Property Condition Assessment

Montague Center Library
17 Center Street

Montague, MA

Prepared for:

Town of Montague

1Avenue A

Montague, MA 01376

January 15, 2021

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1 EXECUTIVE SUMMARY

1.1 Building Description

Originally constructed in 1858, the Montague Center Library located at 17 Center Street (the "Property") is a two (2) story building with a partially above grade crawl space basement containing a total area of +/- 6300 sq. ft. The Property is situated on a 0.152 acre (+/-6,621 sq. ft.) parcel of land. The Montague Center Library is bounded to the north by single family residences, to the east by North Street, to the south by Center Street and by single family residences to the west. The site is generally level.

1.2 Condition

In general, based on our visual observations, interviews and research, the building appears to be in FAIR condition.

The Property has two roof areas, the main roof above the second floor which is slate and a small canopy roof over the side/handicapped entrance which is asphalt shingle. These roofs were not accessible during the walk-through inspection and were viewed from the ground and aerial photographs available through Google Earth. It was observed and on site personnel reported that the main slate roof was in poor condition. Cracked slates could be observed and there were numerous loose and cracked slates located on the ground around the building. It was reported that there is currently an ongoing repair to repair missing slates and install a snow/ice belt. The roof above the canopy was observed to have a wood structure affixed over the asphalt shingles which appears to be intended to control snow slides. The main slate roof will require replacement in the near term and the canopy roof will require replacement in the midterm.

The façade of the Property is brick masonry with granite base and a decorative corbeled cornice at the roof. Window and door openings in the masonry walls are framed with stone lintels and sills. The windows are double hung, single pane glass set in wood frames set in the masonry openings with wood trim and brick moldings. The windows have aluminum frame, single pane storm windows. The exterior masonry walls were observed to be in poor condition. Although limited areas of the façade have been repointed, overall the condition of the brick and the mortar joints were observed to be badly deteriorated. The exterior walls will require full repointing during the early-midterm.

Heating is provided by separate systems for the first and second floors. The heating system for the first floor is an oil fired hot air furnace located in the basement. There are two (2) 350 gallon fuel oil tanks in the basement adjacent to the furnace, although it was reported that only one of the tanks are actively used. It was observed that the flue for the first floor furnace vents horizontally and exits the basement within one foot (1') from the exterior grade. This condition presents a significant risk for the flue vent to be blocked by snow creating a potential hazard for carbon monoxide to back up into the building.

At the second floor, there were two systems located in the balcony of area; an oil fired furnace and an oil fired space heater. Both systems at the second floor had been decommissioned, and there is currently no heat on that floor. Cooling is provided by two (2) window mounted air conditioning units which were not installed at the time of the inspection. It is recommended that a new heating system be installed at the second floor and that the window air conditioning units be replaced.

The property is served by a one inch (1") incoming water service located in the basement provided by the Town of Montague. Domestic hot water is provided by a six (6) gallon electric hot water heater located in the basement. The plumbing systems appeared to be in good condition.

The electrical system consists of two services provided by the utility company, Eversource, via exterior surface mounted meters on the northeast corner of the building. There are two service disconnects, one (1) 100 amp and one (1) 50 amp located at the first floor. Distribution from the service disconnects was uncertain as distribution from the service disconnects concealed, wired behind the walls. The overall electrical equipment is older and the 50 amp disconnect appears to be at least sixty plus (60+) years old. The electrical disconnects and distribution panels will require replacement in the midterm.

The Property does not have a fire protection (sprinkler) system or a fire alarm system. Fire extinguishers are located throughout the occupied spaces.

While the building does have elements of handicapped accessibility including an accessible entrance with handicapped ramp and an accessible restroom at the first floor, the second floor is not accessible. The anticipated costs of maintenance and repairs identified in this report will exceed the cost thresholds established in Massachusetts 521 CMR - Architectural Access Barriers Board which will require the installation of an elevator to provide handicapped accessibility to the second floor.

The major capital items identified in the report relate to repair and replacement of exterior features including replacement of roofs, masonry repairs and re-pointing of the entire exterior facades, structural evaluation and stabilization at the roof and basement and installation of an elevator to provide accessibility to the second floor. The Property will require replacement of other major components including the roof during the fifteen (15) year evaluation period. Anticipated capital and repair costs are summarized in Section 1.3.

1.3 Summary of Costs

Costs associated with the correction of present observed issues, deficiencies, deferred maintenance and component and systems replacements are as follows (in thousands of dollars):

Montague Center Library

Summary of Costs by Building System and Priority

		Cost per Year ($1,000's)																
	Building System Summary	Immediate	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
5.1	Site & Features at Grade	$0.0	$10.5	$0.0	$0.0	$0.0	$3.0	$3.0	$0.0	$0.0	$0.0	$0.0	$3.0	$0.0	$0.0	$0.0	$0.0	**$19.5**
5.2	Roofing	$0.0	$2.2	$2.2	$93.6	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$98.0**
5.3	Exterior Walls	$0.0	$60.8	$34.7	$119.4	$119.4	$112.5	$90.5	$0.0	$0.0	$0.0	$22.0	$0.0	$0.0	$0.0	$0.0	$22.0	**$581.1**
5.4	Structural Systems	$0.0	$5.5	$11.0	$63.5	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$80.0**
5.5	Interior Elements	$0.0	$11.0	$2.2	$0.0	$0.0	$14.0	$0.0	$0.0	$0.0	$0.0	$11.0	$0.0	$0.0	$0.0	$0.0	$1.7	**$39.8**
5.6	Specialties, Equipment, etc.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.7	Vertical Transportation	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.8	HVAC	$0.0	$6.2	$35.4	$0.2	$0.2	$2.0	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	**$45.6**
5.9	Plumbing	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.9	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.9**
5.10	Fire Protection	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.11	Electrical System, Telephone	$0.0	$0.0	$0.0	$0.0	$0.0	$7.7	$0.0	$0.0	$0.0	$0.0	$2.2	$0.0	$0.0	$0.0	$0.0	$0.0	**$9.9**
5.12	Lighting	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.13	Fire Alarm & Life Safety	$0.0	$7.8	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	**$11.2**
5.14	Accessibility	$0.0	$2.9	$0.0	$0.0	$0.0	$1,375.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$1,377.9**
5.15	Environmental, IAQ	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
	LEED																	
	TOTAL	**$0.0**	**$106.8**	**$85.4**	**$276.5**	**$119.5**	**$1,515.3**	**$94.5**	**$0.2**	**$0.2**	**$1.3**	**$35.4**	**$3.2**	**$0.2**	**$1.3**	**$0.2**	**$23.8**	**$2,263.8**
	CUMULATIVE	**$0.0**	**$106.8**	**$192.2**	**$468.8**	**$588.3**	**$2,103.6**	**$2,198.1**	**$2,198.3**	**$2,198.5**	**$2,199.8**	**$2,235.1**	**$2,238.3**	**$2,238.5**	**$2,239.8**	**$2,240.0**	**$2,263.8**	

MONTAGUE CENTER LIBRARY

Montague Center Library
Summary of Costs by Building System and Priority
Broken Out By R&M and CE

SUMMARY OF COST BY YEAR FOR REPAIR & MAINTENANCE

	Building System Summary	Cost per Year ($1,000's) Immediate	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
5.1	Site & Features at Grade	$0.0	$7.2	$0.0	$0.0	$0.0	$0.5	$2.8	$0.0	$0.0	$0.0	$0.0	$2.8	$0.0	$0.0	$0.0	$0.0	**$13.1**
5.2	Roofing	$0.0	$2.0	$2.0	$1.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$5.1**
5.3	Exterior Walls	$0.0	$10.3	$9.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$19.3**
5.4	Structural Systems	$0.0	$0.0	$10.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$10.0**
5.5	Interior Elements	$0.0	$11.0	$2.2	$0.0	$0.0	$14.0	$0.0	$0.0	$0.0	$0.0	$11.0	$0.0	$0.0	$0.0	$0.0	$1.7	**$39.8**
5.6	Specialties, Equipment, etc.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.7	Vertical Transportation	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.8	HVAC	$0.0	$0.7	$0.2	$0.2	$0.2	$1.9	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	**$4.5**
5.9	Plumbing	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.9	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.9**
5.10	Fire Protection	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.11	Electrical System, Telephone	$0.0	$0.0	$0.0	$0.0	$0.0	$7.7	$0.0	$0.0	$0.0	$0.0	$2.2	$0.0	$0.0	$0.0	$0.0	$0.0	**$9.9**
5.12	Lighting	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.13	Fire Alarm & Life Safety	$0.0	$7.8	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	$0.0	$1.2	$0.0	$0.0	**$11.2**
5.14	Accessibility	$0.0	$2.6	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$2.6**
5.15	Environmental, IAQ	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
	LEED																	
	TOTAL	**$0.0**	**$41.4**	**$23.4**	**$1.2**	**$0.2**	**$25.1**	**$3.8**	**$0.2**	**$0.2**	**$1.3**	**$13.4**	**$2.9**	**$0.2**	**$1.3**	**$0.2**	**$1.8**	$116.3
	CUMULATIVE	**$0.0**	**$41.4**	**$64.8**	**$66.0**	**$66.1**	**$91.2**	**$95.0**	**$95.2**	**$95.3**	**$96.6**	**$110.0**	**$112.9**	**$113.0**	**$114.3**	**$114.5**	**$116.3**	

Montague Center Library

Summary of Costs by Building System and Priority

Broken Out By R&M and CE

SUMMARY OF COST BY YEAR FOR CAPITAL EXPENDITURE

		Cost per Year ($1,000's)																
	Building System Summary	Immediate	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
5.1	Site & Features at Grade	$0.0	$3.4	$0.0	$0.0	$0.0	$2.5	$0.3	$0.0	$0.0	$0.0	$0.0	$0.3	$0.0	$0.0	$0.0	$0.0	**$6.4**
5.2	Roofing	$0.0	$0.2	$0.2	$92.5	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$92.9**
5.3	Exterior Walls	$0.0	$50.5	$25.7	$119.4	$119.4	$112.5	$90.5	$0.0	$0.0	$0.0	$22.0	$0.0	$0.0	$0.0	$0.0	$22.0	**$561.8**
5.4	Structural Systems	$0.0	$5.5	$1.0	$63.5	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$70.0**
5.5	Interior Elements	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.6	Specialties, Equipment, etc.	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.7	Vertical Transportation	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.8	HVAC	$0.0	$5.6	$35.2	$0.0	$0.0	$0.2	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$41.1**
5.9	Plumbing	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.10	Fire Protection	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.11	Electrical System, Telephone	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.12	Lighting	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.13	Fire Alarm & Life Safety	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
5.14	Accessibility	$0.0	$0.3	$0.0	$0.0	$0.0	$1,375.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$1,375.3**
5.15	Environmental, IAQ	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
	LEED																	
	TOTAL	**$0.0**	**$65.4**	**$62.1**	**$275.3**	**$119.4**	**$1,490.2**	**$90.8**	**$0.0**	**$0.0**	**$0.0**	**$22.0**	**$0.3**	**$0.0**	**$0.0**	**$0.0**	**$22.0**	$2,147.5
	CUMULATIVE	**$0.0**	**$65.4**	**$127.5**	**$402.8**	**$522.2**	**$2,012.4**	**$2,103.1**	**$2,103.1**	**$2,103.2**	**$2,103.2**	**$2,125.2**	**$2,125.5**	**$2,125.5**	**$2,125.5**	**$2,125.5**	**$2,147.5**	

2 PROJECT INFORMATION

Building Name:	Montague Center Library
Building Location:	17 Center Street, Montague, MA
Building Type:	Library
Building Area:	+/- 6,800 square feet
Building Height:	2 Stories plus partially above grade crawl space basement
Site Area:	0.152 acres (+/-6,621 sq. ft.)
Parking:	One (1) Car
Year Built:	1858
Age:	One Hundred Sixty-Two (162) years
Present Owner:	Town of Montague
Building Manager:	Linda Hickman
This PCA Carried Out for:	Town of Montague 1 Avenue A Montague, MA
Date of Site Visit:	November 30, 2020
Weather During Site Visit:	Overcast, 40 degrees F, raining
Report Date:	January 15, 2020
Site Visit Conducted By:	Gregory J. Walsh Brian P. Laroche
Personnel at Site:	Linda Hickman – Library Director Mark Nelson – Montague DPW Jim Whiteman – Montague DPW
Municipality of Jurisdiction:	Montague, MA
Applicable Building Codes:	Massachusetts State Building Code 9th Edition Existing Building Code (IEBC 2015) Massachusetts Comprehensive Fire Safety Code, 527 CMR 1.0 Massachusetts Architectural Access Board Regulations 521 CMR Americans with Disabilities Act 2010 Standards for Accessible Design National Fire Protection Association (as referenced by 780 CMR and 527 CMR)

3 OBJECTIVE

3.1. Objective

The objective of this Property Condition Assessment (APCA) is to assess the general condition of the property and document obvious problems or visible defects based on visual observations, review of available documentation and discussions with property management. The building components and systems assessed include pavement and site improvements, building envelope, mechanical and electrical plumbing, fire protection and alarm systems.

The following is an abbreviated form of the standard Property Condition Assessment ("PCA") report which would contain significantly more detailed information on all of the building systems resulting from a more complete assessment as performed by licensed engineers and consultants specializing in each of the specific disciplines. This report is a summary of observations by a PCA360, LLC. representative and does not strictly conform to the requirements of ASTM – E2018-99 (Standard Guide for Property Condition Assessment Procedures).

Regardless of its scope, an APCA cannot completely eliminate the potential for physical deficiencies or predict the performance of the Property's systems. This survey was conducted as a visual walk through of the property and did not include any testing or destructive testing of the building or any systems. As such it is not the intent of this survey to uncover every defect in the property, and this report will serve to reduce, but not eliminate uncertainty with regard to potential deficiencies

THIS REPORT IS THE PCA360, LLC. AND TOWN OF MONTAGUE, AND WAS PREPARED FOR A SPECIFIC USE AND PURPOSE. THIS REPORT MAY NOT BE USED OR RELIED UPON BY ANY OTHER PARTY WITHOUT THE EXPRESSED WRITTEN PERMISSION OF PCA360, LLC AND THERE SHALL BE NO THIRD PARTY BENEFICIARIES, INTENDED OR IMPLIED UNLESS SPECIFICALLY IDENTIFIED HEREIN.

3.2. Scope of Report

To accomplish the PCA objectives, the Scope of Work includes the following tasks:

1. Review of available documentation such as construction documents, base building certificate of occupancy, reports of building code violations or previous PCA reports;

2. Interviews with property management or maintenance personnel knowledgeable of the physical characteristics, maintenance and repair of the property;

3. A Walk-Through Survey of the property to visually observe the property so as to obtain information on material systems and components for the purpose of providing a brief description, identifying physical deficiencies to the extent that they are observable, and for obtaining information needed to develop the Property Condition Assessment;

4. Preparation of Opinions of Probable Costs to Remedy observed physical deficiencies; and,

5. Preparation of the Property Condition Assessment documenting the findings and results of the preceding tasks.

6. No measurements or counts of systems, components, floor areas, rooms, etc. or calculations were prepared

7. A survey for the presence of mold or fungus, or to opine on indoor are quality is explicitly excluded.

4 METHODOLOGY

4.1. Guide Specification

In general, this is an abbreviated for of Property Condition Assessment. This is the standard form that PCA360 uses for reports of this type, while this form generally follows the ASTM guidelines it does not strictly conform to ASTM E 2018-99 standards for PCA reporting.

4.2. Documentation Review

Any documentation provided by the Owner or on-site personnel which was available was reviewed if it would augment the walk-through survey and assist the assessor in understanding the subject project and identifying physical deficiencies. Such documentation is generally limited to construction drawings, specification, base building Certificate of Occupancy and recorded code violations. Other documents thought to be helpful, if available, may have been reviewed. Documents reviewed are listed in Section 2.0 of this report.

4.3. Interviews

On site interviews with property management or maintenance personnel familiar with the building were conducted to develop an understanding of the maintenance and service information and history of the building. Any documentation provided by those individuals was reviewed and the information included in this report. The names of those interviewed, documents reviewed, and applicable codes are listed in Section 2.0 of this report.

4.4. Walk-Through Survey

A visit to the property was conducted to visually observe the property of obtain information on material systems and components for the purposes of providing a brief description, identifying physical deficiencies to the extent that they are observable, and obtaining information needed to address such issues in the Property Condition Assessment. This investigation was strictly a visual inspection of the property and building systems and explicitly excludes any operation, testing or destructive testing of the building or any systems.

A Property Condition Assessment of this type cannot eliminate the uncertainty regarding the presence of, or potential for physical deficiencies or predict the continued performance of the Property's systems. The preparation of a PCA is not intended to uncover every defect in the Property and may reduce, but will not eliminate, the uncertainty regarding the potential for component or system failure.

A Registered Architect has observed the pavement, exterior walls, roofing, mechanical, electrical systems and has reviewed generally the building for requirements of the Americans with Disabilities Act. In addition, components and systems have been evaluated for their expected useful life and effective age, with replacement recommendations noted for those systems or components that will reach the end of their remaining useful life during the analysis term.

Physical deficiencies identified as significant are deemed to be present if they represent either of the following:

1. The physical deficiency represents a cited or apparent code violation, an immediate life safety or health hazard to the occupants or users of the property, or a fire safety hazard to the property itself, or;

2. The physical deficiency, if left uncorrected, could result in accelerating deterioration of the system in question and significantly increase the cost to correct.

Other physical deficiencies of a lesser nature and/or items of deferred maintenance have also been observed and noted for inclusion in aggregate cost estimate.

Other observations consist of one or a combination of the following activities:

1. Walk- through observations on a complete or sample basis to determine the overall condition of the property;
2. Observation of a representative sample of improvements, building, equipment and fixtures and systems to determine serviceability and operating characteristics;
3. Non- invasive and detailed observations to determine representative conditions;
4. Recording of physical deficiencies; and
5. Photos taken of building exteriors, roofs, site features and common areas, sufficient to give a general idea of the character and condition of the building, where it would help illustrate various points to the reader, specific deficiencies have also been photographed.

4.5. Opinion of Probable Costs

Based upon our observations during our site visit, as well as information gathered from the Documentation Review and Interviews, we have prepared a list of recommended repairs to address present observed physical deficiencies, along with general scope and preliminary budget cost estimates for these repairs. These estimates are for components or systems exhibiting patent or significant deferred maintenance requiring major repairs or replacement. Repairs or replacements that could be classified as cosmetic, decorative, part or parcel of a building renovation program, normal preventative maintenance, or that are the responsibility of tenants, were not included.

These preliminary budget cost estimates were prioritized as follows:

Immediate (I):
Expenditures that require immediate action as a result of existing or potentially unsafe conditions, building code violations, poor or deteriorated condition of critical element or system, or a condition that if left “as is” with an extensive delay in correction, would result in or contribute to critical element or system failure within one year or would lead to significantly escalated repair costs.

Years 1 though n (1,2,3 etc.):
Deficiencies which may not warrant immediate attention, but which require repairs or replacements that should be undertaken on a priority basis taking precedence over routine preventative maintenance. Deferred maintenance or deficiency resulting from improper design, installation and/or quality of original material or systems. Repairs that fall into the category of an ongoing maintenance/replacement problem, components or systems that have realized or exceeded their expected useful life.

In general, where multiple years are shown on a line item, the total line item cost will be recognized in full for each of the years shown, as a repeated project/ cost.

Accessibility Compliance:
Expenditures that need to be incorporated into a plan for bringing the building into compliance with the Americans with Disabilities Act and the City of New York Local Law 58 accessibility requirements.

In addition, the budget items were categorized as follows:

Repair & Maintenance	RM
Capital Expenditures	CE

Cost information used is generally obtained from consultants and our recent experience with projects that are similar, where applicable industry recognized databases, such as R.S. Means, F. W. Dodge or similar are consulted. Where appropriate, PCA360, LLC. and its consultants use their own database of construction cost information or obtain cost information from contractors.

Estimated costs are preliminary and require refinement. They are not to be construed as final nor are the work scopes provided necessarily all-inclusive. Such costs and work scopes are "order of magnitude", and are to be used to assist the reader in the overall assessment of the property. The quantities and areas used in the preparation of this report are estimates only and did not entail a detailed field survey or measurements. The purpose of this report is to identify issues requiring action, not to design the necessary repairs or replacement.

The estimated costs are net of construction management fees, design fees and customary budgeting for contingency beyond that included in this report. Final and actual costs may vary depending on such matters as material, equipment or system selected, field conditions and unknowns. Materials or procedures recommended in this report are suggestions only and need to be researched further and refined. In order to obtain the best prices, we recommend that competitive bids be secured. Given the preliminary nature of the costs in this report, budgeting for contingencies is advised.

5 DESCRIPTIONS & OBSERVATIONS

5.1. Site & Features at Grade

Description
The Property is situated on a 0.152 acre (+/-6,621 sq. ft.) parcel of land. The Montague Center Library is bounded to the north by single family residences, to the east by North Street, to the south by Center Street and by single family residences to the west. The site is generally level.

The Property has a floor plate of +/- 3,400 square feet which occupies a significant portion of the site. Features at grade include cast in place concrete sidewalks with cast in place concrete curbing and granite stairs along the south elevation, bituminous paving and parking with a cast in place concrete handicap ramp and small lawn area at the east elevation and unpaved lawn areas at the north and west elevations.

Observations/Comments
In general, the site and features at grade are in fair condition consistent with their expected age. The existing cast in place concrete sidewalks and cast in place concrete curbs are in fair condition with some limited areas of sidewalk that have either settled or cracked and some concrete curbs that have cracked and/or spalled.

At the main entrance to the Property on Center Street there are stone stairs from the sidewalk up to the entry doors. There are open joints between the stones and the sidewalk, the stones and the foundation, and in between stones themselves.

The bituminous paved area at the east elevation accommodates one (1) handicapped parking space and was observed to be in fair condition with several moderate sized cracks.

Between the handicapped ramp and the foundation of the Property there is a small lawn area which was observed to be sloped towards the foundation which had open joints.

At the east elevation, there is a cast in place concrete handicapped access ramp which is paved with bituminous paving and has steel pipe handrails. The steel pipe hand rail was observed to be misshapen, likely from a vehicle striking the railing at the base of the ramp.

At the side/accessible door there is a cast in place concrete porch with a canopy. The canopy is supported on painted steel columns. The bases of the columns were observed to have moderate corrosion.

On site personnel state that the basement experiences water infiltration during periods of heavy rain and that there are moisture issues in the basement related to the earthen floor of the basement and crawlspace.

Recommendations.
The open joints in the stone stairs are allowing water to infiltrate and cause freeze-thaw cracking that has resulted in the replacement of sections of the stairs with cast in place concrete. The joints should be cut clean and caulked early in the evaluation term.

There are moderate cracks in the bituminous paving at the east elevation and the surface of the paving was observed to be in fair condition with moderate wear of the surface finish. The cracks should be sealed and a seal coating applied to the surface early in the evaluation term to extend the useful life of the paving.

The lawn area between the handicapped ramp and the foundation is sloped towards the foundation. This condition may be contributing to the water infiltration issues in the basement. It is recommended that the area be regraded to slope away from the foundation and ramp and be paved with an impervious material to prevent rainwater and snow from saturating the soil adjacent to the foundation or allowing surface water runoff from being directed against and into the foundation. This should be done early in the evaluation term.

The railings at the base of the ramp have been damaged and should be repaired.

The steel pipe railings at the handicapped ramp and side entrance are moderately rusted. Loose paint should be scraped off, areas of rust cleaned and primed and the railings repainted. This should be done periodically throughout the evaluation term.

The steel posts supporting the canopy over the side/handicapped entrance are rusting, particularly at the base. Loose paint should be scraped off, areas of rust cleaned and primed and the post repainted. This should be done periodically throughout the evaluation term.

The handicapped ramp is paved with bituminous which was observed to be in fair condition. It is anticipated that the bituminous paving will required replacement early in the midpoint of the evaluation term.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.1 Site & Features at Grade							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Remove mortar joints and caulk stone joints at front entrance steps	175	LF	$14	$2,450	RM	1
2.	Seal cracks and sealcoat parking area and ADA ramp	1500	SF	$0.30	$450	RM	1
3.	Seal cracks and sealcoat parking area and ADA ramp	1500	SF	$0.30	$450	RM	5
4.	Pave lawn area to eliminate pervious condition adjacent to foundation	600	SF	$4.00	$2,400	CE	1
5.	Repair damaged railing at base of ADA ramp	1	LS	$1,500	$1,500	RM	1
6.	Clean, scrape & paint railings at entrances and ADA ramp	1	LS	$2,000	$2,000	RM	1
7.	Clean, scrape & paint steel posts at side entrance canopy	1	LS	$750	$750	RM	1
8.	Clean, scrape & paint railings at entrances and ADA ramp	1	LS	$2,000	$2,000	RM	6
9.	Clean, scrape & paint steel posts at side entrance canopy	1	LS	$750	$750	RM	6
10.	Clean, scrape & paint railings at entrances and ADA ramp	1	LS	$2,000	$2,000	RM	11
11.	Clean, scrape & paint steel posts at side entrance canopy	1	LS	$750	$750	RM	11
12.	Repave ADA ramp	225	SF	$10	$2,250	CE	5
13.	Contingency		10.0%		$1,775	CE	
Total					**$19,525**		

5.2. Roofing

Description

The Property has two roof areas. The main roof is a sloped roof above second floor which is covered with slate that. The exact age of the slate shingle roof is unknown. There is a second smaller roof at the canopy over the side/handicapped entrance at the east elevation which is asphalt shingle. The age of the canopy roof is unknown. At the canopy roof, it was observed that a wood element had been applied on top of the shingle roof. It appears that the intention of this wood element is to eliminate snow sliding off the roof.

These roofs were not accessible during the walk-through inspection and were viewed from grade. On site personnel state that the slate roof regularly experiences cracked and loose slates and that they have been performing ongoing repairs to replace missing and cracked slates. It was also reported that a roofer had been engaged to install or make repairs to a snow and ice belt at the bottom of the slate roof.

There are no gutters on the roofs and storm water at the both roofs drain to grade.

Observations/Comments

These roofs were not accessible and could not be observed closely. Viewed from grade and from Google Earth it was observed that the slate roof is in fair to poor condition. Cracked and missing slates were visible and aerial images from Google Earth revealed the highly mottled appearance of a slate roof that had extensive repairs and replacement with varied colors of slate. It was also observed that the edge of the snow and ice belt, directly above the corbel was uneven indicating possible gaps at the leading edge of the roof.

The roof over the canopy appeared to be in fair condition, however it was observed that there is heavy, dark staining and possibly green algae on the brick façade above the roof and running down either side of the canopy.

Recommendations

The main slate roof currently has cracked and missing slates and it was reported that repairs to cracked and missing slates are performed periodically. An allowance to continue slate repairs for the next two years is provided in the early period of the evaluation term.

The slate roof appears to be well beyond its expected useful line and was observed to be in poor condition. The slate roof will require replacement early in the evaluation term.

The asphalt shingle roof at the side/handicapped entrance canopy appears to be in fair to poor condition and will replacement early in the evaluation term. The wood element should be replaced with snow rails, guards or paddles.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.2 Roofing							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Allowance for slate repairs	2	YR	$2,000	$4,000	RM	1,2
2.	Replace slate roof	42	SQ	$2,000	$84,000	CE	3
3.	Replace asphalt shingle roof at canopy over side entrance.	1	SQ	$550	$550	RM	3
4.	Add snow rails at canopy roof	1	LS	$500	$500	RM	3
5.	Contingency		10.0%		$8,905	CE	
Total					**$97,955**		

5.3. Exterior Walls

Description

Exterior walls were observed at grade. The inspection did not include performing up close visual inspection using an aerial lift or swing stage. The façade of the Property is multi-wythe brick masonry with a decorative corbel just below the eave of the roof. At the gable ends, the corbel continues across the façade as a cornice while corbels with an additional decorative band below rises up the rakes to form a pediment.

Window and door openings in the masonry walls are framed with stone lintels and sills. The windows are double hung, single pane glass set in wood frames set in the masonry openings with wood trim and brick moldings. The windows have aluminum frame, single pane storm windows. At the main entrance, there are three sets of or wood doors.

Observations/Comments

The exterior walls were viewed from grade. The brick façade is 162 years old and was observed to be in poor condition. The brick is heavily weathered and the mortar joints deeply receded. Numerous areas of localized tuck pointing were observed.

At the decorative corbel, loose, cracked and missing brick were observed. On site personnel stated that it is common for brick at the corbel to crack or dislodge and fall to the ground. Sections of the corbel where prior repairs had been made were visually apparent.

At the south elevation (main entrance) it was observed that the bottom 10'-12" of brick at the base of the wall above the stone steps exhibited significant distress with badly deteriorated brick and mortar joints. The degree of deterioration is noticeably greater than the south façade in general.

At the lintel above the westernmost set of doors, there are several bricks which have shear cracks through the brick. Shear cracks were also observed at the north elevation in the brick below the second floor window and above the first floor window on the eastern set of windows.

As previously mentioned, the brick corbel at the east and west elevations was observed to have loose, cracked and missing brick.

The building has a course of granite block at the top of the foundation wall below the first course of brick. The joint between the granite block and the fieldstone foundation was observed to be in poor condition, with large openings and voids. This condition is likely contributing to issues of water infiltration and moisture in the basement crawlspace.

On the east elevation, at the side entrance canopy it was observed that there is heavy, dark staining and possibly green algae on the brick façade above the roof and running down either side of the canopy.

The wood windows were observed to be in poor condition. The exterior paint is badly deteriorated and peeling, glazing compound was observed to be missing and some visual evidence of wood decay was present. Additionally, the aluminum storm frames appeared to be in poor condition. Storm sashes were in various states of open, partially open and closed.

Recommendations

The exterior of the Property is in generally poor condition with localized areas of significant distress. The façade should be surveyed and inspected by a building envelope consultant to establish a scope of repair work at areas of distress and a scope for the complete repointing of the building. The evaluation and preparation of bid documents is required in the immediate near term.

Pending implementation of the full scale repointing of the façade, several immediate repairs should be made at areas of distress including at the base of the south façade, at shear cracks in bricks at the south and north elevations and at the brick corbel. These repairs should be made in the early term of the evaluation period.

The joint below the granite blocks above the rubble foundation was in poor condition with many large voids and openings. The Property experiences water and moisture infiltration in the basement crawl space which has led to deterioration of other building components and systems including wood framing and HVAC duct work. This joint should be cleaned and repointed in the immediate near term.

The brick walls at either side of the side entrance canopy are heavily stained. The stains should be cleaned from the brick in the early term of the evaluation period.

Upon completion of the façade inspection and development of a scope of façade repairs, a program to repoint one façade per year should be implemented later in the early term of the evaluation period.

The exterior windows are in poor condition and need to be scraped, repaired, reglazed and painted in the immediate near term to arrest further deterioration. A regular program to maintain and paint the exterior windows is required periodically throughout the evaluation period.

The wood trim at the base of the side entrance door was observed to be deteriorating. The trim should be repaired during the painting of exterior windows and doors in the immediate near term.

The existing aluminum frame storm windows were observed to be in fair to poor condition. The storm windows should be replaced in the early term of the evaluation period.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.3 Exterior Walls							
Observation/Issue/Recommended Correction		Estimated Cost, Category and Year					
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Engage façade engineer to perform inspection of exterior walls and prepare bid documents for repair	1	LS	$25,000	$25,000	CE	1
2.	Replace spalled brick and repoint brick at base of wall above stone stairs at front entrance	50	SF	$60	$3,000	RM	1
3.	Replace shear cracked brick top left corner main Library entrance door	10	EA	$100	$1,000	RM	2
4.	Repairs to loose/cracked brick at	1	LS	$6,000	$6,000	RM	2
5.	Replace shear cracked brick below 2nd floor window sill/above 1st floor window head at north elevation	20	EA	$100	$2,000	RM	2
6.	Repoint joint between granite block base and foundation wall at grade East & North elevations	125	LF	$40	$5,000	RM	1
7.	Clean brick at both sides of side/ADA entrance	1	LS	$1,750	$1,750	RM	1
8.	Repoint East elevation	3100	SF	$35	$108,500	CE	3

5.3 Exterior Walls							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
9.	Remove exhaust flue and repoint West elevation	3100	SF	$35	$108,500	CE	4
10.	Repoint North elevation	2350	SF	$35	$82,250	CE	5
11.	Repoint South elevation	2350	SF	$35	$82,250	CE	6
12.	Scrape, repair & repaint exterior windows and doors	20	EA	$1,000	$20,000	CE	1
13.	Scrape, repair & repaint exterior windows and doors	20	EA	$1,000	$20,000	CE	5
14.	Scrape, repair & repaint exterior windows and doors	20	EA	$1,000	$20,000	CE	10
15.	Scrape, repair & repaint exterior windows and doors	20	EA	$1,000	$20,000	CE	15
16.	Repair water damaged wood trim at base of side entrance door when painting in year 1	1	LS	$500	$500	RM	1
17.	Replace storm windows	18	EA	$1,250	$22,500	CE	2
18.	Contingency		10.0%		$52,825	CE	
Total					**$581,075**		

5.4. Structural Systems

Description

The Property was originally constructed in 1858. The structural components of the building were observed at the basement crawl space and in the attic. The Property appears to be wood framed construction with a mulit-wythe masonry exterior bearing wall constructed on a fieldstone foundation. Interior bearing walls at the first floor appear to bear on masonry brick piers set on granite stones above rubble footings.

Observations/Comments

In general, the building structural systems appeared to be in fair condition for their age.

It was observed that there is a noticeable sag in the roof ridge at the south end of the Property. A large air handling unit had been installed in the mezzanine area of the second floor to heat the second floor space. The air handler is suspended on metal rods attached to steel channels bearing on the attic floor joints. The weight of the air handling unit appears to be the potential cause of the distress to the roof.

It was observed that there was moisture and/or pest damage at some of the first floor joists in the basement crawl space.

In the basement crawlspace, the footings below several of the brick piers were observed to be in poor condition.

Also at the basement crawl space, it was observed that pressure treated wood shoring had been installed below the floor joists below the east entrance at the main (south) elevation. The wood shoring was bearing directly on the exposed earthen floor.

Recommendations

The sag in the roof is significant. While it is assumed that the distress was caused by the weight of the air handling unit which was hung from the attic floor joists, a structural engineer should be engaged to inspect and review the condition in the immediate near term.

It is possible that the engineering review may recommend certain structural modifications to stabilize the roof. An allowance for potential repairs is provided in the early term of the evaluation period. Additionally, in Section 5.8 Heating, Ventilation and Air Conditioning we have provided a line item to dismantle and remove the air handling equipment and eliminate the load of the unit from the attic floor joints.

Some limited areas of the first floor joists were observed to have either moisture or pest damage. The floor joists should be inspected and areas of damage repaired in the early term of the evaluation period.

The presence of water infiltration and moisture in the basement has creates a poor environment for component and systems located in the basement including the wood structure, heating systems and duct work and domestic hot water heater. Additionally, on-site personnel state that the Property has experienced issues with odors and mold at the first floor. It is recommended that the basement crawlspace be properly prepared and that a moisture barrier and mud slab be installed in the early term of the evaluation period.

The footings below several of the brick piers were observed to be in poor condition. Additionally, there were several lally columns observed lying on the floor of the basement crawl space. The footings should be repaired and the lally columns installed as required in the early term of the evaluation period.

The wood shoring below the first floor at the east entry door was observed to be constructed of pressure treated lumber which was set directly on the earthen floor. The shoring should be supported on a cast concrete footing to protect against the deterioration of the wood shoring due to exposure to the moist earthen floor. These repairs should be made in the early term of the evaluation period

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.4 Structural							
Observation/Issue/Recommended Correction		Estimated Cost, Category and Year					
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Engage structural engineer to evaluate sag in roof at 2nd floor air	1	EA	$5,000	$5,000	CE	1
2.	Allowance for structural repairs to	1	LS	$25,000	$25,000	CE	3
3.	Inspect 1st floor joists at basement and repair rot/pest damage as	1	LS	$5,000	$5,000	RM	2
4.	Modify basement dirt floor and install vapor barrier and mud slab	3150	SF	$8	$25,200	CE	3
5.	Repairs to undermined footings, lally columns wood shoring supported on earthen floor	1	LS	$7,500	$7,500	CE	3

5.4 Structural							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
6.	Rebuild shoring below east entry door on a cast concrete footing	1	LS	$5,000	$5,000	RM	2
7.	Contingency		10.0%		$7,270	CE	
Total					**$79,970**		

5.5. Interior Elements

Description

Interior floor finishes of the consist of exposed hardwood flooring at the second floor and either vinyl composite tile ("VCT") or asbestos containing ("ACT") floor tile and exposed wood flooring at the first floor. Ceilings were painted plaster at the second floor and painted acoustic tiles at the first floor. Walls were painted plaster or painted gypsum wall board at the first floor and wood paneling at the second floor. Light fixtures were a ceiling mounted strip fixtures with LED bulbs at the first floor and ceiling mounted pendant type fixtures with LED bulbs at the second floor.

Observations/Comments

Generally, the interior finishes appear in good condition and well maintained. Routine maintenance, repairs and replacement are anticipated throughout the term.

Recommendations

It was observed that there were several locations in the second floor ceiling where there were open holes that were the result of individuals walking in the attic. The holes should be repaired and decking for a walking path should be installed to allow for safe access while working in the attic in the early term of the evaluation period.

The interior walls were observed to be in fair condition, however there were areas that were observed to have evidence of mold. The presence of mold is likely the result of water infiltration through the exterior brick walls. After the exterior walls have been repointed, the interior walls should be cleaned of mold and repainted early in the midpoint of the evaluation period.

The interior of the windows were observed to be in poor condition. The windows should be scraped, repaired, reglazed and painted in the early term of the evaluation period and periodically thereafter.

Portions of the first floor have exposed hardwood flooring. The flooring was observed to be in fair condition. It is recommended that the wood flooring be refinished early in the midpoint of the evaluation period and periodically thereafter.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.5 Interior Finishes							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Repairs to holes in ceiling above second floor. Install decking for walking path at attic.	1	LS	$2,000	$2,000	RM	2
2.	Repaint interior walls 1st Floor	3200	SF	$3.50	$11,200	RM	5
3.	Scrape, repair & repaint interior windows and doors	20	EA	$500	$10,000	RM	1
4.	Scrape, repair & repaint interior windows and doors	20	EA	$500	$10,000	RM	10
5.	Refinish exposed wood floors 1st	750	SF	$2	$1,500	RM	5
6.	Refinish exposed wood floors 1st	750	SF	$2	$1,500	RM	15
7.	Contingency		10.0%		$3,620	RM	
Total					**$39,820**		

5.6. Specialties, Equipment and Special Construction

Description
Items under this category include metal toilet partitions, toilet accessories, horizontal window blinds, fire extinguishers and cabinets, building directory and signage. Also included are items such as kitchen equipment, public address systems or any other unique systems not generally captured elsewhere in this report.

Observations/Comments
The Property does not have any unique equipment or systems not covered elsewhere in this report

Recommendations
There were no identified specialties, equipment or special construction. As such there are no anticipated costs associated with these items.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.6 Special Systems & Components							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	No Noted Issues				$0		
2.	Contingency		10.0%		$0		
Total					**$0**		

5.7. Vertical Transportation

Description
Vertical transportation systems consist of elevators, limited use, limited application ("LULA") elevators, handicapped lifts and escalators. The Property does not have any vertical transportation systems.

Observations/Comments
None. Please see Section 5.14 Accessibility Review regarding potential requirements for addition of an elevator to satisfy requirements of 521 CMR, Massachusetts Accessibility regulations.

Recommendations
There are no vertical transportation systems. As such there are no anticipated costs associated with these items.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.7. Vertical Transportation							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
	No Noted Issues - See Section 5.14						
1.	ADA				$0		
2.	Contingency		10.0%		$0		
Total					**$0**		

5.8. Heating, Ventilation and Air Conditioning

Description
The Property is heated by a hot air generated by separate systems for the first and second floors. The second floor heating systems were observed to be decommissioned leaving that space without heat. Cooling at the first floor is provided by two (2) window mounted air conditioning units.

Heating
Heating at the first floor is provided by forced hot air generated by a single (1) oil fired hot air furnace manufactured by Airco which is located in the basement. There are two (2) above ground tanks which provide fuel oil for the furnace, however on site personnel state that one (1) of the tanks is no longer in use. The furnace vents horizontally to the exterior wall on the north elevation and is equipped with a power assisted vent fan. Hot air is ducted from the furnace to floor registers in the first floor above.

At the second floor, there were two heating systems, an oil fired forced hot air furnace and an oil fired space heater. On site personnel state that the oil fired space heating unit was 250,000 BTU.

Air Conditioning
The Property has cooling at the first floor which is provided by two (2) window mounted air conditioners which were reported to be 12,000 BTU each.

Building Management System
The Property does not have a building management system. Temperature control is provided by local thermostats.

Observations/Comments
The heating systems were observed to be in fair to poor condition. On site personnel stated that the oil fired hot air furnace which serves the first floor had been installed within the past seven years. While the first floor

furnace appeared in good condition the basement space where it is located was observed to be a damp and corrosive environment. The original ductwork for the heating system and the plenum boxes at the discharge registers are were observed to be in poor condition and is rusting out and in some cases, are completely missing. Some ducts and plenum boxes have been replaced.

It was observed that the first floor furnace is vented horizontally and exits the basement low on the wall of the north elevation. The flue vent exits between ten inches (10") to twelve inches (12") above the exterior grade. This condition presents a significant risk that the flue could be obscured/blocked by snow accumulation causing carbon monoxide back up into the building.

The heating systems at the second floor were observed to be decommissioned and no longer functional. There is no heat at the second floor.

The window units were not installed and could not be observed at the time of the inspection.

Recommendations

The first floor furnace is located in the basement in a damp environment. To maximize the useful life of the burner regular annual inspections and maintenance are required. A program to ensure regular annual maintenance should be implemented to maintain system performance and enhance system longevity. The cost for boiler and burner maintenance is anticipated throughout the evaluation period.

The first floor heating ductwork and plenum boxes are experiencing significant corrosion. Some repairs to ductwork and plenum boxes have been made, however the heating distribution systems require replacement in the early term of the evaluation period.

At the back hall restroom, heat is provided by a small section of electric baseboard which was observed to be in fair condition. The electric baseboard will require replacement at the beginning of the midterm of the evaluation period.

The decommissioned and abandoned heating systems at the second floor should be removed. As previously identified in Section 5.4 Structural Systems, it appears that the oil fired hot air furnace was suspended from the attic structure which may have contributed to the noticeable sag in the roof structure. Removal of this equipment should be completed in the early term of the evaluation period.

The first floor furnace flue exits the building too close to the exterior grade presenting a significant risk of becoming blocked by snow and causing carbon monoxide to back up into the building. It is recommended that the flue be extended several feet above grade and a gooseneck provided in the immediate near term of the evaluation period.

There is currently no heat at the second floor. This condition will have a negative impact on the heating capability of the first floor system and the lack of even nominal heat at the second floor will impact interior finishes in the space. A new heating system should be installed at the second floor in the early term of the evaluation period.

It was observed that there is inadequate insulation in the attic. This condition will increase the difficulty and cost of heating the second floor and may be a contributing factor to ice dams on the roof. The attic roof should be insulated at the same time that the heating system is installed, in the early term of the evaluation period.

The existing air conditioning units were not installed at the time of the inspection. Window type air conditioning systems have an expected useful life ("EUL") of ten (10) years. The window air conditioning units will require replacement early in the midterm of the evaluation period.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.8 Heating, Ventilation & Air Conditioning							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Annual allowance for furnace & burner maintenance	15	YR	$150	$2,250	RM	1-15
2.	Replace corroded supply/return plenum boxes and duct work	1000	LB	$12	$12,000	CE	2
3.	Replace electric baseboard heat in restroom	1	EA	$200	$200	RM	5
4.	Remove oil fired furnace & gas fired modine units	1	EA	$5,000	$5,000	CE	1
5.	Add boiler flue extension and goose neck	1	EA	$500	$500	RM	1
6.	Install new heating unit for 2nd floor	1	EA	$12,000	$12,000	CE	2
7.	Install blown in isulation at attic	3200	SF	$2.50	$8,000	CE	2
8.	Replace two (2) window air	2	EA	$750	$1,500	RM	5
9.	Contingency		10.0%		$4,145	CE	
Total					**$45,595**		

5.9. Plumbing Systems

Description

The incoming water service is provided to the building by street pressure from the Town of Montague via a one inch (1") incoming water service fed from North Street which is located in the basement. The incoming water service is not equipped with a backflow preventor.

Domestic hot water is provided by a six (6) gallon electric hot water heater manufactured by Bradford White

Domestic water service was reported to be all copper pipe which was consistent with areas or pipe that was observed. Sanitary service was reported to be cast iron and exits the building to the Town of Montague sewer system.

Observations/Comments

Generally, the plumbing systems appeared in good condition. The electric hot water heater appeared to be installed in 2018 and is approximately two (2) years old. It was observed that the hot water heater was set directly on the earthen floor of the basement crawlspace.

Recommendations

Domestic hot water heaters typically have an expected useful life ("EUL") of eight (8) to twelve (12) years. The location of the hot water heater in the basement crawlspace set directly on the earthen floor is anticipated to lead to premature failure of the unit due to moisture and corrosion. The hot water heater is anticipated to require replacement early in the midpoint of the evaluation period.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.9 Plumbing							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Replace 6 gal. electric hot water heater & install concrete pad below	1	EA	$800	$800	RM	6
2.	Contingency		10.0%		$80	RM	
Total					**$880**		

5.10. Fire Protection

Description
The Property is not equipped with a fire sprinkler system

Observations/Comments
None.

Recommendations
There are no fire protection systems. As such there are no anticipated costs associated with these items.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.10 Fire Protection							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	No Noted Issues				$0		
2	Contingency		10.0%		$0		
Total					**$0**		

5.11. Electrical System, Telephone & Security

Description
Electrical service is provided by the utility company, Eversource via a service feed from a utility pole located on North Street that enters at an externally mounted electric utility meter at the rear (north) of the Property. There appear to be two (2) incoming services feeds provided at 120/208V which are located in a cabinet on the wall of the first floor.

One service appears to feed a 100 amp main disconnect manufactured by General Electric. It could be observed that this disconnect feeds a switch labeled for the fuel pump operating the second floor furnace.

The second service appears to feed a 50 amp main disconnect manufactured by Wadsworth. There are no visible wires leaving this disconnect.

Next to the 100 amp service disconnect there is breaker panel which feeds two outlets for air conditioners. It is not readily apparent which electrical service feeds this panel.

Adjacent to the 50 amp service disconnect there is an Edison screw type fuse distribution panel which has "Post Office" written on the wall above and on the panel itself. The schedule on the panel door indicates that the panel feeds the Library Furnace, the Children's Library, the Bath Water Heater, and possibly the back hall bathroom. It is not readily apparent which electrical service feeds this panel.

The exact distribution from these service disconnects is not readily identifiable as most of the distribution wiring leaving the main disconnects immediately enter the walls making it impossible to determine what is fed from each service disconnect.

At the second floor on the stage there is a 100 amp distribution panel manufactured by General Electric which feeds stage lighting and heating loads. A separate load center manufactured by Square D feeds the hall lighting and an outlet.

Electrical distribution throughout the Property is predominantly a combination of Romex and BX type wiring, with some wiring in EMT. At the basement, it was observed that there was older knob and tube wiring, however onsite personnel could not verify if the older wiring was active.

Observations/Comments

The electrical systems vary in age and quality and generally were observed to be in fair condition. Some of the equipment, such as the Wadsworth service disconnect are no longer manufactured or available.

Recommendations

The age of the electrical service disconnects and the uncertain distribution, it is recommended that the service disconnects be replaced with new load centers with a main service disconnect and circuit breaker style distribution panel and existing loads rewired to the new load centers during the early midterm of the evaluation period.

The second floor distribution panel appeared to be in good condition. Electrical panels themselves are not an operating component, however the breakers in the panel are. There is no predetermined expected useful life ("EUL") for an electrical panel. However proper, regular maintenance of the panel and replacement of the breakers is required. The electrical systems do not appear to be regularly serviced and/or maintained. The electrical panel and breakers should be replaced at the end of the midterm of the evaluation period.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.11 Electrical, Telephone & Security							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Upgrade 1st floor service disconnects with main circuit	2	EA	$3,500	$7,000	RM	5
2.	Upgrade 2nd floor electrical panel	1	EA	$2,000	$2,000	RM	10
3.	Contingency		10.0%		$900	RM	
Total					**$9,900**		

5.12. Lighting

Description

The lighting systems in the building are a combination of linear surface mounted or individual ceiling mounted light fixtures retrofitted with LED bulbs.

Observations/Comments
Generally, the lighting systems appeared to be in good condition and should provide adequate service for a minimum of ten years with continued repairs and maintenance.

Recommendations
There were no identified issues observed with the lighting systems.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.12 Lighting							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	No Noted Issues				$0		
2.	Contingency		10.0%		$0		
Total					**$0**		

5.13. Fire Alarm & Life Safety

Description
The Property not equipped with a fire alarm system

Illuminated exit signage and emergency lighting is provided by battery back-up.

Observations/Comments
There are two emergency exit doors, the main entrance and the side/handicapped entrance door located at the rear section of the Property. Both emergency exit doors were provided with an illuminated exit sign which appeared to be in fair condition.

The exterior door at the side/handicapped exit door was observed to be binding in the frame and difficult to operate.

There are two emergency egress exits/stairs from the second floor which lead to the two exit doors at the first floor. These exit stairs are not provided with illuminated exit signs. These stars are also pre-existing non-conforming to current code requirements for emergency egress stairwells.

There were a limited number of emergency lighting fixtures observed at the first floor, however it does not appear that there are a sufficient number of fixtures to provide the code required light levels at one (1) foot candle per square measured at the floor.

The second floor does not have any emergency lighting.

Recommendations
The exterior door at the side/handicapped entrance was observed to be binding in the frame and difficult to operate as well as rusted and corroded at the base of the door. This door must be replaced early in the evaluation period.

To meet the requirements of NFPA 101 all exit doors are required to have illuminated exit signs with emergency power or battery back-up that will operated during the loss of power. NFPA 101 also requires that emergency lighting provide a minimum of one (1) foot candle per square foot measured at the floor. Emergency exit signs and lighting must operate for 90 minutes after the loss of power. New exit signs and emergency lighting are necessary to meet code

The second floor has no illuminated exit signs above egress doors. Install new illuminated exit signs as required by code early in the evaluation period.

The second floor has no emergency lighting. Install new emergency lighting as required by code early in the evaluation period.

The emergency lighting at the first floor was observed to be older and the coverage insufficient to emergency lighting as required by code. Replace and add emergency lighting as required by code early in the evaluation period.

Battery operated emergency exit signs and lights have and expected useful life ("EUL") of four (4) years due degradation of the batteries, resulting in loss of brightness and duration of operation. Replace the battery-operated fixtures periodically throughout the evaluation period.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.13 Fire Alarm, Life Safety & Code							
Observation/Issue/Recommended Correction		Estimated Cost, Category and Year					
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Replace emergency egress door and hardware (side door)	1	EA	$1,800	$1,800	RM	1
2.	Add emergency exit signs w/ battery back up at 2nd floor	3	EA	$250	$750	RM	1
3.	Add emergency lighting at 2nd floor	6	EA	$250	$1,500	RM	1
4.	Replace and add emergency lighting at 1st floor	6	EA	$250	$1,500	RM	1
5.	Replace emergency exit signage at 1st floor	6	EA	$250	$1,500	RM	1
6.	Replace emergency lighting and exit sign batteries and/or fixtures	21	EA	$50	$1,050	RM	5
7.	Replace emergency lighting and exit sign batteries and/or fixtures	21	EA	$50	$1,050	RM	9
8.	Replace emergency lighting and exit sign batteries and/or fixtures	21	EA	$50	$1,050	RM	13
9.	Contingency		10.0%		$1,020	RM	
Total					**$11,220**		

5.14. Accessibility Review

Description

The Property was constructed before July 26, 1990 when the Americans With Disabilities Act went into effect. It also precedes 521 CMR – Massachusetts Architectural Access Board which was enacted on September 1, 1996. The first floor of the Property has most elements of accessibility including an accessible entrance and restroom.

Observations/Comments

Although the main entrance to the building is not accessible, the Property does have a handicapped accessible ramp and entrance at the east side which provides access to the first floor (Library). There is an accessible restroom located at the first floor which was observed to lack the required insulation on the drain pipe and trap below the sink.

It was observed that the Librarian's desk did not have an accessible transaction counter.

The second floor of the Property is not accessible.

While the Property was constructed prior to the enactment of State and Federal handicapped requirements, both the ADA and Massachusetts 521 CMR both have provision which require Owners to provide accessibility to "pre-existing, non-conforming" buildings based on various thresholds related to the value of the Property and the cost or repairs, maintenance and renovations. These requirements will come into effect with the Montague Center Library due to the significant cost of repairs and maintenance at the Property.

The requirements of 521 CMR requires varying degrees of improvement to handicapped accessibility base on increasing thresholds tied to the cost of renovations and repairs as it relates to the full and fair cash value of the Property. It also provides specific dollar limits for the value of renovations and repairs in any single year as well as the aggregate costs any three consecutive years. The following is the text of the requirements of 521 CMR 3.3 Existing Buildings:

3.3. EXISTING BUIDINGS

3.3.1 If the work being performed amounts to less than 30% of the full and fair cash value of the building and,

a. If the work costs less that $100,000, then only the work being performed is required to comply with 521 CMR

Or

b. If the work costs $100,000 or more, then the work being performed is required to comply with 521 CMR. In addition, an accessible public entrance and an accessible toilet room, telephone and drinking fountain (if toilets, telephones and fountains are provided) shall be provided in compliance with 521 CMR.

Exception: General maintenance and on-going upkeep of existing, underground transit facilities will no trigger the requirement for an accessible entrance and toilet unless the cost of the work exceeds $500,000 or unless the work is being performed on the entrance or toilet.

Exception: Whether performed alone or in combination with each other, the following types of alterations are not subject to 521 CMR, unless the cost of the work exceeds $500,000 or unless the work is being performed on the entrance or toilet (When performing exempted work a memo stating the exempted work and its cost must be filed with the permit application or a separate building permit must be obtained.).

a. Curb Cuts: The construction of curb cuts shall comply with 521 CMR 21.0: Curb Cuts,
b. Alterations work which is solely limited to electrical, mechanical, or plumbing systems; to abatement of hazardous materials; or retrofit of automatic sprinklers and does not involve the alteration of any elements or spaces required to be accessible under 521 CMR. Where electrical outlets and controls are altered, they must comply with 521 CMR.
c. Roof repair or replacement, window repair or replacement, repointing and masonry repair work.
d. Work relating to septic system repairs (including Title V, 310 CMR 15.00 improvements) site utilities and landscaping.

3.3.2 If the work performed, including the exempted work, mounts to 30% or more of the full and fair cash value (see 521 CMR 5.00) of the building, the entire building is required to comply with 521 CMR

3.5 WORK PERFORMED OVER TIME

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

521 CMR 5.00 – Definitions describes the calculation for "full and fair cash value" as:

FULL AND FAIR CASH VALUE OF THE BUILDING: The assessed valuation of a building (not including the land) as recorded in the Assessor's Office of the municipality at the time the building permit is issued as equalized at 100% valuation. The 100% equalized assessed value shall be based upon the Massachusetts Department of Revenue's determination of the particular city's or town's assessment ratio.

The assessed value of the Property, according to the Montague Assessors database is $735,100 and the value of the building alone is $596,100.

The thirty percent (30%) limit on exempt work would be $220,530 ($735,100 x .30). The value of the necessary repairs to years one and two are $298,000 will exceed the exempt limit of $220,530 requiring that the entire building comply with 521 CMR.

Recommendations

The exposed drain pipe and trap at the accessible restroom do not meet the requirements of the code. Installation of insulation on the drain and trap is required in the early term of the evaluation period.

The Librarian's desk is not equipped with a handicapped accessible transaction counter. Installation of, or modifications to the Librarian's desk to meet the requirements of the code are required in the early term of the evaluation period.

The second floor of the Property is not handicapped accessible. The cost of the required repairs and maintenance at the Property will trigger 521 CMR requirements to make the second floor accessible, necessitating the installation of an elevator.

Observed issues, recommended corrections, estimated costs to correct and priority are as follows:

5.14 Accessability Review							
Observation/Issue/Recommended Correction			Estimated Cost, Category and Year				
	Item	Qty	Unit	Unit Cost	Total Cost	Cat	Year
1.	Install pipe trap insulation at ADA restroom	1	EA	$100	$100	RM	1
2.	Install ADA acccessible transaction counter at Library Desk	1	EA	$2,500	$2,500	RM	1
3.	Install ADA accessible elevator	1	EA	$1,250,000	$1,250,000	CE	5
4.	Contingency		10.0%		$125,260	CE	
Total					**$1,377,860**		

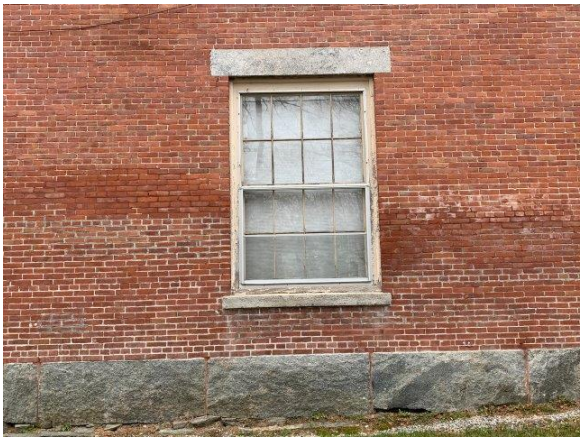
6 PHOTOGRAPHS

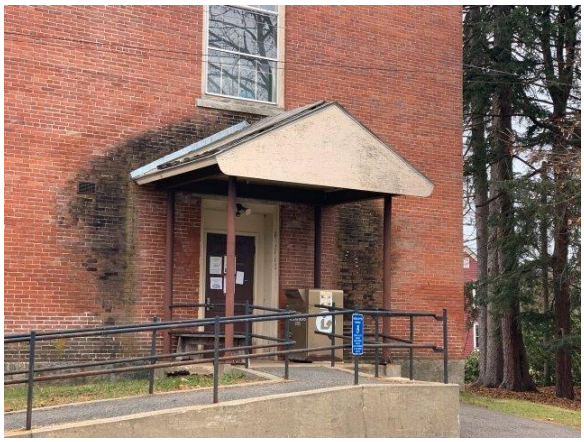
Site

MONTAGUE CENTER LIBRARY

Roofing

Exterior Walls



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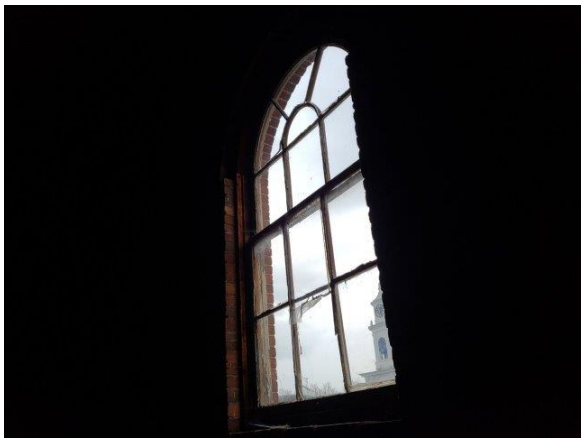
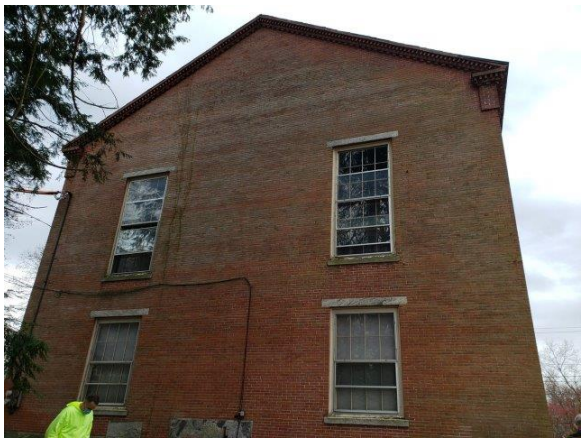
LIBRARY

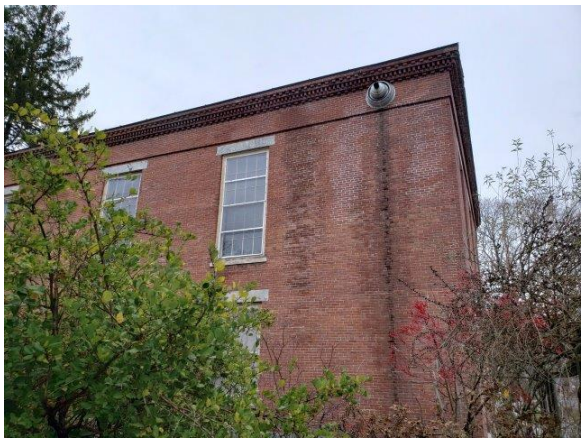

LIBRARY

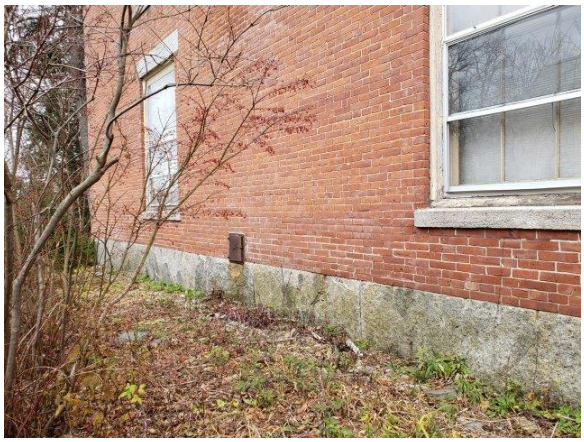
MONTAGUE CENTER LIBRARY

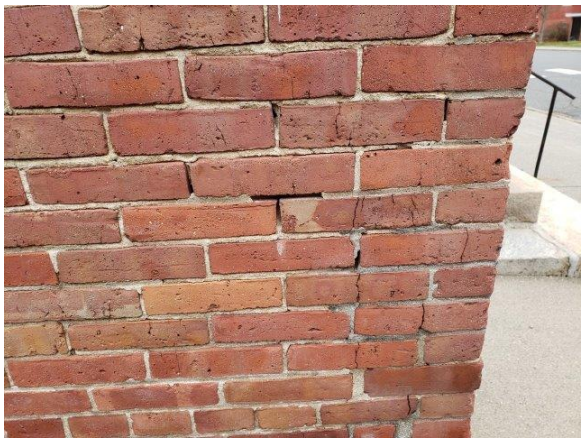


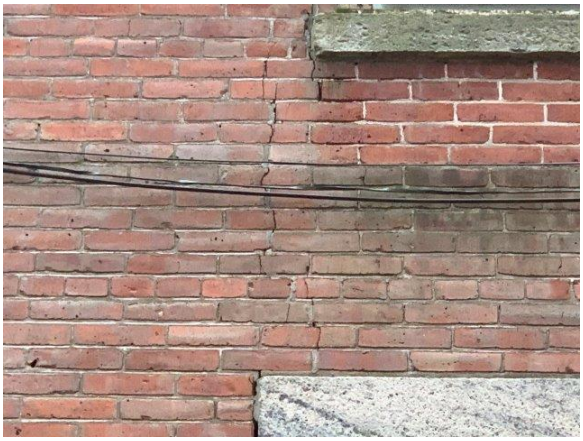


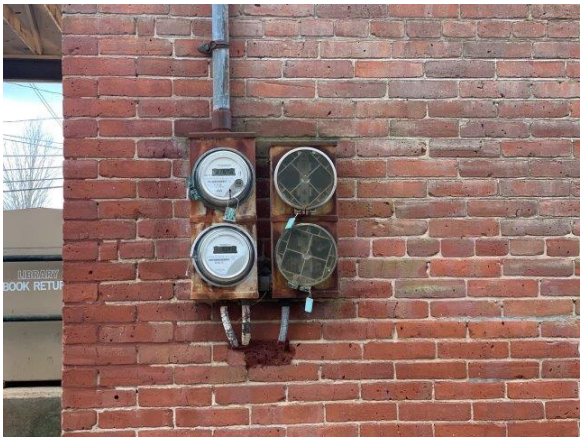

LIBRARY

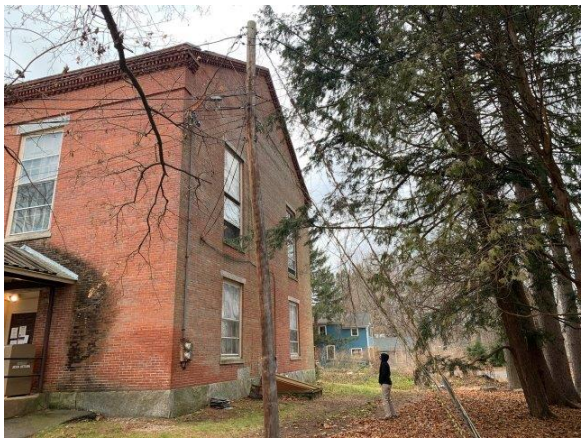






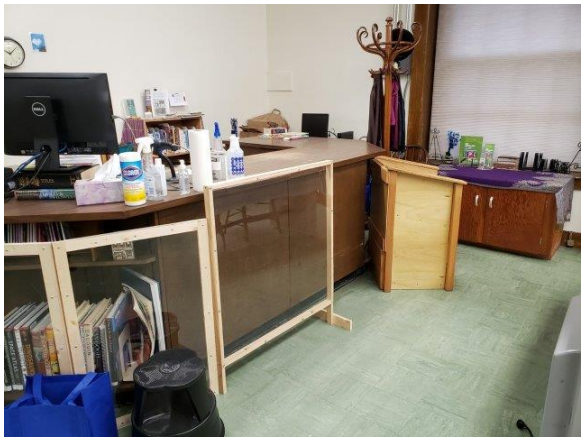


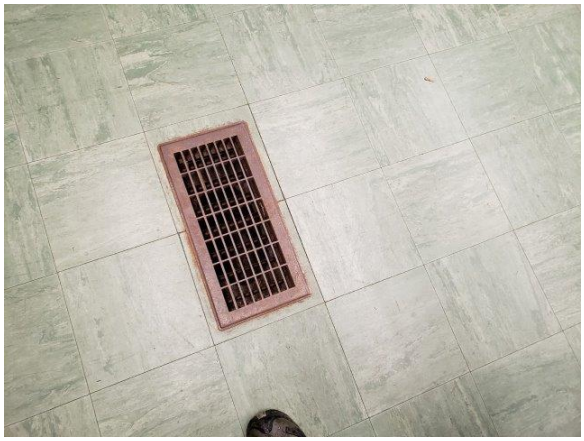


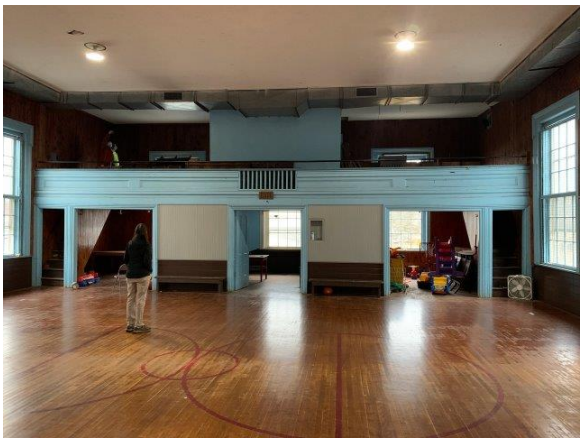
Structural Systems

Interior Elements

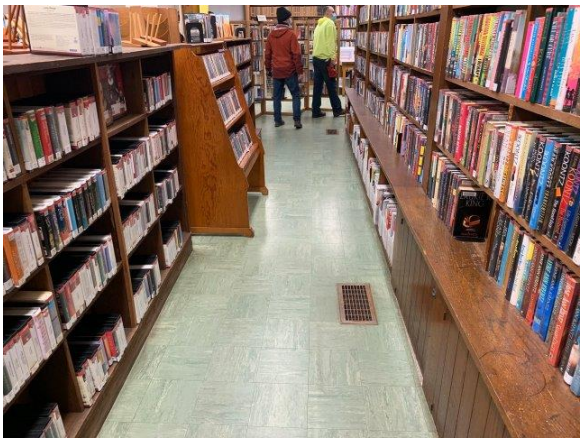

Now Playing
Teen Fiction

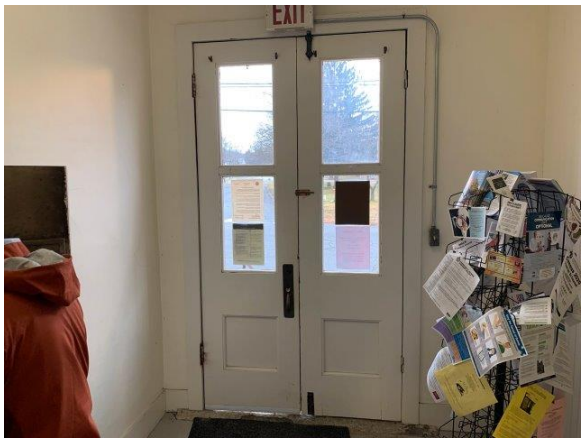


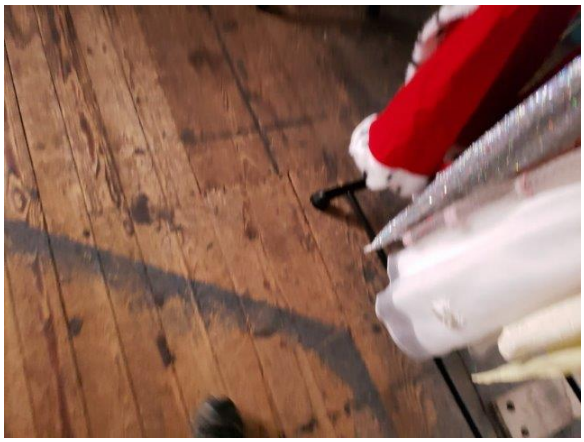
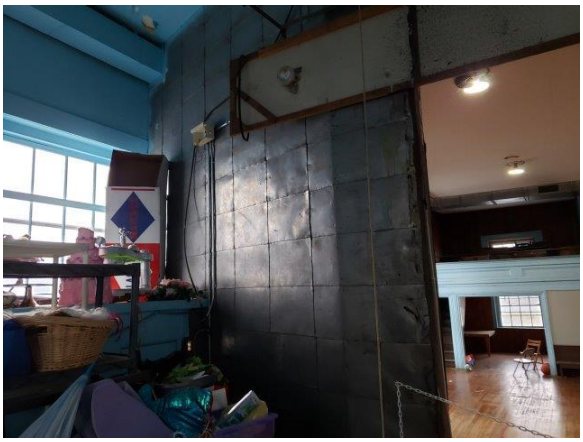




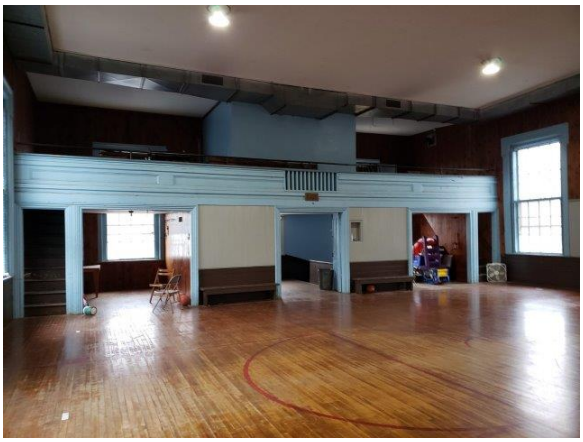
MONTAGUE CENTER LIBRARY





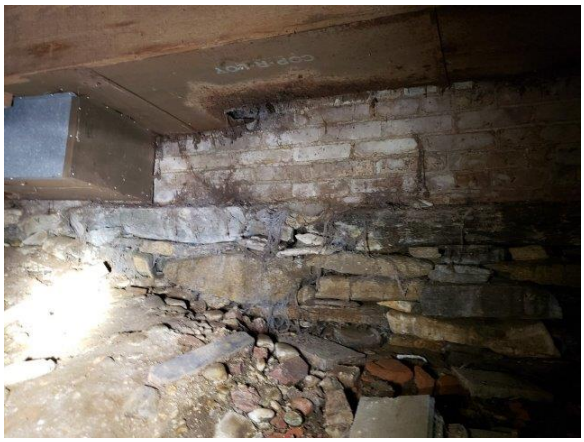



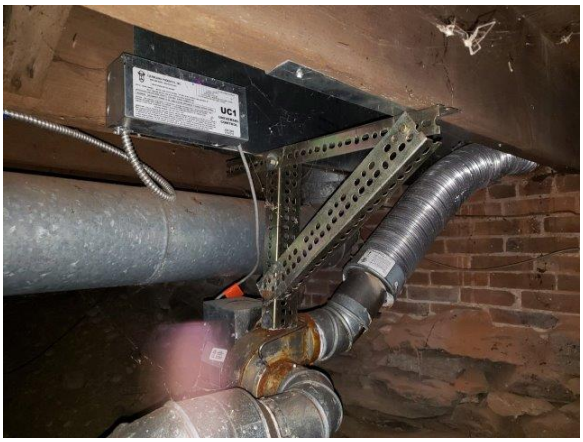


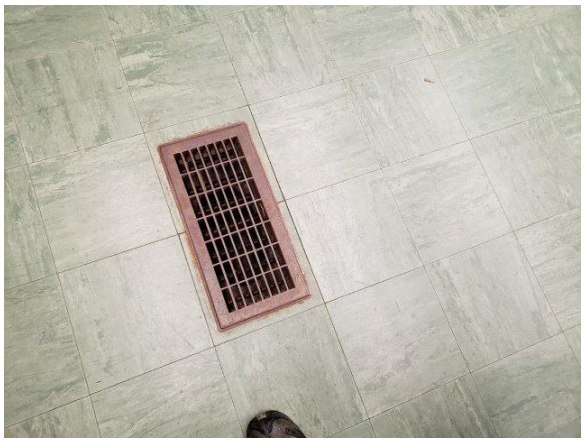


HVAC

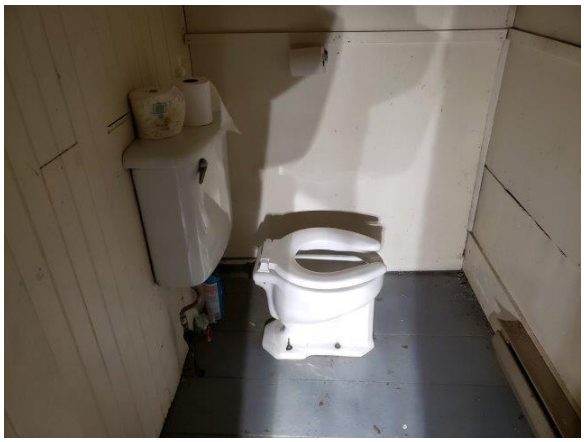

COPPER-LOY







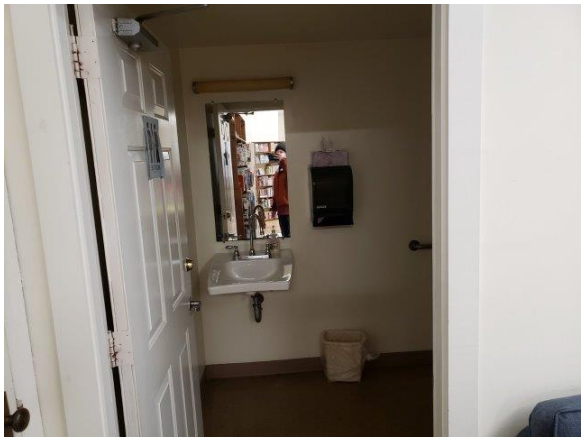
Plumbing Systems

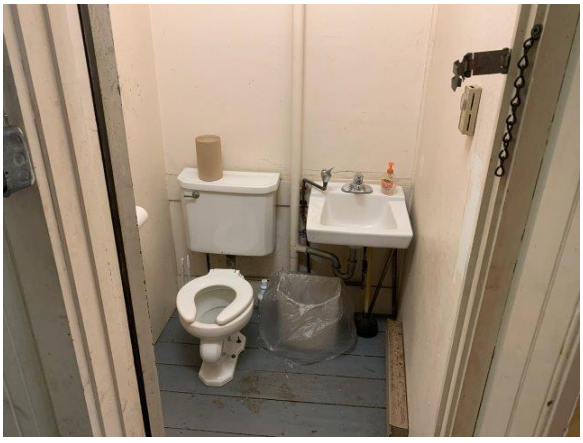


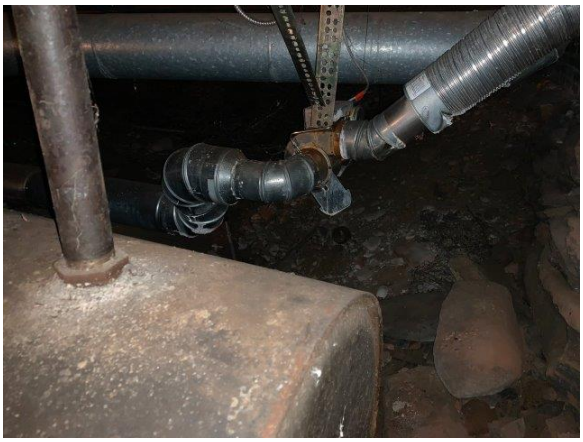

Capacity of tank:
Gauge thickness of shell:
Gauge thickness of heads:
Date of manufacture:
Tested to: Five (5) PSIG pressure
CRANBY STEEL TANKS Cranby Gilchrist Group

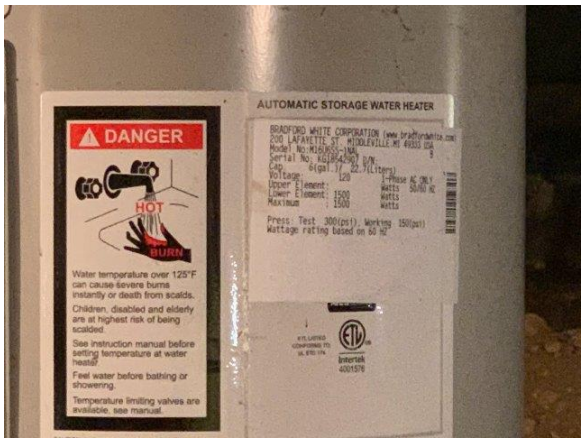

RESTROOM


RESTROOM





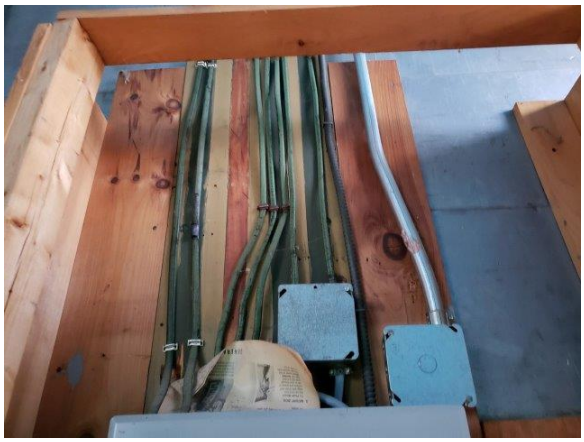
Electrical System, Telephone & Security

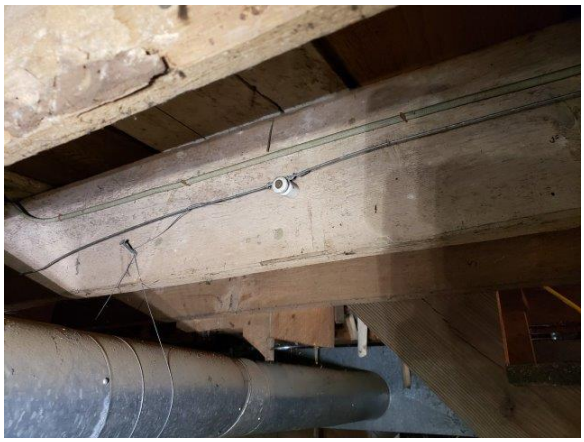

PWR SERV SW
110/220V AC


PWR SERV SW
110/220V AC


GENERAL ELECTRIC


DO NOT TOUCH

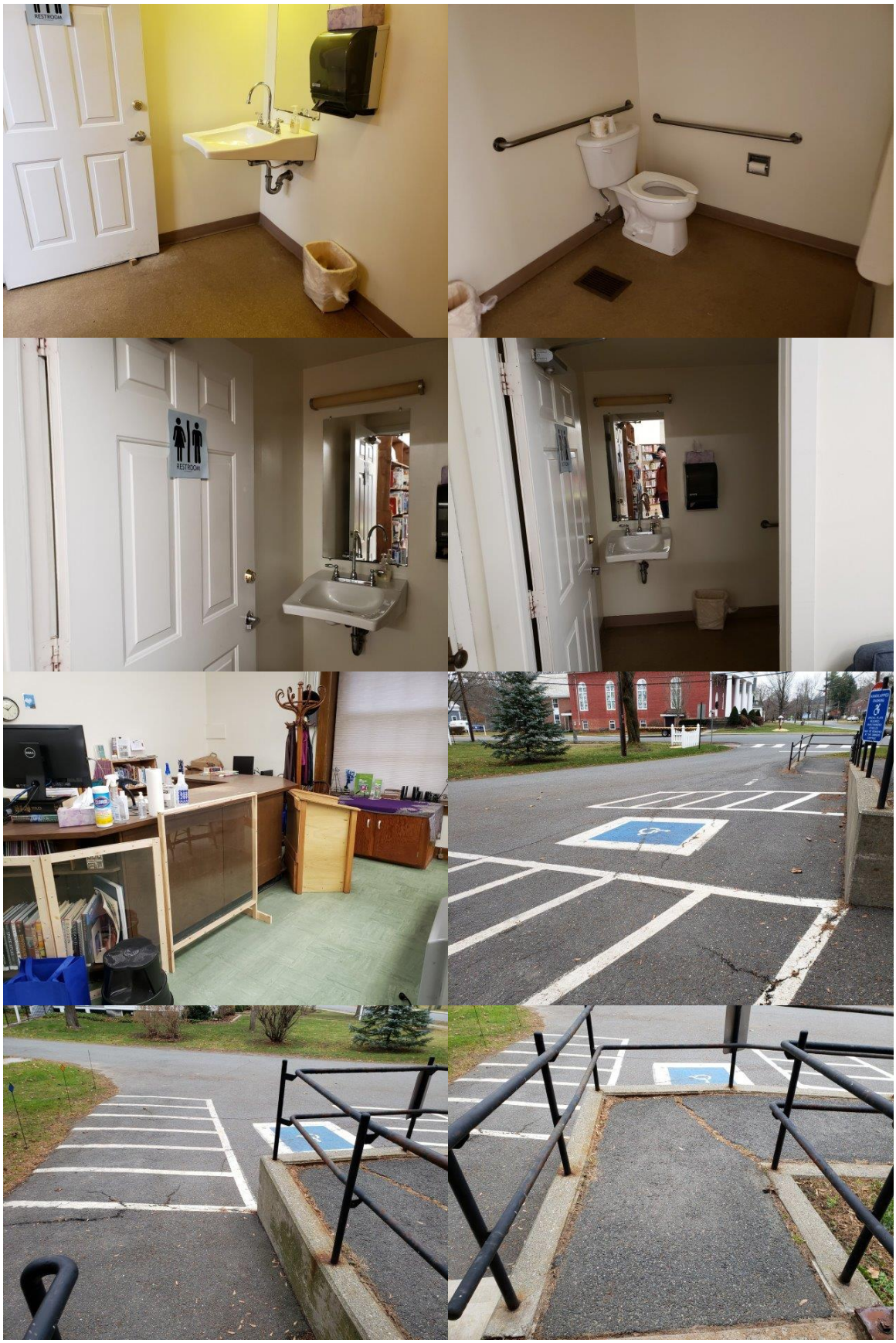


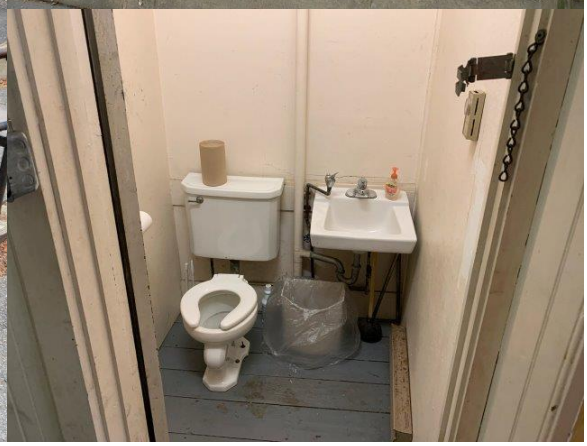


Lighting

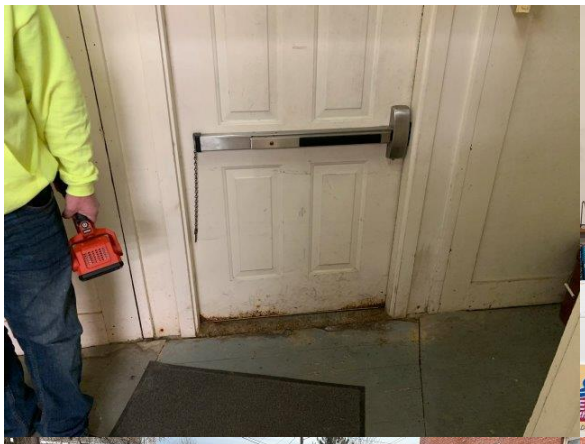
Fire Alarm & Life Safety

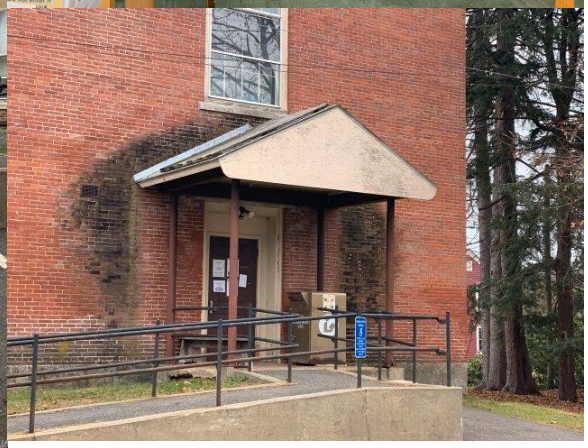
Accessibility


RESTROOM
RESTROOM



MONTAGUE CENTER LIBRARY





7 LIMITING CONDITIONS

PCA360, LLC conducted this due diligence Property Condition Assessment to opine on the subject's general physical condition in accordance with our agreement for this work.

The scope of this study was limited to a walk-through visual observation only of those areas that were readily observable and easily accessible. Tests, exploratory or destructive probing, exhaustive studies, removal or disassembly of any system or construction, or dismantling or operating of electrical, mechanical, or conveyance equipment were not performed. It does not include an in-depth system/component problem analysis or study, preparing engineering calculations of the structural mechanical, electrical or other systems to determine compliance with any drawings that may have been submitted or with commonly accepted design or construction practice. Not all typical areas such as corridors or toilet rooms were surveyed; only a sampling of such areas.

Excluded from the scope of this survey was any seismic evaluation of the building.

No responsibility is assumed for matters of a legal nature such as building encroachment, easements, zoning issues, or a compliance with the requirements of governmental agencies having jurisdiction.

PCA360, LLC assumes no responsibility for the accuracy or completeness of information provided by others, nor is PCA360, LLC responsible for any patent of latent defects, which an owner or his agent may have withheld from PCA360, LLC, whether by non-disclosure, passive concealment or fraud.

PCA360, LLC's observations, opinions and this report are not intended, nor should they be construed, as a guarantee or warranty, express or implied, regarding the property's condition or building code compliance. PCA360, LLC's opinions are based solely upon those areas that we observed on the day of our site visit and information resulting from our interviews and research. Actual performance of individual components may vary from a reasonable expected standard and will be affected by circumstances, which occur after the date of our site visit.

Services associated with the identification and elimination of hazards associated with hazardous and toxic materials, including asbestos, lead paint and PCBs are not included within the scope of this evaluation.

ADDENDUM I
521 CMR ARCHITECTURAL ACCESS BARRIERS BOARD

ADDENDUM II
ASSESSORS RECORDS