administration Building Renovation 1-Jun-23
139 Main Street
Town of Orleans, MA

Schematic Design Estimate GFA 3,492

CONSTRUCTION COST SUMMARY IN CSI FORMAT

	RENOVATION Subtotal	*Total*
RENOVATION		
DIV. 2 EXISTING CONDITIONS		**$84,037**
024100 Demolition	$84,037	
DIV. 3 CONCRETE		**$25,239**
033000 Cast In Place Concrete	$25,239	
DIV. 4 MASONRY		**$0**
040001 Masonry - FSB	$0	
DIV. 5 METALS		**$57,858**
050001 Metal Fabrications - FSB	$57,858	
051200 Structural Steel Framing	$0	
DIV. 6 WOODS, PLASTICS & COMPOSITES		**$90,363**
061000 Rough Carpentry	$44,003	
064000 Architectural Woodwork	$46,360	
DIV. 7 THERMAL & MOISTURE PROTECTION		**$226,147**
070001 Waterproofing, Dampproofing & Caulking - FSB	$36,923	
070002 Roofing & Flashing - FSB	$78,447	
072100 Thermal Insulation	$18,877	
074690 Siding	$91,900	
078400 Firestopping	$0	
DIV. 8 DOORS & WINDOWS		**$146,340**
080002 Glass & Glazing - FSB	$78,640	
081113 Hollow Metal Doors and Frames	$9,000	
081400 Wood Doors and Frames	$30,000	
083100 Access Doors and Panels	$500	
087100 Door Hardware	$28,200	
089000 Louvers and Vents	$0	
DIV. 9 FINISHES		**$196,904**
090002 Tile - FSB	$26,072	
090003 Acoustical Ceilings - FSB	$23,560	
090005 Resilient Flooring - FSB	$35,057	
090009 Painting - FSB	$16,394	
092900 GWB, Lath and Plastering	$82,321	
096800 Carpet	$0	

PM&C

Administration Building Renovation 1-Jun-23
139 Main Street
Town of Orleans, MA

Schematic Design Estimate GFA 3,492

CONSTRUCTION COST SUMMARY IN CSI FORMAT

		RENOVATION Subtotal	*Total*
RENOVATION			
097700	FRP and Wall Protection	$0	
098414	Acoustic Panels	$13,500	
DIV 10	**SPECIALTIES**		**$36,640**
101100	Markerboards	w/ FFE	
101200	Display Cases	w/ FFE	
101400	Signage	$8,840	
102113	Toilet Compartments	$0	
102228	Operable Partition	$0	
102813	Toilet Accessories	$7,400	
104400	Safety Specialties	$1,500	
105113	Metal Lockers	$0	
105600	Shelving	$18,900	
DIV. 11	**EQUIPMENT**		**$0**
113100	Appliances	$0	
115213	Projection Screens	w/ AV	
DIV. 12	**FURNISHINGS**		**$4,087**
122400	Window Shades	$2,087	
123000	Casework	$0	
124813	Entrance Floor Mats and Frames	$2,000	
DIV. 13	**SPECIAL CONSTRUCTION**		**$0**
DIV. 14	**CONVEYING SYSTEMS**		**$0**
140001	**Elevators - FSB**	$0	
DIV. 21	**FIRE SUPPRESSION**		**$34,920**
210000	**Fire Suppression - FSB**	$34,920	
DIV.22	**PLUMBING**		**$103,870**
220000	**Plumbing - FSB**	$103,870	
DIV. 23	**HVAC**		**$305,089**
230000	**HVAC - FSB**	$305,089	
DIV.26	**ELECTRICAL**		**$367,944**
260000	**Electrical - FSB**	$367,944	
DIV. 31	**EARTHWORK**		**$0**

Administration Building Renovation 1-Jun-23
139 Main Street
Town of Orleans, MA

Schematic Design Estimate GFA 3,492

CONSTRUCTION COST SUMMARY IN CSI FORMAT

		RENOVATION Subtotal	*Total*
RENOVATION			
310000	Earthwork	$0	
SUBTOTAL DIRECT (TRADE) COST			**$1,679,438**

PM&C

Administration Building Renovation
139 Main Street
Town of Orleans, MA

1-Jun-23

Schematic Design Estimate

GFA 3,492

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RENOVATION						
	Basement			1,743			
	L1			1,749			
	TOTAL GROSS FLOOR AREA (GFA)				**3,492**	***sf***	
	02 - Existing Conditions						
024100	**DEMOLITION**						
033000	Resurface existing parking lot for MAAB	**250**	sf	10.00	2,500		
033000	R+D retaining wall and fence	**14**	lf	140.00	1,960		
033000	R+D wood enclosure	**49**	lf	25.00	1,225		
033000	R+D interior partitions	**324**	lf	30.00	9,720		
033000	R+D interior doors	**17**	loc	200.00	3,400		
033000	R+D exterior doors	**3**	loc	250.00	750		
033000	R+D foundations and foundation wall	**70**	lf	80.00	5,600		
033000	Backfill after removal foundations	**52**	cy	60.00	3,120		
033000	R+D single story building	**543**	sf	10.00	5,430		
033000	Loam and seed	**543**	sf	3.00	1,629		
033000	R+D bulkhead stair	**1**	loc	750.00	750		
033000	R+D steel stair	**1**	flt	2,000.00	2,000		
033000	R+D plumbing fixtures; cut + cap	**8**	fxt	300.00	2,400		
033000	R+D gas fired boiler	**1**	ea	1,200.00	1,200		
033000	R+D decks + ramp	**110**	sf	15.00	1,650		
033000	R+D steps	**1**	loc	500.00	500		
033000	R+D railings	**53**	lf	20.00	1,060		
033000	R+D ceilings for new dormer	**810**	sf	2.00	1,620		
033000	R+D structure for dormers	**421**	sf	10.00	4,210		
033000	R+D exterior walls for new openings	**105**	sf	15.00	1,575		
033000	R+D exterior siding and trim	**1,500**	sf	8.00	12,000		
033000	R+D Windows including protection	**200**	sf	10.00	2,000		
033000	R+D gutters	**102**	lf	12.00	1,224		
033000	R+D downspout	**4**	loc	200.00	800		
033000	R+D roof shingles - with roofing						
033000	R+D interior finishes	**3,492**	sf	2.50	8,730		
033000	MEP demolition; cut + cap	**3,492**	sf	2.00	6,984		
	SUBTOTAL					84,037	
	TOTAL - EXISTING CONDITIONS						**$84,037**
	03 - CONCRETE						
033000	**CONCRETE**						
	Strip footings; 36" x 1'-0" - Exterior Retaining wall						
033000	Formwork	**30**	sf	18.00	540		
033000	Re-bar	**86**	lbs	2.00	172		
033000	Concrete material; 3,000 psi	**2**	cy	145.00	290		
033000	Placing concrete	**2**	cy	95.00	190		
033000	Retaining wall; 12" thick						
033000	Formwork	**240**	sf	22.00	5,280		
033000	Re-bar	**386**	lbs	2.00	772		
033000	Concrete material; 3,000 psi	**5**	cy	145.00	725		
033000	Placing concrete	**5**	cy	125.00	625		

	CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
		RENOVATION						
57	033000	E+B	**28**	cy	60.00	1,680		
58	033000	Fence	**15**	lf	150.00	2,250		
59								
60	033000	Concrete to metal pan stair	**1**	flt	4,000.00	4,000		
61	033000							
62		***Lowest Floor Construction***						
63	033000	Patch concrete for new UG piping	**1,743**	sf	5.00	8,715		
64		SUBTOTAL					25,239	
65								
66		***TOTAL - CONCRETE***						**$25,239**
67								
68								
69		**04 - MASONRY**						
70								
71		**040000 MASONRY**						
72		***Exterior Walls***						
73	040001	Existing brick walls				No work assumed		
74		SUBTOTAL					-	
75								
76		***TOTAL - MASONRY***						
77								
78								
79		**05 - METALS**						
80								
81		**050001 METAL FABRICATIONS**						
82	050001	Ramp/steps guardrails	**77**	lf	40.00	3,080		
83	050001	Miscellaneous metals throughout building	**3,492**	gsf	2.80	9,778		
84		***Staircases***						
85	061000	New metal pan stair + railings	**1**	flts	45,000.00	45,000		
86		SUBTOTAL					57,858	
87								
88		**051200 STRUCTURAL STEEL FRAMING**						
89		SUBTOTAL					-	
90								
91		***TOTAL - METALS***						**$57,858**
92								
93								
94		**06 - WOOD, PLASTICS AND COMPOSITES**						
95								
96		**061000 ROUGH CARPENTRY**						
97	061000	New wood framed exterior ramp with composite decking	**211**	sf	50.00	10,550		
98	061000	New wood framed exterior steps with composite decking treads	**25**	lfr	150.00	3,750		
99	061000	New wood framed exterior landing to steps with composite decking	**31**	sf	45.00	1,395		
100		***Floor/Roof Construction***						
101	061000	Framing - materials						
102	061000	New 2 x 6 framing at dormer roof	**450**	sf	18.00	8,100		
103	061000	New 2 x 6 framing at dormer sidewalls	**320**	sf	16.00	5,120		
104	061000	Infill openings at exterior closure	**50**	sf	15.00	750		
105		***Windows/Storefront***						
106	061000	Wood blocking at openings - exterior	**370**	lf	8.00	2,960		
107		***Roof Coverings***						
108	061000	Rough blocking at roofing	**2,383**	sf	2.00	4,766		
109		***Partitions***						
110	061000	Wood blocking at interiors	**3,492**	gsf	1.00	3,492		
111		***Interior Doors/Glazing***						
112	061000	Wood blocking at openings - doors	**360**	lf	4.50	1,620		
113		***Specialties / Millwork***						
114	061000	Backer panels in electrical closets	**1**	ls	1,500.00	1,500		

	CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
		RENOVATION						
115		SUBTOTAL					44,003	
116								
117		**064100 ARCHITECTURAL WOODWORK**						
118		***Specialties / Millwork***						
119	064000	Wood trim to exterior columns	**4**	loc	400.00	1,600		
120	064000	Beadboard wainscot + chair rail at meeting rooms + entrance hall	**224**	lf	165.00	36,960		
121	064000	Window sills/stools - solid surface	**75**	lf	45.00	3,375		
122	064000	Extension jamb at window surround	**295**	lf	15.00	4,425		
123	064000	Window casings	**295**	lf	20.00	w/ drywall		
124	064100	SUBTOTAL					46,360	
125								
126		***TOTAL - WOOD, PLASTICS AND COMPOSITES***						**$90,363**
127								
128								
129		**07 - THERMAL AND MOISTURE PROTECTION**						
130								
131		**070002 WATERPROOFING / DAMPPROOFING**						
132		***Exterior Walls***						
133	070001	Air vapor barrier	**1,838**	sf	8.80	16,174		
134	070001	Miscellaneous sealants to closure	**1,838**	sf	1.00	1,838		
135		***Windows***						
136	070001	Air barrier/flashing at storefront & windows	**370**	lf	4.75	1,758		
137	070001	Backer rod & double sealant	**370**	lf	10.50	3,885		
138		***Partitions***						
139	070001	Miscellaneous sealants at partitions	**3,492**	sf	1.50	5,238		
140		***Doors/Glazing***						
141	070001	Backer rod & double sealant - doors	**360**	lf	11.00	3,960		
142	070001	Backer rod & double sealant - glazing	**370**	lf	11.00	4,070		
143		***Specialties / Millwork***						
144	070001	Miscellaneous sealants throughout building				w/ partitions		
145		SUBTOTAL					36,923	
146								
147		**070002 ROOFING AND FLASHING**						
148		***Roof Coverings***						
149		Asphalt Roof						
150	070002	Remove existing roofing + sheathing	**2,383**	sf	6.00	14,298		
151	070002	Roofing at pitched roof - AVB, 2-1/2" rigid insulation, vented nailbase insulation panel, membrane, asphalt shingles	**2,383**	sf	24.00	57,192		
152	070002	Miscellaneous						
153	070002	Miscellaneous sealants & flashings	**2,383**	sf	0.50	1,192		
154	070002	Snow guards				Included		
155	070002	Gutters	**134**	lf	35.00	4,690		
156	070002	Downspouts - full height	**43**	lf	25.00	1,075		
157		SUBTOTAL					78,447	
158								
159		**072100 THERMAL INSULATION**						
160		***Exterior Walls + roof***						
161	072100	Spray insulation to dormer roof + sidewalls	**770**	sf	6.00	4,620		
162	072100	Cellulose insulation; 2.5" thick	**1,838**	sf	3.00	5,514		
163	072100	Rigid insulation to exterior siding; 2"	**1,838**	sf	3.75	6,893		
164		***Windows***						
165	072100	Foam insulation at window framing cavities	**370**	lf	5.00	1,850		
166		SUBTOTAL					18,877	
167								
168		**074690 SIDING**						
169		***Exterior Walls***						
170	074690	Fiber cement clapboard siding	**1,838**	sf	50.00	91,900		

	CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
		RENOVATION						
171		SUBTOTAL					91,900	
172								
173	**078400**	**FIRESTOPPING**						
174		SUBTOTAL					-	
175								
176		***TOTAL - THERMAL AND MOISTURE PROTECTION***						**$226,147**
177								
178								
179		**08 - OPENINGS**						
180								
181	**084002**	**GLASS & GLAZING**						
182		***Windows; wood aluminum clad***						
183	080002	New windows - double hung	**233**	sf	135.00	31,455		
184	080002	New windows - casement	**71**	sf	135.00	9,585		
185	080002	New transom	**20**	sf	130.00	2,600		
186		***Exterior Doors***						
187	080002	Glazed aluminum entrance doors including frame and hardware; double	**2**	pr	10,000.00	20,000		
188	080002	Glazed aluminum entrance doors including frame and hardware; single	**3**	pr	5,000.00	15,000		
189		SUBTOTAL					78,640	
190								
191	**081113**	**HOLLOW METAL DOORS AND FRAMES**						
192		***Interior***						
193		*Frames*						
194	081113	Frames, single - HM	**12**	ea	450.00	5,400		
195	081113	Frames, double - HM	**6**	ea	600.00	3,600		
196		SUBTOTAL					9,000	
197								
198	**081400**	**WOOD DOORS**						
199		***Interior***						
200	081400	Wood door leaves	**24**	ea	500.00	12,000		
201	081400	Premium for glazed doors	**10**	ea	1,800.00	18,000		
202		SUBTOTAL					30,000	
203								
204	**083100**	**ACCESS DOORS AND FRAMES**						
205		***Interior Doors***						
206	083100	Access doors	**1**	levels	500.00	500		
207		SUBTOTAL					500	
208								
209	**087100**	**DOOR HARDWARE**						
210		***Exterior Doors***						
211	087100	Hardware to exterior doors				In Pricing Above		
212		***Interior Doors***						
213	087100	Hardware to interior doors	**24**	set	925.00	22,200		
214	087100	Premium for door operators	**1**	ea	6,000.00	6,000		
215		SUBTOTAL					28,200	
216								
217	**089000**	**FIXED LOUVERS**						
218		SUBTOTAL					-	
219								
220		***TOTAL - OPENINGS***						**$146,340**
221								
222								
223		***09 - FINISHES***						
224								
225	**090002**	**TILE**						
226		***Wall Finishes***						
227	090002	Tile walls - Bathrooms - 4' wainscot on all walls	**420**	sf	39.00	16,380		

PM&C

Administration Building Renovation
139 Main Street
Town of Orleans, MA

1-Jun-23

Schematic Design Estimate

GFA 3,492

	CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
		RENOVATION						
228		***Floor Finishes***						
229	090002	Tile floor - Bathrooms	**172**	sf	42.00	7,224		
230	090002	Tile base	**105**	lf	23.50	2,468		
231		SUBTOTAL					26,072	
232								
233	**090003**	**ACT**						
234		***Ceiling Finishes***						
235	090003	ACT-2 - 2x2	**2,889**	sf	7.50	21,668		
236	090003	ACT-3 - 2x2 washable	**172**	sf	11.00	1,892		
237		SUBTOTAL					23,560	
238								
239	**090005**	**RESILIENT FLOORS**						
240		***Staircases***						
241	090005	Egress Stairs: Rubber treads	**24**	lf	36.00	864		
242	090005	Egress Stairs: Rubber to stair landings	**50**	sf	28.00	1,400		
243		***Floor Finishes***						
244	090005	Floor prep/levelling	**2,889**	sf	4.00	11,556		
245	090005	VCT flooring	**2,889**	sf	6.00	17,334		
246	090005	Premium for pre-applied adhesives	**2,889**	sf	0.65	1,878		
247	090005	Resilient base	**623**	lf	3.25	2,025		
248		SUBTOTAL					35,057	
249								
250	**090007**	**PAINTING**						
251		***Exterior Walls***						
252	090009	Paint trim				assumed not required		
253		***Windows/Doors***						
254	090009	Paint windows				assumed not required		
255	090009	Paint to interior trim at window surround	**370**	lf	3.25	1,203		
256	090009	Finish doors and frames	**24**	ea	175.00	4,200		
257		***Staircases***						
258	090009	High performance coating to stairs including all railings etc.	**1**	flt	3,750.00	3,750		
259		***Wall Finishes***						
260	090009	Paint to GWB	**5,928**	sf	1.00	5,928		
261		***Ceiling Finishes***						
262	090009	Paint GWB ceilings/soffits	**875**	sf	1.50	1,313		
263		SUBTOTAL					16,394	
264								
265	**092900**	**GWB**						
266		***Exterior Walls***						
267	092900	Replace GWB to inside face of perimeter walls	**1,838**	sf	5.00	9,190		
268		***Partitions***						
269	092900	Standard Partition: 3-5/8MS w/ 1 layer 5/8" bs + insulation - rate	**2,964**	sf	16.75	49,647		
270	092900	Miscellaneous drywall including reveals, control joints, abuse resistant drywall, box-outs, etc.	**3,492**	gsf	2.00	6,984		
271		***Ceiling Finishes***						
272	092900	GWB ceilings/horizontal soffits	**500**	sf	14.75	7,375		
273	092900	GWB vertical soffits	**250**	lf	36.50	9,125		
274		SUBTOTAL					82,321	
275								
276	**096460**	**WOOD FLOORING**						
277						NR		
278		SUBTOTAL					-	
279								
280	**096800**	**CARPETING**						
281		SUBTOTAL					-	
282								
283	**097700**	**FRP IMPACT PANELS/WALL PROTECTION**						
284		SUBTOTAL					-	

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RENOVATION						
	098413 SOUND ABSORBING PANELS						
	Wall Finishes						
098414	Fabric wrapped panels - Meeting Rooms	**300**	sf	45.00	13,500		
	Ceiling Finishes						
102600	No work in this section						
	SUBTOTAL					13,500	
	TOTAL - FINISHES						**$196,904**
	10 - SPECIALTIES						
	101100 VISUAL DISPLAY SURFACES						
	Interior Construction						
101100	Marker boards/Tackboards				NR		
101100	Custom display case				NR		
	SUBTOTAL					-	
	101400 SIGNAGE						
	Exterior Walls						
101400	Building sign	**1**	ls	5,000.00	5,000		
	Interior Construction						
101400	Room Signs	**18**	loc	130.00	2,340		
101400	Wayfinding	**1**	ls	1,500.00	1,500		
	SUBTOTAL					8,840	
	102110 TOILET COMPARTMENTS						
	SUBTOTAL					-	
	102226 OPERABLE PARTITIONS						
	SUBTOTAL					-	
	102800 TOILET ACCESSORIES						
	Interior Construction						
102813	Single bathroom	**4**	rms	900.00	3,600		
102813	Custodian	**2**	rms	650.00	1,300		
102813	Diaper changing stations	**2**	ea	1,250.00	2,500		
	SUBTOTAL					7,400	
	104400 SAFETY SPECIALTIES						
	Interior Construction						
104400	Fire extinguisher cabinets	**2**	ea	350.00	700		
104400	AED cabinets	**1**	ea	800.00	800		
	SUBTOTAL					1,500	
	105113 LOCKERS						
	SUBTOTAL					-	
	106000 SHELVING						
105113	Fixed metal shelving	**126**	lf	150.00	18,900		
105113	Compact shelving	**529**	sf	200.00	ALT 1		
	SUBTOTAL					18,900	
	TOTAL - SPECIALTIES						**$36,640**
	11 - EQUIPMENT						
	113100 APPLIANCES						

	CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
		RENOVATION						
346	113100	None assumed						
347		SUBTOTAL					-	
348								
349								
350		**115213 PROJECTION SCREENS**						
351		***Equipment***						
352	115213	TV/Monitors				By Owner		
353	115213	Projection screen - Meeting Rooms				By Owner		
354		SUBTOTAL					-	
355								
356		***TOTAL - EQUIPMENT***						
357								
358								
359		**12 - FURNISHINGS**						
360								
361		**123000 CASEWORK**						
362		SUBTOTAL					-	
363								
364		**122100 WINDOW TREATMENT**						
365		***Furnishings***						
366	122400	Window blinds - exterior windows - manual	**253**	sf	8.25	2,087		
367		SUBTOTAL					2,087	
368								
369		**124810 ENTRANCE FLOOR MAT AND FRAMES**						
370		***Furnishings***						
371	124813	Walk off mats - polypropylene fiber w/ rubber backing	**100**	sf	20.00	2,000		
372		SUBTOTAL					2,000	
373								
374		***TOTAL - FURNISHINGS***						**$4,087**
375								
376								
377		**14 - CONVEYING SYSTEMS**						
378								
379		**142200 ELEVATOR**						
380		SUBTOTAL					-	
381								
382		***TOTAL - CONVEYING***						
383								
384								
385		**21 - FIRE SUPPRESSION**						
386								
387		**210000 FIRE PROTECTION**						
388	210000	New fire service - by Orleans Water Department				NIC		
389	210000	Fire Protection System						
390	210000	Sprinkler system	**3,492**	gsf	10.00	34,920		
391		SUBTOTAL					34,920	
392								
393		***TOTAL - FIRE SUPPRESSION***						**$34,920**
394								
395		**22 - PLUMBING**						
396								
397		**220000 PLUMBING**						
398	210000	New domestic water service and meter(s) - by Orleans Water Department				NIC		
399	210000	New sanitary service	**1**	ls	20,000.00	20,000		
400		Equipment						
401	220000	RPZ backflow preventer	**2**	ea	1,500.00	3,000		
402	220000	Electric water heater (AO Smith HPTU-50)	**2**	ea	3,800.00	7,600		
403	220000	Mixing valve	**2**	ea	800.00	1,600		

	CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RENOVATION							
404	220000	Expansion tank	**2**	ea	250.00	500		
405	220000	Misc. plumbing equipment (drains, trap primers, etc.)	**1**	ls	5,000.00	5,000		
406	220000	Plumbing Fixtures & Specialties						
407	220000	Water closet	**4**	ea	2,100.00	8,400		
408	220000	Lavatory	**4**	ea	1,900.00	7,600		
409	220000	Janitors sink	**2**	ea	1,900.00	3,800		
410	220000	Drinking fountain with bottle filler	**2**	ea	4,200.00	8,400		
411	220000	Hose bibb	**1**	ea	450.00	450		
412	220000	Wall hydrant	**4**	ea	650.00	2,600		
413	220000	Domestic Water/Sanitary/Storm Piping/Misc.						
414	220000	Piping/Valves/Fittings/Coordination/BIM/Coring, sleeves, firestc	**3,492**	gsf	10.00	34,920		
415		SUBTOTAL					103,870	
416								
417								
418		***TOTAL - PLUMBING***						**$103,870**
419								
420								
421		**23 - HVAC**						
422								
423	**230000**	**HVAC**						
424		HVAC Equipment						
425	230000	Heat pump condensing units	**12**	tons	2,600.00	31,200		
426	230000	Heat pump indoor air handling unit	**8**	ea	3,000.00	24,000		
427	230000	Branch controller box	**1**	ea	5,000.00	5,000		
428	230000	ERV, 470 CFM	**3**	ea	5,200.00	15,600		
429	230000	Electric unit heater, 3 kw	**9**	ea	1,000.00	9,000		
430	230000	Electric reheat, 2 kw	**2**	ea	900.00	1,800		
431	230000	Dehumidifier (Archives)	**1**	ea	3,000.00	3,000		
432	230000	Sheet metal & Accessories						
433	230000	Galvanized ductwork with fittings & hangers	**2,500**	lbs	20.00	50,000		
434	230000	Duct insulation	**1,500**	sf	5.50	8,250		
435	230000	Registers, grilles & diffusers	**3,492**	sf	1.25	4,365		
436	230000	Sheet metal accessories	**3,492**	sf	0.50	1,746		
437	230000	Refrigerant Piping						
438	230000	ACR copper tubing with fitting and hangers (VRF ACCUs)	**1,200**	lf	48.00	57,600		
439	230000	Condensate Drain Piping						
440	230000	Condensate piping with fittings & hangers	**350**	lf	30.00	10,500		
441	230000	Piping Insulation						
442	230000	Pipe insulation	**1,550**	lf	12.00	18,600		
443	230000	Automatic Temperature Controls						
444	230000	Automatic temperature controls	**3,492**	sf	7.50	26,190		
445	230000	Balancing						
446	230000	System testing & balancing	**3,492**	sf	1.50	5,238		
447	230000	Miscellaneous						
448	230000	Demolition	**1**	ls	5,000.00	5,000		
449	230000	Coordination & Management	**1**	ls	20,000.00	20,000		
450	230000	Coring, sleeves & fire stopping	**1**	ls	3,000.00	3,000		
451	230000	Equipment start-up and inspection	**1**	ls	2,500.00	2,500		
452	230000	Rigging & equipment rental	**1**	ls	2,500.00	2,500		
453		SUBTOTAL					305,089	
454								
455		***TOTAL - HVAC***						**$305,089**
456								
457								
458		**26 - ELECTRICAL**						
459								
460	**260000**	**ELECTRICAL**						
461		**GEAR & DISTRIBUTION**						

PM&C

Administration Building Renovation
139 Main Street
Town of Orleans, MA

1-Jun-23

Schematic Design Estimate

GFA 3,492

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RENOVATION						
	Site Electrical						
230000	Allow for new services, site lighting and EVC	**1**	ls	100,000.00	100,000		
	Normal Power						
230000	600A Gear and distribution	**3,492**	sf	10.00	34,920		
230000	PV infrastructure	**1**	ls	5,000.00	5,000		
	Emergency Power						
230000	Gear and distribution				NIC		
	Equipment Wiring						
230000	Heat pump condensing units	**1**	ls	7,500.00	7,500		
230000	Heat pump indoor air handling unit	**8**	ea	1,500.00	12,000		
230000	Branch controller box	**1**	ea	1,200.00	1,200		
230000	ERV, 470 CFM	**3**	ea	2,500.00	7,500		
230000	Electric unit heater, 3 kw	**9**	ea	1,200.00	10,800		
230000	Electric reheat, 2 kw	**2**	ea	1,200.00	2,400		
230000	Dehumidifier (Archives)	**1**	ea	2,000.00	2,000		
230000	Equipment wiring	**3,492**	sf	2.50	8,730		
230000	SUBTOTAL					192,050	
230000							
230000	**LIGHTING & POWER**						
230000	Lighting	**3,492**	sf	10.00	34,920		
230000	Lighting controls system	**3,492**	sf	2.00	6,984		
230000	**Branch devices**						
230000	Branch device allowance	**3,492**	sf	1.00	3,492		
230000	Lighting and branch circuitry	**3,492**	sf	9.00	31,428		
230000	SUBTOTAL					76,824	
230000							
230000	**COMMUNICATION & SECURITY SYSTEMS**						
230000	Fire alarm system	**3,492**	sf	5.00	17,460		
230000	BDA system				See Alt		
230000	Telcom rough-in and devices & cabling	**3,492**	sf	5.00	17,460		
230000	Audiovisual rough-in	**3,492**	sf	0.50	1,746		
230000	Audiovisual				by Owner		
230000	Security System incl (6) electrified doors, & (9) card reader locations	**3,492**	sf	12.00	41,904		
230000	SUBTOTAL					78,570	
230000							
230000	**OTHER ELECTRICAL SYSTEMS**						
230000	Demolition	**1**	ls	5,000.00	5,000		
230000	Temp power and lighting	**1**	ls	5,000.00	5,000		
230000	Coordination & management	**1**	ls	6,500.00	6,500		
230000	Fees and permits	**1**	ls	4,000.00	4,000		
230000	SUBTOTAL					20,500	
	TOTAL -ELECTRICAL						**$367,944**
	31 **EARTHWORK**						
312000	**EARTH WORK**						
	SUBTOTAL					-	
	TOTAL, DIVISION 31 - EARTHWORK						

PM&C

Administration Building Renovation
139 Main Street
Town of Orleans, MA

1-Jun-23

Schematic Design Estimate

GFA 3,492

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RENOVATION						
1	Basement			1,743			
2	L1			1,749			
3							
4	***TOTAL GROSS FLOOR AREA (GFA)***					**3,492** ***sf***	
5							
6	**26 - ELECTRICAL**						
7							
8	**260000 ELECTRICAL**						
12	BDA system modifications	**3,492**	sf	3.00	10,476		
13	SUBTOTAL					**ADD**	**10,476**
14							

UEC universal environmental consultants

February 10, 2023

Mr. David Eisen
ABACUS Architects + Planners, Inc
119 Braintree Street
Boston, MA 02134

Reference: **Asbestos Investigation and Testing Services**
139 Main Street, Orleans, MA

Dear Mr. Eisen:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

As part of the proposed renovation and demolition project, UEC was contracted to perform investigation and testing for accessible Asbestos Containing Materials (ACM) at 139 Main Street, Orleans, MA. Investigation and testing were performed on Wednesday, February 8, 2023. No destructive or roof testing was performed.

Bulk samples analysis for asbestos were performed using the standard Polarized Light Microscopy (PLM) in accordance with Environmental Protection Agency (EPA) standard. Bulk samples were collected by a Massachusetts licensed asbestos inspector Mr. Leonard J. Busa (AI-001899) and analyzed by a Massachusetts licensed laboratory Asbestos Identification Laboratory, Woburn, MA. Bulk sample is determined to be ACM if the sample was found to contain 1-% or greater asbestos.

Per the Department of Environmental Protection (DEP) any amount of asbestos, would trigger proper disposal compliance.

Samples results are attached.

Fifty six (56) bulk samples were collected and analyzed for asbestos from various materials suspected to contain asbestos.

Samples results indicated that asbestos was found in the following materials:

- Second layer vinyl floor tile under mottled white 12” x 12” vinyl floor tile (Approximately 1,165 SF).
- Exterior basement window glazing caulking at addition (2 Windows).
- Exterior basement plexiglass glazing caulking at original building (3 Windows).

Any demolition activities that might disturb the ACM would have to be removed by a Massachusetts licensed asbestos abatement contractor under the supervision of a Massachusetts licensed asbestos project monitor.

Hidden and unknown ACM might be found during renovation and or demolition. It is recommended that once a scope of work has been determined, destructive testing be performed.

Please do not hesitate to call me at (508) 628-5486 if you have questions about our services.

Very truly yours,

Universal Environmental Consultants

_____

Ammar M. Dieb
President

UEC:\223 045.00\Report.DOC

Enclosure

Asbestos Identification Laboratory.

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com Email: mikemanning@asbestosidentificationlab.com

NVLAP® Testing Lab Code: 200919-0

Batch: 91980

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

139 Main St,
Orleans,
MA

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

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116The 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 Ammar Dieb for your business.

Michael Manning
Owner/Director

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

139 Main St,
Orleans,
MA

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

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 / 1010595	Ceiling Plaster - 1 (CP-1)	Main Floor	gray	Non-Fibrous 100	None Detected
2 / 1010596	CP-1	Main Floor	gray	Non-Fibrous 100	None Detected
3 / 1010597	CP-1	Main Entrance Hall	gray	Non-Fibrous 100	None Detected
4 / 1010598	CP-1	Main Entrance Hall	gray	Non-Fibrous 100	None Detected
5 / 1010599	CP-1	Main Entrance Hall	gray	Non-Fibrous 100	None Detected
6 / 1010600	CP - 2	Men's Rm	gray	Non-Fibrous 100	None Detected
7 / 1010601	CP - 2	Men's Rm	gray	Non-Fibrous 100	None Detected
8 / 1010602	CP - 2	Women's Rm	gray	Non-Fibrous 100	None Detected
9 / 1010603	Joint Compound (JC)	Bsmt Closet (Rm w/ duct)	white	Non-Fibrous 100	None Detected
10 / 1010604	JC	Bsmt Hall	white	Non-Fibrous 100	None Detected
11 / 1010605	JC	Bsmt Tile Storage	white	Non-Fibrous 100	None Detected
12 / 1010606	JC	1st Fl (Picnic Table Side)	white	Non-Fibrous 100	None Detected
13 / 1010607	JC	1st Fl LOMA	white	Non-Fibrous 100	None Detected
14 / 1010608	JC	1st Fl Hall by Bathrms	white	Non-Fibrous 100	None Detected
15 / 1010609	JC	1st Fl (Windmill)	white	Non-Fibrous 100	None Detected
16 / 1010610	Blown-in Insulation	Attic Floor	gray	Cellulose 95 Non-Fibrous 5	None Detected

Sampled: February 08, 2023 **Received:** February 09, 2023 **Analyzed:** February 10, 2023

Friday 10 February 2023

Analyzed by: 

Batch: 91980

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

139 Main St,
Orleans,
MA

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

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 / 1010611	BL-in	Attic Floor	gray	Cellulose 95 Non-Fibrous 5	None Detected
18 / 1010612	Tar paper (high wall)	Boiler Rm Wall	black	Cellulose 70 Non-Fibrous 30	None Detected
19 / 1010613	Tar paper (high wall)	Boiler Rm Wall	black	Cellulose 70 Non-Fibrous 30	None Detected
20 / 1010614	Damproofing (low wall)	Boiler Rm Wall	black	Non-Fibrous 100	None Detected
21 / 1010615	Dp	Boiler Rm Wall	black	Non-Fibrous 100	None Detected
22 / 1010616	Thin Insul. Paper on Copper Domestic	Bsmt Closet	multi	Cellulose 70 Non-Fibrous 30	None Detected
23 / 1010617	Thin Insul. Paper on Copper Domestic	Bsmt Closet	multi	Cellulose 70 Non-Fibrous 30	None Detected
24 / 1010618	Assumed Roofing Paper Debris	Attic Floor	multi	Cellulose 70 Non-Fibrous 30	None Detected
25 / 1010619	12" VT-1 (White w/ Red-Blue)	Bsmt hall	white	Non-Fibrous 100	None Detected
26 / 1010620	Adhesive #25 (lightcolor)	Bsmt hall	tan	Non-Fibrous 100	None Detected
27 / 1010621	Adhesive for VT-1 (Dark Color)	Bsmt hall	multi	Non-Fibrous 100	None Detected
28 / 1010622	12" VT-1	Bsmt hall	white	Non-Fibrous 100	None Detected
29 / 1010623	Residue Black on Cement	Bsmt hall	multi	Non-Fibrous 100	None Detected
30 / 1010624	12" VT-2 (Mottled White w/ Red-Blue)	Bsmt IT rm	white	Non-Fibrous 100	None Detected
31 / 1010625	Adhesive #30	Bsmt IT rm	multi	Non-Fibrous 100	None Detected
32 / 1010626	2nd Layer #30	Bsmt IT rm	brown	Non-Fibrous 97	**Detected** **Chrysotile 3**

Sampled: February 08, 2023 **Received:** February 09, 2023 **Analyzed:** February 10, 2023

Friday 10 February 2023

Analyzed by: **Batch:** 91980

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

139 Main St,
Orleans,
MA

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

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 / 1010627	Mastic #32	Bsmt IT rm	black	Non-Fibrous 100	None Detected
34 / 1010628	VT-2	Bsmt IT rm	white	Non-Fibrous 100	None Detected
35 / 1010629	Adhesive #34	Bsmt IT rm	tan	Non-Fibrous 100	None Detected
36 / 1010630	2nd Layer #34	Bsmt IT rm	gray	Non-Fibrous 98	Detected Chrysotile 2
37 / 1010631	Mastic #36	Bsmt IT rm	black	Non-Fibrous 100	None Detected
38 / 1010632	Paper Under Hardwood	1st FL Main Floor Under Carpet - Original Bldg	black	Cellulose 70 Non-Fibrous 30	None Detected
39 / 1010633	Black Mastic	1st FL Main Floor Under Carpet - Original Bldg	black	Non-Fibrous 100	None Detected
40 / 1010634	Carpet Glue	1st FL Main Floor Under Carpet - Original Bldg	tan	Non-Fibrous 100	None Detected
41 / 1010635	Paper under Hdwd	1st FL Main Floor Under Carpet - Original Bldg	black	Cellulose 70 Non-Fibrous 30	None Detected
42 / 1010636	Black Mastic	1st FL Main Floor Under Carpet - Original Bldg	black	Non-Fibrous 100	None Detected
43 / 1010637	Carpet Glue	1st FL Main Floor Under Carpet - Original Bldg	tan	Non-Fibrous 100	None Detected
44 / 1010638	Roof Shingle	Addition Low Roof Exterior	black	Fiberglass 30 Non-Fibrous 70	None Detected
45 / 1010639	Roof Shingle Under Layment	Addition Low Roof Exterior	black	Cellulose 70 Non-Fibrous 30	None Detected
46 / 1010640	Rf Shingle	Addition Low Roof Exterior	black	Fiberglass 30 Non-Fibrous 70	None Detected
47 / 1010641	Roof Shingle Underlayment	Addition Low Roof Exterior	black	Cellulose 70 Non-Fibrous 30	None Detected
48 / 1010642	Paper behind Wood Siding	Addition	black	Cellulose 70 Non-Fibrous 30	None Detected

Sampled: February 08, 2023 **Received:** February 09, 2023 **Analyzed:** February 10, 2023

Friday 10 February 2023

Analyzed by: **Batch:** 91980

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

139 Main St,
Orleans,
MA

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

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
49 / 1010643	Window Glazing	Bsmt Window Addition	multi	Non-Fibrous 95	**Detected** Chrysotile 5
50 / 1010644	Window gl	Bsmt Window Addition	multi	Non-Fibrous 95	**Detected** Chrysotile 5
51 / 1010645	Window gl plexiglass	Bsmt Window Original Bldg	white	Non-Fibrous 98	**Detected** Chrysotile 2
52 / 1010646	Window gl plexiglass	Bsmt Window Original Bldg	white	Non-Fibrous 100	None Detected
53 / 1010647	Damproofing on Cmu Foundation	Original Bldg by Front Ent.	multi	Non-Fibrous 100	None Detected
54 / 1010648	Damproofing on Cmu Foundation	Original Bldg by Front Ent.	multi	Non-Fibrous 100	None Detected
55 / 1010649	Damproofing on Cmu Foundation	Original Bldg by Front Ent.	multi	Non-Fibrous 100	None Detected
56 / 1010650	Wood Fire Door	Hall by Bathrms (Original Bldg)	white	Cellulose 5 Non-Fibrous 95	None Detected

Sampled: February 08, 2023 **Received:** February 09, 2023 **Analyzed:** February 10, 2023

Friday 10 February 2023

Analyzed by: 

Batch: 91980

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Orleans, MA Building Name 139 Main Street

Sample	Description of Material	Sample Location
1	CEILING PLASTER - I (CP-I)	MAIN FLOOR
2	CP-I	main floor
3	CP-I	main ENTRANCE hall
4	CP-I	hall outside bathrms
6	CP-I	First ENTRANCE hall
6	CP-II	men's rm
7	CP-II	men's rm
8	CP-II	women's rm
9	Joint Compound (JC)	Bsmt closet (rm w/ duct)
10	JC	Bsmt hall
11	JC	Bsmt Tile Storage
12	JC	1ST FL (Picnic table side)
13	JC	1ST FL LOMA
14	JC	1ST FL hall by BATHRMS
15	JC	1ST FL (windmill)
16	Blown-in INSULATION	ATTIC Floor
17	Bl-in	" "
18	Tar paper (highwall)	Boiler rm wall
19	Tar paper	↓ ↓
20	damproofing (Low wall)	

Reported By: [signature] Date: 2-8-23 Due Date: **24-Hours**

Received By: Sandra Banks Date: 2/9/23

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Orleans, MA Building Name 139 Main Street

Sample	Description of Material	Sample Location
21	dp	Boiler rm wall
22	Thin insul. paper on copper domestic	Bsmt closet
23	" " " "	" " "
24	Assumed roofing paper debris	ATTIC floor
25	12" VT-I (white w/ red-Blue)	Bsmt hall
26	adhesive #25 (light color)	
27	adhesive for VT-I (dark color)	
28	12" VT-I	
29	residue Black on cement	
30	12" VT-II (mottled white w/ red-Blue)	Bsmt IT rm
31	adhesive #30	
32	2nd Layer #30	
33	mastic # 32	
34	VT-II	
35	adhesive #34	
36	2nd Layer #34	
37	mastic #36	
38	paper under hardwood	1st FL main floor (orig bldg) under carpet
39	Black mastic	
40	carpet glue	

Reported By: [signature] Date: 2-8-23 Due Date: **24-Hours**

Received By: ---------- Date: ----------

5.2

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Orleans, MA Building Name 139 Main Street

Sample	Description of Material	Sample Location
41	paper under hdwd	1ST FL main floor under carpet
42	Blk mastic	↓ ↓ ↓
43	carpet glue	
44	roof shingle	addition low roof (EXTERIOR)
45	roof shingle underlayment	addition low roof
46	cf shingle	↓ ↓
47	cf shingle underlayment	
48	paper behind wood siding	addition
49	windows glazing	Bsmt window addition
50	win gl	" " "
51	win gl plexiglass	Bsmt windows Original Bldg
52	win gl plexiglass	" "
53	damproofing on conc foundation	Orig Bldg by front ent
54	" "	" ↓ ↓
55	" "	"
56	wood Fir Door	hall by bathrms / orig bldg

Reported By: [signature] Date: 2-8-23 Due Date: **24-Hours**

Received By: ---------- Date: ----------

Key: 9213 **Town of ORLEANS - Fiscal Year 2024 Preliminary** 7/20/2023 2:31 pm SEQ #: 1

LEGAL

CURRENT OWNER	PARCEL ID	LOCATION
TOWN OF ORLEANS **DEPARTMENT OF PUBLIC WORKS** **19 SCHOOL RD** **ORLEANS, MA 02653**	**35-120-2**	**139 MAIN ST**

TRANSFER HISTORY	DOS	T	SALE PRICE	BK-PG (Cert)
TOWN OF ORLEANS	04/01/2002	QS	398,500	15001-66
AMERICAN LEGION INC - POS	12/18/1960	YY		1075-263

CLASS	CLASS%	DESCRIPTION	BN ID	BN	CARD
9310	100	IMP.SELECT/CITY CNCL		1	1 of 1

PMT NO	PMT DT	TY	DESC	AMOUNT	INSP	BY	1st	%
249	04/27/2018	2	DEMOLITION	100,000	06/08/2020	BRH	100	100
407	07/28/2016	5	REMODELING		07/31/2017	RJM	100	100
215	06/08/2011	3	MAINTENANCE				100	100
437	11/22/2010	5	REMODELING		06/23/2011	DF	100	100
267	08/05/2010	5	REMODELING		07/10/2015	RJM	100	100

LAND

CD	T	AC/SF/UN	Ngh		Loc	View	Infl1		ADJ BASE	SAF	Infl2		LPI		VC	CREDIT AMT	ADJ VALUE
103	S	43,560	CIM	1.00	1	1.00	100	1.00	377,720	1.00	100	1.00	C-3	0.70			377,720
203	A	1.110	CIM	1.00	1	1.00	100	1.00	73,780	1.00	100	1.00	C-3	0.70			81,900

TOTAL	2.110 Acres	ZONING	R	FRNT	0

Ngh	CIM
Loc View	AVERAGE
Infl1	NO ADJUST

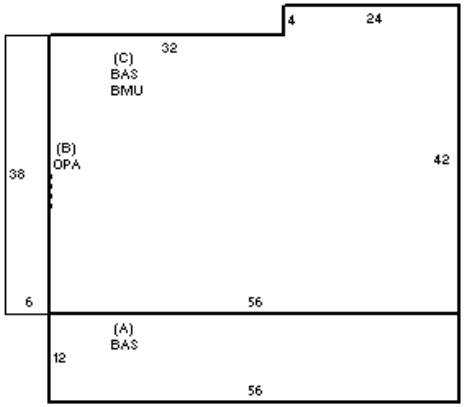
NOTE

ASSESSED	CURRENT	PREVIOUS
LAND	459,600	459,600
BUILDING	438,400	438,400
DETACHED	0	0
OTHER	0	0
TOTAL	**898,000**	**898,000**

DETACHED

TY	QUAL	COND	DIM/NOTE	YB	UNITS	ADJ PRICE	RCNLD

PHOTO 06/08/2020



BLDG COMMENTS

DPW/TOWN HALL ANNEX - STORAGE

BUILDING

BUILDING	CD	ADJ	DESC
MODEL	5		CIM
STYLE	90	1.99	GOVERNMENT BLDG [100%
QUALITY	G	1.35	GOOD [100%]
FRAME	1	0.99	WOOD FRAME [100%]

MEASURE	6/8/2020	BRH
LIST	6/8/2020	BRH
REVIEW	6/9/2020	BRH

YEAR BLT	1900	SIZE ADJ	1.070
NET AREA	2,896	DETAIL ADJ	1.937
$NLA(RCN)	$309	OVERALL	1.000

CAPACITY	UNITS	ADJ
STORIES	1	1.00
ROOMS	2	1.00
BEDROOMS	0	1.00
BATHROOMS	4	1.00
UNITS	0	1.00
HALFBATHS	0	1.00
% HEATED	100	1.00
% A/C	100	1.00
% SPRINKLERS	0	1.00

ELEMENT	CD	DESCRIPTION	ADJ
FOUNDATION	4	BSMT WALL	1.00
EXT. COVER	4	VINYL	1.01
ROOF SHAPE	1	GABLE	1.00
ROOF COVER	1	ASPH/COMP SHIN	1.00
FLOOR COVER	4	TILE	0.98
INT. FINISH	2	DRYWALL	1.02
HEATING/COOLING	8	HEAT PUMP	1.03
FUEL SOURCE	3	ELECTRIC	1.00

S	BAT	T	DESCRIPTION	UNITS	YB	ADJ PRICE	RCN
A	BAS	L	BAS AREA	672	1983	239.51	160,953
B	OPA	N	OPEN PORCH	228		60.16	13,716
C	BMU	N	BSMT UNFINISHED	2,224		84.22	187,308
C	BAS	L	BAS AREA	2,224	1900	239.51	532,677

TOTAL RCN	894,654

CONDITION ELEM	CD

EFF.YR/AGE	1990 / 31

COND	51	51 %	
FUNC	0		
ECON	0		
DEPR	51	% GD	49

RCNLD	$438,400