



Brookfield Town Hall, 6 Central Street, Brookfield, MA 01506

Phased Access Improvement and Re-Use Study

Final Report

June 1, 2014, rev. 7/1, 2014

Prepared for: Town of Brookfield
Brookfield Town hall
6 Central Street
Brookfield, MA 01506

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Executive Summary

The Town of Brookfield selected Austin Design Inc. (ADI) to provide designer services to conduct a study to record and assess the Town Hall with respect to physical building and site conditions, accessibility to persons with disabilities and compliance with the accessibility and building codes; to design solutions that bring together the programmatic needs of town government, meet accessibility and code requirements for the existing building and respond to and support the building's historic integrity and status as a building listed on the National Register; and, to present the design recommendations prioritized in three phases: Immediate Term, Medium Term and Long Term. The Design Team visited the building on five occasions in order to photograph and document existing conditions. ADI produced written and graphic building condition, structural, accessibility and building code audits. Proposed phases and designs for program and office layout were developed in conjunction with the Town Building Committee. Adjustments were made to limit the impact on the historic integrity of the building by maintaining existing conditions wherever possible, by maintaining existing elements and materials and directing that new work continue to compliment the character of existing materials and finishes. Schematic study drawings and a cost estimate were prepared reflecting the prioritized recommendations. This report compiles the work of the study including a descriptive survey of existing conditions, an outline of treatment recommendations, the prioritized recommendations and appendices A-G.

Summary: Building Conditions:

The Town Hall, built in 1904 is considered one of the Town's greatest resources and is both in an Historic District and listed individually in the National Register of Historic Places. While overall, the structure and building envelope are in good condition, with masonry maintained and the slate roof recently replaced, there are areas of brick that need repointing, windows are old and leaky and woodwork including trim and sash need repainting. The interior of the building, while boasting many original features and finishes, is worn and office accommodations are insufficient and outdated. The basement is used primarily for utilities and storage, and suffers from moisture and water problems. The first floor houses the only working toilet room, and the town offices, together with a large meeting room and Kitchen. The Great Hall Auditorium on the second floor has been closed off to the public due to lack of access and has been deteriorating from neglect and lack of heat. A balcony looking over the Great Hall lacks access as well as critical code required guard and hand railings. The third floor is also not accessible, except by stairs, and shows signs of deterioration due to disuse. The Support systems including restrooms, plumbing systems, heating and ventilating systems, electrical and fire protection systems are either not present and functioning, or functioning at an inferior level. The building is essentially not insulated, windows are old and leaky and the boilers and furnaces operate at low efficiencies. Operating costs are excessive and prohibitive.

Summary: Structural Report::

The building is a masonry and wood structure consisting of a stone foundation; solid, multi-wythe brick exterior walls, wood frame and truss floor framing, and wood frame roof structure. The building is solidly built with no floor deflection noticeable, except for a slight bounciness on the third / attic level. The building does not meet modern seismic standards and will require a full seismic review as part of the design for an addition or extensive renovation. Such review is based on the proposed use after renovations and is done as part of the construction document phase.

Summary: Accessibility Survey:

The first floor of the Town Hall is set over 3 feet above grade at the front of the building and was not, as originally constructed, accessible to persons with disabilities. A covered wood ramp leading to a rear side door was constructed in the past. There is no accessible route to the upper levels or to the basement. There are no accessible toilet rooms. There are other minor compliance issues throughout the building including lack of compliant handrails, door hardware, thresholds and the occasional lack of clearance at door openings. Under the American with Disabilities Act (ADA) the building must be made accessible to the extent necessary to ensure that programs *when viewed in their entirety* are safe, accessible and usable by persons with disabilities. Massachusetts State Regulation 521CMR does not apply to existing buildings until alteration and renovation work is performed, and then applies in relation to the dollar value of work performed in relation to the assessed value of the building

Summary: Building Code Survey:

Since the Town Hall was built in 1904 there have been few modifications to bring the building up to current code compliance. Some exit signs and emergency egress lighting have been installed, and there has been some door hardware replacement including exit devices at the main exit doors. Much of the building remains in non-compliance with building codes. The building has no fire detection or sprinkler system. However as an existing building listed in the National Register of Historic Places many of these non-compliant elements are permitted to be maintained in current condition under the IEBC.

Summary: Treatment Recommendations:

Recommendations are presented to address issues on 6 levels: Program and Use, Site, Building Entrances, Building conditions, Accessibility and Building Code.

1. Program and use related work includes new layout for office space and toilet facilities on the first floor and considerations for long term use of the basement.
2. Site work includes drainage improvements, paving replacement and new sidewalks and walks to building entrances.
3. Building entrance work includes a new accessible elevator lobby entrance, removal of existing ramp and awning structures and new hand railings at existing entrances.
4. Building condition work includes exterior and interior material repair and restoration and new plumbing HVAC, electrical and fire protection systems.
5. Accessibility improvements include reconstruction of paved surfaces, new elevator, new toilet rooms and other interior access alterations.
6. Building code work includes a sprinkler system, fire detection and alarm systems, and installation of exit devices, door closers and exit sign and egress illumination.

These recommendations are developed and presented in a phased work proposal summarized below and described fully in part 3 of the report.

Summary: Prioritized Recommendations:Phase I: Immediate Term - Accessibility Alterations:

- | | | |
|-----|---|-----------|
| 1.1 | <u>Minimal Access Alterations:</u> Perform minimal work (less than \$100,000) to fall under 521 CMR 3.3.1.a Only the work being performed need conform to 521 CMR. Work includes repairing the existing ramp, modifying rear entry doors and constructing an accessible toilet room. | \$40,400 |
| 1.2 | <u>521 CMR and IEBC Egress Code Alterations:</u>
Perform alterations to bring occupied space (First and Second Floors) into compliance with the ADA, 521 CMR and IEBC and Mass State egress code provisions consistent with the building's status as a registered historic structure. Apply for MAAB variance for non-compliant elements to remain. Work includes a new entry lobby and elevator at the southwest corner of the building that will service the basement and the first and the second floors, an additional toilet room and a lift to the stage. Work will include complete fire alarm detection and sprinkler systems. | \$888,100 |

Phase 2: Medium Term – First and Second Floor Renovations and Alterations

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|---|---|-------------|
| 2 | <u>First and Second Floor Renovations:</u> Renovate first and second floor, upgrade mechanical and electrical systems, install fire alarm and sprinkler, and conduct exterior repointing and repairs. | \$1,589,300 |
|---|---|-------------|

Phase 3: Long Term – Basement Renovations:

- | | | |
|---|--|-------------|
| 3 | <u>Basement Renovations:</u> Renovate Basement and systems to include a senior center community room, offices, and janitorial, storage and support spaces. | \$1,062,200 |
|---|--|-------------|

Conclusion and next Steps:

Currently the Town Hall is not functional as a viable center for town government. While the building is structurally sound and of great historic interest and quality, to provide a functional office environment and community resource the building needs to be fully modernized with improved office layout, new toilet rooms, plumbing, mechanical, electrical and fire protection systems. The Town Hall is open to challenge, under Title II of the ADA, that it is not accessible due to the lack of access to lower and upper floors, lack of accessible toilet rooms, and other barriers to access throughout the building. The auditorium can not be used until access is provided to the second floor and the stage and until weatherization measures are taken and a more efficient heating system is installed. The basement level is not currently habitable or suitable for dry storage.

This report offers options for addressing these issues, with a narrative description of the proposed work, schematic drawings and estimated construction costs. Minor repairs to the ramp and rear entrance, and construction of a new accessible toilet room will improve accessibility to the first floor. Installation of a new elevator from a front lobby entrance will offer improved universal access from the street and extend access to the basement and second floors. The balcony and the third floor will remain closed to public access due to the complexity, degree of impact on the historic integrity of the building and prohibitive cost of elevator access to those levels. Renovation of the first floor office space and systems will transform the working environment for staff as well as the level of services that the town can offer its residents. Renovation of the

second floor will restore the Great Hall Auditorium to full use by the Town. The basement level, if renovated offers the potential for an additional community resource and the opportunity to make up for lost space on the third floor.

Were the town to move forward to complete the work under one of the phases above, the next step would be to hire a design team to complete design development, construction documents, bidding and construction supervision for the project. Design fees could be expected to range from 15% of estimated construction costs for Phase 1.1 (\$6,060), 12% for phase 1.2 (\$106,572) and 10% for phase 2 (\$158,930) and 3 (\$106,220).

As the Town considers how best to address the future of this important resource, it is our hope that the proposals put forward in this report may serve as a guide to providing the community once again with a fully functional and complete Town Hall.

Part One: Existing Conditions Survey and Assessment

Summary

The Brookfield Town Hall is a Neo-Classical structure with solid walls, granite base, sandstone lintels and banding, original wood windows and wood detailing. Interior walls are horse hair plaster over 2x4 framing. Wood trim is red Oak. Floors are a mix of original wood, tile, linoleum and carpet.

The building is sited on Center Street with its west and south facades very visible. An 86 foot clock tower is part of the west façade.

The interior layout of each floor is typical of a large municipal building constructed during the early part of the 20th century. The basement level consists of utility, boiler and storage rooms. It also housed the police department and had a civil defense office. Both uses have been relocated to other buildings. The first floor is accessed off Center Street by two entrances, the main entrance near the west end and a secondary entrance at the east end of the main façade. Both entrances are about 3 feet 6 inches above street level, thus, accessible only by a flight of stairs. There is an added covered wood ramp that provides accessibility through the west façade to the first floor only.

The first floor layout consists of municipal offices, a monumental main open staircase to upper floors floor, a banquet room and kitchen. A secondary stair adjacent to the southeast entrance provides access to the basement and egress from the second and third floors.

The second floor is accessed by the main staircase and a small secondary staircase on the east end. The second floor layout includes an auditorium, stage, dressing and meeting room. A balcony along the western end of the floor is accessed by a set of wooden staircases, one leading off the landing of the main stairway and the second, leading from a small meeting room.

The historical significance of the Brookfield Town Hall is based on two factors; first, the building has been able to serve and provide the community with many civic activities and spaces, and secondly, the building is unique in that it was constructed mostly of materials from local sources.

Because the building's basement second and third floors are inaccessible to the community, the historic significance of the building has been compromised, in part. The planned phased changes to the building to meet current accessibility and code issues will, once again, allow the building to realize its full historical significance.



South, Front elevation



West end elevation

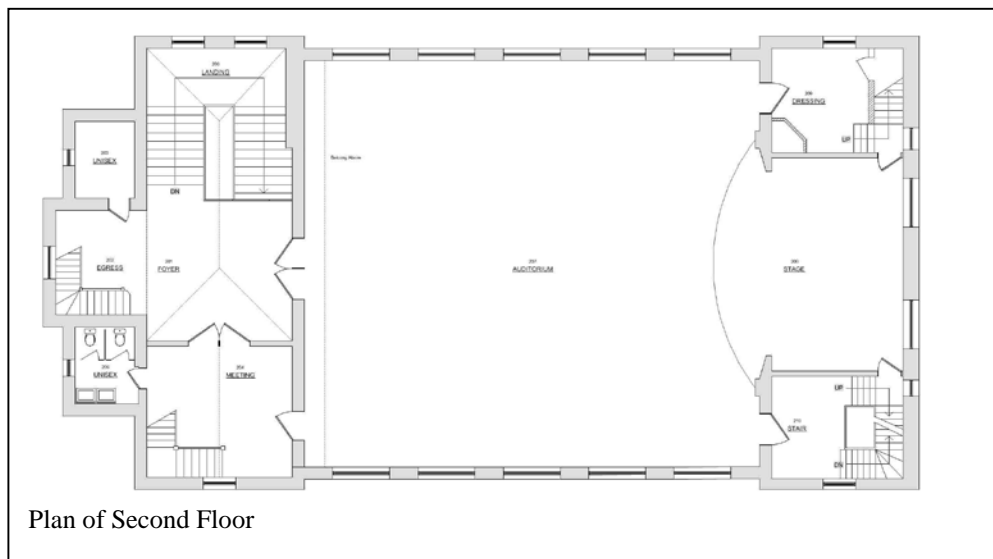
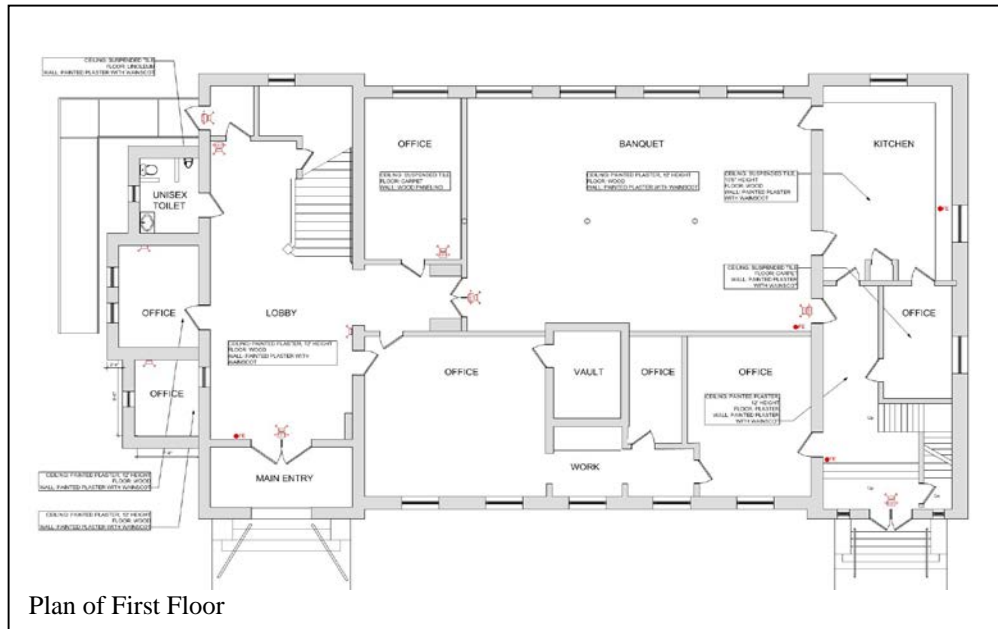


North, rear elevation



East, end elevation

Program use and Function: The Town Hall, once a bustling center for town government services, and town and community programs and events, has withered in use over the years, with a dramatic drop off occurring after the Great Hall Auditorium was closed to the public due to lack of accessibility. Use of the third floor by the Masonic Lodge ceased in 1930. Office space has not kept pace with the increasing demands for town services and the technological sophistication of service delivery. The cramped and intermingled work environment, without a proper interface with the public offers an inefficient and insecure environment for staff. The layout of the first floor does not satisfy current demands for space. The basement is used primarily for utilities and storage, and suffers from moisture and water problems. The second and third floors are not useable due to lack of access. Mechanical and electrical services are out dated and do not provide basic levels of comfort to staff or visitors. See Appendix C for complete existing drawings.



Site Conditions: The building faces Center Street, and except for a strip of lawn between the building and the street sidewalk, is surrounded by asphalt pavement, broken pavement and a gravel surface. The fire department is located to the northwest. Behind and to the North of the building is an open gravel and paved expanse used for parking and vehicle circulation. There are storage and material sheds on the perimeter. It is bordered on the East by a residential lot. There are plans to construct a new police station and a septic system to the Northeast. The site slopes from west to east. Relevant notes on the condition of the site as it affects the use and occupancy of the building are as follows:

1. **Paving surfaces are deteriorated:**

The asphalt paving around the building is generally deteriorated, frost heaved, patched and uneven posing a tripping hazard for pedestrians. On the North side of the building the paving has been ground up and a gravel like surface extends roughly 25 to 30 feet from the building.

2. **Drainage and subsequent water infiltration:**

The combination of slope, paved surface and copious roof drainage without gutter and downspout collection results in accumulation of water against the building and subsequent seepage through the foundation walls and up through the basement floor slab. This is particularly troublesome on the West and South sides where water is trapped against the building. There has been an attempt on the South side to collect the water into a storm drain, but the collection point is too close to the building edge and the storm drain is undersized. In addition, snowfall from the roof builds up and drains back to the paved drainage swale against the building.

3. **Walkways are deteriorated and Dangerous:**

Walkways consist of an asphalt paved sidewalk in deteriorated and uneven condition with similarly poor asphalt walks leading to the two front entrances. On the east end there is a steeply sloped, heaved and uneven concrete walk that leads from the front corner of the building to a basement side entrance. All the walks are deteriorated and pose a severe tripping hazard.



Paving surfaces are deteriorated



South face drainage



Storm drain at south face drainage



Walkways are deteriorated: Patched and uneven sidewalk at front of building.



Walkways are deteriorated and dangerous: Asphalt paving and concrete walk at side service entrance.

Building Entrances: There are four entrances to the building: The main, public entrance at the West end street face; a secondary entrance on the East end of the street face; an entrance on the west end currently serviced by a wood ramp; and a service entrance to the basement on the East end.

1. **Main Front Entrance:**

The main entrance is reached over uneven and patched asphalt pavement from the sidewalk and parking area. Slopes are generally flat. A newer wooden roofed and sided awning structure extends out from the entrance in an effort to protect those entering from falling snow and ice. The awning obstructs a direct view of the steps and isolates the original stair handrails. Granite steps lead up to an arched portico. Two large oak bi-swing doors with transom provide entrance into the main lobby. The stairs have a small stone capped brick sidewall with post lamps mounted on top. Stair handrails do not comply with 521 CMR access code requirements.

2. **Secondary Front Entrance:**

A secondary entrance is located on the east end of the Center Street façade, similarly approached over uneven and patched asphalt pavement. The walk slopes to the south creating severe cross slope as one approaches the first steps. The stairs are similar to the main entrance with granite treads and brick and stone sidewalls. The front doors are set back slightly in an arched opening with an arched round-top transom. There is no landing in front of the doors. Stair handrails are non-compliant.

3. **Ramped Side Entrance:**

A newer wooden, covered ramp was constructed at the entrance on the northwest corner end of the building. The ramp starts mid way along the west facade, adjacent to two designated accessible parking spaces. Pavement is uneven and patched. The ramp itself is worn, but serviceable. The original stairs beneath the ramp have been removed. A single door leads into the building, entering into a small air-lock beneath the main stairs and from there to the main hall.

4. **Service Entrance:**

A single-door entrance on the East end of the building opens into the basement. There is a small wood awning over the door. The approach is by a deteriorated and steep concrete walk from the front or by deteriorated asphalt paving from the side drive. The door opening itself is very low and enters into the building at 3 steps above finish floor with no landing. The interior steps interfere with egress up or down a set of stairs from the front entrance above.



Ramp entrance on west end. Wood ramp is aged, but functional.



Main, front entrance with awning obscuring entrance and stair handrails



Secondary, front entrance. Doors swing out with no landing at top of stairs.



East end entrance to basement showing low doorway and deteriorated walkway

Building Condition: The Brookfield Town Hall is a Neo-Classical structure with solid walls, granite base, sandstone lintels and banding, original wood windows and wood detailing. Interior walls are plaster and wood trim is red Oak. Floors are a mix of original wood, tile, linoleum and carpet. The roof is slate, recently replaced. Interior walls are plaster and wood trim is stained Red Oak. Floors are hardwood with linoleum and carpet installed over the original wood flooring in locations.

1. **Exterior Materials and Finishes:**

The body of the building is a deep sandy red brick with recessed coursing every 8th course on the first floor level and regular coursing above. Sandstone banding occurs at the base level, at the first floor level and above the great arched auditorium windows. There are stone sills, arched lintels at the main entrances and stone pediment blocks at the windows.

a. **Masonry:**

The brick and stone are in overall good condition. Mortar joints are overall tight and not severely weathered with a few exceptions, notably the clock tower and a few other areas at the upper reaches of the façade. Masonry along the base has been repointed in the past with careful attention to mortar matching. There is isolated efflorescence on the brick, particularly at the exterior stair side walls. The brick and stone are in need of cleaning.

b. **Windows:**

Windows are single pane double hung and fixed transoms without storms. Muntin pattern is 6 over 6. Sash is loose and needs refurbishing. No missing or broken glass was seen. Window sash, frames and trim are peeling badly and in need of paint.

c. **Soffit** is wood with large overhang and dentil detailing.

d. **Roof:** The roof is slate, recently replaced in 2012 . Over the course of the last winter, a total of 25 slates have come loose and fallen to the ground, discovered in the snow at the base of the building. It appears from an analysis of the slates that these are slates that have been adhered, rather than nailed, at flashing locations. The adhesion has failed in extremes of hot and cold and differential expansion of materials and the slates have come loose and slipped out. It is recommended that the slates be reinstalled with gasketed stainless steel nails and sealant.



Front elevation



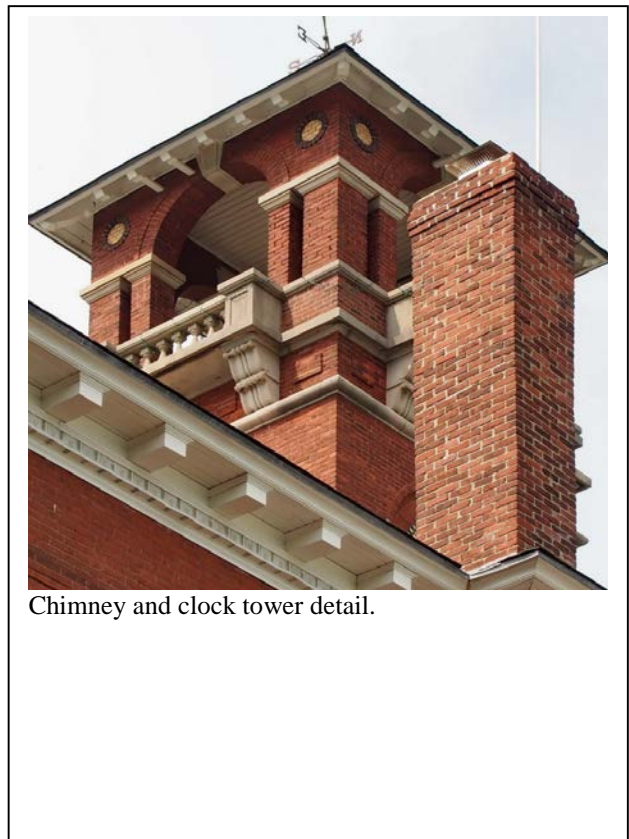
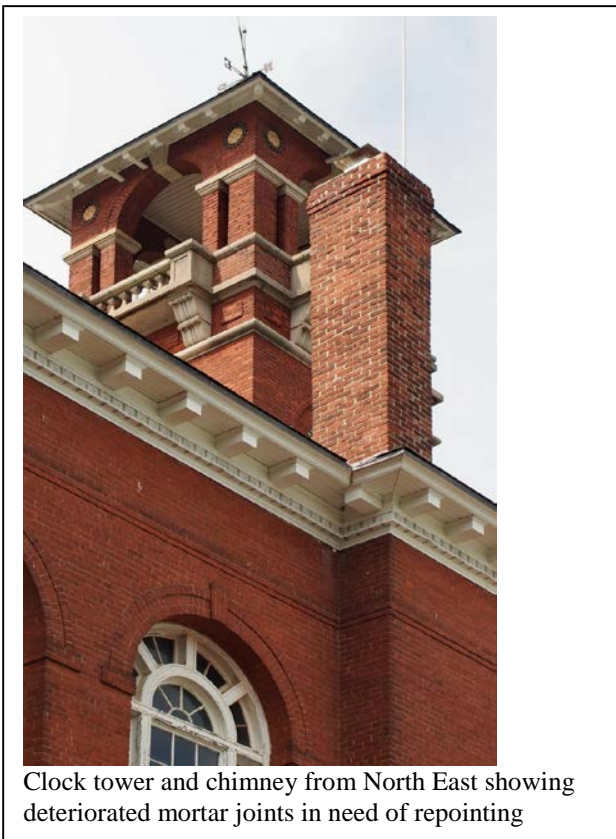
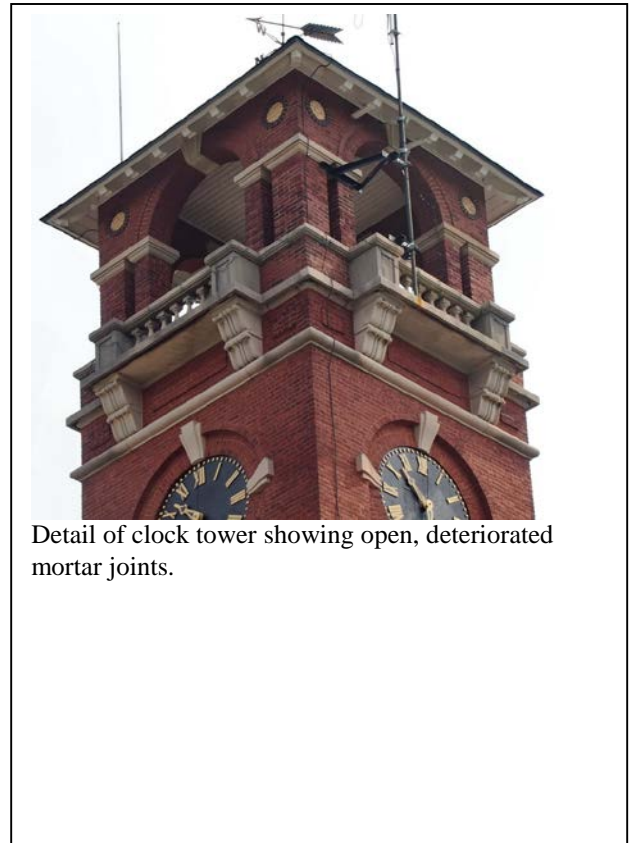
Detail of granite base, brick coursing and sandstone banding. Brick at lower levels has been repointed.



Example of brick repointing with inappropriate mortar. Such examples are rare.



Masonry in need of cleaning, North façade.





Front entry doors in recessed alcove. Masonry joints are tight, floor tile is in good conditions. Oak doors need to be refinished.



First floor windows with arched brick opening and sandstone sill. Storm windows have been applied over existing.



First floor windows in pedimented opening. Paint is peeling



Second floor auditorium windows, double hung with fixed sidelights and fixed arch top. Paint is peeling.



Painted soffit. Woodwork is in good condition, with paint holding up better than at windows.



Slate roof showing snow deflector and guards over entrance. Additional, more effective snow guards and larger, copper gutter are recommended in lieu of the awning over the entrance below.



Slate roof showing penetrations. It is believed that slate that has loosened and fallen from the roof is slate that has been adhered, rather than nailed and was located at areas where slate meets the flashings at roof penetrations and dormer sidewalls.

2. Interior Materials and Finishes:

Interior materials and finishes range from concrete floors and predominantly masonry walls in the basement to plaster walls and wood floors on the first and second floors to wood paneled walls and carpeted floors on the third floor. Overall, finishes are worn and in need of patching and painting. Many finishes are not original and their removal and the restoration of original floor and ceiling materials will enhance the historic integrity of the building.

e. Basement:

The basement has a perimeter foundation wall of granite exposed to 7'-6" and brick above. Interior walls are brick with a scattering of wood frame plaster and drywall partitions. Brick piers support bearing points above. Floors are concrete, with various areas having raised floors of wood or concrete. Ceilings are a combination of exposed wood floor joists with areas of drywall or metal applied to the underside of the joists. Ceiling height ranges from 9'6" to 8'6" depending on floor level and ceiling finish. There is one exit door on the East end and a total of 5 mid-height windows on the North and East walls. Overall the basement is unfinished, floors show signs of water seepage, and there are signs of water penetration on the exterior walls. The basement is damp and smells of mildew.



Basement hallway and egress/ service entry door. Note interior brick bearing walls. Stairs to exit intrude on egress to and from stairs to first floor on right.



Stone foundation, brick knee wall and floor joists are visible. Former stairs that led to first floor, but are now closed off are located where new elevator is proposed to be installed. Signs of moisture are visible on the wall and floor.

f. First Floor:

First floor finishes consist of wood floors, wood wainscot, horse hair plaster walls and plaster ceilings. Over the years modifications have been made that include carpet on floors, wood panel ceilings and hung acoustical ceilings. Ceiling height is 12' except where lowered by newer hung ceilings. Doors are wood panel with transoms. Base and trim are wood, mitered and of medium detail. Woodwork is Red Oak darkened over the years. There have been new lighting fixtures, radiant baseboard and emergency lighting and exit signs added to the building over the years. The overall condition is maintained, but worn.

i. Lobbies and Stair halls:

The main lobby has a hardwood floor, beaded wainscot, cased arched openings, paneled doors with glass transoms and plaster walls and ceiling. The ceiling plaster has a scallop texture finish which is not original. A floor to ceiling curtain on metal track, installed to keep heat from rising up the stairs encloses the base of the main stairway. Lighting fixtures appear to be original. Exit signs and egress illumination has been added.

ii. Central Core

A banquet hall, historically used for many civic functions is located in the center part of the floor. An office flanks the banquet hall and the main offices and a vault are located opposite the hall. The banquet hall has carpet installed over the flooring and a lowered wood panel ceiling. A heavy chairrail replaces the beaded wainscot of the halls. Fluorescent lighting, accent lighting and exit signs have been added. The windows have curtains and shades. The office area mix of wood floors, plaster walls and ceilings. Lighting is varied.

iii. Kitchen:

The kitchen has a worn linoleum floor, plaster walls and older cabinets, counters and appliances. The ceiling is hung 2x4 acoustic tile with recessed fluorescent lights. Walls are plaster.

iv. Toilet Room:

The toilet room on the first floor is the only functioning toilet room in the building, with a toilet, urinal and lavatory. It has a linoleum floor, beaded wood wainscot, plaster walls and a hung acoustical ceiling. The fixtures are not accessible and at 30" clear, the doorway is too narrow to admit a wheel chair.



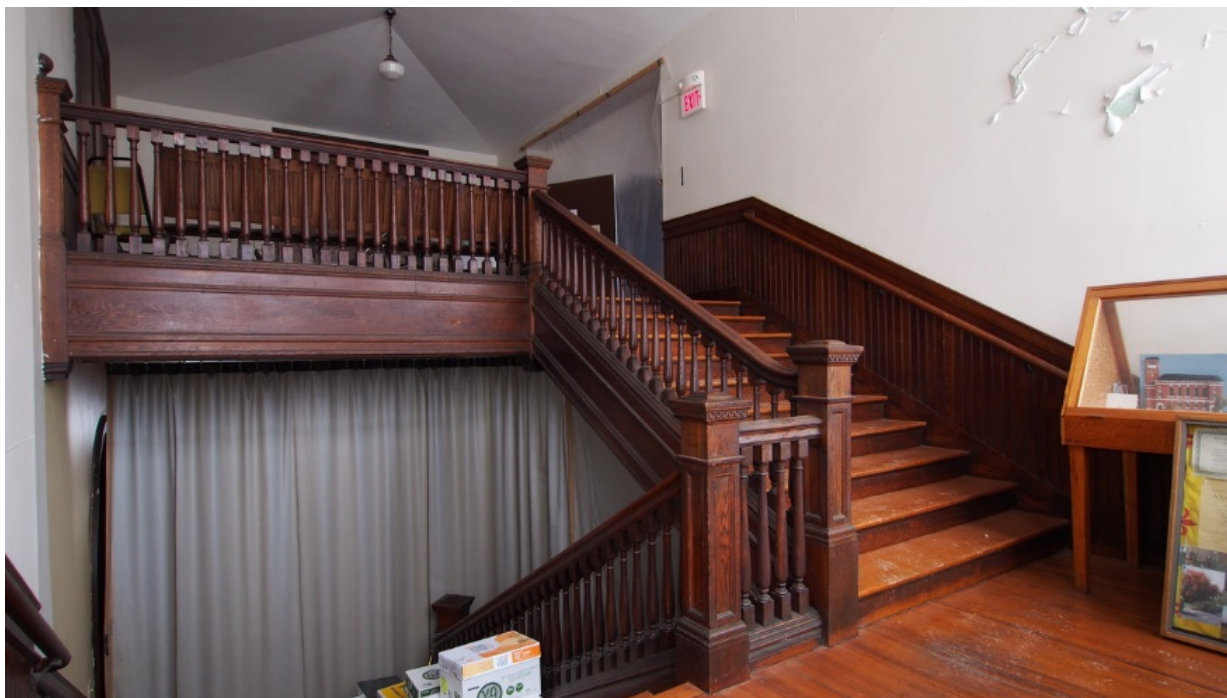
Main lobby and stair hall..



Entry door from main hall.



Beaded wainscot and railing at main stair.



Main stair from landing to second floor.



Banquet hall showing carpeted floor, lowered panel ceiling, steel bearing columns, plaster wall finish and chairrail.



Kitchen with hung ceiling, wood floor.



The sole toilet room on the first floor has one toilet stall and one urinal. Ceiling is hung tile, floor is sheet vinyl.



Typical office with carpet floor, textured wall paper, chairrail and hung ceiling tiles and fluorescent lighting.

g. Second Floor:

The second floor is accessible by the main stairs off the front lobby and by a second set of egress stairs off the secondary entrance lobby. It houses a small room currently used for storage, a small meeting room with stair to the balcony and the auditorium and stage. Wings off the stage house a dressing room with stair to a mid level storage room on one side, and the egress's stair on the other. The stage is not accessible. There is a toilet room off the meeting room that has been shut down and is not operating. Floors are wood throughout. The hall and stairs have beaded wainscot. The Great Hall Auditorium has a plaster walls with chairrail and a coffered ceiling. Great arched single glazed wood windows let in copious amounts of light. There is a balcony that is accessed from either the main stairs in the clock tower or stairs in the small meeting room. Overall, the condition of the finishes is in need of repair. The auditorium is of a grand and nicely detailed scale but has suffered from lack of heat and excess moisture with peeling paint and lightly damaged plaster walls. Lighting fixtures appear to be original. Exit signs and illumination have been added.



Second floor auditorium with balcony on left, stage on right. Peeling paint is visible on exterior walls.



Auditorium looking toward balcony.



Door to 2nd egress stair from auditorium.



Peeling paint detail.



Window casing and peeling paint..



Meeting room off auditorium with stair to balcony. Meeting room is location of proposed elevator second floor lobby.



Decommissioned restroom on second floor. Restroom is at location of proposed elevator hoistway.

h. Auditorium Balcony:

The auditorium balcony is accessed from the clock tower stairs and from the meeting room off the auditorium. The balcony has been closed to the public because it is not accessible to people with disabilities and it lacks code required guard and handrails. There is no fixed seating on the tiered platforms.



Balcony.



Balcony.

i. Third Floor:

The third floor is accessed by the stairs in the clock tower and by the egress stairs in the Southeast corner. It houses a lobby and the Old masonic Hall. The rooms are plaster with sloped and flat ceilings. Windows in hip dormers on the North face bring in natural light. The floor is carpet over wood. The balcony has been closed to the public because it is not accessible to people with disabilities



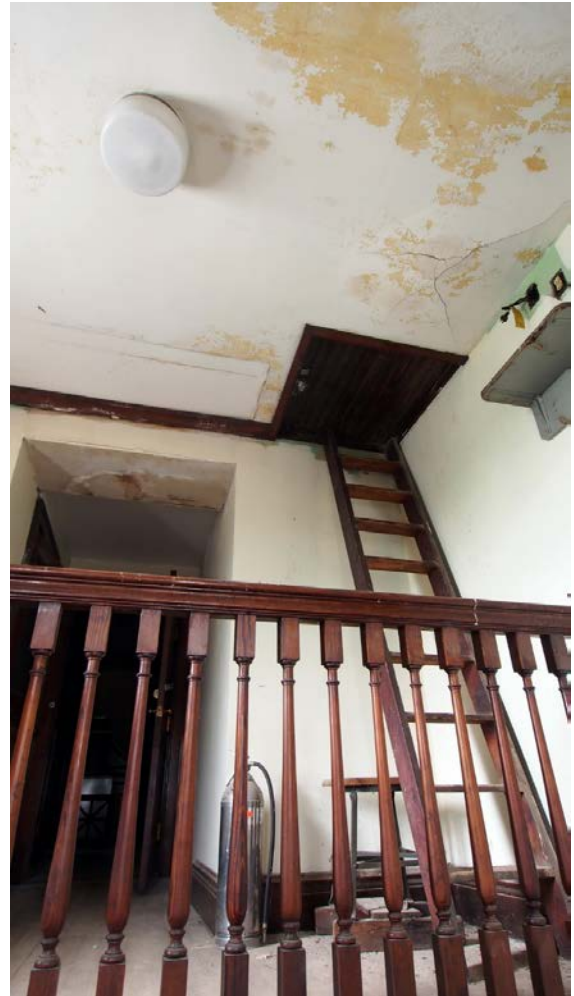
Masonic lodge room on third floor.



Foyer to Masonic lodge room on third floor.



Egress stair from third floor.



Third floor hall in clock tower showing ladder to clock level and damaged ceiling plaster and peeling paint.

3. Structure:

The building is a masonry and wood structure consisting of a stone foundation; solid, multiwythe brick exterior walls, wood frame and truss floor framing, and wood frame roof structure. The building is solidly built with no floor deflection noticeable, except for a slight bounciness on the third / attic level. The building does not meet modern seismic standards and will require a full seismic review as part of the design for an addition or extensive renovation. Such review is based on the proposed use after renovations and is done as part of the construction document phase.

A summary of the building structure follows. For the full structural report including photographs and drawings see Appendix D.

- a. Exterior Walls: The exterior walls are 16" thick and consist of 11" unreinforced solid brick masonry, 3 1/2" of 2x stud wall against the brick, and 1 1/2" of lath and horse hair plaster over the studs. There is no insulation.
- b. Basement: The basement has a concrete slab, masonry walls and piers and the occasional wood and plaster partition. The basement ceiling is both exposed floor framing and attached drywall or metal.
- c. First Floor: The first floor floor structure bears on the exterior walls, on the interior masonry walls that define the stair halls and on brick walls and piers in the interior central core. Interior partitions are both solid masonry with plaster finish and wood frame with plaster finish. The ceiling is plaster attached to the underside of the floor joists, with the occasional hung acoustical ceiling added at a later date.
- d. Second Floor: The second floor floor structure bears on the exterior walls, on the interior masonry walls that define the stair halls and on beams and columns over the large banquet hall space below on the first floor. The ceiling in the stair hall wings is plaster attached to the underside of the floor joists. The ceiling in the auditorium is plaster hung on the underside of the trusses that span across the space and support the third floor. The curved section of plaster ceiling at the perimeter is hung down from the trusses.
- e. Third floor/Attic:
The third floor floor structure bears on the exterior walls, on the interior masonry walls at the stair halls and on trusses over the open auditorium below. The finished space is enclosed by wood frame knee walls.
- f. Roof: The roof is wood, framed of 2x10 in a hip roof configuration. Sheathing is 1" boards and new plywood. There are shed dormers on the North face.

4. Mechanical Systems:

Mechanical and electrical systems are outdated and should be replaced or upgraded as part of proposed renovations.

- a. Plumbing: Plumbing systems consist of a water service entering the building on the West end, a dated septic system to the North of the building, one functioning toilet room on the first floor, one shut-down toilet room on the second floor, and a single toilet and lavatory – also shut down- in the stage wing on the second floor. There is a kitchen with kitchen sink. Waste and supply piping is a mixture of cast iron, steel and copper.
- b. Fire Protection Systems
The building is not sprinklered. There are fire extinguishers dispersed throughout the building.
- c. Heating and HVAC:
The heating system consists of a hydronic boiler serving the basement and first floor and a forced air furnace serving the second floor and third floor. Both boiler and furnace are oil fired with 3 oil tanks in the basement. Ductwork runs from the first floor to the

second floor and attic. There is radiation – fin-tube baseboard and radiators on the first floor. Controls are by thermostat and do not provide adequate control for proper comfort levels in offices or auditorium. Both boiler and furnace are older and operating at low efficiency compared to what a modern, direct vent gas boiler could provide.

- i. A Metzger Hot Air Furnace Model AFG (Purchased in 1999) is used to heat the foyer and the second floor. It has not been fired in a number of years.
 - ii. Carlin Oil Burner Model 200CRD (Purchased in 1991) is used to heat the offices of the first floor.
 - iii. There is 1 air control thermostat in the basement, 9 thermostats on the first floor and 2 thermostats on the second floor.
- d. Electrical:
Electrical service to the building has been upgraded in recent years and there is an adequate main disconnect and main panel. There are updated sub and distribution panels in the basement and a number of load centers at various locations in the building. Exposed wiring is in conduit. Outlets in office work areas are not adequate for current or future equipment demands. Lighting consists of a combination of original incandescent fixtures and newer, but not high efficiency fluorescent light fixtures. There is minimal telephone and data wiring, and no interoffice communications system.
- e. Fire Detection System
There is no fire detection or alarm system in the building. There are exit signs and egress illumination.



Water service entering on South west corner.



Electrical panels fed from underground service on South East corner.



Boiler: Carlin Oil Burner Model 200CRD (Purchased in 1991)



Furnace: Metzger Hot Air Furnace Model AFG (Purchased in 1999)

Accessibility: The Town Hall is not accessible to persons with disabilities. There is a side ramp that leads to the first floor, but the doors into the building are non-compliant due to lack of push and pull side clearance, there is no accessible toilet room, the basement, second and third floors are not accessible, and there are numerous non-compliant elements within the route that restrict access to services and programs.

A summary of the accessibility assessment follows. For the full accessibility report including photographs see Appendix E.

1. **Site:**
There are two accessible parking spaces marked out on the asphalt pavement at the southwest corner of the building, but the pavement is deteriorated, and uneven. The pathway leading to the ramp is deteriorated and uneven posing a tripping hazard. There is no safe walkway leading to the ramp and the western most parking space intrudes into the fire lane and line of traffic entering and leaving the rear lot.
2. **Entrances:**
The ramped entrance is the only entrance that is partially accessible. All other entrances are approached by steps and have non-compliant handrails.
3. **Vertical Circulation:**
There is no elevator or lift in the building. Basement, second floor, balcony and third floor are not accessible. All stairs have non-compliant handrails. All but the main stairs are too narrow and have winder treads.
4. **Toilet Rooms:**
There is no accessible toilet room in the building.
5. **Interior Elements:**
There are a number of other non-compliant elements throughout the building including: raised door thresholds, knob door handles, inaccessible stage, water fountain and other items.

Building Code: As an historic structure, the Town Hall is subject to provisions of the IEBC code for historic structures with Massachusetts amendments. The code does not require that the existing building be brought into full compliance with the code for new buildings, and some of the requirements for the compliance of new work are mitigated by the building's historic status. Key deficiencies that will need to be addressed include the following:

A summary of the building code assessment follows. For the full building code report including photographs see Appendices F and G.

1. **Fire Protection - Sprinklers:**
The building is not currently sprinklered and does not need to be sprinklered unless the gross area of additions or major renovations exceeds 7,500 square feet or at the discretion of the fire department. The building has roughly 5,600 square feet on each floor, so major renovations performed on more than one floor would trigger the need for sprinklers. However, installation of an elevator and concerns of the fire department will over rule a simple square foot interpretation of the code.
2. **Fire Detection – Fire Alarm.** The building has no fire detection and alarm system, and a new system would need to be installed as part of any renovation work.

3. Stairs:
Stairs do not conform with respect to continuous handrails, and some stairs are too narrow and include winders in the path of travel. However, these need not be corrected in an historic structure if allowed by the building commissioner.
4. Exit Devices:
There are no exit devices on any doors except for the exterior exit doors.
5. Door Closers:
Door closers are not currently installed on all doors that open onto egress elements, including stairs and halls.
6. Exit Signs And Egress Illumination:
Most exit doors have exit signs, and egress illumination is sufficient except in a few instances.

Part Two: Outline Of Treatment Recommendations

The recommendations listed below are developed and presented in a phased work proposal described fully in part 3 of the report.

Program and Use:

1. Access:
Provide elevator access to the basement, first and second floors to enable full and unrestricted use by staff and the public.
2. Toilet Rooms:
Install accessible uni-sex and multi-fixture toilet rooms for use by both staff, visitors and for community meetings and events.
3. Office layout:
Reorganize the central core of the first floor to provide distinct and secure office and meeting space for staff and committees as well as a secure and convenient reception and business counter.
4. Auditorium and Stage:
Restore the auditorium and stage to full use by providing access to the stage and dressing room, restoring finishes and modernizing heating and lighting systems.
5. Basement:
Consider renovation of the basement for use by other community services and programs.

Site:

6. Drainage and subsequent water infiltration:
Correct drainage issues and water penetration by regrading to slope grade away from building and installing new catch basins and positive drainage to storm sewer.
7. Paving surfaces:
Regrade and repave asphalt paved areas and delineate new accessible parking spaces.
8. Walkways:
Regrade and repave asphalt and concrete paved walks to provide even surface with compliant slopes of less than 5% running and less than 2% across.

Building Entrances:

1. New Accessible entrance:
Construct new at-grade accessible lobby entrance leading to elevator to provide an accessible front entrance for persons with disabilities.
2. Main Front Entrance:
Remove awning, add snow guards and large gutter and install new compliant handrails.
3. Secondary Front Entrance:
Add snow guards and large gutter and Install new compliant handrails.
4. Ramped Side Entrance:
Remove ramp and construct new granite landing, steps and compliant handrails.
5. Service Entrance:
Regrade at entrance and construct new exit door.

Building Conditions:

1. Exterior Materials and Finishes:
Repoint brick and caulk and paint wood trim work. Restore and re-fit double hung windows, caulk and paint.
2. Interior Materials and Finishes:
Maintain original existing materials and finishes to fullest extent. Restore altered and deteriorated materials and surfaces to their original condition, refinish woodwork, patch and paint plaster walls and ceilings. Re-use existing finishes such as wainscot in remodeled bathrooms. Where new finishes are to be included in renovation work select materials that are consistent with the historic character of the building.
3. Structure:
Seismically reinforce the tower that will house the new elevator hoistway.
Conduct a seismic review of the entire building, based on proposed final use and submit report to the building commissioner.
4. Plumbing: Install new plumbing, waste, vent and supply piping, new domestic hot water and new plumbing fixtures.
5. Fire Protection Systems
Install new sprinkler system throughout the building.
6. Heating and HVAC:
Remove existing and install new gas fired, direct vent high efficiency hydronic boiler heating system. Install fresh air intake and ventilation system for auditorium.
7. Electrical:
Bring in 3 phase electrical service for the elevator and rewire for new power and lighting as part of renovations. Relocate utility pole at southwest corner as part of new service work. Add power, lighting and new communications and data systems.
8. Fire Detection System
Install a complete manual fire detection and alarm system.

Accessibility:

1. Site:
Reconstruct paving and walks to provide accessible walkways, curb cuts and parking for an accessible route from the street to the elevator lobby.
2. Entrances:
Install new handrails at all the entrance stairs.
3. Vertical Circulation:
Add an elevator to serve the front entrance at grade, basement, first floor and second floor.
4. Toilet Rooms:
Add accessible toilet rooms.
5. Interior Elements:
Correct other non-compliant items and /or apply for a variance from the MAAB for elements that will not be corrected.

Building Code:

1. Fire Protection - Sprinklers:
Install new sprinkler system throughout the building.
2. Fire Detection – Fire Alarm.
Install a complete manual fire detection and alarm system.
3. Exit Devices:
Install exit devices on doors from rooms with a capacity greater than 49.
4. Door Closers:
Install door closers on all doors that open onto egress elements, including stairs and halls.
5. Exit Signs And Egress Illumination:
Add missing exit signs and egress illumination.

Part Three: Prioritized Recommendations and Cost Estimate

Summary

A key directive of the study was to develop a prioritized treatment recommendation and suggested scope of work for the renovation of the Town Hall. The priority list that follows derives from a careful assessment of critical building conditions, accessibility and building code deficiencies, program and operation needs of the Town government, anticipated budget opportunities and restraints, all balanced with the desire to preserve the historic integrity of the building and apply the Secretary of the Interior's Standards. The scope of work that the Town ultimately decides to pursue will need to successfully reflect and respond to each of these criteria.

The scope of work included in Phase 1 was defined to immediately mitigate accessibility and building code deficiencies that render the building essentially unusable for town functions. Work in Phase 2 addresses programmatic and physical alterations and repairs to the building. Phase 3 anticipates the goal of reaching out to a specific community entity to occupy the basement of the building.

Work items were grouped in phases with the intent to minimize redundancy and loss thru progressive sequencing through each phase, but it is possible to selectively re-prioritize individual work items. For instance, masonry re-pointing and window restoration are categorized under phase 2, as part of general renovations, but if determined to be of high priority, they can be budgeted and performed as part of phase 1.2. However, it would be a mistake to undertake restoration of interior finishes prior to general renovation and restoration of the first and second floors.

The following narrative describes the proposed work in detail. The narrative is supplemented by a detailed scope and cost estimate included as Appendix A, and associated drawings included as Appendix B

Phase I: Immediate Term - Accessibility Alterations:

Description	Estimated Cost
1.1 Minimal Access Alterations: Perform minimal work (less than \$100,000) to fall under 521 CMR 3.3.1.a Only the work being performed need conform to 521 CMR.	\$40,400
1.2 521 CMR and IEBC Egress Code Alterations: Perform alterations to bring occupied space (First and Second Floors) into compliance with the ADA, 521 CMR and IEBC and Mass State egress code provisions consistent with the building's status as a registered historic structure. Apply for MAAB variance for non-compliant elements to remain.	\$888,100

Phase 2: Medium Term – First and Second Floor Renovations and Alterations

Description	Estimated Cost
2 First and Second Floor Renovations: Renovate first and second floor, upgrade mechanical and electrical systems, install fire alarm and sprinkler, and conduct exterior repointing and repairs.	\$1,589,300

Phase 3: Long Term – Basement Renovations:

Description	Estimated Cost
3 Basement Renovations: Renovate Basement and systems to include a senior center community room, offices, and janitorial, storage and support spaces.	\$1,062,200

Narrative Description of the Work**Phase I: Immediate Term - Accessibility Alterations:**

Phase 1.1 Minimal Access Alterations: The scope of work allocated under phase 1 is intended to correct the most glaring accessibility deficiencies with minimal physical and financial impact to the structure and the town. Because the total cost of the work will be less than \$100,000 only the work being performed, not the entire building, need comply with 521 CMR.

- Repairs and adjustments to the existing ramp to bring it into full compliance:**
The existing ramp is functional, but is in need of some repair to insure that the decking surface is even and without level changes, that the railings are secure, and that the entrance is operable by a person in a wheel chair.
- Add power door openers to doors from ramp into building:**
Restricted pull and push side clearance at the entry door makes it difficult for a wheel chair user to open the door. The addition of power door openers on the existing exterior and vestibule doors will make the entrance compliant while maintaining the building's historic fabric.
- Renovate existing first floor toilet room to make it fully accessible:**
The existing toilet room, the only functioning toilet room in the building, is in deteriorated condition, lacks accessible fixtures and accessories, and is accessed by a door that is too narrow for passage of a wheel chair. Scope includes a full and complete renovation of the space, including new period linoleum flooring, patching of plaster and paint, new fixtures and accessories and bath ventilation and lighting. Existing wainscot and trim will be maintained and plaster patched, with all surfaces painted.

Summary and Criteria Evaluation – Phase 1.1**Building Conditions:**

A slightly deteriorated wood ramp and a severely deteriorated toilet room are restored to a code compliant and functional condition.

Accessibility:

The rear, ramp entrance is made fully accessible, and an accessible toilet room is created. The second floor and basement remain inaccessible. Non-compliant handrails, door hardware and raised thresholds are not addressed. While the AAB does not require that existing conditions apply, the Town remains liable for a suit under the ADA for non compliant elements on the accessible route to offices and meeting rooms. The second floor and the basement may not be used for public events and programs.

Building Code:

No building code elements are addressed.

Program and Operation:

No program changes are made. The second floor, third floor and the basement still may not be used for public events and programs. There remains only one functional toilet room in the building.

Construction Cost:

Cost is minimal at an estimated amount of \$40,400

Impact on Historic Integrity:

The impact on the historic integrity of the building is limited as no building wide changes are made. The covered ramp, a non-original addition, remains. Power door openers will be applied to the top of the doors and have little impact on the existing door material. Toilet room renovations can be carried out so as to minimize impact. The door opening will need to be widened in order to install an accessible door. Existing plaster will be repaired and the new door and trim will match the existing in material and design. New lever door handles will need to be installed. Existing materials in the toilet room will be maintained to the fullest extent possible.

Phasing Redundancy:

With the exception of the ramp, the work being performed under phase 1.1 can be incorporated into later phases with no loss. The town could decide to perform phase 1.1 immediately, then proceed with additional work in a future year, after funds were raised or allocated to the project.

Phase 1.2 521 CMR and IEBC Egress Code Alterations: The scope of work allocated under phase 1.2 includes alterations to bring the occupied space (First and Second Floors) into compliance with the ADA, 521 CMR, IEBC and Mass State egress code provisions, consistent with the building's status as a registered historic structure. Scope will include an application for a variance from the MAAB for non-compliant elements that the Town desires to maintain in existing condition.

1. Remove front awning and add snow guards and gutter on roof above. Awning is not original to the building and obstructs both visual and physical access to the front entrance. The hip roof above the entrance does not drain a large tributary area, so additional snow guards and a copper gutter over the entrance will provide adequate protection from snow and dripping water. Snow guards and gutter will be added to the secondary front entrance.
2. Remove existing covered roof ramp and build new landing and stairs at side exit. The ramp is not original and replaced former egress stairs at the rear side exit. The new stairs will be constructed with granite landing and treads and painted black steel handrails.
3. General Site Work:
 - a. Landscape work at the front of the building includes removal of trees and sidewalk paving, re-grading to provide positive drainage away from building edge, installation of new catch basin with drain to existing storm sewer, construction of new accessible curb cuts and sidewalk linking walks to entrances. Relocation of utility pole allows for better use of space between the entry and the sidewalk.
 - b. Construct 2 new accessible parking spaces with route to entrance lobby.
4. New Elevator and Associated Alterations: Construct an entrance lobby at grade and an internal elevator servicing the basement, first floor and second floor levels. The elevator will provide direct access from grade to the first floor offering universal access from the front of the building to the main floor offices. The second floor stop will make it once again possible to fully use and hold town events in the Great Hall Auditorium. A basement stop will provide service for current maintenance and storage uses and for potential community or other program use of the basement.

After a thorough review of potential elevator locations which took into consideration the configuration of the existing building layout and structure, program requirements of the users, relative cost, universal design considerations and the desire to limit impact to the historic integrity of the existing Town Hall, a location at the front of the building, adjacent to the front entrance and utilizing an existing tower was selected. This location is believed to be the only safe and accessible location that, when carefully designed, will preserve the building's historic character and integrity.

- a. Location Considerations and Rejected Elevator Locations:
 - i. A new exterior elevator hoistway tower with link to the building, which has been proposed and rejected in years past was rejected as too complex, costly, and with too significant an impact on the external and internal integrity of the building.
 - ii. Internal locations at the North and East side of the building were rejected as too distant from the front entrance, not supported by the building layout and therefore too costly and invasive to be viable.
 - iii. An internal location in the central clock tower, while potentially allowing service to the auditorium balcony and the third floor was rejected as too invasive and

impracticable as it would destroy the character of the tower stairway and require a completely new egress stair route from the balcony and third floors.

- iv. An internal location in the Northwest tower, while still a possible option, was rejected by the Building Committee and Architect in favor of a location in the front, Southwest Tower. A forward location, adjacent to the front entrance better reflects the town's commitment to universal design and access for all its citizens. It also works better with the building layout and has less conflict with the existing first and second floor egress stairs.
- v. Implicit in the decision to locate the elevator in the front side tower is the recognition and acceptance that providing elevator access to the balcony and third floor will prove both too costly and invasive to be practicable. It would be possible in the future, should the town decide that use of the balcony is a priority, to install a Lula elevator from the second floor lobby to the balcony level. At present this is not being proposed and both the balcony and the second floor are required to be closed off to public use. Doors opening into the balcony from the main hall and from the side lobby stairs will remain locked. Doors to the third floor hall will remain locked.
- b. Scope Of work: Construction of the elevator and associated interior and exterior work is the largest single effort, short of full renovation, proposed for the town hall, both in complexity and cost. It includes the following:
 - i. All site work related to the addition of the exterior lobby, including relocation of the existing water service into the building, relocation of an existing utility pole and excavation and restoration of paving
 - ii. Construction of the exterior elevator lobby: The proposed design for the exterior lobby incorporates materials and elements from the existing building into an attached structure that is intended to both respond to the history of the Town Hall and reflect its future as a universally accessible community resource. The addition itself is tucked into a corner, is set back from the front and protrudes from the side as little as possible. The base will be brick and stone to match the adjacent material. The frame above will be timber or steel reflecting a lightness and openness consistent with the lobby function and subordinate to the main building mass. Doors and windows are to compliment the existing. The roof is to be hip, with the same pitch and slate or standing seam finish, with a similarly detailed soffit.

Design of the lobby will reflect and respond to the Secretary of the Interior's Standards and receive approval of MHC.

- iii. Alterations to existing tower openings to allow for elevator doorways at each floor and an enclosed and rated hoistway:
 - Interior: Currently occupied by an office on the first floor and obsolete toilet room on the second floor, the tower has two door openings, one from an adjacent office on the first floor, and one from the lobby of the main stair hall on the second floor. These door openings will need to be closed off or widened in order to accommodate the elevator doors. Existing plaster will be repaired and the new door and trim will match the existing in material and design.
 - Exterior: On the exterior, the lower level window opening will need to be removed to accommodate the elevator lobby doorway. The pediment above the window will remain above and exterior to the lobby roof. A window on the second floor will be decommissioned, darkened from the interior but left in place. An elevator hoistway

vent will be installed on the side, below the roof. This will be sized and detailed to compliment the panel below it.

- iv. Construction of a structurally independent and rated hoistway within the existing masonry tower: A structural steel tube frame will be constructed within the tower, against the exterior masonry walls. This frame will both provide support for the rated hoistway partitions, support for the elevator guide rails and track, and seismic reinforcement for the existing brick tower. An elevator machine room will be provided in the basement adjacent to the elevator hoistway.
 - v. Installation of the elevator equipment: Elevator is to be an electric, gearless self supporting elevator, 4 stop, total travel of 27'-3", 3500 lb. capacity, 150 fpm speed, front and back doors. 3 Phase power will be required at the building.
 - vi. Mechanical and electrical work to provide required heat, ventilation, power and fire detection service and equipment for the elevator. The elevator installation will require radiation drawn from the existing boiler to heat the lobby and elevator machine room. Ventilation will be required for the hoistway. Electric power, lighting and equipment connections will need to be made, including 3 phase service for the building. A new fire detection system and full sprinkler system will be installed in the building as part of this phase.
5. Toilet Rooms: In addition to first floor toilet room scoped under phase 1.1, one single fixture toilet room will be added on second floor. The toilet room is to be located in a room in the North West tower currently being used for storage. Scope includes a full and complete renovation of the space, including new period linoleum flooring, patching of plaster and paint, new fixtures and accessories and bath ventilation and lighting. The door opening will need to be widened in order to install an accessible door. Existing plaster will be repaired and the new door and trim will match the existing in material and design. New lever door handles will need to be installed.
6. Stage Access - Install lift to stage: In order to fully use the auditorium and comply with 521CMR regulations, the existing stage and dressing room must be made accessible. A wheel chair lift will be installed in the dressing room on the North East corner with access to the stage thru a new door opening. New door and casing to match existing stage doors, sized for elevator lift.
7. Miscellaneous access alterations:
- a. Handrails: Install compliant handrails on exterior entrances. Exterior entrances to receive new compliant handrails designed and finished to compliment the existing building character. Add an additional handrail to the main stairs along the outside wall, while preserving the integrity of the existing handrails and guardrails.
 - b. Door hardware: Replace existing knobs with new lever handles selected to compliment existing historic character on all doors along accessible route.
 - c. Door Thresholds: Add bevels to all non-compliant door thresholds along accessible route.
 - d. Water Fountain: Remove the existing non-compliant and non-functioning water fountain.

8. Building Code Egress Alterations:

- a. Door Closers: Install door closers on doors to stair halls and corridors.
- b. Exit Devices: Install exit device hardware on doors from spaces with >49 occupancy. This will include the doors leading from the Auditorium to the egress stairs.
- c. Exit Signs and Emergency Egress Illumination: Install missing and replace existing non-conforming exit signs and egress illumination on all floors of the building.
- d. Fire Detection: Install a complete fire detection and alarm system including exterior beacon, fire alarm panel, detectors, pull stations and audio and visual alarms on all floors of the building.
- e. Sprinkler System: Install a complete sprinkler system on all floors of the building.

9. Apply to MAAB for time and permanent variance for non-compliant elements: Because of the age and the registered historic status of the building, the Town may desire to apply for a variance for the right to maintain select noncompliant elements rather than alter or replace them as required by the code. Such a variance could include:

- a. Permanent Variance:
 - i. Restrict elevator to access to basement, first and second floors with commitment not to use balcony or third floor for programs or operations.
 - ii. Retain existing interior stair hand railings.
 - iii. Use of power door openers at select locations in lieu of changing door openings where door clearance is inadequate.
 - iv. Retain 2nd floor stage non-accessible toilet rooms.
- b. Time variance:
 - i. Time variance for completing renovation work at basement level.
 - ii. Time variance for such items as the Town decides to delay until later phases of the work.

Summary and Criteria Evaluation – Phase 1.2**Building Conditions:**

Except for new work or alterations related to new work, the existing building is maintained in its current condition.

Accessibility:

With the exception of specific items included in the variance described above, the building is brought into compliance with 521 CMR: Alterations will create an accessible route leading from the street, public sidewalk and on-site parking to the basement, first and second floors via a new elevator. The third floor and auditorium balcony will not be accessed by the elevator and may not be used for public events and programs. Accessible toilet rooms are provided. Minor non-structural changes are made to remove barriers to offices and meeting rooms for enhanced use by the public.

Building Code:

New work is constructed to satisfy current building codes, and critical egress related code deficiencies including lack of door closers on stair hall doors and lack of exit devices on doors leading from large spaces are corrected. Egress lighting and exit signs will be installed. In addition, the building will be fully sprinklered and receive a complete fire detection and alarm system.

Program and Operation:

Installation of the elevator and toilet room requires relocation of the small office on the first floor, and relocation of the storage on the second floor. The second floor balcony, third floor and the basement may not be used for public events and programs, however, the first and second floor, including the auditorium and the stage are made fully accessible and available for public programs and services.

Construction Cost:

Cost is moderate at an estimated amount of \$888,100.

Impact on Historic Integrity:

The impact on the historic integrity of the building is more extensive than in phase 1.1 as more areas are affected and the scope of work is more extensive. However, much effort has been made through design and will be made through construction detailing to limit the impact of the changes and remain true to the historic quality and legacy of the building, as much as is possible. The Town and design team will work closely with the MHC during the design development and construction phase to ensure that every effort is made to adhere to The Secretary of the Interior's Standards for the Treatment of Historic Properties. For a detailed review of the scope of work and impact see the description of the work above.

Phasing Redundancy:

The work in phase 1.2 can be completed after completion of phase 1.1 or as the first phase of work performed on the building. If the latter, scope would include the first floor toilet room specified under 1.1.3 above. Subsequent phases are designed to continue and supplement the work of this phase.

A complete fire alarm and sprinkler system is included in Phase 1.2. If the system is designed and laid out anticipating the floor plan changes proposed under phase 2 there will be a minimum of work that must be altered as part of that later phase.

Phase 2: Medium Term – First and Second Floor Renovations and Alterations

1. First Floor Renovations: Renovate First Floor Office Space:

Phase 2 builds upon the accessibility and code work of phase 1.2 to provide a modern and up to date office environment, in order that the Town may offer full services and programs to the community at large. Currently the offices are cramped with multiple services intermingled in one space and without a secure and functioning interface with the public. The banquet hall, while useful for larger gatherings, is an awkward space in that it is larger than it needs to be for many purposes and consumes close to half of the useable area, the core of the building, on the first floor.

The town wishes to locate all public services on the first floor level, to maintain the second floor for events and large gatherings, and to use the basement for appropriate uses where access to light and view is structurally limited. It is not possible to do this without altering the overall configuration of the central core, including the banquet hall space. To the fullest extent possible, the Building Committee and the Architect strove to limit the impact of the alterations on the existing first floor layout by maintaining existing partitions where possible, with new openings to provide light and access to the offices. The scope of work includes the following:

- a. Construct new multi fixture accessible toilet rooms on first floor:
Localized unisex toilet rooms are not sufficient to meet the plumbing fixture requirements for the building. Constructing two multi-fixture toilet rooms is the most efficient and least invasive solution. The women's room will be located in the current assessors office and a new partition will enclose the men's room. Finishes and lighting will be consistent with the historic character of the building. Locating the restrooms in the basement was considered as a means to free up more first floor space for offices, however two considerations led the Town to reject that solution: one, a basement location will place the toilet rooms at too remote a distance from the second floor auditorium; and two, major basement renovations including new stairs from the main lobby, hallway build-out and a second means of egress will be required if the basement is to be accessed by the public.
- b. Renovate first floor to provide modern office environment:
The challenge and intent of any design for a modern office and community service layout on the main floor is to meet program needs while maintaining the existing building's integrity and character to the fullest extent possible. The layout proposed attempts to balance these interests with the desire to have offices and services centralized on the first floor.
 - i. Main Stair Lobby: The main stair lobby remains as it is with the exception of a new partition and doorway separating the lobby from the office area. This is necessary to meet egress requirements, but can be completed in a way that is consistent with the building's character. The partition and door can be built of frame and panel wood and need not be rated as long as there are closers on the doors
 - ii. Central Office Core: The central office core is transformed to provide offices consistent with the needs of the town, circulation to those offices and to the East egress hall, and a public face and reception area where daily interactions with the public occur. Existing partitions have been retained wherever feasible, with new partitions defining new offices and the hallway. Construction of the partitions, doors, side and borrowed lights will be executed with materials, details and proportion consistent with the fabric of the existing building.

- iii. New communications and wiring for offices: A complete communications and data system will be installed in the offices with the potential for linkage to other town facilities.
 - iv. New directional signage. New directional signage will be installed.
2. **Second Floor Renovations:** Renovation work proposed for the second floor will consist primarily in restoring the finishes in the Great Hall Auditorium. Wall, floor, ceiling and woodwork materials and finishes will be restored including patching and repairs with like materials and painting of all finishes. Work will adhere to the Secretary of the Interior's Standards for the Treatment of Historic Properties.
- a. Walls: Plaster on walls is generally in acceptable condition, well adhered to substrate, and will be patched with tested and like material where needed. Peeling paint will be removed and walls prepped to receive new paint. New paint finishes will be applied.
 - b. Floors: Wood floors will be refinished.
 - c. Ceilings: Plaster on walls is generally in acceptable condition, well adhered to substrate, and will be patched with tested and like material where needed. Peeling paint will be removed and walls prepped to receive new paint. New paint finishes will be applied.
 - d. Woodwork: Woodwork will be cleaned and refinished.
3. **Perform Energy Improvements Including Insulation And Weatherization:**
The exterior walls of the town Hall are masonry and are not capable of being insulated, however, there are a number of measures that can be taken to reduce heat loss and lower energy demand. These include: blown-in cellulose insulation in the first floor ceiling to isolate the first and second floor, blown in cellulose in the second floor ceiling to isolate the second floor from the unheated third floor, repair and re-fitting of the existing windows, caulking and sealing, installation of interior storm windows. A full energy audit, not part of the scope of this project, can be performed as part of the ultimate renovation design. Considerable additional savings can be made through mechanical and electrical upgrades as described below.
4. **Complete Building Code Compliance Work:**
- a. Fire Detection: Revise fire detection equipment locations as required by new office layout.
 - b. Exit Signs and Illumination: Revise exit signs and egress illumination locations as required by new office layout.
 - c. Sprinkler System: Revise sprinkler system head locations as required by new office layout.
5. **Update Mechanical And Electrical Systems:**
The existing building systems are antiquated and in need of replacement.
- a. Update plumbing systems. As part of toilet room work described above all waste, supply and vent piping will be replaced. A new water service and two uni-sex toilet rooms are to be installed under Phase 1.2. Domestic hot water will be included with the boiler work
 - b. Heating system replacement. A new heating system is to be installed to service the first and second floors with minimal service to be provided to the basement. The scope of the work includes the following:
 - i. The existing boiler, furnace and oil tanks are to be removed and replaced with 2 new gas fired, direct vent high efficiency (90%) hot water boilers. Furnishing two boilers will allow for efficiencies of modulated demand and back-up should one

- boiler require service. Controls will allow the boiler temperature to reflect the outside temperature to lower overall energy use.
- ii. New hydronic radiation will be installed in a few key locations in the basement, and throughout the first floor. Risers will be run to the second floor and radiation will be installed in the Great Hall Auditorium and associated spaces. Radiation will be cast iron baseboard and radiators selected to fit within the fabric of the Hall.
 - iii. A fresh air heat exchanger unit servicing the auditorium will be installed to provide fresh air while limiting energy loss to the exterior.
 - iv. Energy savings should be significant with the change to higher efficiency boilers and lower cost fuel. While a full energy analysis would need to be performed as part of the mechanical design, we have forecasted savings of \$5,000 to \$7,000 a year on similar projects.
- c. Update electrical systems. Electrical power and lighting will be modernized including power and lighting distribution from the existing panel load centers, new energy efficient light fixtures and automatic sensor switching. Lighting fixtures will be selected that balance energy efficiency with design consistent with the historic character of the building.
 - d. Update Fire Alarm Detection and Sprinkler Systems: Fire detection equipment and sprinkler heads will be relocated as required to accommodate plan layout changes.
6. **Exterior Repairs and Restoration:** Perform masonry repairs, repointing and weatherization to building exterior. As detailed in Part 1, Existing Conditions, there are elements of the building façade that are in need of repair and restoration. This work will be performed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. See Appendix B for drawings indicating scope of work.
- a. General building repointing. Repointing of deteriorated and weathered brick joints, primarily at the clock tower but also at selected locations at higher and remote portions of the building envelope. Scope of work will include testing of existing mortar and careful matching of mortar and brick with regards to texture, consistency and color. For areas concerned, see part 1.
 - b. Window repair and sealing at exterior. Windows will be removed and reset, with sash cords replaced as required, glass re-glazed, and sash and frames repainted. Consideration of application of exterior storm windows where applicable, selected for use on historic buildings. Interior storm windows can be installed on fixed windows to improve energy efficiency without impacting exterior appearance. For window conditions, see part 1.
 - c. Painting of exterior metalwork and woodwork including windows, sills, trim and soffits and cornices will prepped and re-painted.

Summary and Criteria Evaluation – Phase 2**Building Conditions:**

Building surfaces and finishes and will be fully restored consistent with the historic fabric of the building.

Accessibility:

All new work included in phase 2 will comply with 521 CMR.

Building Code:

New work will comply to the requirements of the IEBC for Historic Buildings and Massachusetts State Amendments. Previously installed fire detection equipment, sprinkler heads and egress lighting and exit signs will be adjusted and relocated as required by layout changes.

Program and Operation:

Building layout on the first floor, and building finishes and systems on the first and second floors enable the Town to offer full and convenient services to town residents with a modern and secure working environment for Town Staff.

Construction Cost:

Cost is significant at an estimated amount of \$1,589,300

Impact on Historic Integrity:

The impact on the historic integrity of the building is more significant in phase 2 as more areas are affected and the scope of work is more extensive. However, much effort has been made through design and will be made through construction detailing to limit the impact of the changes and remain true to the historic quality and legacy of the building. For a detailed review of the scope of work and impact see the description of the work above.

Phasing Redundancy:

The work in phase 2 can be completed after completion of phase 1.2 with minimal duplicity of cost or effort. While it would conceivably be possible to postpone some work on either the first or second floor to a later date, it is highly recommended for efficiency and cost savings to obtain funding and complete the construction in one effort.

Phase 3: Long Term – Basement Renovations:

The scope of work for renovations to the basement assumes that a significant portion of the basement will be occupied as a Senior Center providing community meeting space and other services for seniors. The work described below is dependent on interest and funding from outside sources. At the moment there is no such commitment to perform this work. Scope and costs are preliminary and subject to change depending on the final use and program needs of the space.

1. Complete remaining exterior drainage and paving work at the North and East perimeter of the building. Scope includes grading, installation of storm drainage and paving.
2. Complete interior drainage and water and moisture control alterations. Scope includes cutting a trench in existing slab and installing an interior drainage system and sump removal to storm sewer.
3. Renovate basement level to provide senior center community room and other services.

- a. Construct an independent accessible entrance to senior center at the Northeast corner of the building. The new entrance will include a ramp and stairs down to the basement floor level and a small patio area. The ramp, stairs and patio would be covered by a steel frame hipped roof structure to provide protection from falling and accumulating snow.
 - b. Reconfigure the East end egress entrance/exit. The existing East Side entrance will be lowered to provide at grade exit with link to the new ramp and stairs.
 - c. Cut in new windows on the North side of the building to provide light and ventilation for new occupied spaces. Some of these windows will be in former window openings that have been bricked in. Other window and door openings will be at new locations and will require approval by MHC.
 - d. Construct new stairs beneath the monumental stairs from the first floor to the basement level.
 - e. Build-out the interior to provide a finished accessible route from the elevator and new stairs at the West end to the senior center and egress exit at the east end.
4. Construct new accessible toilet rooms on the basement level. Two uni-sex toilet rooms would be installed for use by the community center.
 5. Perform energy improvements including ceiling insulation and weatherization.
 6. Update mechanical and electrical systems
 - a. Extend radiation and controls from new boiler to service the basement level.
 - b. Update electrical systems
 7. Complete building code compliance work
 - a. Modify and complete the manual fire alarm system.
 - b. Modify and complete exit signs and egress illumination.
 - c. Modify sprinkler system.

Summary and Criteria Evaluation – Phase 3

Building Conditions:

The existing basement level is mostly unfinished with exposed concrete walls, varied built-up floor levels and utilitarian finishes on partitions. Renovation work will provide new finishes throughout.

Accessibility:

All new work included in phase 3 will comply with 521 CMR. In addition, a grade level accessible entrance will be provided for the basement.

Building Code:

New work will comply with the requirements of the IEBC for Historic Buildings and Massachusetts State Amendments.

Program and Operation:

Renovation of the basement is feasible if there is a specific use group that can bring funding to finance the extensive renovations required. Construction of both an internal stair and a separate at grade accessible entrance is critical to adapting the space to a full and productive use

Construction Cost:

Cost is significant at an estimated amount of \$1,062,200.

Impact on Historic Integrity:

The impact on the historic integrity of the building is significant in that the exterior envelope will need to be altered both to provide additional windows for light and ventilation and to provide an accessible, covered entrance. An existing window will be converted to a door at the new accessible entrance. The current condition of the basement interior does not include historically significant materials or finishes. These changes will need to receive approval of MHC.

Phasing Redundancy:

The work in phase 3 can be completed independently after completion of other phases. Plumbing mechanical, electrical and fire alarm systems completed under previous phases will require some modification as part of the build-out and renovations.