



# FACILITY MASTER PLAN REPORT

*for the* TOWN OF WILMINGTON

APPENDICES



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# APPENDIX A FACILITY ALTERNATIVES



# APPENDIX A : FACILITIES ALTERNATIVES

## MUNICIPAL FACILITIES ALTERNATIVES

	Swain School Site	Buzzell Senior Center Site	Town Hall Site	St. Dorothy Parcel	Library Site	Public Buildings Site	Public Works Sites	All other Town Buildings
<b>M1 Baseline Scenario</b> <i>Uses remain in their existing locations, but the facilities are upgraded to correct deficiencies and accommodate future needs</i>	No construction on this site	Extend useful life of existing building. Upgrade systems and expand facilities if required to meet future needs.	Extend useful life of existing building. Upgrade systems and expand facilities if required to meet future needs absorb School Administration.	No construction on this site	Extend useful life of existing building. Upgrade systems and expand facilities if required to meet future needs.	Extend useful life of existing building. Upgrade systems and expand facilities if required to meet future needs.	Extend useful life of existing building. Upgrade systems and expand facilities if required to meet future needs.	Extend useful life of existing building. Upgrade systems and expand facilities if required to meet future needs.
<b>M2 Town Hall Common</b> <i>The Town Hall/School Administration moves to the Town Common, the Senior Center moves to the Town Hall site, and other changes are made</i>	Build combined Town Hall and School Administration Building	Allocate site and building to surplus disposition or land banking	Build a new Senior Center	Make available for senior housing development	Same as Baseline Scenario	Close and repurpose for possible housing or mixed use development	Renovate and expand to include Public Buildings Offices and Garage	Same as Baseline Scenario
<b>M3 Community Common</b> <i>The new Senior Center is moved to the Town Common, the Town Hall/School Administration move to the St. Dorothy site, and other changes are made</i>	Build a new Senior Center	Allocate site and building to surplus disposition or land banking	Make available for senior housing development	Build combined Town Hall and School Administration Building	Same as Baseline Scenario	Same as Baseline Scenario	Same as Baseline Scenario	Same as Baseline Scenario
<b>M4 Library Common</b> <i>The Library is moved to the Town Common, the Senior Center is moved to the Library site, and other changes are made</i>	Build a new Library	Allocate site and building to surplus disposition or land banking	Same as Baseline Scenario	Make available for senior housing development	Relocate Senior Center into a new or renovated building on this site	Same as Baseline Scenario	Same as Baseline Scenario	Same as Baseline Scenario

EDUCATIONAL FACILITIES ALTERNATIVES

Description of Alternative	Boutwell Childhood Center (current: grades Pre-K, K)	Wildwood Childhood Center (current: grades Pre-K, K)	Shawsheen Elementary (current: grades 1-3)	Woburn Elementary (current: grades 1-3)	North Intermediate (current: grades 4-5)	West Intermediate (current: grades 4-5)
<b>S1 Existing Schools, Targeted Improvements:</b> Extend the life of the existing facility, correct deferred maintenance items, and improve the quality of education spaces without building additions.	Improvements are limited to finishes and deferred maintenance. Code and ADA upgrades limited to work areas. Work would be limited to incremental changes in the existing space allocation.	Improvements are limited to finishes and deferred maintenance. Code and ADA upgrades limited to work areas. Work would be limited to incremental changes in the existing space allocation.	Improvements are limited to finishes and deferred maintenance. Code and ADA upgrades limited to work areas. Work would be limited to incremental changes in the existing space allocation.	Improvements are limited to finishes and deferred maintenance. Code and ADA upgrades limited to work areas. Work would be limited to incremental changes in the existing space allocation.	Improvements are limited to finishes and deferred maintenance. Code and ADA upgrades limited to work areas. Work would be limited to incremental changes in the existing space allocation.	Improvements are limited to finishes and deferred maintenance. Code and ADA upgrades limited to work areas. Work would be limited to incremental changes in the existing space allocation.
<b>S2 Existing Schools, Improved to Meet Current Space Standards:</b> Improve the existing buildings including major renovation and addition as required to meet current education standards that would apply to new facilities or major renovations. Building-wide ADA and code upgrades are anticipated.	Renovation and major addition of most core and support spaces	Renovation and addition of most core and support spaces and building infrastructure. Reuse space currently occupied by the school district for education program	Renovation and improvements to the facility	Renovation and minor addition to the facility	Renovation and improvements to the facility	Renovation of the facility. Reuse space currently occupied by the school district for education program
<b>S3 Four Elementary Schools:</b> Create 4 schools of relatively equal size, all housing Pre-K through grade 5. The extent of modifications is determinant on the existing condition of each remaining school.	Close facility	Close facility and build a new Pre-K - 5 elementary school on the site	Renovation and small addition to convert into a Pre-K - 5 elementary school	Close facility	Renovation and major addition to convert into a Pre-K - 5 elementary school	Renovation and major addition to convert into a Pre-K - 5 elementary school
<b>S4 One Pre-K/Kindergarten School, Three Elementary Schools:</b> Modify an existing school to create a single school for grades Pre-K – K. Create 3 schools of relatively equal size, all housing grade 1 through grade 5. The extent of modifications is determined on the existing condition of each remaining school.	Close facility	Close facility and build a new 1 - 5 elementary school on the site	Close facility	Renovate to convert to a Pre-K- K Early Childhood Education Center	Renovation and addition to convert to a 1 - 5 elementary school	Renovation and addition to convert to a 1 - 5 elementary school
<b>S5 One Pre-K School, Three K-5 Elementary Schools:</b> Modify an existing school to create a single school for Pre-K. Create 3 schools of relatively equal size, all housing grades K through grade 5. The extent of modifications is determinant on the existing condition of each remaining school.	Close facility	Close facility and build a new K- 5 school on the site	Close facility	Renovate to convert to a Pre-K Education Center	Major renovation and addition to convert into a K-5 elementary school	Major renovation and addition to convert into a K-5 elementary school
<b>S6 Two Pre-K to Grade 2 Schools, Two Grade 3 to Grade 5 Schools:</b> Through renovations and additions, consolidate to 4 schools. Two schools would provide Pre-K through Grade 2, and two schools would be for Grades 3 to 5.	Close facility	Close facility	Renovation and addition to create a Pre-K through Grade 2 School	Renovation and addition to create a Pre-K through Grade 2 School	Renovation and addition to convert into Grades 3-5 elementary school	Renovation and addition to convert into Grades 3-5 elementary school



# APPENDIX B

## ALTERNATIVE SCENARIO GRAPHICS



# APPENDIX B : ALTERNATIVE SCENARIO GRAPHICS

## INTRODUCTION

The following pages are a series of graphics that depict the municipal and educational facility alternatives. The visuals were made available on the Wilmington website and also were displayed for public commentary in the most visited facilities around town.

### WHAT:

The Town of Wilmington is preparing a Facility Master Plan to establish a long term strategy for the allocation of its municipal uses among buildings and sites. This planning process will establish a sequence of short-term, mid-term and long-term recommendations that will guide the Town's decisions about the best approach to its capital investments and operations. The Facility Master Plan will focus on facilities that may require significant repairs, additions, replacement or re-organization to ensure that the facilities and the services that they support match the goals of the community cost-effectively. The preparation of the Facility Master Plan began in December of 2015 and is expected to be completed by this summer.

### HOW:

The process includes evaluating the existing facilities and their effectiveness, taking into account both existing and potential future Town functions and space requirements. The process will include opportunities for public input. After examining alternative choices for allocating space and facilities, the process will establish a recommended path for effective use of Town funds in providing and operating buildings and grounds. The recommendations will then be advanced to the Board of Selectmen, the Town Administration and other participating boards and commissions for their consideration and action.

### WHO:

The process is being directed by the Facility Master Plan Committee, composed of Town staff and representatives of various Town committees. They are being assisted by a professional team led by The Cecil Group/Harriman composed of facility planners, architects, engineers and cost estimators.

### COMMENTS AND CONTACT:

Notices and information about the planning process and its recommendations will be posted on the Town website. For further information, please contact:

Valerie Gingrich  
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Town of Wilmington  
121 Glen Road  
Wilmington MA 01887  
978-658-8238  
vgingrich@wilmingtonma.gov

### CONCEPTUAL SCENARIOS:

The following diagrams represent several potential scenarios for providing appropriate sites and building facilities for several of the key municipal and educational buildings and their properties. These scenarios are based on projections of future needs relative to existing facilities and their condition. The scenarios are diagrammatic representations of conceptual building ideas. These are not the final design layouts. Each scenario has different positive and negative implications ("pros" and "cons"). We hope that you will consider the relative merits of these scenarios and provide your input to the Town staff and the Facility Master Plan Committee responsible for recommending the strategy to provide efficient, cost effective, and user-friendly facilities over time. Please write your thoughts on the scenario boards in the PROS and CONS sections.

Wilmington Facilities Map





# M1 BASELINE SCENARIO

## BASELINE SCENARIO

- Town Hall would receive an addition to absorb the School Administration Department.
- The Senior Center would be expanded.
- The Library would be expanded.
- All other buildings would receive renovations and or upgrades at their existing locations.

**PROS:** Write your thoughts below.



**CONS:** Write your thoughts below.



LIBRARY SITE PLAN



SENIOR CENTER SITE PLAN



TOWN HALL SITE PLAN



## M2 TOWN HALL COMMON SCENARIO

### TOWN HALL COMMON SCENARIO

- A new Senior Center would be built on the Town Hall existing site.
- The Town Hall which includes the School Administration Department would either take over the Swain site or the Buzzell Senior Center site.
- Senior Housing would be created and placed on the Saint Dorothy parcel.
- All other buildings would receive renovations and or upgrades at their existing locations.

**PROS:** Write your thoughts below.



**CONS:** Write your thoughts below.



TOWN HALL AT SWAIN SITE PLAN A



TOWN HALL AT SWAIN SITE PLAN B



SENIOR HOUSING AT SAINT DOROTHY SITE PLAN



SENIOR CENTER AT TOWN HALL SITE PLAN



## M3 COMMUNITY COMMON SCENARIO

### COMMUNITY COMMON SCENARIO

- Senior Housing would be created and placed on the Town Hall site.
- The new Senior Center would either take over the Swain site or be replaced at its Existing site.
- The Town Hall which includes the School Administration Department would be placed on the Saint Dorothy parcel.
- All other buildings would receive renovations and or upgrades at their existing locations.

**PROS:** Write your thoughts below.



**CONS:** Write your thoughts below.



SENIOR CENTER AT SWAIN SITE PLAN A



SENIOR CENTER AT SWAIN SITE PLAN B



TOWN HALL AT SAINT DOROTHY SITE PLAN



SENIOR HOUSING AT TOWN HALL SITE PLAN



# M4 LIBRARY COMMON SCENARIO

## LIBRARY COMMON SCENARIO

- The new Library would either take over the Swain site would either take over the Buzzell Senior Center site.
- A new Senior Center would be placed on the Library site.
- Senior Housing would be created and placed on the Saint Dorothy parcel.
- All other buildings would receive renovations and or upgrades at their existing locations.

### PROS: *Write your thoughts below.*



### CONS: *Write your thoughts below.*



LIBRARY AT SWAN SITE PLAN A



SENIOR CENTER AT LIBRARY SITE PLAN



LIBRARY AT SWAN SITE PLAN B

## S6 PREFERRED EDUCATION SCENARIO

### ALTERNATIVE S6

Two Pre-K to Grade 2 Schools, Two Grade 3 - 5 Schools and closing Boutwell and Wildwood.

This alternative is considered preferred because it eliminates schools that need the most work, eliminates a transition, keeps geographic balance and invests in our existing infrastructure with additions and renovations to existing schools.

### BASELINE SCENARIOS

#### S1 Existing schools targeted improvements

Extend the life of the existing facility, correct deferred maintenance items, and improve the quality of education spaces without building additions.

#### S2 Existing schools improved to meeting current space standards

Improve the existing buildings including major renovation and addition as required to meet current education standards that would be applicable to new facilities or major renovations. Building-wide ADA and code upgrades are anticipated.

### CONSOLIDATION AND ADDITION SCENARIOS

#### S3 Four Elementary Schools

Create 4 schools of relatively equal size, all housing pre-kindergarten (Pre-K) through grade 5. The extent of modifications is determinant on the existing condition of each remaining school.

#### S4 One Pre-K Kindergarten School, Three Elementary Schools

Modify an existing school to create a single school for grades Pre-K - K. Create 3 schools of relatively equal size, all housing grade 1 through grade 5. The extent of modifications is determinant on the existing condition of each remaining school.

#### S5 One Pre-K School, Three K-5 Schools

Modify an existing school to create a single school for grades Pre-K. Create 3 schools of relatively equal size, all housing grades K through grade 5. The extent of modifications is determinant on the existing condition of each remaining school.

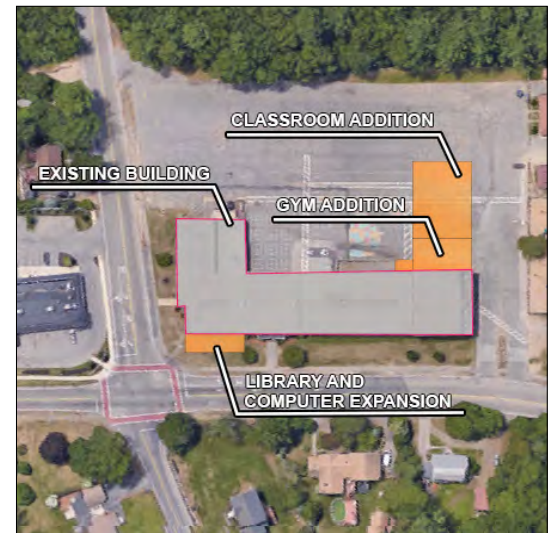
### COMMENTS: *Write your thoughts below.*



WOBURN



WEST INTERMEDIATE



SHAWSHEEN



NORTH INTERMEDIATE





# APPENDIX C COMMUNITY SURVEY REPORT

# APPENDIX C : COMMUNITY SURVEY RESPONSES

## INTRODUCTION

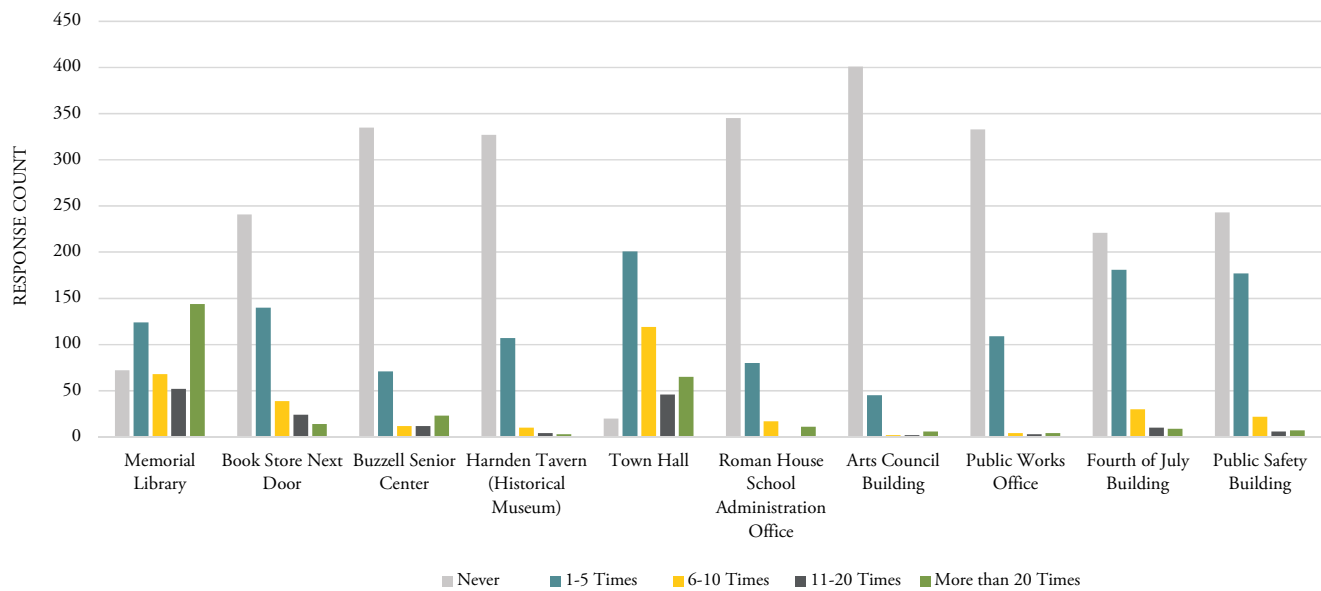
The Town of Wilmington is preparing a Facility Master Plan to establish a long term strategy for the allocation of its municipal uses among buildings and sites. This planning will establish a sequence of short-term, mid-term and long-term recommendations that will guide the Town’s decisions relative to investment, expansion, decommissioning, and rebuilding our facilities.

This result report includes the opinions on the Town’s existing facilities. The survey was 21 questions and took approximately 10 minutes to complete. The responses here will directly inform the development of the Facility Master Plan.

There was a total of 461 surveys submitted. Comments have not been edited or altered.

## QUESTION 1

HOW OFTEN HAVE YOU VISITED THE FOLLOWING TOWN FACILITIES IN THE PAST YEAR?

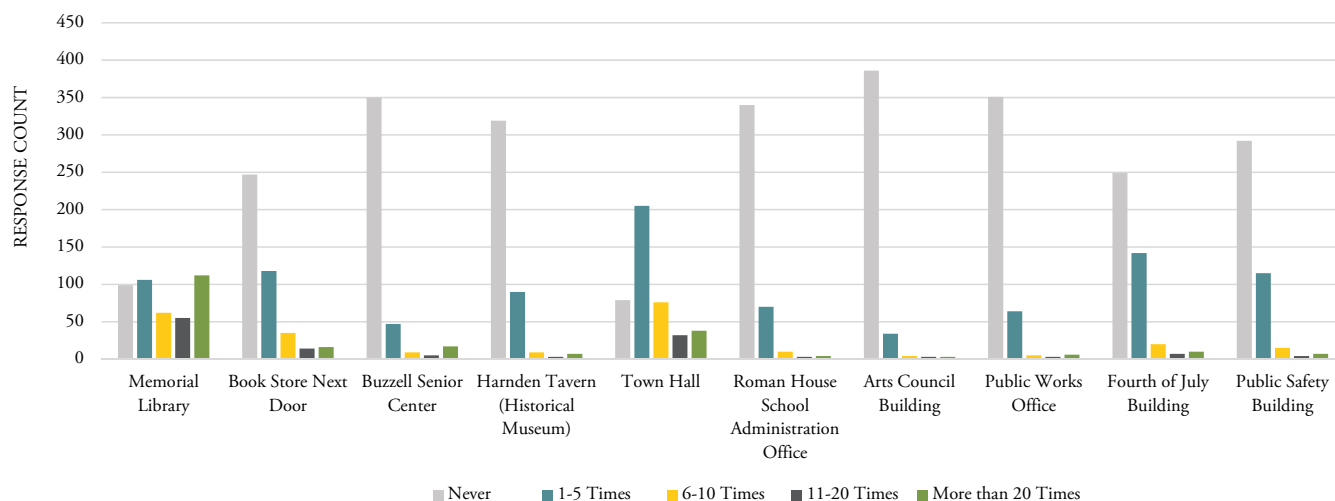


## QUESTION 1 COMMENTS:

- 3 Respondents Answered Recycling Center
- 3 Respondets Answered Schools
- 2 Respondents Answered Playgrounds
- 1 Respondent Answered Art Center

## QUESTION 2

HOW OFTEN HAVE OTHER MEMBERS OF YOUR HOUSEHOLD VISITED THE FOLLOWING TOWN FACILITIES IN THE PAST YEAR?



### QUESTION 2 COMMENTS:

- 7 Respondents Answered Not applicable
- 2 Respondents Answered Playgrounds

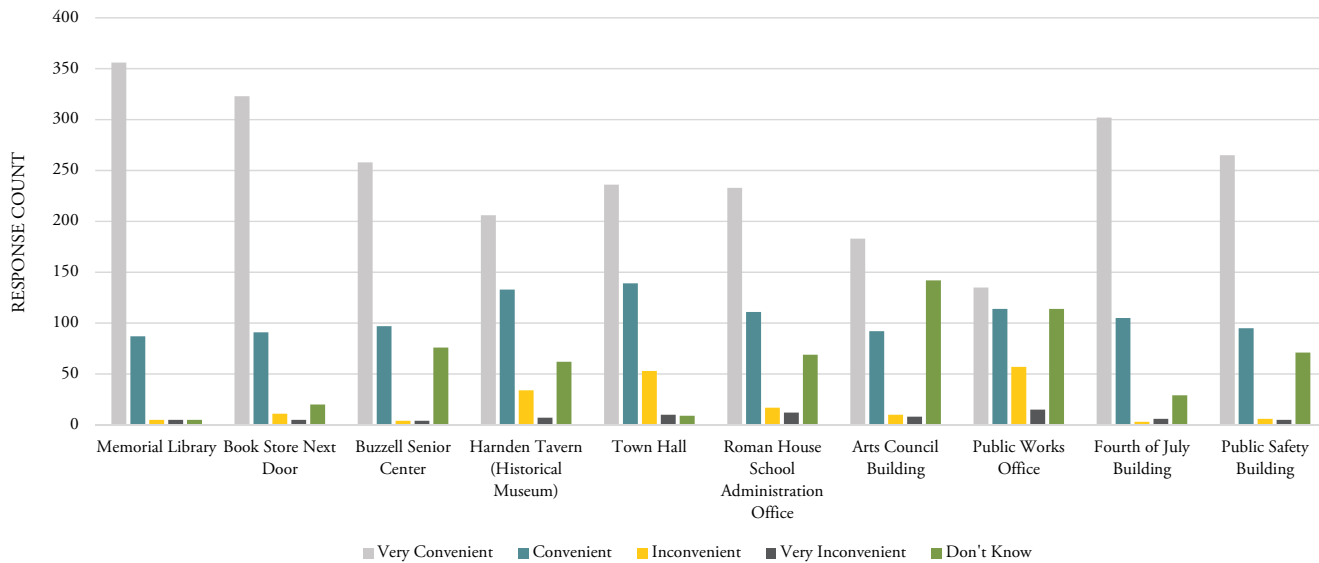
### QUESTION 2 OTHER COMMENTS:

- Need more yard waste pickup at the home. Water mineral content is too high and corrosive ruins faucets showers harder dishwasher and dishes.
- I am not a Wilmington resident, but love your art center, have taken classes there and paint there regularly. I hope it will always be there- such a beautiful building. Those long windows provide excellent light.
- Recycling Center



## QUESTION 3

### HOW CONVENIENT ARE THE FOLLOWING TOWN FACILITIES TO GET TO?

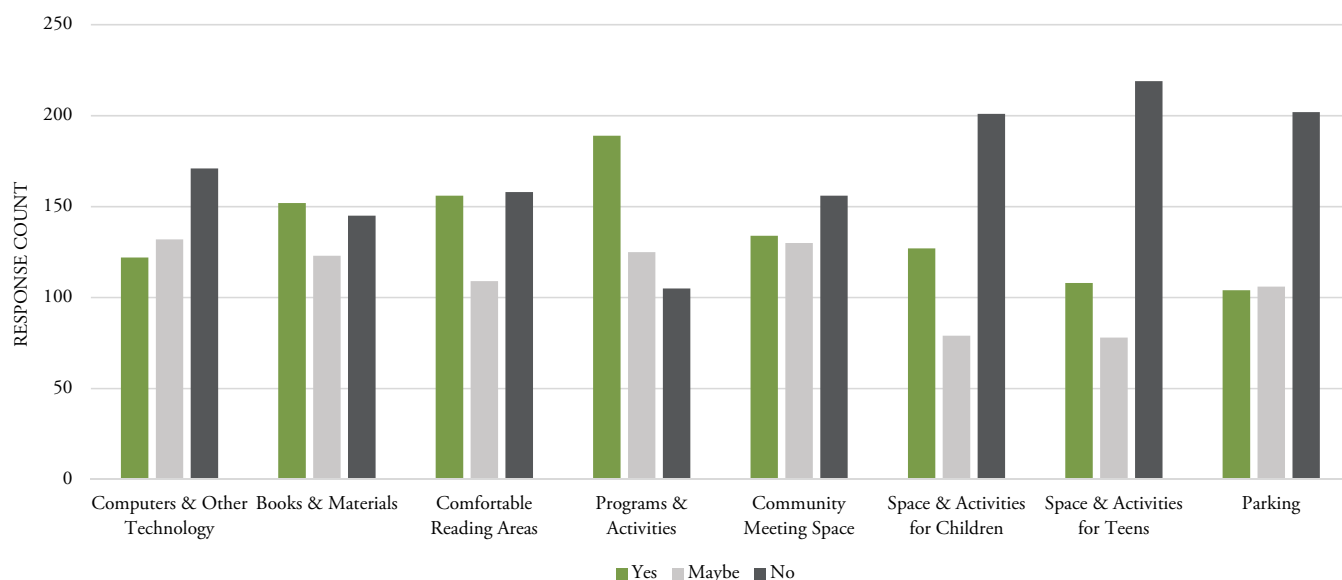


### QUESTION 3 COMMENTS:

- Book store next door hours too limiting - I wish for Sunday library hours.
- Often not enough parking at library.
- When school is in session, the Roman House is not convenient depending on the parking availability. Entering the side door, especially during inclement weather can be treacherous, especially for people with back/leg issues.
- When school is in session, Roman House inconvenient for parking. Entering the building is extremely inconvenient, especially for handicapped.
- The library location is fine, but taking a left out of the library driveway is terrifying.
- Town hall is a disgrace and needs to be rebuilt.
- Location of Library/BSND is very convenient, central to town, but getting out of the parking lot can be very difficult.
- I don't know where the Public Works Office is.
- Very inconvenient due to poor traffic lights at Glen Road
- Town hall will be better when lights are working
- We need a NEW Town Hall.
- I think the Roman House looks old and out of place next to the new High School. I am for preserving old homes but I feel like it's not that attractive and just doesn't look like it belongs next to a modern building like the HS.

## QUESTION 4

WOULD YOU OR MEMBERS OF YOUR HOUSEHOLD USE THE LIBRARY MORE FREQUENTLY IF IT HAD MORE OF THE FOLLOWING?



### QUESTION 4 COMMENTS:

- 3 Respondents Answered more handicapped accessible bathrooms
- 3 Repondents ansewered that they use the library very frequently
- 2 Respondents Answered the library is fine the way it is
- 2 Repondents Answered that there is adequate parking

### QUESTION 4 OTHER COMMENTS:

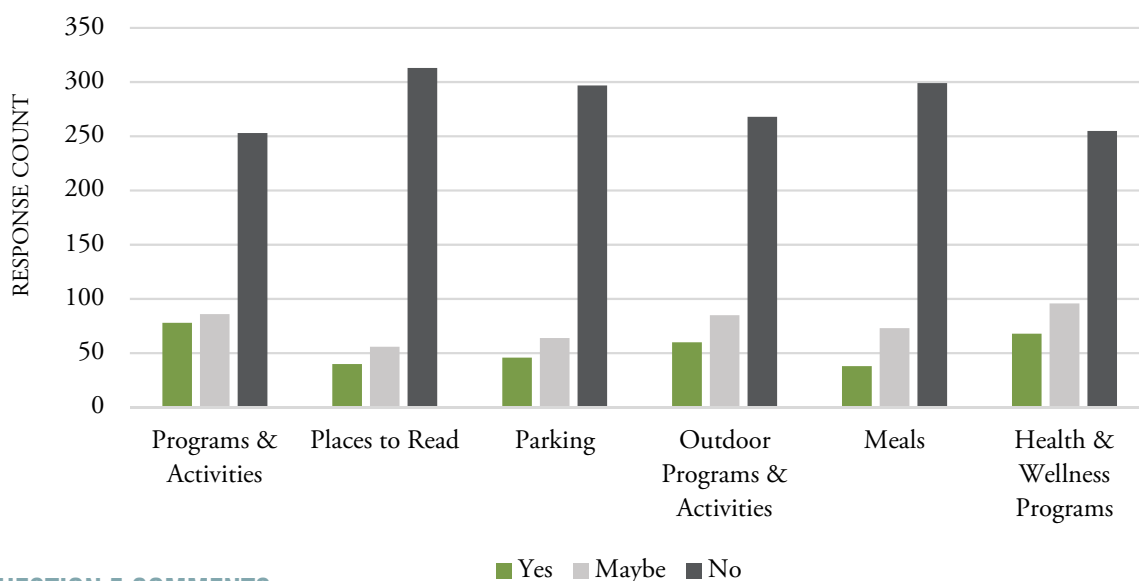
- THE LIBRARY DOES A GREAT JOB WITH ALL THEY HAVE
- The library is suitable and has all of these things this senior center
- I think the library does a great job! (full disclosure: a family member is an employee)
- We love the library
- Libraries are useless. They should be converted to community centers. No one reads books and there are bigger libraries in surrounding towns.
- A modern library is a symbol of a community's commitment to its high standards. It shows that the community values learning and values providing resources for its people. Our current library staff has done an outstanding job with the resources provided, but it is time to improve what we have in terms of physical structure and space to accommodate additional resources within.
- I think the space in the library is used really well with so many great programs and resources for the town.
- Library staff do an excellent job with very inadequate facility and books
- I Think the Library is doing very well
- New Lego Books Adult Activities
- No Opinion
- Quiet Reading Areas comfortable reading chairs
- The library is great starting resource Lucky to have



- Library has all the things, but is too small I support a new larger library
- Our library is WONDERFUL! Many activities for kids and families alike!
- Along with Friends of the Library, Tina Stewart has made the most she can of the facility.
- The library is too small to meet our community needs. We desperately need more quiet study and reading space as well as a larger teen and children's areas. In addition, the staff needs more room to work. Our library is a community gathering center that cannot accommodate our community.
- The Library already has most of what I need
- I have never had a parking problem at the library. The book and media collections are fairly slim compared to other public libraries (such as Medford, Malden, Newton, Shrewsbury, Lexington, and Amherst). The borrower policies are generous and the staff is great. They need more space and materials. I love the new study area, but there's nowhere cozy to read.
- Only used to renew library card for ebooks
- I know they do all that they can with what they have, but that building is a little sad and not what I would call a library. I think many more high schoolers would use it also if it had a quiet, study area.
- We use the library. It is a wonderful community resource, and we were disappointed that plans for a new library fell through twice.

## QUESTION 5

WOULD YOU OR MEMBERS OF YOUR HOUSEHOLD USE THE SENIOR CENTER MORE FREQUENTLY IF IT HAD MORE OF THE FOLLOWING?



### QUESTION 5 COMMENTS:

- 20 Respondents Answered not age applicable
- 6 Repondents Answered that they do not use this facility
- 2 Repondents Answered that they use the facility frequently

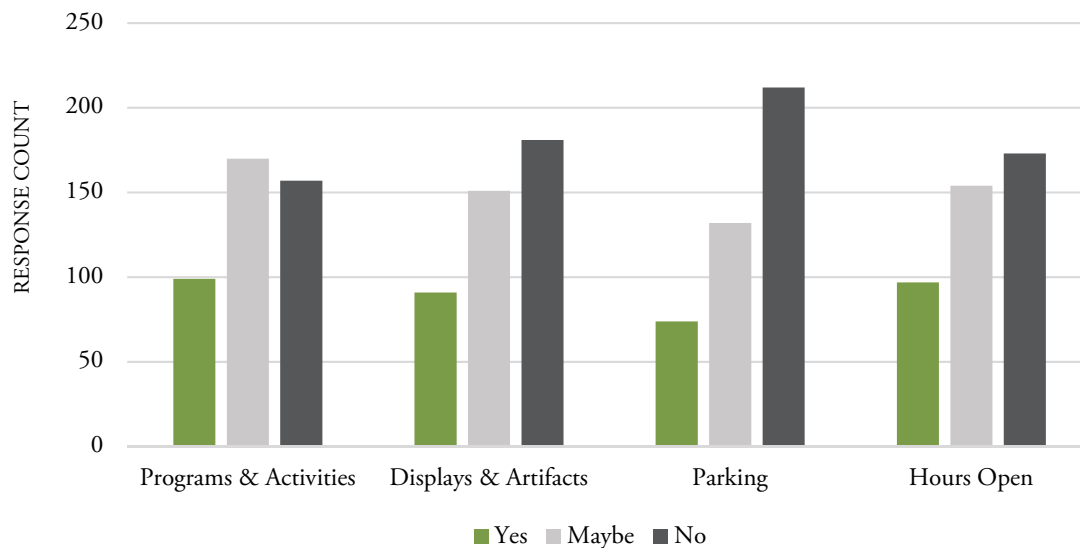
### QUESTION 5 OTHER COMMENTS:

- Very inadequate
- Pretty Happy with senior Center as it is
- Its fine just the way it is !
- Needs to be painted white or some bright color on the inside dark and no friendly inside
- Senior Center thrut store
- A building like billericas would be nice
- The senior center is in dire need of updating.
- If there was a public area to study outside library hours or community music I might go. I never hear much publicity from them.
- We need to build a new Senior Center ie; Tewksbury's Senior Center is modern and more enjoyable to visit plus they have a beautiful hall for activities. Our Senior population is growing each year and since we are paying higher RE taxes for a new High School; what about the older Senior's who are paying these high taxes? Buzzell Senior Center is very dark, old and outdated. I believe it reflects poorly on Wilmington and its regard for the Seniors that built this town. We deserve to have a new, bright and modern facility to spend our days and recreational hours. This should have a place of NEW Facilities to be built in Wilmington. Since we are building a park for the children what about a new place for Seniors?
- The senior center always looks well-attended and the folks that go, seem to enjoy it.
- This senior Center is well staffed but very old fashion for a town like this It is dark and dumpy not a place you look forward to visiting
- More activities to connect the youth in the community with the older generations.
- Not currently a member of the senior center but would like to see this area of our community expanded.



## QUESTION 6

WOULD YOU OR MEMBERS OF YOUR HOUSEHOLD USE THE HARNDEN TAVERN MORE FREQUENTLY IF IT HAD MORE OF THE FOLLOWING?

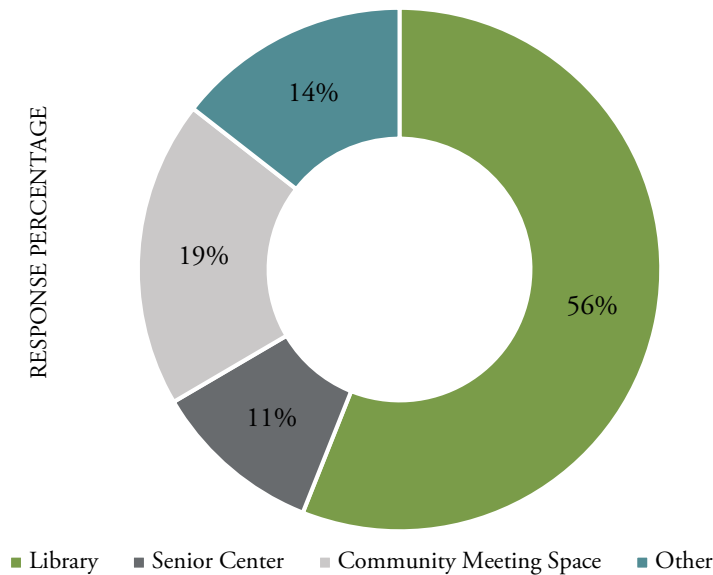


### QUESTION 6 COMMENTS:

- I have never visited
- Its fine just the way it is !
- Not sure Lived here all my life and have not visited once
- Not and easy place for people with back/leg issues.
- Rental space for small groups or private functions? I've actually never been inside!
- I was not aware that this was a museum!
- Nice town resource, especially for children.
- I always thought it would be cool to be able to host small events on the grounds, like baby or wedding showers that are small in size
- No real interest
- Have attended programs there when kids were younger.
- Would like more hours on the weekends
- The Harnden Tavern is very important to the Town, as is the Butters Farmhouse which needs work both on the roof and inside.
- No Opinion

## QUESTION 7

WHICH OF THE FOLLOWING FACILITIES HAVE YOU VISITED A NEIGHBORING COMMUNITY TO ACCESS?  
(CHECK ALL THAT APPLY)



### QUESTION 7 COMMENTS:

- 21 Repspondents Answered None
- 5 Respondents Answered Reacreation Parks and Playgrounds
- 8 Repondents Answered No Opinion
- 2 Repondents Answered Bike Path Trails

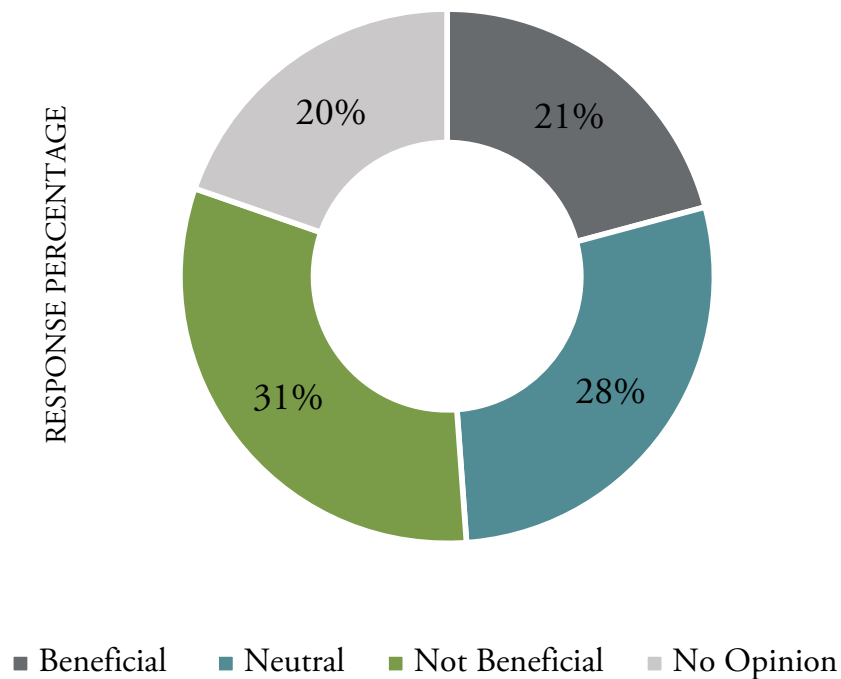
### QUESTION 7 OTHER COMMENTS:

- Programs for Grandchild free at neighboring libraries, like we have in Wilmington. Close by and extra offerings.
- Reading ymca and dog parks in several communities
- Tewksbury has a Beautiful Senior Center. Buzzell. Center is old, dark and dreary.
- Programs at High school, such as plays or historical presentations
- Boys club
- Theatre space for children
- Events at town green
- I have often used the library in Burlington
- Just love all libraries.
- Hallenbrook skating rink., lexington library, Horn Pond



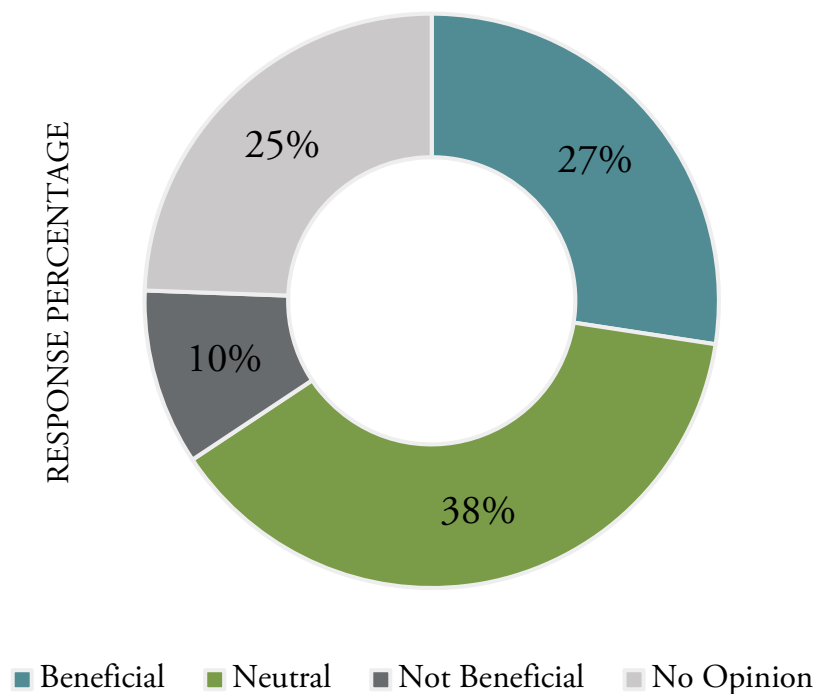
## QUESTION 8

HOW WOULD YOU RATE THE NUMBER OF TRANSITIONS FOR STUDENTS UP TO GRADE 5.



## QUESTION 9

HOW WOULD YOU RATE THE THE LOCATIONS OF THE SCHOOL BUILDINGS FOR PRE-KINDERGARTEN THROUGH GRADE 5?



## QUESTION 10

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### WHAT DOES “CIVIC SPACE” MEAN TO YOU?

- 114 Respondents Answered Public Space for the Wilmington Community
- 75 Respondents Answered Gathering Spaces for events, entertainment and meeting space
- 7 Respondents Answered Governmental and or Municipal spaces
- 6 Respondents Answered Town owned public buildings or properties
- 13 Respondents Answered Doesn't know
- 7 Respondents Answered Nothing

### QUESTION 10 OTHER COMMENTS:

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- NO, we don't need to spend more money on anything !
- An extension of the community a coming together of residents
- Public buildings or outdoor areas we could “use” like the library or such, not just visit like town hall to pay taxes
- Meeting rooms and areas where people can learn about local affairs from meetings or available literature
- Town hall, library, etc, where meetings take place and literature is available to learn about local affairs.
- Where's my cat park!?
- A welcoming well maintained space open to all residents with convenient hours and access. Civic space should evoke a sense of civic pride.
- Building and sites that are well appointed/maintained and that are user-friendly and intentionally welcoming for a range of ages. Residents generally feel pride in their shared ownership of these spaces.
- Parks, Libraries, Trails, Sidewalks, Recreational Facilities.
- Civic spaces are an extension of the community.
- Community center type place
- Common areas where community happens.
- It is a place that uses our tax dollars to run the town and provide beneficial services to the town.
- space accessed (by a fee) for use by town residents?
- Open parks and playgrounds.
- A place for the Taxpayers to use !!
- It means a place to conduct business in your community and a place that serves the public. I don't think its necessary to spend money just to have brand new buildings. Its more important that the services that are provided meet the needs of the community. There should be money allocated to keep the buildings looking good and not run down.
- Locations maintained by the town for personal use.
- A recreation center
- Rooms in public building to be reserved by the taxpayers
- Community center. Replace the library

## QUESTION 11

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### WHICH TOWN BUILDING OR SPACE WOULD YOU RATE AS THE BEST?

- 106 Respondents Answered the Wilmington High School
- 72 Respondents Answered the Wilmington Public Library
- 61 Respondents Answered the Wilmington Public Safety Building



- 14 Respondents Answered the Wilmington Town Hall
- 13 Respondents Answered the Wilmington Town Commons
- 12 Respondents Answered the Wilmington Middle School
- 4 Respondents Answered the Wilmington 4th of July building
- 4 Respondents Answered No Opinion
- 3 Respondents Answered None
- 3 Respondents Answered the Book Store Next Door
- 3 Respondents Answered the Wilmington Harnden Tavern
- 2 Respondents Answered the Wilmington Silver lake
- 2 Respondent Answered the Wilmington Buzzell Senior Center
- 2 Respondents Answered the Wilmington The Roman House

#### QUESTION 11 OTHER COMMENTS:

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- Unfortunately they are all lacking
- We need a “Main Street”
- I don’t think any are really adequate for community space although I have not been on some of them.
- Typically use churches for meeting space
- St. Thomas of Villanova Church
- Wilmingtons Veteran Services Facility

## QUESTION 12

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### WHICH TOWN BUILDING OR SPACE WOULD YOU RATE AS THE WORST?

- 115 Respondents Answered the Wilmington Town Hall
- 51 Respondents Answered the Wilmington The Roman House
- 25 Respondents Answered the Wilmington Library
- 23 Respondents Answered the Wilmington Schools in general
- 19 Respondent Answered the Wilmington Buzzell Senior Center
- 17 Respondents Answered the Wilmington Boutwell School
- 14 Respondents Answered Do Not Know
- 10 Respondents Answered the Wilmington DPW
- 8 Respondents Answered the Wilmington Wildwood School
- 7 Respondents Answered the Wilmington Harnden Tavern
- 4 Respondents Answered No Opinion
- 6 Respondents Answered None
- 6 Respondents Answered the Book Store Next Door
- 5 Respondents Answered the Wilmington 4th of July building

#### QUESTION 12 OTHER COMMENTS:

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- The Whitfield. You tore down a historical building that was not maintained & could have been put to use to create open space.
- Rotary park...No parking, no fence to keep small kids from busy street

- Boutwell school if it counts town hall is also bad but children and public don't spend much time there so perhaps less of a priority the library facility in general and lack of proper handicapped bathrooms is an embarrassment however the staff are great and doing the best they can
- All the schools other than the middle and high school. The buildings are an eyesore inside and out (with some exceptions). The town does not take care of it's property, the roman house is a prime example. If you made it nice looking instead of trying to destroy it, more Roman house early childhood spaces (Wildwood)
- The Roman House is not an appropriate space for school administrators. The structure lacks the necessities for efficient functioning. Furthermore, it now looks ridiculous in front of the new high school. The Roman House should be relocated if possible to some space along that street and sold to a family interested in restoring it to its former glory and function.
- The former fire department
- Train Station parking Lot/ post office parking
- Town Firing Range
- The town hall should be moved closed to our historical bldgs ie. Library high school etc
- I have visited the senior center. That building is very old and despite a fabulous welcoming staff, it's just doesn't seem a comfortable space. Don't our seniors deserve more?
- School administration/ Roman House - merits preservation as an historic reminder of the roman families philanthropy but not as an office space
- Computer recycle center and the Valenti Electronics stores
- Town Hall. Although I think it says something for our local politicians that money has not been spent to upgrade their offices, I think the town hall is due for an upgrade if the town can afford it.
- Library. I need to get most of my books from the Consortium rather than from the Wilmington library.
- Baby beach being closed, the town center is useless, with no parking and no reason to walk to and enjoy
- School admin house/building Roman House. It's a creaking disaster of a building. It should have been torn down when WHS was built.
- West Intermediate with Windows you can't see out of, missing ceiling panels and mold spots, Public Safety Building with poor ventilation and a stove in the firefighter's kitchen that hasn't been up to code in many years and the Boutwell with it's disgusting ceiling

## QUESTION 13

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### WHICH COMMUNITIES DO YOU BELIEVE ARE COMPARABLE TO WILMINGTON?

#### TOP RESPONSES

- Reading
- North Reading
- Tewksbury
- Burlington
- Billerica
- Andover

#### QUESTION 13 OTHER COMMENTS:

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- Wilmington is a great town to live in. We NEED more SENIOR housing in additions to densing way-town owned not
- I think with a little cosmetic work in certain areas of town, i.e. Rt. 38 around Firestone, near train tracks is atrocious. Probably Tewksbury is closest in comparison. I think Wilmington is a very nice community and is affordable for the average person, but I would like to see a general clean up of certain areas in town. The actual center of town could be

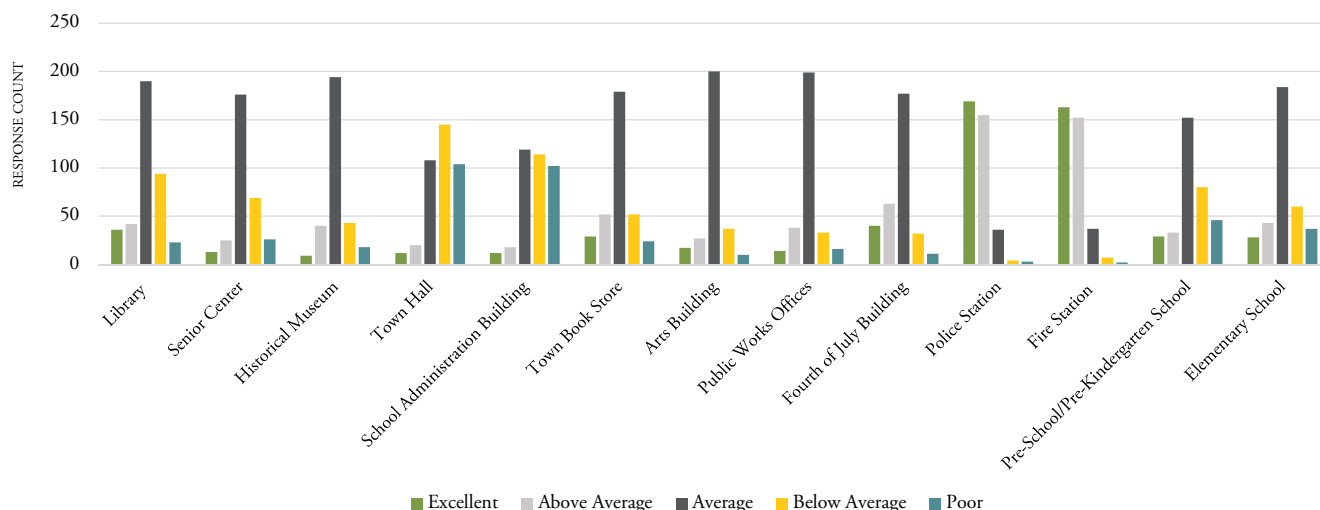


eye catching with those brick buildings, put a few planters out front on the sidewalk, plant some perennials across the street in front of the stone wall in front of Big Joes. The new buildings on Church St. look great.

- Grafton, MA or Beverly, MA. It's a unique place in the area, still lots of beauty and greenery, near the train to Boston, decent amenities and not much crime. We could not afford to live closer to Boston except in poor school districts, nor could we afford Lexington, Newton, or Lincoln types of towns. There appear to be many jobs right in town too. It's an unusual mix, and I hope the town focuses on its schools and related services in the future.
- Wilmington wants to be Andover/Burlington/until it's time to pay to be like those towns. I suppose we are comparable to Tewksbury or other New Hampshire towns that don't have centers "downtowns".
- I don't care about other communities. I care about here and don't want to attract outsiders. I don't like the changes in the town. We have become too large and have too much crime.

## QUESTION 14

### HOW WOULD YOU RATE THE QUALITY OF WILMINGTON'S BUILDINGS COMPARED TO OTHER COMMUNITIES?



#### QUESTION 14 COMMENTS:

- 10 Respondents Answered No Opinion
- 6 Respondents Answered Do not know

#### QUESTION 14 OTHER COMMENTS:

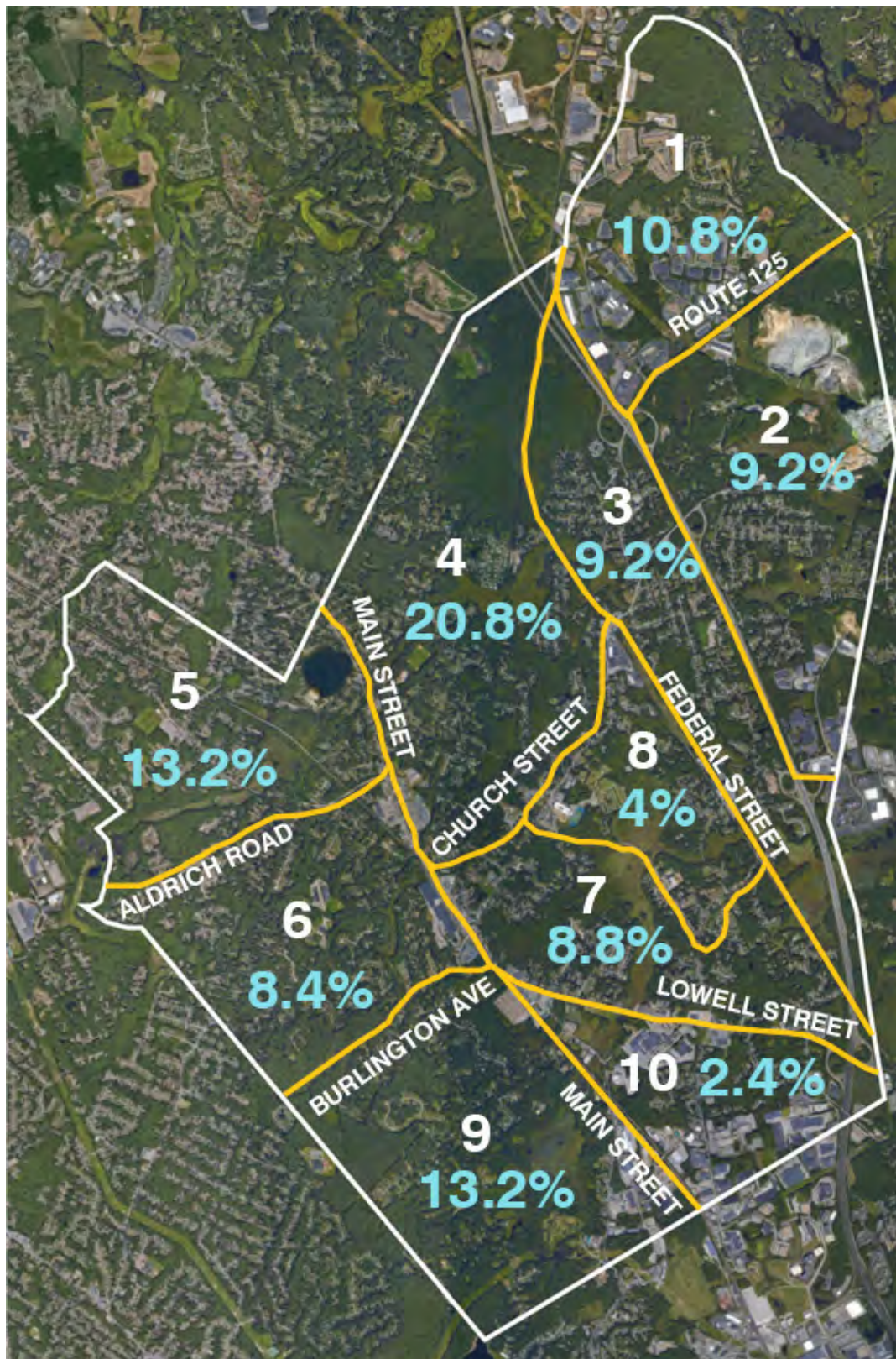
- I would like to see a new library building with more comfortable settings for community meetings. A library with business technologies for local small businesses. A large space for meetings that can be used for local children groups such as scouts and Destination Imagination. I would like to see the library to take the lead in offering continuous art and music classes for adults and children. Some interesting and ongoing science as well as gardening programs would be great.
- Most Buildings are fine, we need to do a better job of keeping them updated. Wilmington lets them go into disrepair too easily and then tears them down. Library is an excellent example of a well maintained building in our town.
- I've lived in town for only a couple months, I don't know. The town in general seems rundown and meh though.
- The window/door upgrades to the Shawsheen and North are improvements, however all the elementary schools (K, 1-3, and Interm) are really a disappointing, outdated eyesores compared to Elem schools in other communities
- Pre school kindergarten buildings are shameful
- Town hall really should be a visual highlight to the town, placed somewhere prominent with a nice public space around it. Our town hall is buried in a residential neighborhood occupying an old schoolhouse from the 80.
- Wilmington should be commended for making good use of some very old buildings. But now it's time to upgrade some of these buildings.
- The curb appeal of the kindergarten and elementary schools (Wildwood and Woburn Street) are horrendous. There are large Boston Public Schools in the middle of the city that are more attractive and less institutional looking!
- North Intermediate is touch most in need of improve and very isolated
- It shouldn't be about keeping up with the Jones ie other towns
- Facilities are Old -with global warming % increased temperatures classroom are to hot !! I cannot imagine how teachers and students are expected to concentrate with sun streaming in windows without shades no air conditioning or fans.
- Middle School Above Average
- I really don't have much to compare them with, other than the police station.
- Most of the buildings in Town are in serious need of repair or leveling and starting over! They have been neglected for far too long. Town Hall tops the list of the worst!

- There are no other towns with a town book store which makes ours the Best ! some for the 4th of July bldg. Both buildings could use improvement E.g. new windows at the BSND
- WHS and WMS Excellent - Bookstore poor building but great resource
- There is still a need for a sub fire station in North Wilmington
- I think wilmingtion is a good town. However, I think we need to slow down purchasing "open land" and concentrate our resources where they MAY be most needed. Does that mean replacing the Roman House - not necessarily. Funny how talk about that came about only after we built the new High School - which I understand has a cafeteria that does not accomodate as it was meant to and many "small group"/"large group" rooms that seemed a little much when I took the tour. And I particularly liked School Committee Chairwoman Peggy Kane's comments in the 8/20/15 Advocate that "everywhere I go this summer, I've been questioned about the Roman House". Really? Did she take names? In Lowell, they have 27 schools, 2 of which are over 100yrs old and still going strong. Winchester has a Town Hall which appears to have been built many years ago. How is it that Wilmington can't seem to use what they have? We did not get a new Library but the staff has done a heck of a job utilizing their space and making everything work quite well. We have more committees and reports than Custer had Indians - and how much do all of those cost? Cautious is good but I think the town goes overboard - and may very well keep hiring firms for those reports until they get one they "like" rather than one that may not coincide with the powers that be. Am I annoyed - a resounding YES - everytime I get my tax bill. town Hall
- New middle school is VERY nice, other schools have a tired look to them
- they should upgrade Town Hall and move to the Town Center when I moved here 27 years ago from Woburn I could not believe it was in a strange location and in an old elementary school and still is today
- High School and Middle School are excellent
- Our library is nice and I like it a lot. In comparison, the library in Wakefield is nicer and has more ambience. When I'm in the Wakefield library, I ask myself why the Wilmington library can't be more like that. A library is like a community center. Besides the books and those types of resources, it provides a safe and inviting space to read, job hunt, place to go to, etc.; use of computers and wifi to learn/practice new skills, job hunt, etc.; events (such as movie nights and talks) that get people out and about to stimulate the body and the brain; and much more.



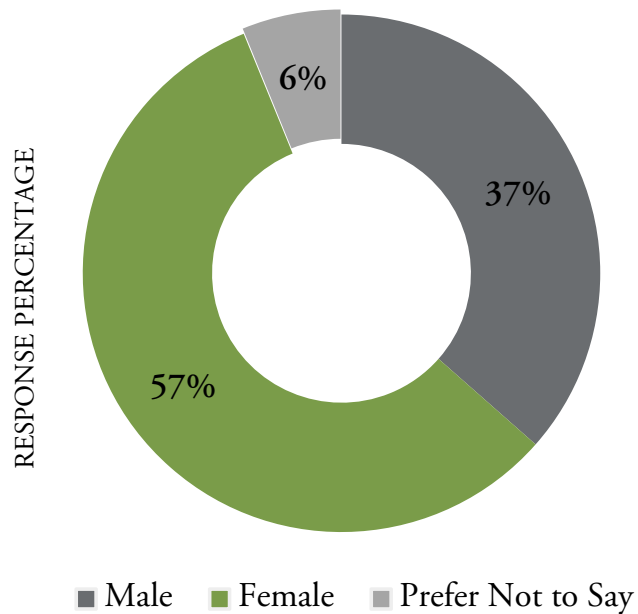
## QUESTION 15

USING THE MAP, INDICATE WHICH ZONE YOU RESIDE IN.



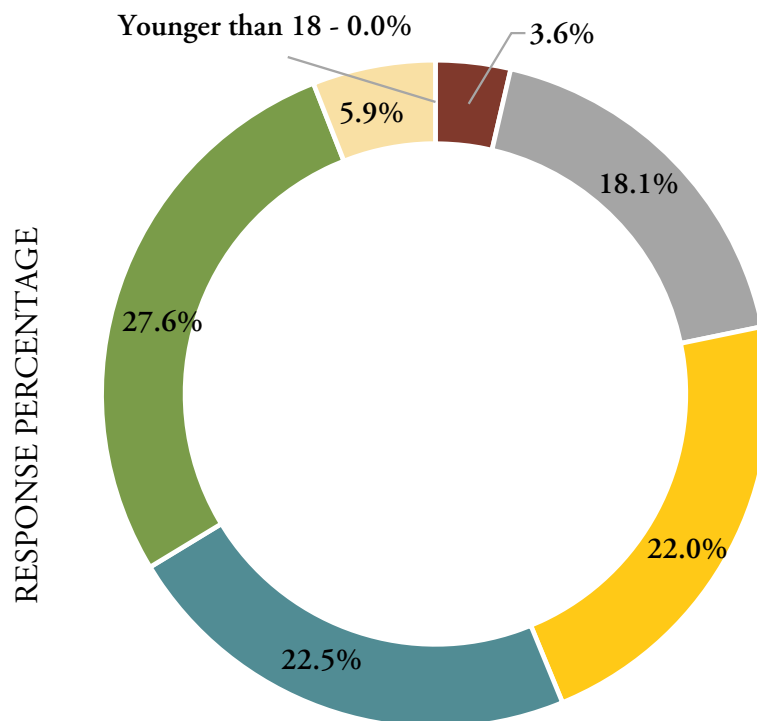
## QUESTION 16

WHICH BEST DESCRIBES YOUR GENDER?



## QUESTION 17

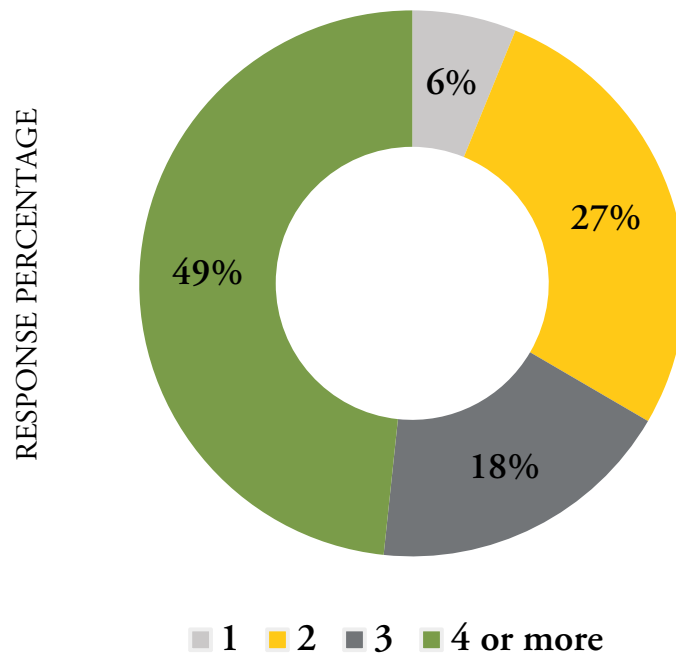
WHICH BEST DESCRIBES YOUR AGE ?



Younger than 18   ■ 18 to 29   ■ 30 to 39   ■ 40 to 49   ■ 50 to 59   ■ 60 or Older   ■ Prefer Not to Say

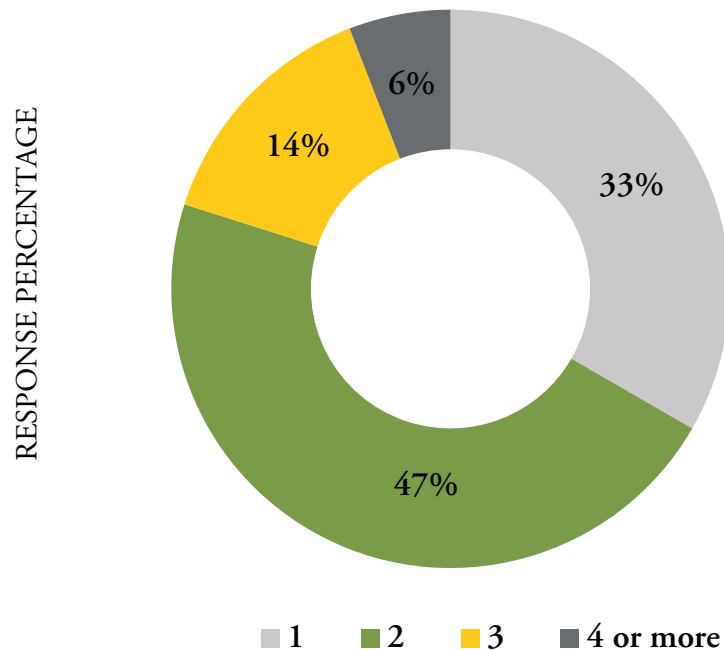
## QUESTION 18

HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD?



## QUESTION 19

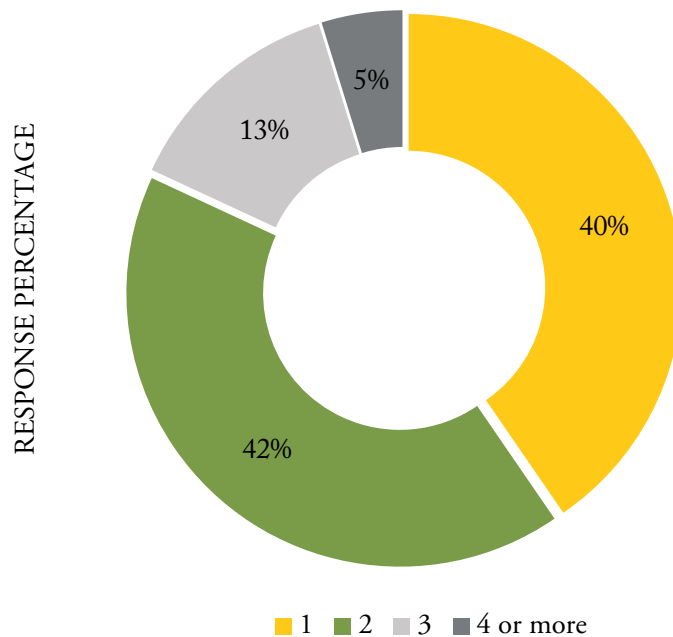
HOW MANY SCHOOL AGED CHILDREN LIVE IN YOUR HOUSEHOLD?





## QUESTION 20

HOW MANY CHILDREN IN YOUR HOUSEHOLD ATTEND WILMINGTON PUBLIC SCHOOLS ?



## QUESTION 21

### ADDITIONAL COMMENTS

- MY FAMILY HAS LIVED IN WILMINGTON SINCE 1954 AND WE NEED TO SLOW DOWN WITH THE BUILDING ITS MORE LIKE CHARLESTOWN THESE DAYS
- I think this town desperately needs a new building to house Town Hall. The one we now have is embarrassing.
- All schools up to the middle school are in poor shape- many having asbestos in them. These buildings are a disgrace, look awful and are an embarrassment to the town.
- My other family members often comment Wilmington lacks a "proper" town hall, in a more central location.
- We've been in the Community over 20 years. The Town has made improvements but still has a way to go in my opinion. We're getting better but more can be done to improve the community
- The town needs a hockey rink.
- Please, no more "improvements" like the high school. Stop destroying the character of our town. Newer does not mean better.
- I'd like to see more activities for school age kids at the recreation Dept
- Our children are older and do not live in town but all attended public schools in town and went on to graduate from colleges
- Send child to private school in Andover
- A lot of work needs to be done in numerous Town buildings. The Town Hall should be placed in the center of Town where it is more accessible to residents and people from outside Town. Historical buildings need MORE work done to keep them in good shape for visitors of all ages to visit and to come to know our heritage.
- The library in town is an invaluable resource for so many. My children are aged 12-21 and there is always something going on to appeal to the age range and to myself and my husband. With an updated facility even more could be offered by the wonderful staff.

- 2 seniors in household - 66 + 59 years old PS. we should have done a rotary at Glen Road + Church Street + Wildwood. How about Yellow Blinkers except at rush hour ?
- Town needs better elementary schools+ Playgrounds , bike paths, bigger library - quiet reading space, Dept of Rec Space + More programs for 0-3 olds
- Library does an excellent job with inadequate facility need space so teaching cant take place in a separate area need space for more books
- Town Spending is increasing way beyond rate of inflation or rate of economic growth - must be slowed down !
- I wish Wilmington Had more pedestrian Friendly downtown
- Although it is not part of the Town Building the WETU station is a VERY important part of the town
- To See School Buildings with holes in the exterior maintenance doors (Woburn street school) Is disgraceful and at Deming Way Too.
- More Crafts please for Adults + Children Boys
- Children went through Wil Pub Sch. + are graduated
- No, we don't need more !!
- Playground equipment updates and safety need to be a priority - school + Public playgrounds are in disrepair
- Library does so much with so little but should be bigger / newer to do more. Could arts building and maybe new library be combined with new town hall ?
- I know space is limited and so is funding but would be great if there were a community center for the youth of Wilmington.
- 2 of my children graduated from Wilmington High school and both have masters degrees im very happy with the school system.
- An investment in their schools and libraries enrich the quality of life in the community. I hope the recommendations of this study support this investment.
- Although Wilmington has been fiscally conservative over the years, this policy has left us with many outdated, inadequate public buildings that all need replacing in a short period of time. Cheapest isn't always best in the long run. We need a plan for Wilmington that assesses the quality of our facilities and plans how to replace them so we don't end up needing six new buildings all at once.
- Please consider fixing sidewalks on Main St across from St. Dorothy's
- Please save Roman House. It may look "different" than the new high school (which I also like), but it is such a beautiful building and asset to our town center.
- Senior Housing in this Town should be on the list of projects to be discussed . There is a great need for housing for Senior Citizens in this Town.
- A separate children's library would be great and create more space in the library
- My children are grown but i have 2 Grandchildren that attend Wilmington Public Schools. #19 & 20 should have had 0 as an option.
- I appreciate the conservative approach to spending but , walking in to our schools should be a welcoming hello. We don't even provide signs for our schools and doors have peeling paint. Good luck on the plan.. Wish we had one the billion dollar Powerball in January
- Knock down the Roman house. It makes the high school look bad
- I Answered this survey to comment specifically on the horrible Town Hall. The library is a disappointment, too, only relieved (somewhat) by inter-library loan.
- The library is a real nice place, some other buildings I never use (like the Roman house, 4th of July, Art building).
- Schools need upgraded, need more fields, specifically with turf/drainage.
- Need senior housing



# APPENDIX D

## FACILITY CONDITIONS EVALUATIONS



# APPENDIX D : FACILITY CONDITIONS EVALUATIONS

## INTRODUCTION

This section of the Report consists of detailed reviews of the sites and buildings that are the subject of the Facilities Master Plan. This information will be used as a reference source and help form the basis of specific recommendations for potential improvements or changes in the future.

Each assessment contains a description of the facility and information about its location, age, size, and use. The assessment includes a summary evaluation of architectural, engineering, and site elements as well as a rating table of the building's condition. Supporting documentation, per building, includes detailed notes of building systems prepared by Garcia Galuska Desousa Engineers and facility photographs.

Please note that repairs, upgrades and changes may have occurred since the assessment has been recorded in early 2016.

## Methodology

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The information regarding the facility conditions was assembled using the following methods:

- Site visits – Each facility and site was visited by both an architect and building engineers to generally review visible conditions. Notes were taken and are reflected in narrative form that are included in this document.
- Condition ratings – Each of the major site and building components were assigned a condition rating on a scale of 0 to 5, with 5 being excellent condition that would not require repairs other than normal maintenance. These condition ratings are a means to compare and categorize the building and site conditions which could require capital improvements or replacement.
- Photographs – The photographs of typical and prominent conditions have been prepared and assemble.
- Plans and reports – Where available and pertinent, plans or previous reports have been reviewed.
- Discussions – As part of the site visit process, discussions regarding building conditions were held with staff from the Public Buildings Department.

## Sources of Information

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The sources of information have included a variety of sources. In general, the available architecture and engineering plans are largely limited to the schools, public safety building and the library. There are no preceding building condition analyses, although basic information regarding the building areas, date of construction and other facts appear in Town documents.

The site information has been assembled from the Town's GIS system and includes approximate property lines, lot areas, building footprints and relationship to adjacent parcels and streets.

# NORTH INTERMEDIATE SCHOOL

LOCATION: 320 SALEM STREET  
TOTAL # OF STORIES: 2  
YEAR CONSTRUCTED: 1962  
BUILDING AREA: 54,569 GSF  
BUILDING OCCUPANCY: SCHOOL



## Description

North Intermediate School is a brick and curtain wall building that serves grades 4 & 5 for roughly 280 students. It is located just south of exit 41 on Interstate 93. Solid original construction, and recent building upgrades have kept this facility in good condition. The main entrance to the school is off the bus loop area on Salem Street. Building identification is primarily letter signage on the façade of the cafetorium next to the main entry.

## Observations and Findings

### SITE ASSESSMENT

This school is located at the corner of Salem and Ballardvale Streets near Interstate 93. Playing fields and courts are located to the immediate north and northwest of the building. Landscaping is limited to a few trees along the road and play field edges. Otherwise the site is completely open. Grass typically covers all non-paved surfaces. Parking is located in the northeast corner off Ballardvale St. There is a separate bus loop off Salem St. Parent drop off, staff parking, and deliveries all share the single parking lot which can create conflict and safety issues especially at drop off and pick up times. This lot is also the only paved surface for the school which creates competition between parking and play.

### BUILDING EXTERIOR

Exposed foundation areas show deterioration and require repair. Otherwise, the brick veneer is in good condition. All openings have been very recently replaced including curtain wall, Kalwall panels, and exterior doors. Most of the roof and roof trim have also been recently replaced.

### BUILDING INTERIOR

Sections of terrazzo flooring have remained in good condition. Most of the flooring is 9x9 VCT, which likely contains asbestos, and is in fair to poor condition with worn or chipped areas throughout the building. Replacement VCT has been made with newer 12x12 tiles. Plaster ceilings in the common areas are in fair condition and the 12x12 ACT ceilings throughout most of the program spaces are in poor condition. Walls are typically painted CMU which is mostly in good condition. There is wood paneling in the entry / office area and ceramic tile over CMU in the toilet rooms, both in fair condition. Corridors are lined with functioning metal lockers.

### STRUCTURE

Structure consists of steel frame on a C.I.P. concrete basement. The cafetorium is framed with deep glue laminated beams with wood roof decking above. The gym is framed with exposed open web joists with corrugated metal decking above, which is the typical system for the building overall.

### BUILDING SYSTEMS

Electrical panels and distribution is largely original to the building, is beyond its intended useful life, and should be replaced. Unlocked electrical panels were observed which are of concern for safety. Interior and exterior lighting should be upgraded to LED along with associated lighting controls and paging system. Kitchen outlets need to be replaced with GFI protected circuits. Boilers are brand new but original distribu-

tion piping insulation is suspected to contain asbestos. Kitchen hood, air handling units, and unit ventilators are all in poor condition. Plumbing systems were noted to be beyond their useful life. Vestigial fixtures such as emergency showers in classrooms and consideration should be made for removal.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

The building contains several internal level changes without appropriate accessibility accommodations. Emergency lighting and exit signs, fire alarms, horn strobes, pull stations, and smoke detectors are brand new for this non-sprinklered building and appear to meet current requirements. The kitchen vent hood has no dedicated make up air of an Ansul fire suppression system. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.



# NORTH INTERMEDIATE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	0
Brick / Masonry	3
Siding / Cladding	4
Windows	5
Doors	5
Canopies / Overhangs	1
Roof	0
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	5
Life Safety: Exit Signs	5
Life Safety: Emergency Lighting	5
INTERIOR	
Condition of Walls	3
Base	2
Flooring	1
Ceiling	1
Stairs	1
Handrails	1
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	1
Panel / Distribution	2
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	5
Fuel	N/A
HVAC	1
PLUMBING	
Toilet Rooms	2
Kitchen	4
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **NORTH INTERMEDIATE SCHOOL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building with some exceptions. The fire alarm system including the control panel, devices, door holders, and speaker/strobes are relatively new and meet the latest requirements. Original equipment installed in 1962 is beyond its intended useful life. Existing electrical service equipment, distribution panels, non LED interior and exterior lighting, lighting controls and paging system should be replaced. It was noted that some of the corridor panels were not locked and could be easily accessed. Unlocked panels are a safety concern and should be addressed.

### **Rating**

5 - Brand New  
4 - Very Good  
3 - Good  
2 - Fair  
1 - Poor  
0 - Requires repair  
X - Requires immediate  
N/A - Not applicable

### **Existing Conditions:**

- The electrical service runs underground to a building mounted meter. The service is rated at 800 Amps, 120/208 Volts, 3 Phase, 4 Wire. An 800 Ampere Main Circuit Breaker switchboard is located in the basement next to the boiler room and is in poor condition. The equipment is manufactured by Federal Pacific. The equipment is obsolete and has met its life expectancy and should be replaced.  
Rating: 1
- The lighting and power panels are Federal Pacific circuit breaker type and are located throughout the building. There is no TVSS (transient voltage suppressor) protection at the switchboard and remote plants. Circuits should be separate by load type and TVSS should be added to panels that serve computer equipment.  
Rating: 2
- Existing lighting consists of surface wraparound fixtures with T12 lamps in classrooms, corridors, offices, and utility rooms. The cafeteria and the gymnasium has industrial 2'x4' surface mounted T5 fixtures. Controls are provided by local switches.  
Rating: 1
- Exterior lighting consists of HID building mounted flood lights and wall packs. Some LED light fixtures are provided at exit doors.  
Rating: 2

- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear to be LED type.  
Rating: 3
- The building is equipped throughout with a new addressable automatic fire alarm system manufactured by Notifier; which consists of voice evacuation with speakers/strobes, smoke detectors, pull stations, and heat detectors.  
Rating: 5
- Paging system consists of an old Bogen console with clocks/speaker panels and call switch in the classrooms.  
Rating: 2
- Existing security system includes motion sensors and door contacts. Throughout the building, and exterior camera is provided at the main entrance with an intercom system.  
Rating: 3
- There is no generator installed.  
Rating: N/A
- The quantity of receptacles is minimum throughout the building.  
Rating: 2
- Kitchen receptacles are not GFI protected. Also, there are no ansul system and EPOs (emergency power shut trap pushbuttons) installed in the kitchen.  
Rating: N/A
- Telephone, CATV and fiber run underground from a utility pole to the electric room.  
Rating: 3

## **Executive Summary - HVAC**

The North Intermediate School equipment is mostly original to the building from 1962. Generally speaking, most systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the systems installed throughout the building are past their intended maximum serviceable life. HVAC equipment within the Mechanical Room was replaced in the summer of 2015.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The boilers were replaced in the summer of 2015. Three new gas fired high efficiency Camus boilers were installed. Boilers are sealed combustion type; flue venting is AL29-4C double wall venting to the outdoors with insulated ductwork for the combustion air. There are three floor mounted end suction pumps with variable frequency drives (VFD) to modulate pump speed based on system pressure.  
All other equipment associated with the boilers, such as expansion tank and air separator, were also replaced.  
The boilers service the domestic hot water needs of the building  
Rating: 5
- Hot water supply and return piping appears to be schedule 40 black steel which is insulated. Insulation one new piping within mechanical room is good but existing piping is suspect and appears to be asbestos.  
Rating: 1
- The automatic temperature control system is of the pneumatic type and is provided with a single storage tank with duplex compressor and motors. The system is provided with a refrigerated air dryer, as well as, an oil and water separators.  
Rating: 3



- Existing kitchen equipment utilizes natural gas. There is an exhaust hood over the cooking equipment that is not code compliant (no ansul system). There is no dedicated make-up air system; make-up air is by surrounding spaces. There is no exhaust at the dishwasher. There is an air handling unit in the supply closet that supplies heat and ventilation to the kitchen area.

Rating: 1

- The cafeteria is served by a hot water air handling unit located above the ceiling in the storage closet, left of the stage. Ductwork runs above stage and supply air is supplied to the café via sidewall grilles. Return is accomplished by a transfer grille at the stage.

Rating: 1

- The gymnasium is provided with two indoor hot water air handling units. Each air handling unit have exposed galvanized sheet metal ductwork with two round diffusers which allows tempered air to travel into the space. The return ductwork associated with the air handler is centrally located at floor level.

Rating: 1

- Each classroom space is provided with a wall mounted classroom unit ventilator located on the exterior wall. The unit ventilators are provided with a hot water coil with pneumatic control valve. They are also provided with an outside air intake louver, as well as, filters, and a supply fan. Hot water fintube radiation is located behind the shelving.  
In addition, many of the classrooms have ductless split cooling and units installed with an associated condensing unit located outdoors.

Rating: 1 for UV's and 5 for ductless cooling units

- The corridors located within the building were provided with wall mounted convectors and/or fin tube for generalized space heating. The individual convectors/fin tube was controlled through individual pneumatic wall mounted thermostats.

Rating: 1

- It was noted that there was no exhaust ventilation located throughout the corridor areas and no supply ventilation as well. This condition is not code compliant.

Rating: 1

- The administration area is heated through wall mounted fin tube with individual thermostatic control valves. Where the spaces are interior, ventilation is non-existent. This condition is not code compliant.

Rating: 1

- Ductless split air conditioning units or window units are utilized for cooling purposes where required.

Rating: 5

- Make-up air for the individual toilets was through the use of louvers located within the doors.

Rating: 1

- Heating of the toilet spaces were through the use of wall mounted fin tube radiation which was controlled through the use of a pneumatic thermostat.

Rating: 1

## **Executive Summary - Plumbing**

The North Intermediate School was built in 1962. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping, and natural gas. On-site septic system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall hung water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Classroom sinks are counter mounted with gooseneck faucet. Electric water coolers are wall mounted with vinyl cabinet and stainless steel bowl. Some rooms have abandoned emergency showers. Art room sinks are equipped with sediment traps. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2
- Domestic water service is 3-inch in size and includes a water meter and pressure reducing valve. There is a 1-inch water meter and backflow preventer for the exterior irrigation system. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition. Water piping in the mechanical space is not insulated.  
Rating – 2
- Domestic water for the building is generated through two indirect water heaters fed from the oil-fired heating boilers. The tank capacity of each heater is 119 gallons. Hot water is recirculated. There is a thermostatic mixing valve and expansion tank.  
Rating – 4

- Natural gas service and meter are located on exterior of building adjacent to the Mechanical Room. Natural gas supplies three heating boilers and the Kitchen cooking equipment. Gas piping is black steel with threaded and welded joints depending on pipe size.  
Rating – 4
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.  
Rating – 2
- Mechanical room has a simplex sump ejector. System is original to the building. Pump appears operational. Tank cover is in place and tank is vented.  
Rating - 2

### **Executive Summary – Fire Protection**

The Building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine if adequate Municipal water supply is available.

Rating: N/A

# FACILITY PHOTOGRAPHS





# WEST INTERMEDIATE SCHOOL

LOCATION: 22 CARTER LANE  
TOTAL # OF STORIES: 2  
YEAR CONSTRUCTED: 1964  
BUILDING AREA: 62,058 GSF  
BUILDING OCCUPANCY: SCHOOL



## Description

West Intermediate School is a brick and curtain wall building that serves grades 4 & 5 for roughly 255 students. It is located across from the Wilmington Middle School and North of the Boutwell ECC. Solid original construction, and recent building upgrades have kept this facility in fair to good condition. The main entrance to the school is off the bus loop on Carter Lane. Building identification is ground mounted signage next to the main entry.

## Observations and Findings

### SITE ASSESSMENT

This school is located in the education campus that serves West Wilmington. There is an active stream running parallel to the school to the immediate west side of the improved site boundary. A playing field is located just beyond the stream to the west of the building. Landscaping consists of small-medium trees along Carter Lane and bushes near the main entry. There is a grass strip buffer along the bus drop off zone running parallel with Carter Lane. Otherwise the site is completely paved. Parking is located on the north and south ends of the building and is clearly striped and organized. A large paved play area runs directly behind the classroom wing. The south parking area is used by West Intermediate and the north parking area is used primarily by the middle school with signed spaces. There is a separate bus zone along Carter Lane.

### BUILDING EXTERIOR

The exposed foundation had several areas showing spalling and cracking along the face. Brick veneer and precast masonry panels in the window walls are in good condition. Building openings are extensively curtain wall and are in need of replacement. Most of the roof and roof trim has been replaced recently or is scheduled to be replaced in the near future.

### BUILDING INTERIOR

The floor of the boiler room, at the lowest level of the building (and closest to the stream), is subject to continuous water infiltration and flooding throughout much of the year. Sections of terrazzo flooring have remained in good condition. Most of the flooring is 9x9 VCT, which likely contains asbestos, and is in fair condition with minor worn areas throughout the building. Replacement VCT has been made with newer 12x12 tiles. Ceilings are 24x24 ACT throughout most of the building and are in fair to poor condition. Several corridor locations have brand new ACT ceilings as part of a roof replacement project. Walls are typically painted CMU with a wainscot layer of epoxy paint which is wearing very well. Corridors are lined with functioning metal lockers.

### STRUCTURE

Structure consists of steel frame on a C.I.P. concrete basement. The cafeteria framing was not observed but is presumed to match the rest of the building. The gym is framed with exposed open web joists with corrugated metal decking above, which is the typical system for the building overall.

## **BUILDING SYSTEMS**

Electrical panels, electrical distribution, one boiler, HVAC, and plumbing systems are all presumably original to the building, and are beyond their intended useful life, and should be replaced. Unlocked electrical panels were observed which are of concern for safety. Interior and exterior lighting should be upgraded to LED along with associated lighting controls and paging system. Kitchen outlets need to be replaced with GFI protected circuits. One boiler is brand new but original distribution piping insulation is suspected to contain asbestos. Kitchen hood, air handling units, and unit ventilators are all in poor condition.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

The building contains several internal level changes and provides appropriate accessibility accommodations. There is a LULA serving the first and second floors at the end of the classroom wing. Emergency lighting and exit signs, fire alarms, horn strobes, pull stations, and smoke detectors are brand new for this non-sprinklered building and appear to meet current requirements. The kitchen vent hood has no dedicated make up air of an Ansul fire suppression system. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

# WEST INTERMEDIATE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	3
Siding / Cladding	3
Windows	1
Doors	1
Canopies / Overhangs	2
Roof	N/A
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	3
Life Safety: Emergency Lighting	3
INTERIOR	
Condition of Walls	3
Base	2
Flooring	2
Ceiling	1
Stairs	2
Handrails	2
Doors	2
Glazing	3
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	N/A
LIGHTING	
Lighting	N/A
Lighting Controls	N/A

MECHANICAL	
Boiler	5
Fuel	N/A
HVAC	1
PLUMBING	
Toilet Rooms	2
Kitchen	3
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **WEST INTERMEDIATE SCHOOL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building with some exceptions. The fire alarm system including the control panel, devices, and horn/strobes should be replaced with a voice evacuation system and devices to meet current requirements. Original equipment installed in 1964 is beyond its intended useful life. Existing electrical service equipment, distribution panels, non LED interior and exterior lighting, lighting controls and paging system should be replaced. It was noted that some of the corridor panels were not locked and could be easily accessed. Unlocked panels are a safety concern and should be addressed.

### **Rating**

5 - Brand New  
4 - Very Good  
3 - Good  
2 - Fair  
1 - Poor  
0 - Requires repair  
X - Requires immediate  
N/A - Not applicable

### **Existing Conditions:**

- The secondary electrical service consists of a Westinghouse main disconnect switch rated at 1,000 Amperes, 120/208Volts, 3 Phase, 4 Wire with an exterior utility company meter located at the pad mounted transformer. The service is underground from a pad mounted transformer.  
Rating: 2
- The lighting and power panels are Westinghouse circuit breaker type and are located throughout the building. There is no TVSS (transient voltage suppressor) protection at the distribution panel and remote panels. Circuits should be separate by load type and TVSS should be added to panels that serve computer equipment.  
Rating: 1
- Existing lighting consists of surface wraparound fixtures with T12 lamps in classrooms, corridors, offices, and utility rooms. The cafetorium has 2x4 recessed prismatic fixtures and the gymnasium has industrial 2'x4' surface mounted T5 fixtures. Controls are provided by local switches.  
Rating: 2
- Exterior lighting consists of HID building mounted wall packs and pole lights. Main entrance has recessed HID square fixtures mounted in the canopy.  
Rating: 2
- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear to be LED type.  
Rating: 3



- The building is equipped throughout with an addressable automatic fire alarm system manufactured by Notifier; which consists of horn/strobes, pull stations, heat and smoke detectors. System is not a voice evacuation type. There is insufficient coverage for a building without sprinklers.  
Rating: 2
- Paging system consists of an old Bogen console with clocks/speaker panels and call switch in the classrooms.  
Rating: 2
- Existing security system includes motion sensors and door contacts throughout the building. An exterior camera is provided at the main entrance with an intercom system.  
Rating: 3
- There is no generator installed.  
Rating: N/A
- The quantity of receptacles is minimum throughout the building.  
Rating: 2
- Kitchen receptacles are not GFI protected. Also, there are no ansul system and EPOs (emergency power shut trip pushbuttons) installed in the kitchen.  
Rating: N/A
- Telephone, CATV and fiber services runs underground from utility pole to the electric room.  
Rating: 3

### **Executive Summary - HVAC**

The West Intermediate School equipment is mostly original to the building from 1964. Generally speaking, most systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the systems installed within this building are past their intended maximum serviceable life.

### **Existing Conditions:**

- There are two boilers installed in the mechanical room. One boiler is from the late 80's or early 90's and is still being used. The other boiler is a Weil McLain and was just recently installed. Both boilers are oil fired hot water boilers and are induced draft type venting to an existing masonry chimney. There are two floor mounted end suction pumps.  
Rating: 5 for the new boiler, 2 for all other equipment
- Hot water supply and return piping appears to be schedule 40 black steel which is insulated. Insulation on new piping within mechanical room is good but existing piping is suspect and appears to be asbestos.  
Rating: 1
- The automatic temperature control system is of the pneumatic type and is provided with a single storage tank with duplex compressor and motors. The system is provided with a refrigerated air dryer, as well as, an oil and water separators.  
Rating: 2

- Existing kitchen equipment utilizes LP gas. There is a hood over the cooking equipment that is not code compliant (no ansul system). Also, there is no dedicated make-up air system. Make-up air is by surrounding spaces. There is no exhaust at the dishwasher. There is an air handling unit in the supply closet that supplies heat and ventilation to the kitchen area.

Rating: 1

- The cafeteria is served by a hot water air handling unit located above the ceiling in the storage closet left of the stage. Air is supplied to the room via ceiling mounted supply diffusers along the exterior of the room. Return is accomplished by a transfer grille in the storage room door and a return grille in the storage room ceiling.

Rating: 1

- The gymnasium is provided with two indoor hot water air handling units. The air handling units have galvanized sheet metal ductwork associated with its respective unit which allows tempered air to travel into the space and terminate at the ceiling with diffusers. The return ductwork associated with the air handler is centrally located at floor level. Also, located within the gymnasium was a length of fin tube radiation located along the exterior walls approximately 12 feet above finished floor.

Rating: 1

- Each classroom space is provided with a wall mounted classroom unit ventilator located on the exterior wall. The unit ventilators are provided with a hot water coil with a pneumatic control valve. They are also provided with an outside air intake louver, as well as, filters and a supply fan. These spaces were also provided with individual exhaust units. The units are extremely antiquated.

Rating: 1

- The corridors located within the building were provided with wall mounted convectors and/or fin tube for generalized space heating. The individual convectors/fin tube was controlled through individual pneumatic wall mounted thermostats.

Rating: 1

- It was noted that there was no exhaust ventilation located throughout the corridor areas and no supply ventilation as well. This condition is not code compliant.

Rating: 1

- The administration area is heated through wall mounted fin tube with individual thermostatic control valves. Ventilation is through the use of operable windows within the space. The exhaust system is minimal and in some cases no exhaust was provided. This condition is not code compliant.

Rating: 1

- Ductless split air conditioning units or window air conditioning units are utilized for cooling purposes where required.

Rating: 5

- Make-up air for individual toilets was through the use of louvers located within the doors.

Rating: 1

- Heating of the toilet spaces were through the use of wall mounted fintube radiation which was controlled through the use of a pneumatic thermostat.

Rating: 1

### **Executive Summary - Plumbing**

The West Intermediate School was built in 1964. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping, and LP gas. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Existing Conditions:**

- Plumbing fixtures consist of wall hung water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Classroom sinks are counter mounted with gooseneck faucet. Electric water coolers are wall mounted with vinyl cabinet and stainless steel bowl. Some rooms have abandoned emergency showers. Art room sinks are equipped with sediment traps. In general the fixtures do not meet accessibility standards and are not water conserving.

Rating – 2

- Domestic water service is 4-inch in size and includes a 2-inch water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition. Water piping near service and water heaters is not insulated.

Rating – 2

- Domestic water for the building is generated through two indirect water heaters fed from the oil-fired heating boilers. The tank capacity of each heater is 119 gallons. Hot water is recirculated. There is a thermostatic mixing valve and expansion tank.

Rating – 4

- LP gas supplies the Kitchen cooking equipment. Gas piping is black steel with threaded joints.

Rating – 3

- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.

Rating – 2

- Mechanical room has a duplex sewage ejector. System is original to the building. Pumps appear operational. Tank cover is in place and tank is vented. Shutoff valves on pump discharge lines have been replaced and look new.

Rating – 3

- Basement mechanical room has a groundwater infiltration issue. There is a simplex sump pump located in open pit which does not appear to be sized appropriately for the infiltration issue. New system should be designed to handle infiltration problem.

Rating - X

## **Executive Summary – Fire Protection**

The Building does not contain an automatic sprinkler system.

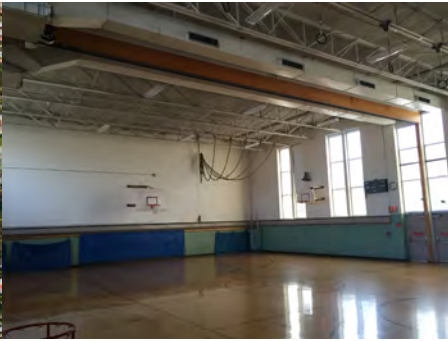
Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine if adequate Municipal water supply is available.

Rating: N/A



# FACILITY PHOTOGRAPHS



# WOBURN STREET SCHOOL

LOCATION: 227 WOBURN STREET

TOTAL # OF STORIES: 3

YEAR CONSTRUCTED: 1963

BUILDING AREA: 53,540 GSF

BUILDING OCCUPANCY: SCHOOL



## Description

The Woburn Street School is a brick building that serves grades 1, 2, & 3 for roughly 400 students. It is located west of Interstate 93. Solid original construction have kept this facility in fair condition but deferred maintenance and lack of space have put substantial pressure on the facility. The main entrance to the school is off the bus loop area on High Street. Building identification is letter signage on the fascia over the main entry but is difficult to see.

## Observations and Findings

### SITE ASSESSMENT

Woburn School has a dedicated bus drop off on the east side with parking and vehicular circulation on the other three sides up to the building. Playing fields run north-south to the west of the school. Courts are at the north edge beyond the parking area. The site is well landscaped with a grove of trees buffering the school from Woburn and High Street. Further landscape buffers lie between the school and the bus loop. Parking is broken into sections with parent drop off at the north end, and staff and visitor parking at the southern end. Handicap parking is located off the bus loop near the main entry. A new septic system which includes a grease interceptor, was recently installed.

### BUILDING EXTERIOR

The building exterior consists of a brick façade in good condition, a precast masonry panel at glazing zones in good condition, and metal windows and doors in poor condition that are in need of replacing. The roof is a combination of ballasted and EPDM broken into several sections. The original classroom wing is in the worst condition and the gym roof is in the best. Areas that have not been recently reroofed will require replacement in the near future.

### BUILDING INTERIOR

Sections of terrazzo flooring have remained in good condition. Most of the flooring is 12x12 VCT. The gym has a wood floor in good condition. Typical ceilings are a combination of 24x24 and 24x48 ACT which are in fair to poor condition. Walls are typically painted CMU which is mostly in good condition. There is ceramic tile over CMU in the toilet rooms in fair condition. Classrooms in the newer part of the classroom wing are double sized with operable partitions. Partitions always stay closed and are in fair condition.

### STRUCTURE

Structure consists of steel frame on a C.I.P. concrete basement. The gym is framed with exposed open web joists with corrugated metal decking above, which is the typical system for the building overall. No other exposed structure was observed.

### BUILDING SYSTEMS

Electrical panels, electrical distribution, one boiler, HVAC, and plumbing systems are all presumably original to the building, and are beyond their intended useful life, and should be replaced. Interior and exterior lighting should be upgraded to LED along with associated lighting controls and paging system. Kitchen outlets need to be replaced with GFI protected circuits. Original distribution piping insulation is suspected to contain asbestos. Kitchen hood, air handling units, and unit ventilators are all in poor condition.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

The building contains several internal level changes without appropriate accessibility accommodations. Emergency lighting and exit signs, fire alarms, horn strobes, pull stations, and smoke detectors are brand new for this non-sprinklered building and appear to meet current requirements. The kitchen vent hood has no dedicated make up air of an Ansul fire suppression system. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

# WOBURN STREET SCHOOL BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	3
Siding / Cladding	2
Windows	1
Doors	1
Canopies / Overhangs	2
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	4
Life Safety: Exit Signs	4
Life Safety: Emergency Lighting	4
INTERIOR	
Condition of Walls	3
Base	2
Flooring	3
Ceiling	2
Stairs	3
Handrails	2
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	2
Panel / Distribution	2
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	0
Fuel	N/A
HVAC	1
PLUMBING	
Toilet Rooms	1
Kitchen	4
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **WOBURN STREET SCHOOL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building with some exceptions. The fire alarm system including the control panel, devices, door holders, and speaker/strobes are relatively new and meet the latest requirements. Original equipment installed in 1963 is beyond its intended useful life. Existing electrical service equipment, distribution panels, non LED interior and exterior lighting, lighting controls and paging system should be replaced. It was noted that some of the corridor panels were not locked and could be easily accessed. Unlocked panels are a safety concern and should be addressed.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The secondary electrical service consists of a Westinghouse main disconnect switch rated at 600 Amperes, 120/208Volts, 3 Phase, 4 Wire with an exterior utility company meter on the utility pole. The service is overhead from a pole mounted transformer.

Rating: 2

- The lighting and power panels are Federal Pacific house circuit breaker type and are located throughout the building. There is no TVSS (transient voltage suppressor) protection at the distribution panel and remote panels. Circuits should be separate by load type and TVSS should be added to panels that serve computer equipment.

Rating: 2

- Existing lighting consists of surface wraparound fixtures with T12 lamps in classrooms, corridors, offices, and utility rooms. The cafetorium has 2x4 recessed prismatic fixtures and the gymnasium has industrial 2'x4' surface mounted T5 fixtures. Controls are provided by local switches.

Rating: 1

- Exterior lighting consists of HID building mounted flood lights and wall packs. Some LED light fixtures are provided at exit doors.

Rating: 2

- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear to be LED type.

Rating: 3

- The building is equipped throughout with a new addressable automatic fire alarm system manufactured by Notifier; which consists of voice evacuation with speakers/strobes, smoke detectors, pull stations, heat detectors and door holders.  
Rating: 5
- Paging system consists of an old Bogen console with clocks/speaker panels and call switch in the classrooms.  
Rating: 2
- Existing security system includes motion sensors and door contacts throughout the building. An exterior camera is provided at the main entrance with an intercom system in the domain office.  
Rating: 3
- There is no generator installed.  
Rating: N/A
- The quantity of receptacles is minimum throughout the building.  
Rating: 2
- Kitchen receptacles are not GFI protected. Also, there are no ansul system and EPOs (emergency power shut trip pushbuttons) installed in the kitchen.  
Rating: N/A
- Telephone, CATV and fiber services run overhead from the utility pole to the building with termination in the electric room.  
Rating: 3

## **Executive Summary - HVAC**

The Woburn Street School equipment is all original to the building from 1963. Generally speaking, most systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the systems installed within this building are past their intended maximum serviceable life.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The boiler room is provided with two individual HB Smith 450 MILLS water tube boilers generating hot water. The boilers are original from 1962. Hot water is circulated throughout the building utilizing six base mounted end suction pumps for heating purposes. Each boiler is provided with a single fuel no. 2 fuel oil burner.  
Rating - 0 (replace)
- The breeching from each boiler appears to be welded black steel and is insulated with what appears to be calcium silicate insulation with a canvas jacket. The boiler breeching enters a masonry chimney.  
Rating - 0 (replace with boiler)
- No. 2 fuel oil is recirculated from a buried underground storage tank. Fuel oil is distributed to the boilers through the use of threaded black steel pipe. Each burner has a supply and return pipe associated with it which allows the fuel oil to circulate through the burner.  
Rating - N/A
- Hot water supply and return piping appears to be schedule 40 black steel which is insulated. Insulation is suspect; appears to be asbestos.  
Rating - 1
- Combustion air is provided through one individual duct which originates at a wall mounted louver and terminates at approximately twelve inches above the floor. The present condition is non-code compliant. Code requires one opening high and one opening low.  
Rating - 0 (repair with boiler replacement)
- The automatic temperature control system is of the pneumatic type and is provided with a single storage tank with one compressor and motor. The system is provided with a refrigerated air dryer as well as an oil and water separators.  
Rating - 1

- Existing kitchen equipment utilizes propane gas. There is a hood over the cooking equipment that is not code compliant. Also, there is no dedicated make-up air system. Make-up air is by surrounding spaces. There is no exhaust at the dishwasher.  
Rating - 1
- The cafeteria is served by a hot water air handling unit located above the ceiling in the storage closet left of the stage. Air is supplied to the room via ceiling mounted supply diffusers. Return is accomplished by a transfer grille in the storage room door and a return grille in the storage room ceiling.  
Rating - 1
- The gymnasium is provided with two indoor hot water air handling units. The air handling units has galvanized sheet metal ductwork associated with its respective unit which allows tempered air to travel into the space and terminate at the ceiling with diffusers. The return ductwork associated with the air handler is centrally located at floor level. Also located within the gymnasium was a length of fintube radiation located along the exterior walls approximately 12 feet above finished floor.  
Rating – 1
- Each classroom space is provided with a wall mounted classroom unit ventilator located on the exterior wall. The unit ventilators are provided with a hot water coil with a pneumatic control valve. They are also provided with an outside air intake louver as well as filters, and a supply fan. These spaces were also provided with individual exhaust units. The units are extremely antiquated.  
Rating - 1
- The corridors located within the building were provided with wall mounted convectors and/or fin tube for generalized space heating. The individual convectors/fin tube was controlled through individual pneumatic wall mounted thermostats.  
Rating - 1
- It was noted that there was no exhaust ventilation located throughout the corridor areas and no supply ventilation as well. This condition is not code compliant.  
Rating - 1
- The administration area is heated through wall mounted fin tube with individual thermostatic control valves. Ventilation is through the use of operable windows within the space. The exhaust system is minimal and in some cases no exhaust was provided. This condition is not code compliant.  
Rating - 1
- Window mounted air conditioning units are utilized for cooling purposes where required.  
Rating - 1
- Make-up air for the individual toilets was through the use of louvers located within the doors.  
Rating - 1
- Heating of the toilet spaces were through the use of wall mounted fintube radiation which was controlled through the use of a pneumatic thermostat. It was noted that the radiation was damaged and had surface contamination.  
Rating - 1

## **Executive Summary - Plumbing**

The Woburn Street School was constructed in 1963. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping and LP gas. On-site septic system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Classroom sinks are stainless steel counter mounted with single temperature gooseneck faucet and bubbler. Electric water coolers are wall mount with vinyl cabinet and stainless steel bowl. Majority of water coolers are bagged so students cannot use fixture. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 1
- Domestic water service appears to be 2-inch in size and includes a water meter and pressure reducing valve. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition. Water piping around the meter and service entrance is not insulated.  
Rating – 2
- Domestic water for the building is generated through two indirect water heaters fed from the oil-fired heating boilers. The tank capacity of each heater is 119 gallons. Hot water is recirculated. There is a thermostatic mixing valve and expansion tank. Water piping near the heaters is not insulated.  
Rating – 4
- LP gas service is provided to the kitchen cooking equipment only. There are two exterior 120 gallon capacity storage tanks. Gas piping is black steel with threaded joints.  
Rating – 4
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use. Roof was recently replaced.  
Rating – 3



## **Executive Summary – Fire Protection**

The Building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine if adequate Municipal water supply is available.

Rating: N/A

# FACILITY PHOTOGRAPHS



# SHAWSHEEN SCHOOL

LOCATION: 298 SHAWSHEEN AVENUE

TOTAL # OF STORIES: 3

YEAR CONSTRUCTED: 1970

BUILDING AREA: 56,253 GSF

BUILDING OCCUPANCY: SCHOOL



## Description

The Shawsheen School is a brick building that serves grades 1, 2, & 3 for roughly 350 students. It is located at the intersection of Shawsheen Avenue and Hopkins Street. Solid original construction, and recent building upgrades have kept this facility in good condition. This building has benefitted from the most upgrades of any of the six schools in the study. The main entrance to the school is directly off Shawsheen Avenue. Building identification is letter signage on the fascia over the main entry which cannot be seen from Hopkins Street or by those approaching from the south.

## Observations and Findings

### SITE ASSESSMENT

Shawsheen School has a single paved area running along the west side of the building which includes a parking area on the north end of the school. Pavement runs up to the building façade. Bus drop off occurs within this paved area and is delineated with white striping. Circulation for children from the school to the play areas are also delineated with striping. Parent drop off occurs in the paved area at the north end of the building. There is a paved play area between the striped bus zone and the classroom wing. Handicap access to the School is via a ramped approach off Hopkins Street. Playing fields and playground are located north of the school just beyond the paved area. The site is minimally landscaped with only a few trees buffering the school from the streets. There is a moderate grass buffer zone between the streets and the school. The west edge of the site is a thick stand of trees beyond the parking area. Parking is not clearly marked from either Shawsheen Ave. or Hopkins St. Handicap parking is located close to the cafeteria and sidewalk travel is required to get to the accessible ramp which is not clearly identified.

### BUILDING EXTERIOR

The building exterior consists of a brick façade in good condition, precast masonry panels at glazing zones in good condition. Concrete spandrel panels running between the top of windows and bottom of roof flashing edge is also in good condition. All building openings consisting of curtain wall systems for windows, doors, and spandrels between floors, were recently replaced and are in brand new condition. The roof was not accessible for the review but was reported to have been recently replaced. Metal roof flashing appears to be in very good to new condition.

### BUILDING INTERIOR

Sections of terrazzo flooring have remained in good condition with signs of cracking for slab on grade areas. Most of the flooring is 9x9 VCT, which likely contains asbestos, and is in fair to poor condition with worn, cracked, or chipped areas throughout the building. A significant crack was observed in the Music Room running most of the length of the space. Replacement VCT has been made with newer 12x12 tiles. Typical ceilings are a combination of 24x24 and 24x48 ACT which are in fair to poor condition. Walls are typically painted CMU which is mostly in good condition. Classrooms throughout the building are double sized with operable partitions. Partitions always stay closed and are in fair condition.

## **STRUCTURE**

Structure consists of steel frame on a C.I.P. concrete basement. The gym is framed with exposed open web joists with corrugated metal decking above, which is the typical system for the building overall. No other exposed structure was observed.

## **BUILDING SYSTEMS**

Electrical panels and distribution is largely original to the building, is beyond its intended useful life, and should be replaced. Electrical panels were observed in stairways which are a code violation. Unlocked electrical panels were observed which are of concern for safety. Interior and exterior lighting should be upgraded to LED along with associated lighting controls and paging system. Kitchen outlets need to be replaced with GFI protected circuits. Boilers are brand new but original distribution piping insulation is suspected to contain asbestos. Kitchen hood, air handling units, and unit ventilators are all in poor condition. Plumbing systems were noted to be beyond their useful life.

Additional notes from the building systems consultants are provided on following pages.

## **REGULATORY COMPLIANCE**

The building contains a stair lift at the gymnasium end to provide minimal accessibility accommodations to all three floors. Emergency lighting and exit signs, fire alarms, horn strobes, pull stations, and smoke detectors are brand new for this non-sprinklered building and appear to meet current requirements. The kitchen vent hood has no dedicated make up air of an Ansul fire suppression system. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

# SHAWSHEEN SCHOOL BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	3
Siding / Cladding	3
Windows	4
Doors	4
Canopies / Overhangs	3
Roof	4
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	4
Life Safety: Exit Signs	4
Life Safety: Emergency Lighting	4
INTERIOR	
Condition of Walls	3
Base	3
Flooring	2
Ceiling	2
Stairs	2
Handrails	2
Doors	2
Glazing	3
ELECTRICAL	
Service Entrance	2
Panel / Distribution	2
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	5
Fuel	N/A
HVAC	2
PLUMBING	
Toilet Rooms	2
Kitchen	3
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **SHAWSHEEN SCHOOL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building with some exceptions. The fire alarm system including the control panel, devices, door holders, and speaker/strobes are relatively new and meet the latest requirements. Original equipment installed in 1970 is beyond its intended useful life. Existing electrical service equipment, distribution panels, non LED interior and exterior lighting, lighting controls and paging system should be replaced. It was noted that some of the corridor panels were not locked and could be easily accessed. Unlocked panels are a safety concern and should be addressed.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The secondary electrical service consists of a GE main disconnect switch rated at 1,200 Amperes, 120/208Volts, 3 Phase, 4 Wire with an exterior utility company meter on the utility pole. The service is underground from a pad mounted transformer.  
Rating: 2
- The lighting and power panels are GE circuit breaker type and are located throughout the building. There is no TVSS (transient voltage suppressor) protection at the distribution panel and remote panels. Circuits should be separate by load type and TVSS should be added to panels that serve computer equipment.  
Rating: 2
- Existing lighting consists of surface wraparound fixtures with T12 lamps in classrooms, corridors, offices, and utility rooms. The cafetorium has 2x4 recessed prismatic fixtures and the gymnasium has industrial 2'x4' surface mounted T5 fixtures. Controls are provided by local switches.  
Rating: 1
- Exterior lighting consists of HID building mounted and pole mounted flood lights, wall packs. Some LED light fixtures are provided at exit doors. Main entrance has surface mounted HID square fixtures.  
Rating: 2
- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear to be LED type.  
Rating: 3

- The building is equipped throughout with a new addressable automatic fire alarm system manufactured by Notifier; which consists of voice evacuation with speakers/strobes, smoke detectors, pull stations, and heat detectors.  
Rating: 5
- Paging system consists of an old Bogen console with clocks/speaker panels and call switch in the classrooms.  
Rating: 2
- Existing security system includes motion sensors and door contacts. Throughout the building, and exterior camera is provided at the main entrance with an intercom system.  
Rating: 3
- There is no generator installed.  
Rating: N/A
- The quantity of receptacles is minimum throughout the building.  
Rating: 2
- Kitchen receptacles are not GFI protected. Also, there are no ansul system and EPOs (emergency power shut trap pushbuttons) installed in the kitchen.  
Rating: N/A
- Electrical panels in boiler room were located within the path of stairway, this is a code violation.  
Rating: N/A
- Telephone, CATV and fiber run underground from a utility pole to the electric room.  
Rating: 3

## **Executive Summary - HVAC**

The Shawsheen School was built in 1970. This building has received the most upgrades than any other school building we viewed. Generally speaking, most systems are operating and maintaining reasonable space temperature control.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- There are three boilers. Two new gas fired high efficiency Camus boilers were installed recently. Both boilers are sealed combustion type; flue venting is AL29-4C double wall venting to the outdoors with insulated galvanized ductwork for the combustion air. The third boiler is approximately ten years old and is a Weil McLain Series 88 boiler. There are two floor mounted end suction pumps with variable frequency drives (VFD) to modulate pump speed based on system pressure.  
All other equipment associated with the boilers, such as expansion tank and air separator, were replaced also.  
Rating: 5
- Hot water supply and return piping appears to be schedule 40 black steel which is insulated. Insulation on new piping within mechanical room is good but existing piping is suspect and appears to be asbestos.  
Rating: 1
- The automatic temperature control system is of the pneumatic type and is provided with a single storage tank with duplex compressor and motors. The system is provided with a refrigerated air dryer, as well as, oil and water separators.  
Rating: 2
- Existing kitchen equipment utilizes natural gas. There is a hood over the cooking equipment that is not code compliant (no ansul system). Also, there is no dedicated make-up air system. Make-up air is by surrounding spaces. There is an exhaust system at the dishwasher. There is an air handling unit in the supply closet that supplies heat and ventilation to the kitchen area.  
Rating: 2
- The cafeteria is served by a hot water air handling unit located above the ceiling in the storage closet left of the stage. Air is supplied to the room via ceiling mounted supply diffusers. Return is accomplished by a transfer grille in the storage room door and a return grille in the storage room ceiling.  
Rating: 1

- The gymnasium is provided with two indoor hot water air handling units. The air handling units have galvanized sheet metal ductwork associated with its respective unit which allows tempered air to travel into the space and terminate at the ceiling with diffusers. The return ductwork associated with the air handler is centrally located at floor level. Also, located within the gymnasium was a length of fin tube radiation located along the exterior walls approximately 12 feet above finished floor.

Rating: 1

- Each classroom space is provided with a wall mounted classroom unit ventilator located on the exterior wall. The unit ventilators are provided with a hot water coil with a pneumatic control valve. They are also provided with an outside air intake louver, as well as, filters and a supply fan. These spaces were also provided with individual exhaust units. The units are extremely antiquated.

Also, there are ductless cooling units in many of the classrooms.

Rating: 1 for UV's and 5 for ductless cooling units

- The corridors located within the building were provided with wall mounted convectors and/or fin tube for generalized space heating. The individual convectors/fin tube was controlled through individual pneumatic wall mounted thermostats.

Rating: 1

- It was noted that there was no exhaust ventilation located throughout the corridor areas and no supply ventilation as well. This condition is not code compliant.

Rating: 1

- The administration area is heated through wall mounted fin tube with individual thermostatic control valves. Ventilation is through the use of operable windows within the space. The exhaust system is minimal and in some cases no exhaust was provided. This condition is not code compliant.

Rating: 1

- Ductless split air conditioning units are utilized for cooling purposes where required.

Rating: 5

- Make-up air for the individual toilets was through the use of louvers located within the doors.

Rating: 1

- Heating of the toilet spaces were through the use of wall mounted fintube radiation which was controlled through the use of a pneumatic thermostat.

Rating: 1

## **Executive Summary - Plumbing**

The Shawsheen School was built in 1970. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping, natural gas, and LP gas. On-site septic system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Classroom sinks are stainless steel counter mounted with single temperature gooseneck faucet and bubbler. Electric water coolers are wall mount with vinyl cabinet and stainless steel bowl. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2
- Domestic water service appears to be 2-inch in size and includes a water meter and pressure reducing valve. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition.  
Rating – 2
- Domestic water for the building is generated through two indirect water heaters fed from the oil-fired heating boilers. The tank capacity of each heater is 119 gallons. Hot water is recirculated. There is a thermostatic mixing valve and expansion tank. Water piping near the heaters is not insulated.  
Rating – 4
- Natural gas supplies the heating boilers. Installation appears to be recent. Natural gas piping is black steel with welded joints. Gas meter is located on exterior of the building adjacent to the Mechanical room.  
Rating – 4
- LP gas service is provided to the kitchen cooking equipment only. There are a single horizontal exterior 500 gallon capacity storage tank. Gas piping is black steel with threaded joints. It was indicated that the Kitchen will soon be converted to natural gas.  
Rating – 3



- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use. Roof was recently replaced.  
Rating – 3
- Mechanical room has a duplex sewage ejector. System is original to the building. Pumps appear operational. Tank cover is in place and tank is vented.  
Rating - 2

### **Executive Summary – Fire Protection**

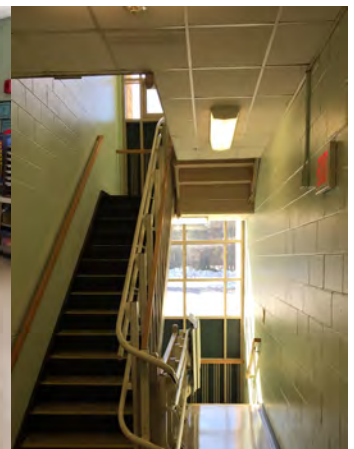
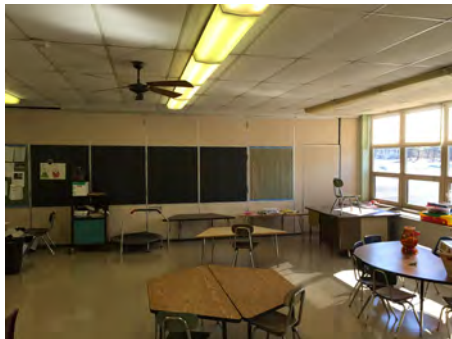
The Building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine if adequate Municipal water supply is available.

Rating: N/A

# FACILITY PHOTOGRAPHS



# WILDWOOD SCHOOL

LOCATION: 182 WILDWOOD STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1955

BUILDING AREA: 29,160 GSF

BUILDING OCCUPANCY: SCHOOL



## Description

The Wildwood Early Childhood Center is a masonry building that serves grades Pre-K and K for roughly 165 students. It is located relatively close to Wilmington High School which is to the northwest. This facility is the oldest building owned by Wilmington Public Schools. Its age has created a long list of exterior and infrastructure upgrade requirements. The main entrance to the school faces Wildwood Street but is set back and is at a higher elevation than the street. Building identification is ground mounted signage next to the main entry and a sign mounted to the façade of the cafetorium / gym.

## Observations and Findings

### SITE ASSESSMENT

The school sits on a large parcel of land with drop off circulation in the front and parking at both sides and at the rear. Play areas, fields, and courts are located behind the building to the east. Landscaping is mainly grass with a few deciduous trees and shrubs near the building. Parking is fairly well defined with the exception of the large paved area behind the building. Handicap parking is located along a linear zone at the bus drop off area near the main entry.

### BUILDING EXTERIOR

Pointing is required in several masonry locations on the brick façade and chimney. Clearstory glazing of glass block has been covered along the north side of the cafeteria and broken glass block units were observed from the roof. The EPDM roof was observed to be in poor condition with ponding in areas that were associated with common leaks below. Replacement of the roof is required in the near future.

### BUILDING INTERIOR

Wildwood's interior finishes are all generally in poor condition. Notably, a spray applied acoustic treatment was added and not finished to specifications. The intent was a trowel finish but it looks like the entire common area and large program area ceilings have spray applied fireproofing. The result is that the finish collects dirt and grime and is impossible to clean.

### STRUCTURE

The building structure is presumed to be load bearing masonry with wood framed roof joists and decking. The cafetorium is framed with structural steel with masonry infill.

### BUILDING SYSTEMS

Electrical panels and distribution are largely original to the building. These are beyond the intended useful life, and should be replaced. Unlocked electrical panels were observed which are of concern for safety. Interior and exterior lighting should be upgraded to LED along with associated lighting controls and paging system. Kitchen outlets need to be replaced with GFI protected circuits. Similarly, the boilers and its distribution piping are old. Occupied spaces suffer from very inconsistent temperature control, often with rooms sig-

nificantly overheating. Facilities staff noted that piping is constantly failing and patching boiler distribution piping has become a continuous effort. Kitchen hood, air handling units, and unit ventilators are all in poor condition. All original systems have outlived their useful life and should be replaced. Plumbing systems were noted to be beyond their useful life. Much of the plumbing distribution runs along an unheated attic space and is subject to freezing. Burst pipes have been a continual problem.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Emergency lighting and exit signs, fire alarms, horn strobes, pull stations, and smoke detectors are brand new for this non-sprinklered building and appear to meet current requirements. The kitchen vent hood has no dedicated make up air of an Ansul fire suppression system. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

# WILDWOOD SCHOOL BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	3
Brick / Masonry	1
Siding / Cladding	1
Windows	1
Doors	2
Canopies / Overhangs	1
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	2
Life Safety: Exit Signs	4
Life Safety: Emergency Lighting	3
INTERIOR	
Condition of Walls	1
Base	1
Flooring	1
Ceiling	1
Stairs	N/A
Handrails	N/A
Doors	1
Glazing	2
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	2
Fuel	N/A
HVAC	1
PLUMBING	
Toilet Rooms	1
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	2
Observable Masonry	2
Headers / Lintels	2
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **WILDWOOD SCHOOL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building with some exceptions. The fire alarm system including the control panel, devices, door holders, and speaker/strobes are relatively new and meet the latest requirements. Original equipment installed in 1955 is beyond its intended useful life. Existing electrical service equipment, distribution panels, non LED interior and exterior lighting, lighting controls and paging system should be replaced. It was noted that some of the corridor panels were not locked and could be easily accessed. Unlocked panels are a safety concern and should be addressed.

#### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

#### **Existing Conditions:**

- The secondary electrical service consists of a GE main disconnect switch rated at 400 Amperes, 120/208Volts, 3 Phase, 4 Wire with an exterior utility company meter mounted on the exterior of the building. The service is overhead from a pole mounted transformer.

Rating: 1

- The lighting and power panels are Westinghouse (old) and Murray (new) circuit breaker type and are located throughout the building. There is no TVSS (transient voltage suppressor) protection at the distribution panel and remote panels. Circuits should be separate by load type and TVSS should be added to panels that serve computer equipment.

Rating: 1

- Existing lighting consists of surface wraparound fixtures with T12 lamps in classrooms, offices, and utility rooms. The cafetorium/gymnasium has industrial 2'x4' surface mounted T5 fixtures. Controls are provided by local switches. Corridors have wall mounted linear fluorescent fixtures. Classrooms are provided with pendant parabolic fluorescent with T12 lamps.

Rating: 1

- Exterior lighting consists of HID building mounted flood lights and wall packs. Main entrance has recessed HID square fixtures.

Rating: 2

- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear to be LED type.

Rating: 3

- The building is equipped throughout with a new addressable automatic fire alarm system manufactured by Notifier; which consists of voice evacuation with speakers/strobes, smoke detectors, pull stations, heat detectors and door holders.  
Rating: 5
- Paging system consists of an old Bogen console with clocks/speaker panels and call switch in the classrooms.  
Rating: 2
- Existing security system includes motion sensors and door contacts throughout the building. An exterior camera is provided at the main entrance with an intercom system.  
Rating: 3
- There is no generator installed.  
Rating: N/A
- The quantity of receptacles is minimum throughout the building. Receptacles installed in Pre-K and kindergarten classrooms are not tamper resistant safety receptacles.  
Rating: 2
- Kitchen receptacles are not GFI protected. Also, there are no ansul system and EPOs (emergency power shut trip pushbuttons) installed in the kitchen.  
Rating: N/A
- Telephone, CATV and fiber services run overhead from the utility pole to the building with termination in the electric room.  
Rating: 3

## **Executive Summary - HVAC**

Wildwood School equipment is mostly original to the building from 1955. Generally speaking, systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the systems installed within this building are past their intended maximum serviceable life. HVAC equipment within the Mechanical Room was replaced in 1998.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The boilers were replaced in 1998. Two new oil fired Weil McLain steam boilers were installed. Boilers are atmospheric type; Breeching is insulated and run to the existing masonry chimney. Other equipment associated with the boilers, such as condensate return pumps and the boiler water feed unit, were replaced also.

Rating: 2

- Condensate is returned to the boiler room through schedule 80 black steel condensate return system.

Rating: 1

- Low-pressure steam supply piping appears to be schedule 40 black steel insulated with what appears to be fiberglass insulation (within mechanical room). Insulation throughout the building is suspect, and appears to be asbestos.

Rating: 1

- The automatic temperature control system is of the pneumatic type. On the day of our visit, we were told the system wasn't working and was set up to operate with only one thermostat controlling the entire building.

Rating: 0

- Existing kitchen equipment utilizes propane gas. There is a hood over the cooking equipment that is not code compliant (no ansul system). Also, there is no dedicated make-up air system. Make-up air is by surrounding spaces. There is no exhaust at the dishwasher.

Rating: 1

- The cafeteria/gymnasium is served by a steam air handling unit located above the stage. Air is supplied to the cafe via exposed ductwork through four large circular diffusers. Return is accomplished by a return grille below the stage.

Rating: 1

- Each classroom space is provided with a wall mounted classroom unit ventilator located on the exterior wall. The unit ventilators are provided with a steam coil. They are also provided with an outside air intake louver, as well as, filters and a supply fan. Exhaust in these spaces is through an exhaust grille located in the closet.  
For cooling, there are window air conditioning units in many of the classrooms at the high window.  
Rating: 1
- The corridors located within the building were provided with wall mounted convectors and/or fin tube for generalized space heating. Cabinet heaters were located in the entry vestibules.  
Rating: 1
- It was noted that there was an operating exhaust system for the corridor areas.  
Rating: 1
- The administration area is heated through wall mounted fin tube. Ventilation is through the use of operable windows within the space. The exhaust system is minimal and in some cases no exhaust was provided. This condition is not code compliant.  
Rating: 1
- There was only one ductless split air conditioning unit which was located in the staff break room.  
Rating: 4
- Make-up air for the individual toilets was through the use of louvers located within the doors.  
Rating: 1
- Heating of the toilet spaces were through the use of wall mounted fintube radiation.  
Rating: 1

## **Executive Summary - Plumbing**

Wildwood School was constructed in 1955. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, and storm drain piping. On-site septic system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall hung and floor mounted water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Student lavatories are supplied with cold water only. Classroom sinks are counter mounted with gooseneck faucet. Drinking fountains are wall mounted vitreous china. Electric water coolers are wall mounted, vinyl cabinets with stainless steel bowl. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 1
- Domestic water service appears to be 3-inch in size and includes a compound water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition. Water piping in the mechanical space is not insulated.  
Rating – 2
- Domestic water for the building is generated through an electric tank type water heater, 50 gallon capacity. Hot water is recirculated. There is a thermostatic mixing valve and expansion tank on the system.  
Rating – 3
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.  
Rating – 2



## **Executive Summary – Fire Protection**

The Building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine if adequate Municipal water supply is available.

Rating: N/A

# FACILITY PHOTOGRAPHS



# BOUTWELL SCHOOL

LOCATION: 17 BOUTWELL STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1961

BUILDING AREA: 20,800 GSF

BUILDING OCCUPANCY: SCHOOL



## Description

The Boutwell Early Childhood Center is a masonry building that serves grades Pre-K and K for roughly 165 students. It is located to the south of the Wilmington Middle School and West Middle School. Solid original construction have kept this facility in fair condition but deferred maintenance has created a long list of exterior and infrastructure upgrade requirements. The main entrance to the school is immediately off the parking lot at the end of Carter Lane. Building identification is ground mounted signage next to the parking lot entry.

## Observations and Findings

### SITE ASSESSMENT

This school is located in the education campus that serves West Wilmington. Site circulation is distinct and clearly splits off of Carter Lane. Playground and play field is immediately to the West. A school district playing field is located across Carter Lane to the east of the building. Landscaping consists of small-medium trees along Carter Lane and bushes near the main entry. There is a sizeable grass buffer separating the school from Carter Lane which also provides a distinct entry for vehicles to the parking lot. Parking is located on the south end of the building with a vehicular loop providing 360 degree access and a bus loop zone. The parking area is clearly striped and organized with handicap parking striped next to the main entry.

### BUILDING EXTERIOR

The building exterior is composed of brick veneer, metal windows, and painted wood trim and is generally in fair to good condition. Brick at boiler room chimney requires pointing. The exposed foundation shows signs of deterioration, especially at exterior door locations. Single pane, metal windows are original to the building and are thermally unbroken. They are well past their intended useful life and should be replaced to improve energy efficiency and occupant comfort. The roof has areas of ponding and large aggregate debris collection and needs to be repaired or replaced in the near future along with the associated edge trim flashing.

### BUILDING INTERIOR

The interior contains a central cafetorium / gym / assembly space that is ringed by a circular corridor. Classrooms that are wedge shaped and create an outer ring compose most of the building's program area. Interior wall finishes are CMU with wood millwork and are in good condition. Cafetorium and classroom flooring is a mix of original 9x9 VCT, which very likely contains asbestos, and replacement 12x12 VCT. Corridors and toilet rooms have terrazzo flooring which is in good condition. Ceilings, which are plaster in the corridor/ toilet room areas and tongue and groove wood in the auditorium and office spaces, are in good condition.

### STRUCTURE

The building structure is a hybrid of load bearing concrete masonry block walls and glue laminated beams. The beams run concentrically around the building acting as principal purlins. The glue laminated beams in the auditorium are directly supported by tube steel columns. Load bearing walls are supported by C.I.P. concrete foundation walls and footings. Evidence of minor building settling is evident by cracks in the flooring at the edges of the circular corridor.

## **BUILDING SYSTEMS**

Electrical panels, electrical distribution, HVAC, and plumbing systems are all presumably original to the building, and are beyond their intended useful life, and should be replaced. Kitchen outlets need to be replaced with GFI protected circuits. The air handler, which utilizes natural gas, is new but original distribution piping insulation is original and inefficient. Kitchen hood, air handling units, and unit ventilators are all in poor condition.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Emergency lighting and exit signs, fire alarms, horn strobes, pull stations, and smoke detectors are brand new for this non-sprinklered building and appear to meet current requirements. The kitchen vent hood has no dedicated make up air of an Ansul fire suppression system. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection

# BOUTWELL SCHOOL BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	1
Brick / Masonry	3
Siding / Cladding	2
Windows	1
Doors	1
Canopies / Overhangs	2
Roof	0
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	4
Life Safety: Emergency Lighting	4
INTERIOR	
Condition of Walls	3
Base	2
Flooring	1
Ceiling	2
Stairs	N/A
Handrails	N/A
Doors	2
Glazing	3
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	N/A
Fuel	N/A
HVAC	5
PLUMBING	
Toilet Rooms	2
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	2
Headers / Lintels	2
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **BOUTWELL SCHOOL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building including the fire alarm system, intercom system service equipment, and distribution panels. Original equipment installed in 1961 is beyond its intended useful life. It was noted that some of the corridor panels were not locked and could be easily accessed. Unlocked panels are a safety concern and should be addressed. A new fire alarm system with voice evacuation and devices to meet current requirements should be provided.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The secondary electrical service consists of a Frank Adams main disconnect switch rated at 400Amperes, 120/208Volts, 3Phase, 4Wire with an interior utility company meter located in the storage area. The service is overhead from a pole mounted transformer.

Rating: 1

- The lighting and power panels are Frank Adams (old) and GE (new) circuit breaker type and are located throughout the building. There is no TVSS (Transient Voltage Suppressor) protection at the distribution panel and remote panels. Circuits should be separate by load type and TVSS should be added to panels that serve computer equipment.

Rating: 1

- Existing lighting consist of pendant mounted parabolic fixtures with T12 lamps in classrooms, offices, an utility rooms. The cafetorium/gym has 2x4 surface prismatic fixtures corridors have round surface mounted fluorescent fixtures. Controls are provided with local switch.

Rating: 2

- Exterior lighting consists of HID utility pole mounted flood lights and surface mounted HID under the canopy at the main entrance.

Rating: 2

- The existing emergency lighting system is through self-contained plug in emergency battery units. Exit signs appear not to be LED type.

Rating: 2

- The building is equipped throughout with a conventional automatic fire alarm system manufactured by Fire-Lite; which consists of horn/strobes, smoke detectors, pull stations, and heat detectors. Coverage is not sufficient for a non-sprinklered building. System does not meet ADA requirements.

Rating: 1

- Paging system consist of an old Rauland console with clocks/speaker and call switch in the classrooms.

Rating: 2

- Existing security system includes motion sensors and door contacts throughout the building. An exterior camera is provided at the main entrance with an intercom system.

Rating: 3

- There is no generator installed.

Rating: N/A

- The quantity of receptacles is minimum throughout the building. Receptacles installed in kindergarten classrooms are not tamper resistant safety receptacles.

Rating: 2

- Kitchen receptacles are not GFI protected. Also there are no ansul system and EPOs (emergency power shunt trip push buttons) installed in the kitchen.

Rating: N/A

- Telephone, CATV and fiber run underground from a utility pole to the electric room.

Rating: 2

## **Executive Summary - HVAC**

The Boutwell School building is identical to the Town Hall Building. Equipment is all original to the building from 1961, with the exception of the air handling unit in the machine room. The HVAC system installed is called a dual duct system. There are two main ducts in the circular crawl space below; one is a hot deck and the other is a cold deck. Each duct is connected to mixing boxes which then supplies tempered air into a room. There is one mixing box per room. This system is a very antiquated system and is not energy efficient. Generally speaking, the system is operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, continued service could be achieved, but the system installed within this building is well past its intended maximum serviceable life.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The building air handler was replaced two years ago. The building was changed over from fuel oil to natural gas. The air handler is a Reznor forced hot air system.  
Rating: 5
- The breeching from the air handler is all new and runs through the roof.  
Rating: 5
- Combustion air is provided through one individual louver installed in the exterior wall.  
Rating: 1
- There is a linear diffuser in each exterior room along the exterior within the cabinetry. Return air is through a wall mounted grille located near the floor at the door entrance.  
Rating: 1
- The large meeting room is provided with minimal air from the house dual duct system. Supply air is located high in the space. The return ductwork associated with the air handler is centrally located at floor level.  
Rating: 1
- Window mounted air conditioning units are utilized for cooling purposes where required.  
Rating: 1
- Make-up air for the individual toilets was through the use of louvers located within the doors.  
Rating: 1

## **Executive Summary - Plumbing**

The Boutwell Early Childhood Center was built in 1961. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping, and natural gas. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall hung water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Classroom sinks are counter mounted with single temperature gooseneck faucet and bubbler. Drinking fountains are wall mounted vitreous china. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2
- Domestic water service is 2-inch in size and includes a water meter and pressure reducing valve. There is a 1-inch water meter and backflow preventer for the exterior irrigation system. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition. Water piping in the mechanical space is not insulated.  
Rating – 2
- Domestic water for the building is generated through an electric tank type water heater, 80 gallon capacity. Hot water is recirculated. There is no thermostatic mixing valve to prevent scalding and there is no expansion tank on the system. There is a 40 gallon electric water heater adjacent to the Kitchen for washing.  
Rating – 3
- Natural gas service and meter are located on exterior of building adjacent to the Mechanical Room. Natural gas supplies interior air handling units. Gas piping is black steel with threaded joints.  
Rating – 4
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.  
Rating – 2

### **Executive Summary – Fire Protection**

The Building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine if adequate Municipal water supply is available.

Rating: N/A



# FACILITY PHOTOGRAPHS



# TOWN HALL

LOCATION: 121 GLEN ROAD

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1958

BUILDING AREA: 20,000 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES



## Description

Wilmington Town Hall occupies a circular masonry structure that formerly housed a public elementary school. The building is located by itself, not near to any other municipal facilities. Cushing Field is located to the immediate North of the building. The building was not intended as a permanent location for Town Hall and many of the Town's municipal functions are shoehorned inside. The masonry construction creates significant limitations for program flexibility and renovations.

## Observation and Findings

### SITE ASSESSMENT

The facility is accessed off Glenn Road across from the intersection of Harnden Street. There is a sign on Glenn Road identifying the access road to Town Hall as well as a sign located directly in front of the main entry door. The circular building is surrounded by pavement and parking with a landscaped ring, roughly twelve feet deep, separating the building façade from the pavement. The building has an accessible entrance directly off the access spur from Glenn Road. Striped parking is provided around most of the building which is mostly single loaded, angled parking. Striping could be made more efficient and potentially yield more spaces. Designated handicap parking is on both sides of the striped entranceway. The facility is mostly surrounded by trees with the Cushing Field recreation fields located just to the north of the building.

### BUILDING EXTERIOR

The building exterior composed of brick veneer, metal windows, and painted wood trim is generally in fair to good condition. Exposed foundation shows signs of deterioration especially at exterior door locations. Single pane, metal windows are original to the building and are thermally unbroken. They are well past their intended useful life and should be replaced to improve energy efficiency and occupant comfort. The roof was not observed but is reported to be a relatively new white EPDM by Town officials. There are a total of three building access doors around the perimeter and a second egress door servicing the Town Room (Room 9).

### BUILDING INTERIOR

The interior contains a central auditorium assembly space that is ringed by a circular corridor. Town offices occupy former classrooms that are wedge shaped and create an outer ring, composing most of the building's program area. Interior wall finishes are CMU with wood millwork and are in good condition. Flooring is a mix of original 9x9 VCT, which very likely contains asbestos, and replacement 12x12 VCT. Toilet rooms have terrazzo flooring which are in good condition. Ceilings, which are plaster in the corridor / toilet room areas and tongue and groove wood in the auditorium and office spaces, are in good condition.

### STRUCTURE

The building structure is a hybrid of load bearing concrete masonry block walls and glue laminated beams. The beams run concentrically around the building acting as principal purlins. The glue laminated beams in the auditorium are directly supported by tube steel columns. Load bearing walls are supported by C.I.P. concrete foundation walls and footings. Evidence of minor building settling is evident by cracks in the flooring at the edges of the circular corridor.

## **BUILDING SYSTEMS**

Most of the building systems in Town Hall are original and are well past their intended useful life. This includes the dual duct HVAC system, plumbing system, and electrical system. With the exception of a newer ductless split system in the Town Room (Room 9), all building systems rated in poor or poor to fair condition. If the building is to be kept as a municipal facility, serious consideration should be made to replace the mechanical, electrical, and plumbing infrastructure.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Fire alarms, horn strobes, pull stations, and smoke detectors do not provide an appropriate amount of coverage for a non-sprinklered building. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection. The front door does have egress hardware.

## **OTHER COMMENTS**

Although the building is in very good structural condition, significant capital improvements are required at a systems level and for exterior glazing and floor finishes, to provide functional longevity for this building.

# TOWN HALL BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	3
Siding / Cladding	2
Windows	1
Doors	2
Canopies / Overhangs	2
Roof	N/A
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	3
Life Safety: Emergency Lighting	4
INTERIOR	
Condition of Walls	3
Base	2
Flooring	2
Ceiling	3
Stairs	N/A
Handrails	N/A
Doors	3
Glazing	3
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	1
Fuel	2
HVAC	1
PLUMBING	
Toilet Rooms	2
Kitchen	N/A
Domestic Water	3
STRUCTURE	
Observable Steel	2
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **TOWN HALL**

### **Executive Summary - Electrical**

Most of the existing electrical equipment is original to the building including the fire alarm system, intercom system, service equipment, and distribution panels. Original equipment is beyond its intended useful life. A new fire alarm system with ADA compliant devices and equipment to meet current requirements should be provided.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The secondary electrical service consists of a main disconnect switch rated at 400 Amperes, 120/208 Volts, 3 Phase, 4 Wire with an interior utility company meter located in the electric room. The service is overhead from a pole mounted transformer.  
Rating: 1
- The lighting and power panels are Federal Pacific circuit breaker type and are located throughout the building.  
Rating: 1
- Existing lighting consist of surface mounted wraparound fixtures T12 lamps in corridors, and utility rooms. The cafetorium has 2x4 surface prismatic fixtures. The offices have pendant mounted wraparound fluorescent fixtures. Controls are provided with local switch.  
Rating: 2
- Exterior lighting consists of HID utility pole mounted flood lights and surface mounted HID under the canopy at the main entrance.  
Rating: 1
- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear not to be LED type.  
Rating: 2
- Telephone, CATV, and fiber run overhead from utility pole to the Electric Room.  
Rating: 2



- The building is equipped throughout with a conventional automatic fire alarm system manufactured by Gamewell; which consists of horn/strobes, smoke detectors, pull stations, and heat detectors. Coverage is not sufficient for a non-sprinklered building. System does not meet ADA requirements.

Rating: 1

- Paging system consist of an old Rauland console with clocks/speaker and call switch in the classrooms. System no longer works.

Rating: 2

- Existing security system includes motion sensors and door contacts throughout the building.

Rating: 3

### **Executive Summary - HVAC**

The Town Hall equipment is all original to the building from 1958. The HVAC system installed is called a dual duct system. There are two main ducts in the circular crawl space below; one is a hot deck and the other is a cold deck. Each duct is connected to mixing boxes which then supplies tempered air into a room. There is one mixing box per room. This system is a very antiquated system and is not energy efficient. Generally speaking, the system is operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the system installed within this building is well past its intended maximum serviceable life.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The building air handler is oil fired and is located within the machine room. The air handler is manufactured by Jackson & Church and appears to be original.

Rating: 1

- There is a linear diffuser in each exterior room along within the cabinetry. Return air is through a floor mounted linear grille.

Rating: 1

- The breeching from the air handler is galvanized ductwork and runs to a masonry chimney.

Rating: 1

- There are two new 660 gallon, No. 2 fuel oil storage tanks installed in the machine room. Fuel oil is distributed to the air handler through the use of threaded black steel pipe which turns into flexible tubing to the unit.

Rating: N/A



- Combustion air is provided through one individual louver installed in the exterior wall.  
Rating: 1
- The large meeting room is provided with minimal air from the house dual duct system. Supply air is located high in the space. The return ductwork associated with the air handler is centrally located at floor level.  
Rating: 1
- Window mounted air conditioning units are utilized for cooling purposes where required.  
Rating: 1
- There was only one ductless split air conditioning unit which was located in the Town room.  
Rating: 4
- Make-up air for the individual toilets was through the use of louvers located within the doors.  
Rating: 1

### **Executive Summary - Plumbing**

The Wilmington Town Hall was built in 1958. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system and storm drain piping. On-site septic system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The building plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New  
4 - Very Good  
3 - Good  
2 - Fair  
1 - Poor  
0 - Requires repair  
X - Requires immediate  
N/A - Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall mounted water closets with manual flush valves, wall hung urinals with manual or sensor flush valves, and wall hung lavatories with hot and cold water handles. Original Classroom sinks are vitreous china counter mounted with single temperature gooseneck faucet and bubbler. Electric water coolers are wall mount with vinyl cabinet and stainless steel bowl. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating - 2

- Domestic water service appears to be 2-inch in size and includes a water meter and pressure reducing valve. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition.  
Rating – 2
- Domestic water for the building is generated through an electric water heater. The tank capacity of each heater is 30 gallons. Domestic hot water is recirculated. There is no thermostatic mixing valve or expansion tank installed at the water heater. Water piping near the heaters is not insulated.  
Rating – 3
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.  
Rating – 2

### **Executive Summary – Fire Protection**

The Wilmington Town Hall was constructed in 1958 and is 20,000 square feet. The building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine adequate capacity for Fire Protection requirements.

Rating: N/A

# FACILITY PHOTOGRAPHS



# MEMORIAL LIBRARY

LOCATION: 175 MIDDLESEX AVENUE

TOTAL # OF STORIES: 2

YEAR CONSTRUCTED: 1968

BUILDING AREA: 14,910 GSF

BUILDING OCCUPANCY: LIBRARY



## Description

Constructed in 1968, the two-story building is in good condition due to the original high quality finishes and recent flooring and ceiling replacement. The Library is unique in that it has been assessed and rethought via a study and new project proposal in 2005. This included a space needs study and planning for a new building. The initiative provides fairly recent reference data on the facility. Observations that remain true include: the building systems are in poor condition, much of the stacks and support spaces are not ADA compliant, and the space lacks proper oversight and security. Since the study, however, the new High School has been built and trends in libraries have changed/evolved significantly. The need for significant renovation or potential new construction remains high to meet current needs, trends, and to become ADA compliant.

## Observations and Findings

### SITE ASSESSMENT

The Wilmington Memorial Library is one of the principal facilities in the historic town center. Pedestrian access to the front door is directly off Middlesex Avenue. Vehicular access is off Middlesex Avenue via one-way drives. There is also contiguous parking areas that connect to Wildwood Street. The Library is identified by a ground mounted sign on Middlesex Avenue and by wall mounted letter signage on the building façade.

### BUILDING EXTERIOR

The exterior brick and painted wood trim façade of the library is in good condition. Needed facility improvements are limited to minor repainting of the brick and painting of the exterior wood paneling at the Middlesex Avenue entry.

### BUILDING INTERIOR

Recent interior renovations and upgrades include new ACT ceilings and lighting, new carpet, and opening up the interior spaces. The original terrazzo flooring in the stairwell is in very good condition. Areas in need of repair/replacement include the VCT flooring and associated vinyl cove base. Non-renovated interior areas are in fair to poor condition, especially flooring.

### STRUCTURE

The structure is cast in place concrete (walls, floor slabs, columns, and beams). All exposed structure appeared to be in good condition.

### BUILDING SYSTEMS

The building systems are very old and in poor condition with the exception of recently added ductless split air conditioning units distributed throughout the building. Most interior lighting consists of T8 fluorescent fixtures which do not provide optimal light quality for reading. Building security is difficult due to the two building entry locations and the lack of visual oversight from the back parking lot. Visual oversight of all primary entrances should be attained either with renovation of the building/main desk location, rethinking the building entry sequence, and/or video surveillance. Building security should consider inventory controls, which is noted as a liability in the 2005 study.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Toilet rooms are not ADA compliant. Stair railings are not code compliant to current standards. Fire alarms, horn strobes, pull stations, and smoke detectors do not provide an appropriate amount of coverage for a non-sprinklered building. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

# MEMORIAL LIBRARY BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	3
Brick / Masonry	3
Siding / Cladding	2
Windows	3
Doors	3
Canopies / Overhangs	3
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	3
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	3
Base	1
Flooring	2
Ceiling	3
Stairs	3
Handrails	2
Doors	2
Glazing	3
ELECTRICAL	
Service Entrance	2
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	0
Fuel	0
HVAC	1
PLUMBING	
Toilet Rooms	2
Kitchen	2
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **MEMORIAL LIBRARY**

### **Executive Summary - Electrical**

The electrical systems for the Library are functioning but are in fair to poor condition. The building does not have an intrusion system. The emergency lighting and exit signs need upgrading. A new fire alarm system with ADA compliant devices and equipment to meet current requirements should be provided. A new exterior gas generator should replace the existing interior units and include two automatic transfer switches and dedicated emergency electric room.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The electrical service runs underground into the building from a pad mounted transformer with a meter to the Westinghouse switchboard located in the Electric Room. The service is rated at 800 Amperes, 120/208Volt, 3 Phase, 4 Wire. The switchboard consists of a main breaker and distribution section.

Rating: 2

- The lighting and power panels are Westinghouse circuit breaker type and are located through the building. Existing equipment is original to the building and beyond its useful life. The newer Siemens panels are in good condition.

Rating: 1

- The interior lighting consists of 2x4 recessed parabolic fluorescent fixtures controlled with local switches. Surface wraparound fixtures are also located throughout the building.

Rating: 2

- Exterior lighting consists of building mounted HID wall packs and flood lights for parking area and traditional pendant mounted incandescent wall lanterns at the main entrance.

Rating: 2

- The emergency stand-by system consists of an interior rusting gas Kohler generator. One automatic transfer switch is provided in the electric room. There is no separation of life safety equipment and optional stand-by. Exit signs are located through the building.

Rating: 1

- Existing fire alarm system consists of a conventional GE ESL control panel, non ADA complaint horn/strobes, heat detectors, smoke detectors, and pull stations with insufficient coverage for a building without sprinklers.

Rating: 1

- Existing security system includes motion sensors and door contacts throughout the building. System is a magnum alert with a keypad in the Custodian's Office.

Rating: 2

- The telephone & CATV wiring runs overhead between the pole and the building with the terminal boards located in the electric room.

Rating: 2

### **Executive Summary - HVAC**

The Library heating equipment is mostly original to the building from 1968. Generally speaking, most systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the heating systems installed within this building are past their intended maximum serviceable life.

A number of ductless split system cooling unit have been installed to air condition the building.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The boiler room is provided with one HB Smith 350 MILLS water tube boiler generating hot water. The boiler is original from 1968. Hot water is circulated throughout the building utilizing two inline circulating pumps for heating purposes. Boiler is provided with a single fuel No. 2 fuel oil burner.

Rating: 0 (replace)

- The breeching from the boiler appears to be welded black steel and is insulated with what appears to be calcium silicate insulation with a canvas jacket. The boiler breeching enters a masonry chimney.

Rating: 0 (replace when boiler replaced)

- No. 2 fuel oil is recirculated from a 2500 gallon underground storage tank. Fuel oil is distributed to the boiler through the use of threaded black steel pipe. Burner has a supply and return pipe associated with it which allows the fuel oil to circulate through the burner.

Rating: N/A

- Domestic water for the building is generated through an electric water heater. The tank capacity of each heater is 30 gallons. Domestic hot water is recirculated. There is no thermostatic mixing valve or expansion tank installed at the water heater. Water piping near the heaters is not insulated.  
Rating – 3
- Combustion air is provided through one individual duct which originates at a wall mounted louver and terminates high in the room. The present condition is non-code compliant. Code requires one opening high and one opening low.  
Rating: 0 (repair with boiler replacement)
- The automatic temperature control system is of the pneumatic type and is provided with a single storage tank with one compressor and motor. The system is provided with a refrigerated air dryer, as well as, oil and water separators.  
Rating: 1
- Each space is provided with a wall mounted unit ventilator located on the exterior wall. The unit ventilators are provided with a hot water coil with a pneumatic control valve. They are also provided with an outside air intake louver, as well as, filters and a supply fan.  
Rating: 1
- Wall mounted fin tube with individual thermostatic control valves is provided throughout the building. The exhaust system is minimal and is generally at toilet rooms, janitor closets, etc.  
Rating: 1
- Wall mounted ductless split air conditioning units are utilized for cooling purposes throughout the library. Associated condensing units for all the ductless cooling units are scattered outdoors and in the attic. 18 units total.  
Rating: 1
- Make-up air for the individual toilets was through the use of louvers located within the doors.  
Rating: 1
- Heating of the toilet spaces were through the use of wall mounted fintube radiation which was controlled through the use of a pneumatic thermostat. It was noted that the radiation was damaged and had surface contamination.  
Rating: 1

## **Executive Summary - Plumbing**

The Memorial Library Building was built in 1968. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, LP gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in fair condition.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall mounted water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, counter mounted with gooseneck faucet and hot and cold water handles. Electric water coolers are recessed stainless steel with recessed chiller. Janitor's Sinks are cast iron floor mounted with 3" trap standard. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2
- Domestic water service appears to be 1-1/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves to the building and are in fair condition. The domestic water piping is not insulated or labeled.  
Rating – 2
- Domestic water for the building is generated through an electric tank type water heater. The tank capacity of each heater is 50 gallons and has a electrical input of 4500 watts. Domestic hot water is not recirculated. There is a thermostatic mixing valve at the outlet of the water heater. There is no expansion tank installed at the cold water make-up for the water heater. Domestic water piping near the heaters is uninsulated.  
Rating – 3
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in poor condition. Smaller pipe sizes appear to be copper. In general, the original cast iron drainage piping should be replaced.  
Rating – 1
- A 100 gallon LP gas tank is located outside of Mechanical Room. LP gas is dedicated to serve an emergency generator locate in the Mechanical Room. The natural gas piping is steel with threaded fittings. Overall the gas piping is in good condition.  
Rating - 3

### **Executive Summary – Fire Protection**

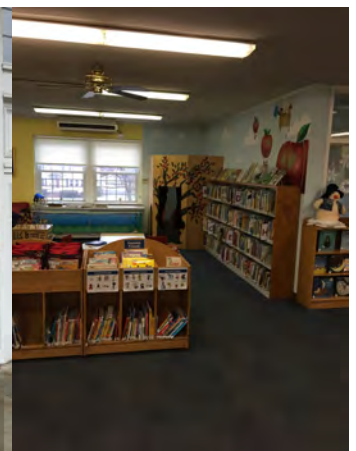
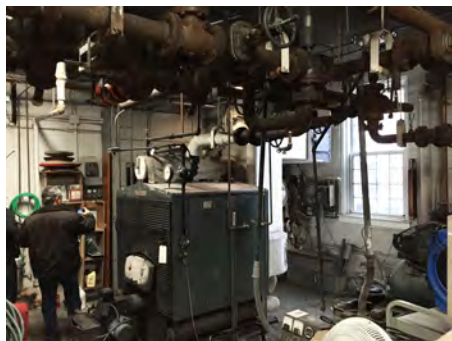
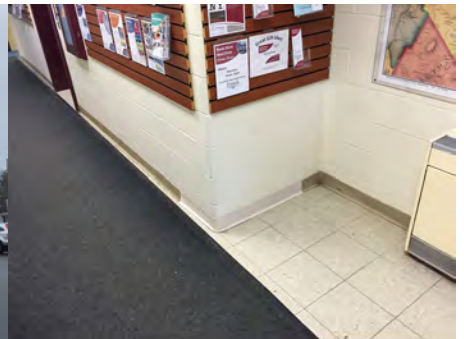
The Wilmington Memorial Library was constructed in 1968 and is 14,910 square feet. The building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine adequate capacity for Fire Protection requirements.

Rating: N/A

# FACILITY OBSERVATIONS





# PUBLIC SAFETY BUILDING

LOCATION: 1 ADELAIDE STREET

TOTAL # OF STORIES: 3

YEAR CONSTRUCTED: 2001

BUILDING AREA: 36,000 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES  
(FIRE & POLICE)



## Description

The Wilmington Memorial Public Safety Building provides combined, centralized Police and Fire services for the Town. Constructed in 2001, this facility is one of the newest municipal buildings in Wilmington. The core building is two stories with hip roof and a slab on grade at the ground floor. It houses all Police Functions, Fire Administration, and dispatch. A (5) bay apparatus wing runs perpendicular to the core building which is connected by a two story CMU veneer connector. The connector houses the Fire residential facilities, Firefighter support spaces, and building facility support spaces. HVAC equipment and emergency generator are located on flat roof sections of the building, primarily over the connector.

## Observations and Findings

### SITE ASSESSMENT

The facility sits at the corner of Church and Adelaide Streets just outside the Church Street Historic District. There is a lack of secure parking for the Police fleet and secure entry/exit from the Sallyport. There is no traffic signal to aid fire trucks entering Church Street. There is no physical separation, screening, or buffer in several areas including: the adjacent residential property, communications tower, or the propane tank that supplies backup fuel for the generator. Landscaping is limited to small clusters of trees along the streets and low growing landscaping at the public parking area.

### BUILDING EXTERIOR

Exterior walls are brick and CMU veneer with painted drywall soffits and galvanized metal eave details. Non-masonry and painted surfaces on the building exterior are not holding up well. Painted drywall at the public entry soffit is failing and requires replacement. The material is not suitable for exterior applications. Exterior metal doors all suffer from extensive peeling paint. A coating appropriate to the door material is recommended: assumed non-ferrous for galvanized surfaces. Unfinished attic spaces contain areas where the building envelope performance is compromised.

### BUILDING INTERIOR

Although the building is relatively new, the 24/7 operation has worn many of the interior finishes to the point of failure. Carpet finishes in the fitness room on the second floor are worn to the point of failure and require replacement. Interior paint on exposed steel in the apparatus bays require maintenance. The offices on the second floor occupy a cantilevered zone and the occupants complain that the floors are typically very cold. The booking area reportedly has flooding from water coming out of floor drains which is thought to have a connection with the Fire Department's kitchen use.

### STRUCTURE

The building is steel frame with composite concrete floor slabs. The hip roof is framed with engineered lumber. The structure appears to be in good condition.

## **BUILDING SYSTEMS**

Building systems are in good to very good condition, are being well maintained, and appear to be functioning as intended. Building security and access control is extremely poor for a critical facility. Doors throughout the facility do not close properly including doors to secure areas such as booking, communications/dispatch, and stairwells. Keypad controls have reportedly proven unreliable. Smart card access controls are reportedly unreliable, preventing officers and staff to access the areas they need to in an efficient and secure manner. These issues are exacerbated by the fact that the Wilmington Police Department is a CALEA certified organization and need to uphold various standards for booking sequences, secure facility separations, and chain of custody for evidence. Video monitoring is piecemeal and cannot be centrally controlled or accessed.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Doors to fire stairs do not close properly. The main electrical room has holes cut in the ceiling and no fire stopping at minor penetrations. This violates the required two hour fire rating of the room.

## **OTHER COMMENTS**

At 15 years of age, this facility is prematurely in need of upgrades and strategies to provide additional space. Fit up of unfinished eave spaces, additions, and /or a new substation facility are considerations that will be reviewed as potential options. In addition to facility upgrades, careful consideration should be made to providing appropriate site security, adequate parking, and signalization on Church Street.

# PUBLIC SAFETY BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	3
Brick / Masonry	3
Siding / Cladding	2
Windows	3
Doors	2
Canopies / Overhangs	X
Roof	3
LIFE SAFETY	
Sprinkler Y/N	Y
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	4
Life Safety: Emergency Lighting	N/A
INTERIOR	
Condition of Walls	2
Base	3
Flooring	3
Ceiling	3
Stairs	4
Handrails	4
Doors	2
Glazing	3
ELECTRICAL	
Service Entrance	4
Panel / Distribution	3
LIGHTING	
Lighting	2
Lighting Controls	2

MECHANICAL	
Boiler	4
Fuel	4
HVAC	4
PLUMBING	
Toilet Rooms	4
Kitchen	4
Domestic Water	3
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **PUBLIC SAFETY BUILDING**

### **Executive Summary - Electrical**

The electrical systems for the Public Safety Building are functioning but are in fair to good condition with the exception of the service equipment which is relatively new. Separation of emergency life safety and emergency optional standby should be provided with two automatic transfer switches.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The electrical service runs underground to the building from a pad mounted transformer to a GE switchboard located in the electric room. The service is rated at 600Amperes, 277/480Volt, 3Phase, 4Wire. A 600Ampere enclosed main circuit breaker /CT section and distribution section switchboard is located in the electric room.

Rating: 4

- The lighting and power panels are GE circuit breaker type and are located through the building.

Rating: 3

- The interior lighting consists of 2x4 and 2x2 recessed troffers parabolic controlled with local switches. Apparatus bay fixtures are fluorescent high bay controlled by low voltage switches via relay panel.

Rating: 2

- Exterior lighting consists of building mounted HID wall packs and traditional recessed down lights in the exterior overhang around the building. Ground mounted flood lights are provided for the side with pole lights in the parking area.

Rating: 2

- The emergency stand-by system consists of an exterior natural gas roof mounted Kohler generator. One automatic transfer switch is provided in the electric room. There is no separation of life safety equipment and optional stand-by. Exit signs are located through the building. No emergency lights are provided at some exterior doors.

Rating: 3

- The building is equipped throughout with an addressable automatic fire alarm system, manufactured by Simplex. The system consists of horn/strobes, smoke detectors, pull stations, and heat detectors; and appears to meet current requirements.

Rating: 3

- There is an access control system in the building but no security intrusion system.

Rating: N/A

- The telephone & CATV wiring runs underground between the utility pole and the building with the terminal boards located in the electric room.

Rating: 2

### **Executive Summary - HVAC**

The Public Safety Building was built in 2001 and opened in 2003. This building is new and has appropriate systems by today's standards. Generally speaking, systems are operating and maintaining reasonable space temperature control.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- There are three Carrier air handlers installed in the top floor Mechanical room. Air handler AHU-1 serves second floor, AHU-2 serves first floor and AHU-3 serves third floor. All systems are variable air volume (VAV) and have an associated variable frequency Drive (VFD) to modulate the fan speed to save energy.

Rating: 4

- Throughout the building VAV boxes are installed to serve heat/cooling to each zone.

Rating: 4

- The automatic temperature control system utilizes Honeywell Excel 5000 controllers. Controls are being upgraded to JACE controllers but not everything is complete.

Rating: 4

- A 100 Ton air cooled liquid chiller is located out doors on the higher roof adjacent to the apparatus bay. The chiller was replaced last October 2015.

Rating: 5

- In the upper level mechanical room, new chiller water buffer tanks are installed.

Rating: 5

- There are two floor mounted end suction pumps installed in the upper mechanical room circulating chilled water to the three Carrier air handlers.  
Rating: 5
- There are two gas fired Weil McLain series 80 boilers installed in the ground floor mechanical room. All piping is a combination of schedule 40 black steel piping and cooper piping, all insulated with jacketed fiberglass insulation.  
Rating: 4
- There are two floor mounted end suction pumps, operated by VFD's, circulating heating hot water throughout the building.  
Rating: 4
- Lab ventilation appears inadequate. In this area they lift finger prints off items and the fingerprint dust is all over everything.  
Rating: 1

### **Executive Summary - Plumbing**

The Public Safety Building was built in 2001. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm system, compressed air and natural gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in very good condition.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall mounted water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, counter mounted with gooseneck faucet and hot and cold water handles. Electric water coolers are surface mounted stainless steel with recessed chiller. Janitor's Sinks are 24" x 24" floor receptors. In the cells, combination water closet/lavatory stainless steel fixtures are installed with remote flush valves. There are emergency eyewash and emergency shower fixtures located in the Apparatus Bay area that are supplied by cold water. Current Code requires water to emergency fixtures to be tepid. In general, the fixtures meet accessibility standards but are not water conserving.  
Rating - 4
- A simplex air compressor and vertical tank is provided to service the compressed air outlets and hose reels in Apparatus Bay. This system is in very good condition.  
Rating - 4



- Domestic water service appears to be 4-inch in size and includes a water meter and reduced pressure backflow preventer. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original ball valves to the building and are in good condition. The domestic water piping is insulated and labeled.  
Rating – 4
- Domestic water for the building is generated through a gas-fired storage type water heater. The tank capacity of each heater is 71 gallons and has a gas input of 120,000 Btus. Domestic hot water is recirculated. There is a hi-low thermostatic mixing valve at the outlet of the water heater and an expansion tank installed at the cold water make-up for the water heater. The low flow mixing valve appears to be showing corrosion and should be replaced. Domestic water piping near the heaters is insulated.  
Rating – 3
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in very good condition. Smaller pipe sizes appear to be copper. Horizontal storm drainage piping appears to be insulated. In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use. The Staff did mention that the Lower Level drainage gets backed up often. A backwater valve may be required on the main buried drain line before existing the Building. The Apparatus Bay includes floor and trench drains which may be directed to a oil/gas separator.  
Rating – 3
- An elevated pressure natural gas service, pressure regulator and gas meter is located outside of Mechanical Room. Natural gas is distributed to HVAC boilers, HVAC rooftop equipment, domestic water heater, and an emergency generator. The larger natural gas piping is steel with welded fittings while the smaller piping has threaded fittings. Overall the gas piping is in very good condition.  
Rating - 4

### **Executive Summary – Fire Protection**

The Public Safety Building was constructed in 2001 and is 36,000 square feet. The building is fully protected by automatic sprinkler systems, including all attic spaces.

The building is supplied with an 8" fire service. The Building fire protection system was installed at the time of original construction. The majority of the equipment and systems installed appear to have been well maintained and are generally in very good condition.

### **Existing Conditions:**

- There is an 8" fire water service that enters Building Lower Level Mechanical Room. This service is controlled by an exterior post indicator valve (PIV) and includes a 6" double check valve assembly with 6" wet alarm valve and wall mounted Storz Fire Department connection. The sprinkler main reduces to 4" after the alarm valve. The system provides 100% sprinkler protection to the Building including attic spaces. The Fire Protection system includes zone control valve assemblies to isolate each floor level. Sprinkler heads vary from concealed pendant type, to institutional type, semi-recessed pendent type and exposed upright type sprinkler heads depending on the ceiling construction, location or exposed structure.  
Rating: 4

# FACILITY PHOTOGRAPHS



# PUBLIC BUILDINGS OFFICE

LOCATION: 30 CHURCH STREET

TOTAL # OF STORIES: 2

YEAR CONSTRUCTED: 1954

BUILDING AREA: 6,694 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES  
AND GARAGE



## Description

The Public Buildings Office is located in the former Wilmington Fire Station. This masonry and wood framed building also currently houses the Town's IT Department. The facility is generally in fair to poor condition, requiring work on the exterior, interior and systems upgrades. Work spaces are not accessible and poorly laid out. Building identification from the street is via a sign affixed to the front of the building.

## Observations and Findings

### SITE ASSESSMENT

Facing Church Street, the building does not have a walkable route from parking to the front entry door. Visitors have to walk to the sidewalk or cross the landscaped zone to get to the entry door. Staff primarily use the back door for access. The facility is surrounded by pavement on most sides except for southern corner on Church Street where there are a few trees, bushes and bark mulch. There is also a small grass buffer between the parking lot and Olson Street. Parking is not well defined and striping goes directly to the building façade. This presents obstacles to building entries, especially the staff entry at the back. No handicap parking is defined or marked. The ability to park or not park in front of existing bay doors is not clear.

### BUILDING EXTERIOR

The brick façade is in fair condition but requires pointing throughout. Substantial pointing is needed at the tower element at the rear of the building and at window openings. The roof was not observed but is reported to be recently replaced with newer flashing observed along the roof edge. Windows in occupied spaces are in fair condition while windows in garage and unoccupied tower locations are in poor condition.

### BUILDING INTERIOR

Interior finishes include ACT ceilings, VCT flooring, wood trim and doors, and painted drywall: all of which are in fair to poor condition. The second floor flooring in the kitchen is in very poor condition and requires replacement.

### STRUCTURE

Structure appears to be load bearing masonry with wood joists and rafters tying in directly to the brick wall. Steel beams and columns are present in the apparatus bay to pick up roof loads in the open bay area.

### BUILDING SYSTEMS

Electrical systems are in fair to poor condition. Upon review a recently failed oil fired steam boiler was being replaced by a new gas fired hot water furnace. Temporary heat was being provided at the time of the facility review. Steam radiators will be replaced by baseboard and new piping. The garage area utilizes unit heaters which are in the process of being converted to Town gas.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Interior spaces in the building contain many internal level changes and are not accessible. The front office area is the only accessible area of the building. Emergency lighting and exit signs need to be updated. Toilet rooms are not ADA compliant even though some toilet fixtures on the first floor are. Stair railings are not code compliant to current standards. Fire alarms, horn strobes, pull stations, and smoke detectors do not provide an appropriate amount of coverage for a non-sprinklered building. If renovations in this building exceed 7,500 square feet, or in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

## **OTHER COMMENTS**

This facility requires significant upgrades for infrastructure, finishes and accessibility. The cost of upgrades may exceed the value of the renovating the building. Options could include combining the program with DPW and Town Hall facilities in lieu of renovation.

# PUBLIC BUILDINGS OFFICE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	2
Flooring	2
Ceiling	2
Stairs	1
Handrails	1
Doors	2
Glazing	N/A
ELECTRICAL	
Service Entrance	2
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler New boiler to be installed	
Fuel	-
HVAC	-
PLUMBING	
Toilet Rooms	2
Kitchen	1
Domestic Water	2
STRUCTURE	
Observable Steel	2
Observable Masonry	2
Headers / Lintels	2
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **PUBLIC BUILDING DEPARTMENT**

### **Executive Summary - Electrical**

The electrical systems for the Public Building Department are functioning but are in fair to poor condition. The building does not have an intrusion system. The emergency lighting and exit signs need upgrading. The existing electric service entrance equipment and distribution panels should be replaced. Non LED interior and exterior lighting should be replaced. A new fire alarm system should be provided to comply with the latest requirements and codes.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The electrical service runs underground into the building from a utility pole to a meter located in the electric room. The service is rated at 200Amperes, 120/240Volt, 1Phase, 3Wire. A 200Ampere enclosed main circuit breaker is located in the electric room.

Rating: 2

- The lighting and power panels are GE circuit breaker type and are located through the building. Existing equipment is original to the building and beyond its useful life.

Rating: 1

- The interior lighting consists of 2x4 recessed troffers with acrylic lens controlled with local switches. The garage area lights consist of strip fluorescent light fixtures.

Rating: 2

- Exterior lighting consists of building mounted HID wall packs for parking area and traditional incandescent wall lanterns at the main entrance.

Rating: 2

- The emergency stand-by system consists of an exterior rusting propane Kohler generator. One automatic transfer switch is provided in the electric room. There is no separation of life safety equipment and optional stand-by. Exit signs are located through the building. No emergency lights are provided at some exterior doors.

Rating: 1



- Existing fire alarm system consists of a conventional FCI control panel, non ADA complaint horn/strobes with insufficient coverage for a building without sprinklers.  
Rating: 2
- There is no security intrusion system.  
Rating: N/A
- The telephone & CATV wiring runs overhead between the pole and the building with the terminal boards located in the electric room. Appears to be some abandoned wiring that should be removed.  
Rating: 2

### **Executive Summary - HVAC**

Concerning HVAC equipment, the Public Buildings Office building is in transition. Existing equipment is being removed and new equipment being installed.

### **Executive Summary - Plumbing**

The Public Building Office Building was built in 1954. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, garage drainage system, storm system, compressed air system and natural gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in fair condition.

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted, tank type water closet, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, counter mounted with gooseneck faucet and hot and cold water handles. There were no drinking fountains in the building. Janitor's Sinks are cast iron floor mounted with 3" trap standard. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2
- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves to the building and are in fair condition. The domestic water piping is not insulated or labeled.  
Rating – 2
- Domestic water for the building is generated through an electric tank type water heater. The tank capacity of each heater is 20 gallons and has an electrical input of 2500 watts. Domestic hot water is not recirculated. There is no thermostatic mixing valve at the outlet of the water heater. There is no expansion tank installed at the cold water make-up for the water heater. Domestic water piping near the heaters is uninsulated. The water heater appears to have exceeded its life expectancy.  
Rating – 2

- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in poor condition. Smaller pipe sizes appear to be copper. There are portions of the sanitary and storm piping system that have recently been repaired. In general, the original cast iron drainage piping should be replaced. The Garage has floor drains which do not appear to be directed to an oil/gas separator.  
Rating – 2
- An elevated pressure natural gas service and pressure regulator is located outside of Building. The building is in the process of finalizing a gas conversion from oil. A gas meter has not yet been installed. Natural gas piping is distributed to HVAC equipment and an emergency generator. The larger natural gas piping is steel with welded fittings while the smaller piping has threaded fittings. Overall the gas piping is in very good condition.  
Rating - 4
- A simplex air compressor and vertical tank is provided to service the compressed air outlets and hose reels in Garage. This system is in very good condition.  
Rating - 4

### **Executive Summary – Fire Protection**

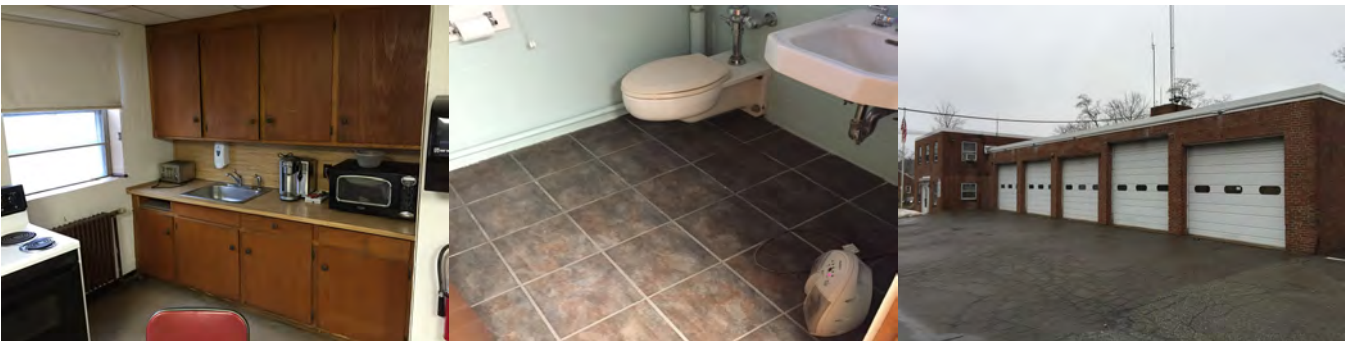
The Wilmington Public Offices Building was constructed in 1954 and is 6,694 square feet. The building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine adequate capacity for Fire Protection requirements.

Rating: N/A

# FACILITY PHOTOGRAPHS



# BUZZELL SENIOR CENTER

LOCATION: 15 SCHOOL STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1935

BUILDING AREA: 8,308 GSF

BUILDING OCCUPANCY: SENIOR CENTER



## Description

Housed in a former wood framed school house, the Buzzell Senior Center overlooks the Town Common in Wilmington's Centre Village Historic District. The facility provides meeting and program spaces for Wilmington's elderly community and is close to the high school and Library which provide additional programming for this group. The location is identified by a sign mounted on the building façade on the approach on School Street from Middlesex Avenue.

## Observations and Findings

### SITE ASSESSMENT

The historic building prominently faces the Town Common and is set up on a small hill. The main entrance and parking are at the opposite side. There is sidewalk access along School Street from Middlesex Avenue and a paved walkway wraps around the building. Landscaping consists of perimeter trees, a few deciduous trees in front of the building, and foundation plantings (yews). Parking is well marked and vehicular circulation is well defined to allow vans and small busses to approach, drop off, and safely navigate back to School Street. Handicap parking is striped and located directly across from the main entry.

### BUILDING EXTERIOR

Wooden clapboard siding and wood trim are heavily painted with minimal to moderate signs of rot and damage. Most exterior elements appear to be original to the building. The asphalt shingle roof appears in good condition as does the cupola. Replacement windows are in fair condition.

### BUILDING INTERIOR

Interior finishes consist of painted plaster walls and ceilings, ACT ceilings, wood paneled walls, painted wood trim, and painted doors. Floor finishes range from heavily worn carpet to maple (assumed original), to tile toilet flooring, to VCT in the kitchen. The carpet specifically needs replacement.

### STRUCTURE

The building is primarily a wood framed structure with some structural steel supporting the floor framing. Part of the basement, at the boiler room, is completely supported with concrete. The foundation is a combination of fieldstone and board formed concrete. The attic is completely wood framed.

### BUILDING SYSTEMS

Electrical service, HVAC, and plumbing systems are in fair to poor condition having exceeded their maximum serviceable life.

Additional notes from the building systems consultants are provided on following pages.

### REGULATORY COMPLIANCE

Emergency lighting and exit signs need upgrading. Fire alarms, horn strobes, pull stations, and smoke detectors do not provide an appropriate amount of coverage for a non-sprinklered building and should be upgraded to meet current requirements. If renovations in this building exceed 7,500 square feet, in which major alterations are planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

# BUZZELL SENIOR BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	N/A
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	3
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	3
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	3
Flooring	2
Ceiling	2
Stairs	1
Handrails	1
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	2
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	2
Fuel	1
HVAC	1
PLUMBING	
Toilet Rooms	2
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	2
Observable Masonry	2
Headers / Lintels	N/A
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **SENIOR CENTER**

### **Executive Summary - Electrical**

The electrical systems for the Senior Center are functioning but are in fair to poor condition. The emergency lighting and exit signs need upgrading. New fire alarm devices and coverage should be provided to meet the current requirements.

#### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

#### **Existing Conditions:**

- The electrical service runs overhead to the building from a utility pole to a meter located in the basement. The service is rated at 200Amperes, 120/240Volt, 1Phase, 3Wire. A 200Ampere Square D enclosed main circuit breaker is located in the basement.

Rating: 2

- The lighting and power panels are circuit breaker type and are located in the basement. Existing original panels have been replaced and are now used as junction boxes.

Rating: 1

- The interior lighting consists of 2x4 recessed parabolic controlled with local switches. Corridor has surface wraparound and incandescent track lights.

Rating: 2

- Exterior lighting consists of building mounted HID wall packs and flood lights around the building surface fixture is provided in the canopy of the main entrance.

Rating: 2

- The existing emergency lighting system is through self-contained emergency battery units. Exit signs appear to be LED type.

Rating: 3

- Existing fire alarm system consists of a Mircom control panel, with ADA complaint horn/strobes, old type heat detectors, pull stations, and insufficient coverage for a building without sprinklers.

Rating: 1



- Existing security system includes motion sensors, and door contacts throughout the building with a keypad at the entrance.  
Rating: N/A
- Kitchen receptacles are not GFI protected.  
Rating: N/A
- The telephone & CATV wiring runs overhead between the pole and the building with the terminal boards located in the electric room.  
Rating: 2

### **Executive Summary - HVAC**

Buzzell Senior Center equipment appears to be mostly original to the building from 1935. An old abandoned boiler sits in the basement and does not operate; a new oil fired boiler was installed and the age was not obtained. Generally speaking, systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, a continued limited service could be achieved, but the systems installed within this building are past their intended maximum serviceable life.

### **Rating**

5 - Brand New  
 4 – Very Good  
 3 – Good  
 2 – Fair  
 1 – Poor  
 0 – Requires repair  
 X – Requires immediate  
 N/A – Not applicable

### **Existing Conditions:**

- There were two boilers within the mechanical room. One was abandoned. There was one oil fired Weil McLain steam boiler to service the entire building. Boiler was atmospheric type; Breeching ran to the existing masonry chimney.  
Rating: 2
- There are three No. 2 fuel oil storage tanks installed in the basement. Fuel oil is distributed to the boiler through the use of threaded black steel pipe which turns into flexible tubing to the boiler.  
Rating: N/A
- Condensate is returned to the boiler room through schedule 80 black steel condensate return system.  
Rating: 1
- Low-pressure steam piping appears to be schedule 40 black steel, insulated with what appears to be fiberglass insulation (within mechanical room). Insulation throughout the building is suspect and appears to be asbestos.  
Rating: 1

- Each space utilizes wall mounted unit ventilators with an associated outside air louver located on the exterior wall. The unit ventilators are provided with a steam coil. Exhaust air is through an exhaust system for toilet rooms, janitor closets, kitchen, etc.  
Rating: 1
- Exhaust fan and associated ductwork is installed up in the attic. A large exhaust duct runs up to the cupola where it discharges.  
Rating: 1
- The corridors and entry ways located within the building were provided with wall mounted steam radiators for generalized space heating.  
Rating: 1
- There were ductless split air conditioning units located in the office area, the large gathering area, and where required.  
Rating: 4
- Make-up air for the individual toilets was through the use of louvers located within the doors.  
Rating: 1

### **Executive Summary - Plumbing**

The Buzzell Senior Center was built in 1935. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system. Municipal Sewer system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The building plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of wall mounted water closets with manual flush valves, wall hung urinals with manual flush valves, and wall hung lavatories with hot and cold water handles. Kitchen sinks are stainless steel, counter mounted with gooseneck faucet and hot and cold water handles. There are no drinking fountains or janitor's sinks in the building. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2

- Domestic water service appears to be 1-1/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition.  
Rating – 2
- Domestic water for the building is generated through an electric water heater. The tank capacity of each heater is 30 gallons. Domestic hot water is not recirculated. There is no thermostatic mixing valve or expansion tank installed at the water heater. Water piping near the heaters is not insulated. The water heater is in good condition.  
Rating – 3
- Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in poor condition. Smaller pipe sizes appear to be copper. There is evidence of portions of the existing sanitary drainage piping that has been replaced recently. In general, the original cast iron drainage piping has exceeded its life expectancy and should be replaced.  
Rating – 1

### **Executive Summary – Fire Protection**

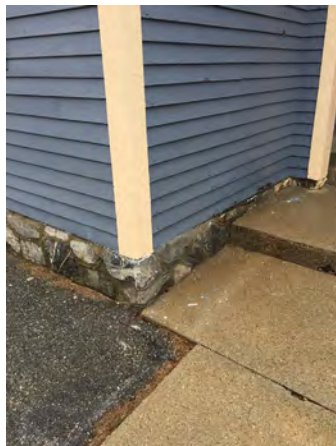
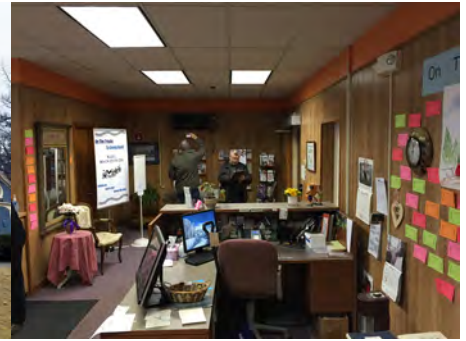
The Buzzell Senior Center Building was constructed in 1935 and is 8,308 square feet. The building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine adequate capacity for Fire Protection requirements.

Rating: N/A

# FACILITY PHOTOGRAPHS



# DEPARTMENT OF VETERAN SERVICES (WEST SCHOOL)

LOCATION: 141 SHAWSHEEN AVE

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1790

BUILDING AREA: 1,250 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES



## Description

This is a small historic wood frame structure which used to serve as Wilmington's West School. It is located within eight feet of Shawsheen Avenue. The building is currently being used as a meeting and administrative space for the Town's Department of Veteran's Services. The building is identified by signs mounted on the front of the building denoting both West School and the Department of Veteran's Services.

## Observations and Findings

### SITE ASSESSMENT

The building faces Shawsheen Avenue with two original front entrances located very close to the street. There is no yard associated with this facility. There is a wood framed handicap access ramp connecting to a door at the rear of the building which requires additional railing support. A wooded area is immediately behind the building and presumed to be wetland. Basement access is via a small door under the ramp platform. Parking is paved on either side of the building with striped handicap parking on the side with the ramp access.

### BUILDING EXTERIOR

Exposed brick foundation walls and brick chimney are in need of pointing. Painted wood siding and trim are in fair condition. Replacement of broken and rotted siding and trim, especially near the foundation wall, should be done. The asphalt shingle roof appears to be in good condition with minimal signs of damage or peeling.

### BUILDING INTERIOR

The building is one large central space with smaller entry vestibules at the front and kitchen and bath spaces in the rear. The toilet room is fully accessible. Interior walls are plaster finish with cracking observed in several locations. Flooring is recently added Pergo flooring in good condition.

### STRUCTURE

Exposed structural framing is limited to floor joists in the basement. Floor framing sits in pier on a dirt crawl space.

### BUILDING SYSTEMS

Electrical, HVAC, and Plumbing systems all appear to be in good working condition having been upgraded when the facility was renovated for the Veteran's Services program.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# VETERANS SERVICES BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	0
Brick / Masonry	0
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	3
Base	3
Flooring	3
Ceiling	3
Stairs	2
Handrails	2
Doors	2
Glazing	N/A
ELECTRICAL	
Service Entrance	4
Panel / Distribution	4
LIGHTING	
Lighting	4
Lighting Controls	N/A

MECHANICAL	
Boiler	5
Fuel	1
HVAC	5
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	2
Observable Masonry	0
Headers / Lintels	0
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **DEPARTMENT OF VETERANS' AFFAIRS**

### **Executive Summary - Electrical**

The electrical systems for the Veterans' Affairs building were installed during the 2009 renovation and are generally in good condition.

#### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

#### **Existing Conditions:**

- The electrical service runs overhead between the utility pole and the utility meter mounted on the exterior of the building. The service is rated at 100 Amperes, 120/240 Volt, 1 Phase, 3 Wire. A 100A/2P main circuit breaker GE load center is located in the vestibule. Wiring method consists of Romex.

Rating: 4



*Main Panel in Vestibule*

- The interior lighting consists of pendant luminous bowls with three compact fluorescent lamps in the main hall controlled with local switches. 1x4 surface wraparound acrylic lensed fixtures with T8 lamps exist in the kitchen and toilet rooms. Toilet room fixture and exhaust fan are controlled with one common switch. Crawl space has porcelain sockets.

Rating: 4



*Main Hall Lighting*

- The exterior lighting consist of building mounted HID wall sconces for the parking areas. Wall sconce lantern fixtures with screw-in compact florescent lamps exist at front door. Exterior lights are timeclock controlled.

Rating: 4



*HID Wall Sconce*

- There is no emergency lighting or exit signs in interior or at exterior doors.
- The fire alarm system consists of a Fire-Lite MS-5024, 5 zones control panel located in the vestibule with a digital dialer. Smoke detectors exist in each space. Heats exist in kitchen, crawl space and attic. Pull stations exist at exterior doors. Notification consists of horn/strobes. A 5 zone LED annunciator and strobe are located on exterior front. The wiring method consists of low energy cable.

Rating: 4



*FACP & Security Panel*

- Cable TV and telephone run overhead into building.  
Rating: 3
- The intrusion system consists of a Magnum alert 1000 series, 5 zone control panel with passive infrared sensors. A keypad is located at the kitchen exterior door.  
Rating: 4
- Temporary lighting strings were abandoned in the crawl space. These should be removed as permanent lighting exists.  
Rating: 0

### **Executive Summary - HVAC**

The Heating system was renovated in 2015. Generally speaking, most systems are operating and maintaining space temperature control. The equipment appeared on overall good to very good condition and will likely be suitable for the next 20 years or so.

#### **Rating**

5 - Brand New  
 4 - Very Good  
 3 - Good  
 2 - Fair  
 1 - Poor  
 0 - Requires repair  
 X - Requires immediate  
 N/A - Not applicable

#### **Existing Conditions:**

- Heating- The heating system of the building was converted last summer from oil to natural gas. The gas fired furnace is located toward the back of the building and ducted to supply floor grilles throughout the space. A single filtered return grille is located close to the furnace. There is no ducted outside air to the furnace but operable windows provide natural ventilation to the space. The gas furnace was manufactured by Johnson Controls Unitary products and has a gas input of 80 CFH and an output of 76 MBH.  
Rating: 5

- The new gas fired furnace is sealed combustion condensing style burner. Combustion air and boiler venting penetrate the exterior of the building.  
Rating: 5
- The gas fired furnace is controlled by a wall mounted programmable thermostat with occupied and unoccupied modes.  
Rating: 4
- Air conditioning for the space is provided by a wall mounted indoor evaporator manufactured by Mitsubishi. The indoor evaporator is connected to an air cooled condensing unit located outside. The indoor unit is controlled by a wall mounted thermostat.  
Rating: 3
- The oil tank from the former heating system was abandoned in place in the basement. We recommend the following: Ensure that the abandoned oil tank in the basement was properly drained and remove the tank from the basement.  
Rating: 1
- The office space is also served by ceiling mounted paddle fans.  
Rating: 3
- Existing kitchen has a residential combination range hood/microwave over a residential stove or oven under it. The equipment appears fairly new and in good condition.  
Rating: 3
- The bathroom has a ceiling mounted exhaust fan interlocked with the light switch. There did not appear to be a wall cap or roof cap discharge on the building for the fan therefore it likely discharges into the attic space above the toilet room. We recommend the following: The toilet room exhaust fan should be directly ducted outdoors with a wall cap or roof cap. The cap should have an integral backdraft damper.  
Rating: 1

## **Executive Summary - Plumbing**

The Department of Veteran's Services Building was built in 1970. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, and natural gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems have been recently updated. Overall, the Plumbing systems are in good condition.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted, tank type water closet and wall hung lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, counter mounted with gooseneck faucet and hot and cold water handles. There were no drinking fountains or Janitor's sinks in the building. In general, the fixtures do meet accessibility standards but are not water conserving.  
Rating - 3
- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be ball valves and are in good condition. The domestic water piping does not appear to be insulated or labeled.  
Rating - 3
- Domestic water for the building is generated through an electric point-of-use water heater located under the Kitchen sink. The tank capacity of each heater is 2.5 gallons and has an electrical input of 2500 watts. Domestic water piping is uninsulated. The water heater appears to be nearing its life expectancy.  
Rating - 1
- Cast iron and PVC is used for sanitary drainage. Where visible, the cast iron pipe appears to be in fair condition, with the PVC being in good condition. In general, the original cast iron drainage piping can be re-used for a renovation project. PVC is not compliant for a commercial building.  
Rating - 2
- An elevated pressure natural gas service and pressure regulator and meter is located outside of Building. Natural gas piping is distributed to HVAC equipment. The gas piping is steel with threaded fittings. Overall the gas piping is in very good condition.  
Rating - 4

### **Executive Summary – Fire Protection**

The Department of Veterans' Services Building was constructed in 1790 and is 1,250 square feet. The building does not contain an automatic sprinkler system.

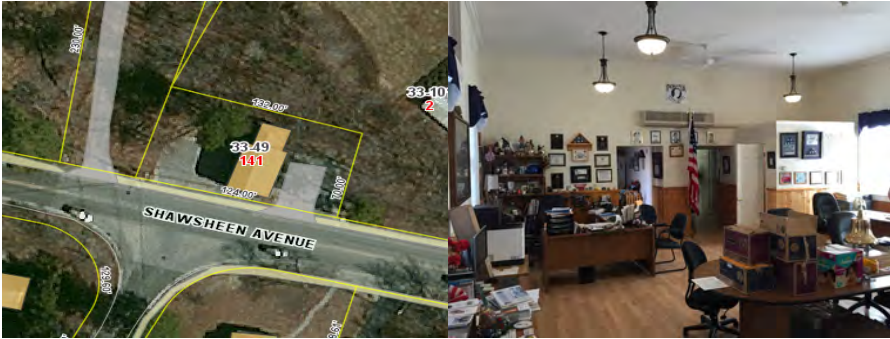
In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A



# FACILITY PHOTOGRAPHS



# SCHOOL SUPERINTENDENTS OFFICE ROMAN HOUSE

LOCATION: 161 CHURCH STREET

TOTAL # OF STORIES: 3

YEAR CONSTRUCTED: 1900

BUILDING AREA: 4,498 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES



## Description

This is a signature Queen Anne style wood frame structure located at the edge of the Town Common. It is within the Wilmington Center Village Historic District. The building is currently used as administrative offices for Wilmington Public Schools. It is identified by a sign hung from the porch of the building which is difficult to see from Church Street.

## Observations and Findings

### SITE ASSESSMENT

The building faces Church Street and the Town Common and is set back from the street and sidewalk with a small front yard. The front yard includes a lawn and foundation plantings (yews). There is a concrete walk connecting the front door to the sidewalk, but building access is via a side covered entry which is not original to the building. No handicap access into any part of the building is provided. The building is surrounded by a lawn which slopes away from the foundation in every direction. Parking is provided in an adjacent lot, which is signed for specific non-visitor uses. Visitors park in the opposite side of the building in the high school visitor spaces. There is no clear or easy pedestrian route from visitor parking to the main entry. There is one striped and signed handicap space adjacent to the building but from there, no access is possible into the building except for stairs. There is exterior door access into the basement along the parking lot edge and a ramp with railings that leads to a back door. This ramp does not meet current accessibility requirements. The Roman House is backdropped by the new High School which gives the small building an isolated siting effect, set between streets, parking, Town Common, and large High School building.

### BUILDING EXTERIOR

Exposed foundation wall elements are principally of granite block and newer construction is CMU. Both appear to be in good condition. Painted wood siding and trim are in poor to fair condition with the poorest condition. There is a significant need for replacement and restoration of broken and rotted siding and trim throughout the building. The asphalt shingle roof appears to be in fair condition but is likely to require replacement in the near future. Some basement windows were missing or broken letting outside air flow into the basement area.

### BUILDING INTERIOR

The building interior is well preserved featuring the original main staircase, first floor parlor and sitting rooms, original doors and wood trim, and other original detailing throughout. All appear to be in good condition. Interior walls are painted plaster with signs of cracking and settling from the second floor down at the main stair location.

### STRUCTURE

Exposed structural framing included wood floor joists in the basement which span longer than are typically seen which may contribute to the settling and cracking of plaster walls above. Lally columns have been introduced in a few areas. The mortared fieldstone foundation wall appears to be in good condition. Exposed wood roof rafters appeared to be in fair condition but water staining was observed on many rafter surfaces.

The brick chimney was built out of plumb to allow its location to shift as it penetrates the roof. Although unusual, no signs of significant deterioration were observed.

## **BUILDING SYSTEMS**

Electrical systems are well past their useful life including active knob and tube in some attic and basement locations. Hot water boilers are in good working condition but distribution piping was observed to be in poor condition. Toilet rooms lack exhaust fans which are required by code. Plumbing systems generally appeared to be in fair to good condition. Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

The building does not meet current accessibility standards due to lack of building access other than the stairs. Given the historic nature and architectural character of this building, careful consideration should be made for designing accessibility upgrades. Emergency lighting and exit signs do not exist and are required. There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# ROMAN HOUSE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	1
Siding / Cladding	0
Windows	3
Doors	2
Canopies / Overhangs	2
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	N/A
Life Safety: Emergency Lighting	N/A
INTERIOR	
Condition of Walls	2
Base	3
Flooring	3
Ceiling	2
Stairs	2
Handrails	1
Doors	2
Glazing	N/A
ELECTRICAL	
Service Entrance	2
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	5
Fuel	N/A
HVAC	2
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	2
Observable Masonry	3
Headers / Lintels	3
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **ROMAN HOUSE**

### **Executive Summary - Electrical**

The electrical systems for the Roman House are functioning but are in fair to poor condition. The emergency lighting and exit signs need upgrading. The existing cloth insulated wiring and knob and tube wiring in the basement and attic needs to be replaced and removed. Kitchen outlets need to be replaced with GFI type. Incandescent fixtures should be replaced with LED type. The existing electric service entrance equipment and distribution panels should be replaced.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The electrical service runs overhead into the building from a utility pole to an exterior building mounted meter. The service is rated at 200Amperes, 120/240Volt, 1Phase, 3Wire. A 200Ampere enclosed main circuit breaker is located in the basement.  
Rating: 2
- The lighting and power panels are Murray circuit breaker type and located in the basement. Existing equipment is original to the building and beyond its useful life.  
Rating: 1
- The interior lighting consists of 2x4 recessed troffers with acrylic lens and surface mounted 2’x4’ fixtures controlled with local switches. The basement and attic lights consist of porcelain sockets with incandescent lamps. The toilet room has a wall mounted incandescent fixtures.  
Rating: 2
- Exterior lighting consists of a surface mounted traditional lantern at the front porch.  
Rating: 1
- No emergency lights or exit signs are provided in the building.  
Rating: N/A
- Existing fire alarm system consists of a conventional Mircom control panel, with horn/strobes, smoke detectors, and pull stations throughout the building.  
Rating: 3

- Kitchen receptacles are not GFI protected. Existing non GFI receptacles should be replaced with new GFI type.  
Rating: 0
- The general wiring method is Romex with some AC cable. Knob and tube wiring was found in the basement and attic. Some cloth insulated wiring was also found in the basement and attic.  
Rating: 1
- The telephone & CATV wiring runs overhead between the pole and the building with the termination in the basement.  
Rating: 2

### **Executive Summary - HVAC**

The Roman House was constructed in 1900. The main heating plant was recently replaced throughout the building, HVAC equipment is minimal. Generally speaking, systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, continued service will be achieved.

### **Rating**

5 - Brand New  
 4 – Very Good  
 3 – Good  
 2 – Fair  
 1 – Poor  
 0 – Requires repair  
 X – Requires immediate  
 N/A – Not applicable

### **Existing Conditions:**

- There are two gas fired Weil McLain hot water boilers to service the entire building. Boilers are sealed combustion high efficiency condensing boilers. Boilers and associated appurtenances were replaced recently. There is one inline pump for the building.  
Boilers are vented utilizing 4” PVC piping.  
Rating: 5
- Hot water piping appears to be mainly schedule 40 black steel with some copper piping. We did not notice any insulation on any of the piping installed in the building.  
Rating: 1
- Each space utilizes a wall mounted radiator installed on the exterior wall.  
Rating: 2
- There were window air conditioning units located basement. The units will get installed where needed during the summer months  
Rating: 3
- Toilet rooms do not have any exhaust systems.  
Rating: 0



## **Executive Summary - Plumbing**

The School Superintendents Building was built in 1900. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, and natural gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems have exceeded their life expectancy. Overall, the Plumbing systems are in fair condition.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted, tank type water closet and wall hung or countertop lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, double bowl, counter mounted with gooseneck faucet and hot and cold water handles and vegetable spray. There were no drinking fountains or Janitor's sinks in the building. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating - 3
- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves and are in fair condition. The domestic water piping does not appear to be insulated or labeled.  
Rating - 2
- Domestic water for the building is generated through an electric tank type water heater. The tank capacity of each heater is 20 gallons and has an electrical input of 2500 watts. Domestic water piping is uninsulated. The water heater appears to be nearing its life expectancy.  
Rating - 2
- Cast iron is used for sanitary drainage where galvanized steel was utilized for sanitary vent piping. Where visible, the cast iron pipe appears to be in poor condition. Drum traps are installed for some plumbing fixtures, which are non-compliant. In general, the original cast iron drainage piping should be replaced.  
Rating - 1
- An elevated pressure natural gas service and pressure regulator and meter is located outside of Building. Natural gas piping is distributed to HVAC equipment. The gas piping is steel with threaded fittings. Overall the gas piping is in good condition.  
Rating - 3

### **Executive Summary – Fire Protection**

The School Superintendents Office Building was constructed in 1900 and is 4,498 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS



# FOOD PANTRY FORMER SOUTH SCHOOL

LOCATION: 142 CHESTNUT STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1800

BUILDING AREA: 1,250 GSF

BUILDING OCCUPANCY: LEASED FOR FOOD PANTRY



## Description

This is a small historic wood frame structure which used to serve as Wilmington's South School. It is located in a residential setting set back from Chestnut Street. The building is currently being used as a storage and distribution space for the Town's Food Pantry. The building is identified by signs mounted on the front of the building denoting both South School and the WCF Food Pantry.

## Observations and Findings

### SITE ASSESSMENT

The building faces Chestnut Street with one original front entrance located on the right side of the building. A shed roof bump out housing the toilet room has been added to the back of the building at some point. There is no yard associated with this facility. There is a wood framed handicap access ramp connecting to the main entry. A wooded area is immediately behind the building and there is a metal storage container located behind the building. Basement access is via a small door on the side of the building. Parking is gravel at the front and side of the building with no striping.

### BUILDING EXTERIOR

Exposed stone foundation walls are in fair condition. The brick chimney is in need of pointing. The bump out has a CMU frost wall. Painted wood siding and trim are in fair to poor condition. Replacement of broken and rotted siding and trim, especially near the foundation wall, should be done. The asphalt shingle roof appears to be recently replaced and is in good condition. Water infiltration was observed in the basement at the exterior door sill.

### BUILDING INTERIOR

The building is one large central space with a kitchen in the front and a toilet room in the rear. There is a tiled Marine Corp logo in the floor near the toilet room indicating a previous use of the building. Interior walls are troweled plaster finish except for toilet room which has tiled wet walls. Flooring is clear finished maple and is in fair condition.

### STRUCTURE

Exposed structural framing is limited to floor joists in the basement which appear to be in good condition. Fieldstone and rubble foundation wall also appeared to be in good condition.

### BUILDING SYSTEMS

Electrical systems are in poor to fair condition. Kitchen outlets are not GFI protected. HVAC is in good condition and Plumbing systems all appear to be in fair working condition.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# FOOD PANTRY BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	0
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	2
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	N/A
Life Safety: Exit Signs	0
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	3
Base	3
Flooring	2
Ceiling	2
Stairs	2
Handrails	2
Doors	2
Glazing	N/A
ELECTRICAL	
Service Entrance	2
Panel / Distribution	2
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	3
Fuel	4
HVAC	2
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	N/A
Headers / Lintels	2
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **FOOD PANTRY – BUILDING 16 (Former South School)**

### **Executive Summary - Electrical**

The electrical systems for the food pantry are functioning and are in fair to poor condition. The building does not have a fire alarm or intrusion system. The emergency lighting and exit signs need upgrading.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The electrical service runs overhead into the building from a pole mounted transformer via a building mounted meter. The service is rated at 200Amperes, 120/240Volt, 1Phase, 3Wire. A 200Ampere main circuit breaker load center is located in the basement. The panel has two spaces for future breakers.

*Image 1 - Load Center in Basement*

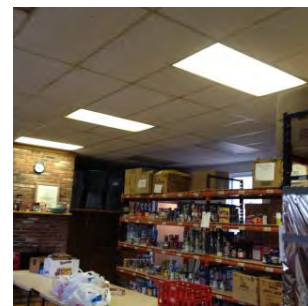
Rating: 2



- The interior lighting consists of 2x4 recessed troffers with acrylic lens in the main hall controlled with local switches. The basement lights consist of porcelain sockets with incandescent lamps. The toilet room has a combination fan/light unit on one switch.

*Image 2 – Main Hall Lighting*

Rating: 1



- Exterior lighting consists of building mounted mini-floods for parking area and twin par lamp holders with LED lamps on each corner of building. An HID wall sconce with open bottom is located at front.

*Image 3 – Front Light*

Rating: 1

- The emergency stand-by system consists of a self-contained battery unit. Exit sign at rear door is not functional, non at front door. No emergency lighting at exterior doors.

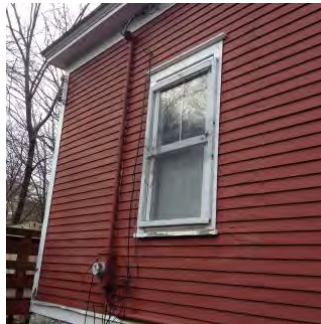
Rating: 0





- There is no fire alarm system or security intrusion system.  
Rating: N/A
- Kitchen receptacles are not GFI protected.  
Rating: 0
- The general wiring method is Romex with some MC cable.  
Rating: 2
- The telephone & CATV wiring runs overhead between the pole and the building. The CATV wiring is dead ended near the electric meter.  
*Image 4 – Exterior Meter and CATV Wiring*

Rating: 0



## **Executive Summary - HVAC**

The majority of the South School HVAC equipment was renovated in approximately in 2006. Generally speaking, most systems are operating and maintaining reasonable space temperature control. Based on the limited usage of the building and the condition of the equipment observed during our site visit, the equipment appeared in overall good condition and would be anticipated to last for approximately 15 more years or so.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The Food Pantry is heated and air conditioned by a split system air handling unit and air cooled condensing unit. The indoor air furnace is located in the basement and the air cooled condensing unit is located outside the building. The furnace and air cooled condensing unit are manufactured by Bryant. The Bryant indoor unit appears to be in better condition showing minimal signs of age while the air cooled condensing unit condition has been exposed to the weather. The Bryant furnace is equipped with a Beckett oil burner. The indoor furnace has ducted supply grilles located in the floor of the pantry and a central return grill located in the front of the building half concealed by a desk. 2. We recommend the following: Relocate the existing desk in the main room that obstructs the return grille. This will help improve air flow in the space.  
Rating: 3
- The breeching from the Furnace single wall with barometric relief pitched up and enters a masonry chimney.  
Rating: 3
- No. 2 fuel oil is stored in a 275 gallon oil storage tank also located in the basement. The tank was manufactured in 2006 and appears in good condition. The oil tank is piped to the furnace in an encased sleeve run under concrete to protect the line. The oil tank and line show no visible signs of aging and appear in very good condition.  
Rating: 4
- Ductwork in the basement is uninsulated. Return ductwork is a sheet metal using to joists and the underside of the floor for as a plenum.  
Rating: 2
- Combustion air for the furnace is atmospheric pulled from the basement.  
Rating: 2

- The Furnace is controlled by a wall mounted dial type thermostat. The thermostat is non programmable and reacts to space temperature based the mode it is set to heating, cooling or fan. We recommend the following: Replace the thermostat with a 7 day or a 5 day/2 day programmable Thermostat. This would improve energy efficiency, reduce fuel usage and allow for the space to be at desired temperatures during occupied hours.

Rating: 2

- Existing kitchen has a Nutone range hood but there is no stove or oven under it. The hood appears to be recirculating type as no discharge to outdoors was observed. Based on our understanding of the usage of the building and no other cooking equipment installed in the kitchen the range hood has likely been abandoned in place. We recommend the following: The abandoned kitchen exhaust hood would be recommended to be removed.

Rating: 1

- The bathroom has a ceiling mounted exhaust fan interlocked with the light switch. There did not appear to be a wall cap or roof cap discharge on the building for the fan therefore it likely discharges into the attic space above the toilet room. We recommend the follow: The toilet room exhaust fan should be directly ducted outdoors with a wall cap or roof cap. The cap should have an integral backdraft damper.

Rating: 1

### **Executive Summary - Plumbing**

The Food Pantry Building was built in 1800. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are nearing their life expectancy. Overall, the Plumbing systems are in fair condition.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted, tank type water closet and wall hung lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, double bowl, counter mounted with gooseneck faucet and hot and cold water handles and vegetable spray. There were no drinking fountains or Janitor's sinks in the building. In general, the fixtures do not meet accessibility standards and are not water conserving.

Rating – 3

- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves and are in fair condition. The domestic water piping does not appear to be insulated or labeled.  
Rating – 2
- Domestic water for the building is generated through an electric tank type water heater. The tank capacity of each heater is 40 gallons and has an electrical input of 4500 watts. Domestic water piping is uninsulated. The water heater appears to have exceeded its life expectancy.  
Rating – 2
- Cast iron is used for sanitary drainage where PVC was utilized for waste in certain locations. Where visible, the cast iron pipe appears to be in poor condition. PVC piping is non-compliant for commercial buildings. In general, the original cast iron drainage piping should be replaced.  
Rating – 1

### **Executive Summary – Fire Protection**

The Food Pantry Building was constructed in 1800 and is 1,250 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS



# DPW HIGHWAY GARAGE

LOCATION: 135 ANDOVER STREET

TOTAL # OF STORIES: 2

YEAR CONSTRUCTED: 1960

BUILDING AREA: 13,629 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES  
AND GARAGE



## Description

The DPW Garage facility is comprised of three conjoined buildings that include administrative offices, staff break area, vehicle maintenance, fueling, and storage. The buildings are generally in fair to poor condition with a significant list of code violations, safety concerns and deferred maintenance. Program appears to have been added as needed over the years which has created a compromised layout and circulation conditions.

## Observations and Findings

### SITE ASSESSMENT

The DPW Garage facility is located on a residential section of Andover Road. Commercial and industrial site uses are located on Andover Road to the north. It is set back from the street and a direct view of the facility is obscured. The siting is a concern given the noise and disruption associated with the 24/7 nature of responding to weather events by plow crews. The site is largely paved providing large vehicle circulation, vehicle storage, and equipment storage. Administrative office location provides good visual oversight, especially at the entry and fuel island.

### BUILDING EXTERIOR

The building exterior is comprised of CMU, is industrial in nature, and appears to be in fair condition.

### BUILDING INTERIOR

Building interiors are industrial in the work areas. Administrative areas include carpet, VCT, and sheet vinyl flooring; most of which are worn and need to be replaced. Walls are finished in a panelized wood look and ceilings are ACT; both of which are in fair condition.

### STRUCTURE

Building structure is masonry (CMU) with floor slab on grade. Vehicle bays are built with cast concrete. Roof framing is steel with principle wide flange beams and open web joist infill. Beams are supported internally by steel columns. Overall, the building structure appears to be in fair condition. The one significant concern is the bridge crane which is supported by open web joists. This condition should be more closely evaluated to ensure it is structurally stable and determine if it poses a safety concern to occupants. If it is not stable, structural upgrades should be installed as soon as possible.

### BUILDING SYSTEMS

Gas fired unit heaters were recently added in the garage areas

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

Stairs to the break area are wood framed, have pipe rail railings, and do not have appropriate height clearances. The stairs need to meet current codes as it is a means of egress. The second floor landing off the break room is a safety hazard and requires a railing, or the door to it needs to be permanently closed. Toilet rooms are not ADA compliant. If renovations in this building exceed 7,500 square feet, or in which major alterations are



planned, a full sprinkler fire protection system must be provided as long as there is sufficient water pressure. A hydrant flow test is required to determine adequate capacity for fire protection.

#### **OTHER COMMENTS**

This facility requires significant upgrades for infrastructure, finishes and accessibility. The cost of upgrades may exceed the value of renovating the building. In addition, there may be a more advantageous site for this facility that is in a more central and commercial location.

# HIGHWAY GARAGE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	2
Windows	1
Doors	2
Canopies / Overhangs	2
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	1
Base	2
Flooring	1
Ceiling	2
Stairs	X
Handrails	X
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	N/A
LIGHTING	
Lighting	N/A
Lighting Controls	N/A

MECHANICAL	
Boiler	4
Fuel	N/A
HVAC	0
PLUMBING	
Toilet Rooms	N/A
Kitchen	N/A
Domestic Water	N/A
STRUCTURE	
Observable Steel	X
Observable Masonry	1
Headers / Lintels	1
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **HIGHWAY GARAGE**

### **Executive Summary - HVAC**

The HVAC system serving the Highway garage is gas fired unit heaters in the garage portion and terminal electric heat in the office areas. The gas fired unit heaters were added to the Garage areas approximately within the last two years when the boiler plant serving the building was decommissioned.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The Reznor gas fired unit heaters are sealed combustion. Combustion air and vent piping penetrate the building with concentric vent/intake kits.  
Rating: 4
- The existing hydronic heaters that formally served the Garage were abandoned in place and serve no purpose.  
Rating: N/A
- The existing electric fin tube radiation in the toilet rooms appears to be in fair to poor condition. Electric fin tube in the office area is installed directly under electrical power outlets which is a code violation. We recommend the following: Electric fin tube in the office should be removed from under the electric power outlets and replaced with electric heat in different locations. Electric fin tube in toilet rooms should be replaced with unit heater higher on the wall where it will not be as susceptible to damage.  
Rating: 0
- The exhaust system does not appear to be operational and would be recommended to be replaced. We recommend that the exhaust system serving the garage should be replaced with a code compliant exhaust system for garage type buildings.  
Rating: 0
- The office areas have through wall air conditions to provide air conditioning to the spaces.  
Rating: 2

## **HIGHWAY GARAGE**

### **Executive Summary – Fire Protection**

The Highway Garage Building was constructed in 1960 and is 13,629 square feet. The building does not contain an automatic sprinkler system.

Compliance with Massachusetts General Law M.G.L. Chapter 148 Section 26G is required in all existing buildings in which renovations will exceed 7,500 square feet in area or in which major alterations are planned. Under these conditions, an existing building must provide a full sprinkler fire suppression system if sufficient water flow and pressure is available. A major alteration is defined as a reconfiguration of walls, doors, windows, mechanical systems, etc., which effectively makes installation of sprinkler systems easier and which affects more than 33% of the building area or more than 33% of the assessed value of the building. Buildings for which sufficient water flow and pressure does not exist are exempt, however, it is assumed that sufficient flow.

A hydrant flow test will be required to determine adequate capacity for Fire Protection requirements.

Rating: N/A

## **DPW GARAGE**

### **Executive Summary – Fire Protection**

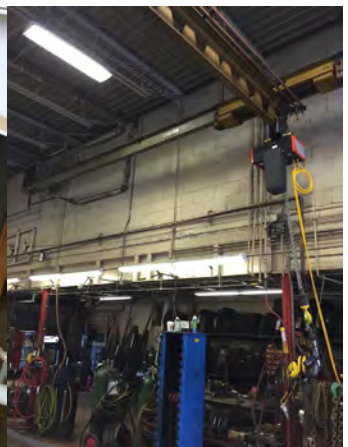
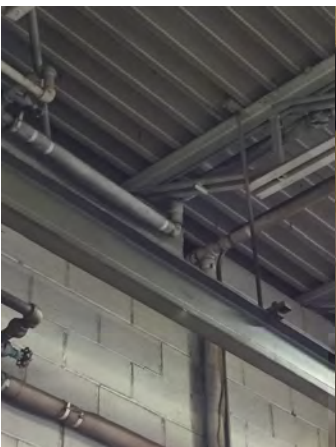
The DPW Garage Building was constructed in 1969 and is 3,475 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS





# WATER DEPARTMENT GARAGE

LOCATION: 115 ANDOVER STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1969

BUILDING AREA: 3,475 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES  
AND GARAGE



## Description

The Water Department Garage is a small, masonry building that shares a site with the Department of Public Works and Water Department Main Office building and a prefabricated metal storage building. The brick building is well detailed on the exterior but has fallen into disrepair both inside and out.

## Observations and Findings

### SITE ASSESSMENT

The building is located on the southern edge of the improved site with dense woods defining the southern side. There is vehicular access from Andover Street that breaks to the right of the main circulation loop. Pavement runs up to the façade and garage bays in most locations.

### BUILDING EXTERIOR

The building exterior is brick with precast concrete detailing. One of the precast pieces has come loose and presents a potential hazard to those walking underneath it. Overall, the brick requires pointing throughout. The roof was reported to be new and a new roof flashing was observed.

### BUILDING INTERIOR

The building interior is an industrial work area and there are limited finishes. Concrete flooring is heavily cracked and spalled, and is in need of repair. Wood trim, especially at doorways, is damaged and in need of repair.

### STRUCTURE

Building structure is masonry (brick) with steel beams bearing on the brick and wood rafters supporting wood roof decking. The structure is in fair condition but additions and modifications appear to have been made without appropriate structural design planning.

### BUILDING SYSTEMS

All building systems are older and are in poor to fair condition.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.



# WATER DEPARTMENT BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	1
Brick / Masonry	1
Siding / Cladding	1
Windows	2
Doors	1
Canopies / Overhangs	N/A
Roof	4
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	N/A
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	1
Base	N/A
Flooring	1
Ceiling	N/A
Stairs	N/A
Handrails	N/A
Doors	N/A
Glazing	N/A
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	N/A
LIGHTING	
Lighting	N/A
Lighting Controls	N/A

MECHANICAL	
Boiler	2
Fuel	N/A
HVAC	N/A
PLUMBING	
Toilet Rooms	1
Kitchen	N/A
Domestic Water	1
STRUCTURE	
Observable Steel	2
Observable Masonry	1
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **WATER GARAGE**

### **Executive Summary - HVAC**

The HVAC system serving the DPW main office is gas fired unit heaters. The heating system that serves the building appears in fair condition and would be anticipated to serve the building for the next 10-15 years.

#### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

#### **Existing Conditions:**

- The building is heated by gas fired unit heaters.  
Rating: 2
- The breeching from the furnace appears to be single wall through the roof.  
Rating: 2
- The exhaust system does not appear to be operational and would be recommended to be replaced. We recommend the exhaust system serving the garage should be replaced with a code compliant exhaust system for garage type buildings.  
Rating: 0

### **Executive Summary - Plumbing**

The Water Garage Building was built in 1969. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, garage waste system, storm system, compressed air system and natural gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in fair condition.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted, tank type water closet and a countertop lavatory with hot and cold water handles. A Kitchenette sink is stainless steel, counter mounted with gooseneck faucet and hot and cold water handles with vegetable spray. There are no drinking fountains or Janitor's sinks in the building. In general, the fixtures are in poor condition and do not meet accessibility standards and are not water conserving.

Rating – 1

- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves to the building and are in poor condition. The domestic water piping is not insulated or labeled.

Rating – 1

- Domestic water for the building is generated through an electric storage tank type water heater. The tank capacity of each heater is 20 gallons and has an electrical input of 2500 watts. Domestic hot water is not recirculated. There is no thermostatic mixing valve at the outlet of the water heater. There is no expansion tank installed at the cold water make-up for the water heater. Domestic water piping near the heater is uninsulated. The water heater appears to be in fair condition.

Rating – 2

- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in poor condition. Smaller pipe sizes appear to be copper. There are portions of the sanitary and storm piping system that have recently been repaired. In general, the original cast iron drainage piping should be replaced. The horizontal storm drainage piping does not appear to be insulated. The Garage has floor drains which do not appear to be directed to an oil/gas separator.

Rating – 1

- An elevated pressure natural gas service, pressure regulator and gas meter is located outside of Building. Natural gas piping is distributed to HVAC equipment. The natural gas piping is steel with threaded fittings. Overall the gas piping is in good condition.

Rating - 3

- A simplex air compressor and vertical tank is provided to service the compressed air outlets and hose reels in Garage. This system is in fair condition.

Rating - 2

# FACILITY PHOTOGRAPHS



# CEMETERY OFFICE

LOCATION: 233 MIDDLESEX AVENUE  
TOTAL # OF STORIES: 1  
YEAR CONSTRUCTED: 1938  
BUILDING AREA: 960 GSF  
BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES  
AND GARAGE



## Description

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This is a small historic masonry structure serving the Wildwood Cemetery. The combined office and garage building is a Works Progress Administration (WPA) project.

## Observations and Findings

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### **SITE ASSESSMENT**

The building is sited among a grove of trees which obscures it from view of the rest of the cemetery and from Middlesex Avenue. The stone exterior further meshes the building into its natural setting. There is a concrete drip edge along the perimeter of the building to catch rain falling from the eaves. The Cemetery Office is otherwise surrounded by grass and trees. Paving extends to the two garage doors and the front door for vehicular and pedestrian access. A paved walkway connects the back door, at the office, directly to the other side of the cemetery.

### **BUILDING EXTERIOR**

The building façade is made up of large round stones with painted wood trim. Wood trim is rotten at sill and eave conditions, and should be replaced. Windows appeared to be original single pane double hung. Asphalt roof shingles appear to be in fair condition.

### **BUILDING INTERIOR**

Flooring is a combination of exposed concrete and VCT: both typically in poor condition. Exterior walls are parge coat brick. Interior walls appear to be wood panels with wood trim: all painted. Sill conditions were in poor condition. Ceilings were coffered and a similar composition to the walls.

### **STRUCTURE**

Walls are load bearing masonry (brick) with a wood framed roof.

### **BUILDING SYSTEMS**

Electrical and plumbing systems in the building are in poor condition. Heating systems consist of a furnace and unit heater for the garage.

Additional notes from the building systems consultants are provided in the following pages.

### **REGULATORY COMPLIANCE**

Exit signs are unlit. There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# CEMETERY OFFICE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	0
Windows	1
Doors	1
Canopies / Overhangs	1
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	2
Flooring	1
Ceiling	2
Stairs	N/A
Handrails	N/A
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	3
Fuel	2
HVAC	1
PLUMBING	
Toilet Rooms	1
Kitchen	N/A
Domestic Water	3
STRUCTURE	
Observable Steel	N/A
Observable Masonry	2
Headers / Lintels	2
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **CEMETERY OFFICE BUILDING**

### **Executive Summary - Electrical**

The electrical systems for the Garage are original to the building and are in poor condition and have outlived their intended useful life. The electrical systems should be replaced under a renovation program.

#### **Rating**

5 - Brand New  
4 - Very Good  
3 - Good  
2 - Fair  
1 - Poor  
0 - Requires repair  
X - Requires immediate  
N/A - Not applicable

#### **Existing Conditions:**

- The electrical service runs overhead between the utility pole and the building mounted meter. The electrical service is rated at 100 amperes, 120/240 volts, 1 phase, 3 wire. A fusible disconnect switch and load center and sub-load center is located high in the garage wall.

Rating: 1



*Utility Meter on Building*



*Fusible Load Center*

- The interior lighting consists of a pendant school light in the hallway, porcelain sockets in the garage, toilet room and attic, controlled with local switches. The office has a surface 2x4 wraparound with acrylic lens and T8 lamps.

Rating: 1

- Exterior lighting consists of one twin par holder with halogen lamps at front, controlled with an interior hall switch. No other exterior lights were noted.

Rating: 1



*Front Exterior Lights*

- The emergency lighting consist of one self-contained battery unit with a plug-in cord located in the office. No other emergency lights noted. Exist signs consist of unlit signs.

Rating: 1



*Unlit Exit Sign*

- The fire alarm system consists of a one zone Repco control panel located in the hall. Heat detectors are located in each space. There are no horn/strobes.

Rating: 1



*Fire Alarm & Security Panels in the Hallway*

- The intrusion system consists of a Repco control panel with a keypad in the hallway. A passive infrared sensor exists in the office. The exterior doors have magnetic contacts.  
Rating: 1
- Garage overhead doors are not powered.  
Rating: 1
- The garage receptacles are not GFI protected.  
Rating: 0
- The telephone & CATV service cables run overhead into the building.  
Rating: 4

### **Executive Summary - HVAC**

The HVAC system serving the Cemetery Office Building appears to be in fair condition to serve the building. While the boiler has been recently replaced, other HVAC equipment in the building appears to be very dated and would be recommended to be replaced.

### **Rating**

5 - Brand New  
 4 – Very Good  
 3 – Good  
 2 – Fair  
 1 – Poor  
 0 – Requires repair  
 X – Requires immediate  
 N/A – Not applicable

### **Existing Conditions:**

- The building is heated by an oil fired boiler that heats the entire building. The boiler is manufactured by Weil McLain Boiler providing heating hot water supply to the building loop at approximately 180 degrees.  
Rating: 3

- The breeching is from the Boiler single wall with barometric relief into the chimney.  
Rating: 3
- No. 2 fuel oil is stored in an oil storage tank located in the garage. The date tank manufacturer was not verified; however, it appears in fair condition. The oil tank is piped to the furnace. The oil lines are double wall but are not encased in concrete. We recommend the following: Fuel oil lines shall be encased in concrete for added protection. Test exiting oil tanks to determine if replacement is required.  
Rating: 2
- The exhaust fan in the toilet room is very dated and would be recommended to be replaced. There did not appear to be dedicated exhaust for the garage. We recommend the following: 1. Replace the exhaust fan with a new unit to serve the toilet room.  
Rating: 1
- The cast iron radiators and boiler are controlled by a wall mounted dial type thermostat. The thermostat is non-programmable and reacts to space temperature on a call for heat.  
Rating: 2
- We recommend the following: Provide a general exhaust system sized in accordance with current code for garage applications.

### **Executive Summary - Plumbing**

The Cemetery Office Building was built in 1938. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system. Municipal Sewer system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The building plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of a floor mounted, tank type water closet and a countertop stainless steel lavatory with hot and cold water handles. There are no kitchen sinks, drinking fountains or janitor's sinks in the building. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 1

- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in poor condition.  
Rating – 1
- Domestic water for the building is generated through an oil fired boiler used for heating and domestic hot water. Domestic hot water is not recirculated. An expansion tank installed at the boiler. Domestic water piping is not insulated. The boiler is in good condition.  
Rating – 3
- Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in poor condition. Smaller pipe sizes appear to be copper. There is evidence of portions of the existing sanitary drainage piping that has been replaced recently. In general, the original cast iron drainage piping has exceeded its life expectancy and should be replaced.  
Rating – 1

### **Executive Summary – Fire Protection**

The Cemetery Office Building was constructed in 1938 and is 960 square feet. The building does not contain an automatic sprinkler system.

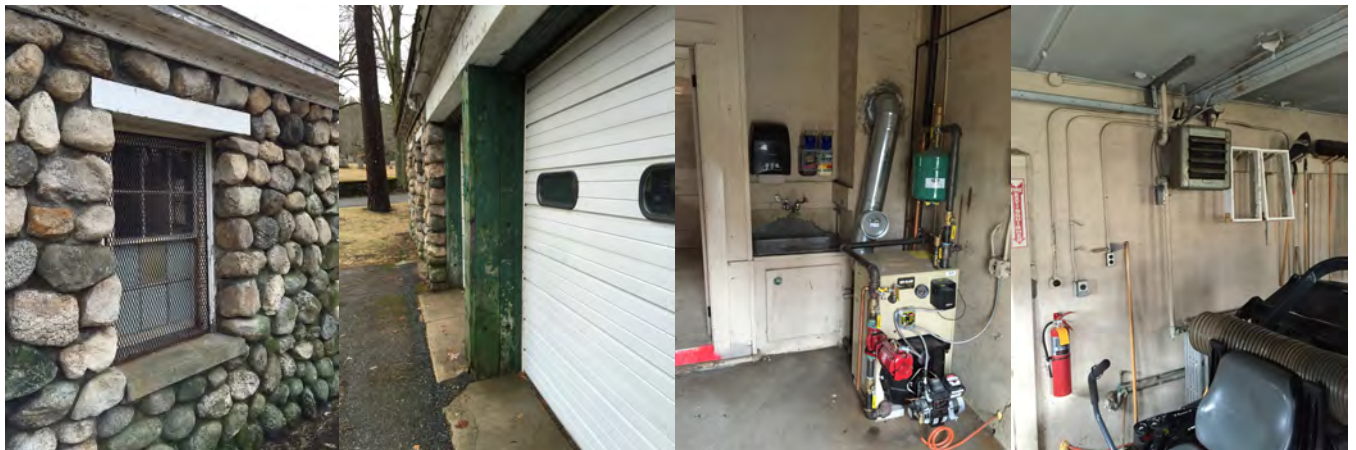
In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A



# FACILITY PHOTOGRAPHS





# CEMETERY GARAGE

LOCATION: 60 WILDWOOD STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1970

BUILDING AREA: 1,800 GSF

BUILDING OCCUPANCY: ADMINISTRATIVE OFFICES  
AND GARAGE



## Description

The Cemetery Garage facility is a masonry building that houses maintenance and storage program for the Wildwood Cemetery. The building is generally in fair to poor condition with a significant list of safety concerns and deferred maintenance. Typical with utility buildings, it has been used heavily and is need of upgrades and repair.

## Observations and Findings

### SITE ASSESSMENT

The facility is located in the Wildwood Cemetery. The area around the building is paved, providing vehicle circulation and access to yard storage bins located against the rear of the building. There is no landscaping immediately surrounding the building nor is there any type of vegetative screening between the garage and the adjacent cemetery plots.

### BUILDING EXTERIOR

The building exterior is comprised of CMU, is industrial in nature, and appears to be in fair condition with the exception of windows and doors which are in poor condition. The roof is a wood framed gable. Asphalt shingle roofing is missing in several locations and requires repair in the near future. Exterior CMU has a painted finish which has peeled away from the CMU below exterior window sills. It is recommended that a more compatible coating be used for repainting the CMU.

### BUILDING INTERIOR

Building interiors are not finished except for masonite boards that create a ceiling which is fastened to the bottom chord of the roof trusses. Concrete slab is chipped and has areas of exposed rebar showing. Patching is required in the chipped areas to prevent further deterioration.

### STRUCTURE

Building structure is masonry (CMU) with floor slab on grade. Vehicle bays are built with cast concrete. Roof framing consists of wood trusses which appear to be field fabricated. Overall, the building structure appeared to be in fair condition. Decking in the attic is not installed in a permanent way and gives under foot. In addition to items stored in the attic, it is concerning that an occupant might fall through the decking.

### BUILDING SYSTEMS

Electrical systems are in poor condition. Oil fired furnace provides forced hot air heating. Oil tanks do not meet current codes. There is no dedicated exhaust system serving the garage. Plumbing systems are in fair condition.

Additional notes from the building systems consultants are provided in the following pages.

## **REGULATORY COMPLIANCE**

Stairs to the attic area are wood framed, have no railings, and do not have appropriate height clearances. The stairs do not meet current codes for the two latter reasons. Exit signs are unlit and exit lighting, alarms, and horn strobes are not adequate for this type of facility. Overhead doors do not have safety switches. There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# CEMETERY GARAGE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	2
Windows	1
Doors	1
Canopies / Overhangs	N/A
Roof	0
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	1
Base	N/A
Flooring	1
Ceiling	1
Stairs	0
Handrails	0
Doors	N/A
Glazing	N/A
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	2
Fuel	0
HVAC	2
PLUMBING	
Toilet Rooms	N/A
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **CEMETERY GARAGE**

### **Executive Summary - Electrical**

The electrical systems for the Garage are original to the building and are in poor condition and have outlived their intended useful life. The electrical systems should be replaced under a renovation program.

#### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

#### **Existing Conditions:**

- The electrical service and telephone service run overhead between the utility pole and the building. The electrical service is rated at 100 amperes, 120/240 volts, 1 phase, 3 wire. A 100 ampere, 120/240 volt, 1 phase, 3 wire main breaker, 20 pole panelboard, half full is located in the garage. The wiring method is generally pipe and wire in the garage and Romex in the attic

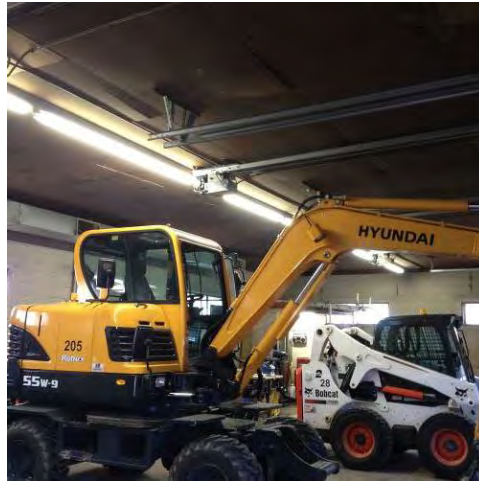
Rating: 1



*Panelboard*

- The interior lighting consists of a single row of 8' strips with T12 lamps controlled with a local switch. Garage is poorly lit. Attic has porcelain sockets on a local switch.

Rating: 1



*Interior Lighting*

- The exit signs are unlit. There is no internally lit exit signs or emergency lighting.  
Rating: N/A
- The exterior lighting consist of par holders without lamps at each corner of the building. There are no lights over the garage doors.  
Rating: 1
- The fire alarm system consists of a Napco one zone control panel with old style heat detectors in the garage and attic. The form of transmission is via the same dialer as the security panel.  
Rating: 1



*Fire Alarm Control Panel*

- The intrusion system consists of a Napco control panel with passive infrared sensors and magnetic contacts at the entry door.

Rating: 1

- Overhead doors do not have safety switches.  
Rating: 0
- Receptacles are sparsely located and are not GFI protected.  
Rating: 0

### **Executive Summary - HVAC**

The HVAC system serving the Cemetery Garage appears to be dated and likely past its anticipated life expectancy. Although the equipment appears operational, replacement should be considered within the next five years.

### **Rating**

5 - Brand New  
4 – Very Good  
3 – Good  
2 – Fair  
1 – Poor  
0 – Requires repair  
X – Requires immediate  
N/A – Not applicable

### **Existing Conditions:**

- The garage is heated by an oil fired furnace that serves the entire garage. The unit has ducted supply grilles providing forced hot air to the building. Return air is pulled from the gooseneck located at the furnace. The furnace is manufactured by Oneida Heater Co. and the furnace has a Beckett oil burner. We recommend the following: Replace the furnace with a new unit to serve the garage.  
Rating: 2
- The breeching runs from the Furnace single wall with barometric relief up through the roof.  
Rating: 2
- No. 2 fuel oil is stored in a (2) 330 gallon oil storage tanks also located in the garage. The tank was manufactured in 1995 and appears in fair condition. The oil tanks are piped to the furnace. The oil lines are not double wall and do not meet current code, the oil lines would be recommended to be replaced at the time of the tank or furnace replacement. We recommend the following: Replace fuel oil lines with new double wall lines run under concrete floor to the new furnace. Test exiting oil tanks to determine if replacement is required.  
Rating: 0
- There does not appear to be any dedicated exhaust system to serve the garage. We recommend the following: Provide a general exhaust system sized in accordance with current code for garage applications.
- The Furnace is controlled by a wall mounted dial type thermostat. The thermostat is non programmable and reacts to space temperature on a call for heat.  
Rating: 2



### **Executive Summary - Plumbing**

The Cemetery Garage Building was built in 1970. Presently, the Plumbing Systems serving the building garage waste system and compressed air system. Municipal sewer services the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in fair condition.

#### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

#### **Existing Conditions:**

- Cast iron is used for sanitary drainage and vent piping. Where visible, the cast iron pipe appears to be in poor condition. In general, the original cast iron drainage piping should be replaced. The Garage has a trench drain which has been covered. The associated drainage piping does not appear to be directed to an oil/gas separator.  
Rating – 2
- A simplex air compressor and vertical tank is provided to service the compressed air outlets in Garage. This system is in fair condition.  
Rating - 2

### **Executive Summary – Fire Protection**

The Cemetery Garage Building was constructed in 1970 and is 1,800 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS



# DEPARTMENT OF PUBLIC WORKS MAIN OFFICE

LOCATION: 115 ANDOVER STREET

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1927

BUILDING AREA: 2,380 GSF

BUILDING OCCUPANCY: OFFICE AND PUMP STATION



## Description

The Department of Public Works and Water Department Main Offices Building is a small, historic masonry building that shares a site with the Water Department Garage building and a prefabricated metal storage building. The brick building is well detailed and has been maintained to stay in good condition.

## Observations and Findings

### SITE ASSESSMENT

The building is located to the north of the Water Department Garage and faces Andover/Woburn Street. It sits at the head of the main circulation loop. The building is buffered from paving by grass on all sides with foundation plantings along the front facade.

### BUILDING EXTERIOR

The building exterior is brick with painted wood trim and is in good condition. The slate shingle roof and associated flashing appear to be in good condition.

### BUILDING INTERIOR

Building interior is divided into two sections: the office area and the pump room.

### STRUCTURE

Building structure is masonry (brick) walls with heavy timber and steel trusses supporting wood roof decking. The observable structure is in good condition.

### BUILDING SYSTEMS

HVAC systems are in fair to poor condition. Gas fired unit heaters serves the utility spaces and a gas fired furnace serves the office spaces. Changes to locations of fin tube radiation are recommended. The enclosure for the air conditioner compressor unit is limiting the compressor's performance and it is recommended that the enclosure be moved. Plumbing systems are in fair condition overall.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

The building is fully protected by automatic sprinkler systems.

# BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	3
Brick / Masonry	3
Siding / Cladding	3
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	3
LIFE SAFETY	
Sprinkler Y/N	Y
Fire Alarm / Early Detection	3
Life Safety: Exit Signs	3
Life Safety: Emergency Lighting	3
INTERIOR	
Condition of Walls	3
Base	3
Flooring	3
Ceiling	3
Stairs	3
Handrails	N/A
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	N/A
LIGHTING	
Lighting	3
Lighting Controls	N/A

MECHANICAL	
Boiler	N/A
Fuel	N/A
HVAC	1
PLUMBING	
Toilet Rooms	2
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	3
Observable Masonry	3
Headers / Lintels	3
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **DPW MAIN OFFICES**

### **Executive Summary - HVAC**

The HVAC system serving the DPW main office is a gas fired heating system with terminal electric heat as a supplemental heat source. The HVAC system does not appear to provide space comfort for the occupants of the building.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The building is heated by a gas fired unit heaters, a gas fired furnace and terminal electric heat. The gas fired unit heaters serve the utility type spaces of the building such as the water pump room. The gas furnace serves the office areas which also have supplemental electric heat.

Rating: 1

- The breeching from the furnace appears to be single wall through the roof.

Rating: 2

- Air conditioning is provided to the office spaces from the air cooled condensing unit located at grade outside the building connected to the indoor gas furnace. An enclosure has been installed above the air cooled condensing unit that will reduce the performance of the unit. The outdoor unit rejects heat from the fan at the top of the unit, but with the enclosed cover that has been added it will restrict the amount of heat the condenser can reject and prevent the unit from working properly.

Rating: 0

- There is a wide range of standalone thermostats for unit heaters, the gas furnace and the electric fin tube. The thermostats for the air handling unit serving the office space has a primary stat to control the unit and a sub thermostat for the additional office space. The sub stat can only operate if the primary thermostat is energized. We recommend the following: Office space thermostats should be replaced with programmable thermostats with 2 stages of heating control the first stage can be the air handling unit and the second stage could be a either the electric heat. There are many space heaters that have been added at work areas to compensate for the lack of heat to provide personal comfort that could be replaced with a more permanent solution.

Rating: 1

- Some of the electric fin tube was noted that it was installed directly over a wall electrical outlet which is a code violation. We recommend the following: Electric baseboard installed under electrical outlets should be removed and electric heat could be installed in a different area of the space.

Rating: 0

### **Executive Summary - Plumbing**

The DPW Office Building was built in 1927. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system and natural gas piping. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in fair condition.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of a floor mounted, tank type water closet and a wall hung lavatory with hot and cold water handles. The Kitchenette sink is stainless steel, counter mounted with gooseneck faucet and hot and cold water handles. There is a surface mounted electric water cooler in the building. Janitor's Sinks are cast iron floor mounted with 3" trap standard. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 2

- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves to the building and are in poor condition. The domestic water piping is not insulated or labeled.  
Rating – 2

- Domestic water for the building is generated through an electric storage tank type water heater. The tank capacity of each heater is 6 gallons and has an electrical input of 1650 watts. Domestic hot water is not recirculated. There is no thermostatic mixing valve at the outlet of the water heater. There is no expansion tank installed at the cold water make-up for the water heater. Domestic water piping near the heater is uninsulated. The water heater appears to have exceeded its life expectancy.  
Rating – 1



- Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in poor condition. Smaller pipe sizes appear to be copper. There are portions of the sanitary system that have recently been repaired. In general, the original cast iron drainage piping should be replaced.  
Rating – 1
- An elevated pressure natural gas service and pressure regulator is located outside of Building. Natural gas piping is distributed to HVAC equipment, domestic water heater and an emergency generator. The natural gas piping is steel with threaded fittings. Overall the gas piping is in good condition.  
Rating - 3

### **Executive Summary – Fire Protection**

The Department of Public Works Building was constructed in 1927 and is 2,380 square feet. The building is fully protected by automatic sprinkler systems, including all attic spaces.

The building is supplied with a 4" fire service. The sprinkler system appears to have been installed relatively recent. The majority of the equipment and systems installed appear to have been well maintained and are generally in good condition.

### **Rating**

5 - Brand New  
 4 – Very Good  
 3 – Good  
 2 – Fair  
 1 – Poor  
 0 – Requires repair  
 X – Requires immediate  
 N/A – Not applicable

### **Existing Conditions:**

- There is a 4" fire water service that connects to a municipal water line in a tunnel in the Basement Mechanical Room. This service is controlled by an interior OS&Y gate valve and includes a 6" double check valve assembly with 4" riser check valve and wall mounted Storz Fire Department connection. The sprinkler main distributes as a 4" after the alarm valve. The system provides 100% sprinkler protection to the Building, including attic spaces. The Fire Protection system includes zone control valve assemblies to isolate each floor level. Sprinkler heads vary from concealed pendant type, to semi-recessed pendant type and exposed upright type sprinkler heads depending on the ceiling construction, location, or exposed structure.  
Rating: 3

# FACILITY PHOTOGRAPHS



# HARDEN TAVERN

LOCATION: 430 SALEM STREET

TOTAL # OF STORIES: 2

YEAR CONSTRUCTED: 1800

BUILDING AREA: 3,388 GSF

BUILDING OCCUPANCY: TOWN MUSEUM AND OFFICES



## Description

Harnden Tavern is a small, historic wood framed building that shares a site with the Harnden Carriage House and Minuteman Headquarters. The facilities are currently being used as the Wilmington Town Museum. The building dates back to colonial times and is a National Register historical site. It is built in the Georgian style with a hip roof on the main house volume and a gable roof on the back house portion. The Carriage House contains display areas with historic Town artifacts. Minuteman Headquarters was only briefly assessed on the exterior since it was not on the list of Town buildings but has historic significance. It is a small wood framed gable roof building used for meetings by the Wilmington Minutemen.

## Observations and Findings

### SITE ASSESSMENT

The building is located on the corner of Salem and Woburn streets. There are a few mature trees lining the street and small foundation plantings. Ledge outcroppings are present between the Tavern building and the driveway closest to Minuteman Headquarters. Parking is dirt with no markings which is difficult for patron navigation. The principal parking area is facing the Carriage House.

### BUILDING EXTERIOR

Exposed stone foundation all appeared to be in good condition. The building exterior for all buildings is painted clapboard siding. Siding on the Carriage House is in fair to poor condition and may require replacement or restoration, especially at eave and foundation sill locations. Roofing on the Tavern is primarily wooden shingle; there is also EPDM on the low sloping back porch roof. The Carriage House has asphalt shingle roofing which appears to be in fair condition. The Minuteman Headquarters has asphalt shingle roofing which appears to be in good condition. The Tavern has multiple brick chimneys: some of which require steel bracing for support.

### BUILDING INTERIOR

The interior of the Tavern is well preserved with original wood flooring, painted wood wainscoting, plaster walls, picture rails, crown molding, plaster ceilings, and wood hearth surrounds. Pergo flooring has been installed in the kitchen area of the Tavern and is in fair condition. The Carriage House interior is unfinished.

### STRUCTURE

The Tavern is timber framed on a stone foundation. The observable structure is in good condition. The Carriage House is timber framed on stone rubble footings. The roof is stick built indicating it was replaced at some point in the early 20th century. The Minuteman Headquarters interior was not observed but is presumably timber framed given the age of the building.

### BUILDING SYSTEMS

An oil fueled hot water heating system is present in the Tavern only and is in fair condition. Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

There is no emergency lighting or exit signs do not exist in these facilities. There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# HARNDEN TAVERN BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	0
Brick / Masonry	0
Siding / Cladding	2
Windows	1
Doors	2
Canopies / Overhangs	2
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	2
Flooring	2
Ceiling	1
Stairs	2
Handrails	1
Doors	2
Glazing	N/A
ELECTRICAL	
Service Entrance	0
Panel / Distribution	0
LIGHTING	
Lighting	0
Lighting Controls	N/A

MECHANICAL	
Boiler	2
Fuel	1
HVAC	2
PLUMBING	
Toilet Rooms	2
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# CARRIAGE HOUSE BUILDING RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	1
Siding / Cladding	1
Windows	2
Doors	1
Canopies / Overhangs	1
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	N/A
Flooring	1
Ceiling	N/A
Stairs	1
Handrails	1
Doors	1
Glazing	N/A
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	0
LIGHTING	
Lighting	0
Lighting Controls	N/A

MECHANICAL	
Boiler	2
Fuel	1
HVAC	2
PLUMBING	
Toilet Rooms	2
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	N/A
Headers / Lintels	2
COMMENTS	



# MINUTEMAN BUILDING RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	N/A
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N/A
Fire Alarm / Early Detection	N/A
Life Safety: Exit Signs	N/A
Life Safety: Emergency Lighting	N/A
INTERIOR	
Condition of Walls	N/A
Base	N/A
Flooring	N/A
Ceiling	N/A
Stairs	N/A
Handrails	N/A
Doors	N/A
Glazing	N/A
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	N/A
LIGHTING	
Lighting	N/A
Lighting Controls	N/A

MECHANICAL	
Boiler	N/A
Fuel	N/A
HVAC	N/A
PLUMBING	
Toilet Rooms	N/A
Kitchen	N/A
Domestic Water	N/A
STRUCTURE	
Observable Steel	N/A
Observable Masonry	N/A
Headers / Lintels	N/A
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **HARDEN TAVERN**

### **Executive Summary - Electrical**

The electrical systems for the Harnden Tavern (Town Museum), although functioning, are generally in fair to poor condition. The emergency lighting, exit signs, and fire alarm should be upgraded. The electric service is marginally sized and does not have the capacity for added loads.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

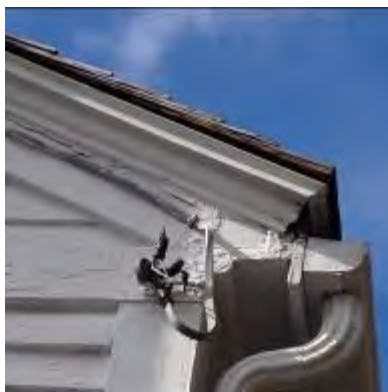
X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The electrical service runs overhead between the utility pole and an electric meter on the building. The service is rated at 100 amperes, 120/240 volt, 1 phase, 3 wire. A 100A, main circuit breaker, 20 pole load center is located in the basement. The load center, manufactured by Murray, is full and in fair condition. The load center feeds an electric range and electric water heater. The electric service is marginally sized for the facility. The service also sub-feeds the adjacent Carriage House with open spliced cables on the exterior.

Rating: 2



*Sub-feeder to the Carriage House*



*Load Center in Basement*

- The wiring method is generally Romex with some MC cable. Knob and tube wiring was noted in the basement. Some Romex is not properly supported. Knob and tube wiring should be replaced or removed if abandoned.

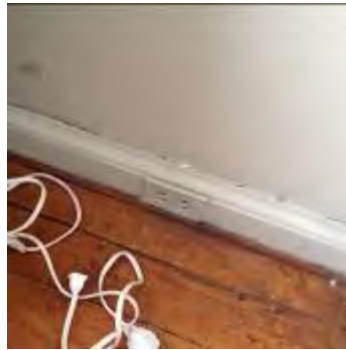
Rating: 1



*Knob and Tube Wiring*

- Receptacle coverage is minimal. Receptacles on wooden baseboard are of the two-prong, non-grounding type.

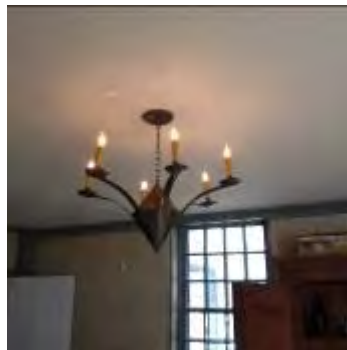
Rating: 1



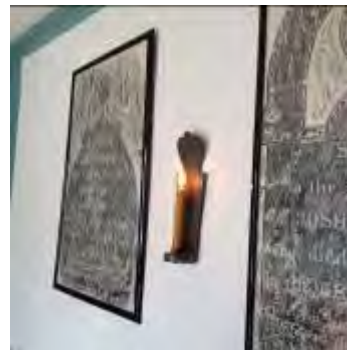
*Non-Grounding Receptacles*

- The interior lighting consists of decorative pendant fixtures and matching wall sconces with candelabra lamps. Other utility fixtures with incandescent lamps are located throughout. The basement has porcelain sockets and wraparound fixtures with acrylic lens. The attic does not have lights.

Rating: 2



*Pendant Fixture*



*Wall Sconce*

- The exterior lighting consists of twin par lamp holders with halogen lamps with motion sensor for parking area. Wall sconce lanterns with incandescent lamps exist at exterior doors controlled with interior switches.

Rating: 1



*Par Lamps*



*Wall Lanterns*

- There are no internally lit exit signs or battery operated emergency lighting.

Rating: N/A

- The fire alarm system and intrusion system appear to share a Magnum Alert 1000 series common panel located in the basement. Smoke detectors exist in hallways and stairs. Heat detectors exist in the basement, attic, and kitchen. The facility does not have full coverage of detection and does not have horn/strobes. A knox box is located at the rear door.

Rating: 1



*Heat in Kitchen*

- The intrusion system consists of passive infrared sensors and magnetic door contacts. A low temperature sensor also exists.

## **Executive Summary - HVAC**

The HVAC system serving the Harnden Tavern is a hot water heating system. There is no HVAC in the separated Carriage House building. The heating system that serves the Harnden Tavern appears in fair condition and would be anticipated to serve the building for the next 10-15 years.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The building is heated by an oil fired boiler that heats the entire building. The boiler is manufactured by Utica Boilers providing heating hot water supply to the building loop at approximately 180 degrees.

Rating: 2

- The breeching is from the Boiler single wall with barometric relief into the chimney.

Rating: 2

- No. 2 fuel oil is stored in an oil storage tank located in the basement. The date tank manufacturer was not verified; however, it appears in fair condition. The oil tank is piped to the boiler. The oil lines are double wall but are encased in concrete. The tank oil fill and vent piping are right above grade level on the outside of the building and would be recommended to be extended. We recommend the following: Fuel oil tank fill and vent piping would be recommended to be extended higher above grade than currently installed. The current location appears to be within snowfall levels that would impede on service and may allow for water to be able to enter the tank. Test exiting oil tanks to determine if replacement is required.

Rating: 1

- The cast iron radiators and boiler are controlled by a wall mounted dial type thermostat. The thermostat is non programmable and reacts to space temperature on a call for heat. We recommend the following: Replace the dial type wall mounted thermostats with programmable thermostats. Programmable thermostats would provide energy and fuel savings, however due to the historical nature of the building this this may not be acceptable to fit the building environment.

Rating: 2

- A window mounted air conditioning unit serves the office on the second floor.

Rating: 2

- Wall mounted dial type non-programmable thermostats are located throughout the building and noted to not set the stat below certain temperatures for freeze protection.

Rating: 2

- Wall mounted dial type non-programmable thermostats are located throughout the building and noted to not set the stat below certain temperatures for freeze protection.

Rating: 2

- Cleanouts of existing chimneys appeared to be missing or open, these should be properly sealed.

## **HARDEN TAVERN AND CARRIAGE HOUSE**

### **Executive Summary - Plumbing**

The Harden Tavern and Carriage House was built in 1800. Presently, the Plumbing Systems serving the building are cold water, hot water and sanitary, waste and vent system. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems have exceeded their life expectancy. Overall, the Plumbing systems are in fair condition.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of floor mounted, tank type water closet and wall hung or countertop lavatories with hot and cold water handles. Kitchenette sinks are stainless steel, counter mounted with gooseneck faucet and hot and cold water handles and vegetable spray. A cast iron claw foot tub existing in the Bathroom with hot and cold water tub spout. There were no drinking fountains or Janitor's sinks in the building. In general the fixtures do not meet accessibility standards and are not water conserving.

Rating – 2

- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves and are in fair condition. The domestic water piping does not appear to be insulated or labeled.

Rating – 2

- Domestic water for the building is generated through an electric tank type water heater. The tank capacity of each heater is 30 gallons and has an electrical input of 4500 watts. Domestic water piping is uninsulated. The water heater appears to be nearing its life expectancy.

Rating – 2

- Cast iron is used for sanitary drainage piping. Where visible, the cast iron pipe appears to be in poor condition. In general, the original cast iron drainage piping should be replaced.

Rating – 1

## **HARNDEN TAVERN AND CARRIAGE HOUSE**

### **Executive Summary – Fire Protection**

The Harnden Tavern and Carriage House Building was constructed in 1800 and is 3,388 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A



# FACILITY PHOTOGRAPHS



# SCALEKEEPER'S OFFICE

LOCATION: 240 MIDDLESEX AVENUE

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1840

BUILDING AREA: 120 GSF

BUILDING OCCUPANCY: STORAGE



## Description

This is a very small, historic wood framed building that shares a site with the Moth House and Town Pound. The facilities are currently being used as an antique showpiece and provides a historic bookend at the northern edge of the Wilmington Center Village Historic District. The Scalekeepers Office was only briefly assessed on the exterior due to the fact that it is an unoccupied building of historic significance.

## Observations and Findings

### SITE ASSESSMENT

The building is located on Middlesex Avenue across from the Wildwood Cemetery and next to the Congregational Church of Wilmington. The building is accessed by a paved arced driveway off Middlesex Ave.

### BUILDING EXTERIOR

Exposed granite slab foundation appears to be in good condition. The exterior is painted clapboard siding which appears to be in good condition. The building has asphalt shingle roofing which appears to be in good condition.

### BUILDING INTERIOR

The interior consists of wide board flooring, painted wood walls and exposed wood roof framing.

### STRUCTURE

The building is timber framed on stone foundation. The observable structure appeared to be in good condition.

### BUILDING SYSTEMS

The building has electricity running from the Moth House. It is in poor condition and should be replaced. The building has no HVAC or Plumbing systems.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# SCALEKEEPER BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	N/A
Life Safety: Exit Signs	N/A
Life Safety: Emergency Lighting	N/A
INTERIOR	
Condition of Walls	N/A
Base	N/A
Flooring	N/A
Ceiling	N/A
Stairs	N/A
Handrails	N/A
Doors	N/A
Glazing	N/A
ELECTRICAL	
Service Entrance	1
Panel / Distribution	N/A
LIGHTING	
Lighting	N/A
Lighting Controls	N/A

MECHANICAL	
Boiler	N/A
Fuel	N/A
HVAC	N/A
PLUMBING	
Toilet Rooms	N/A
Kitchen	N/A
Domestic Water	N/A
STRUCTURE	
Observable Steel	N/A
Observable Masonry	N/A
Headers / Lintels	N/A
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **SCALE KEEPER'S OFFICE**

### **Executive Summary - Electrical**

The electrical systems for the Scale Keeper's Office are functioning but are in fair to poor condition. All existing electrical items should be replaced.

#### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

#### **Existing Conditions:**

- The electrical service runs underground into the building from the adjacent Moth House. The service is a 120 volt circuit to a junction box on the outside of the building.  
Rating: 1
- No lighting and power panel is provided.  
Rating: N/A
- The interior lighting consists of surface mounted incandescent fixtures controlled with local switches.  
Rating: 1
- Exterior lighting is not provided.  
Rating: N/A
- No emergency lights or exit signs are provided in the building.  
Rating: N/A
- No fire alarm system is provided in the building.  
Rating: N/A
- The general wiring method is Romex throughout the building. One outlet is provided in the office.  
Rating: 2



### **Executive Summary - HVAC**

There is no HVAC system in the ScaleKeeper's Office.

### **HEARSE BARN**

#### **Executive Summary - HVAC**

There is no HVAC system in Hearse Barn.

#### **Executive Summary - Plumbing**

The Scalekeeper's Office Building was built in 1400 and is 120 square feet in gross area. Presently, there are no Plumbing Systems serving the building.

#### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

#### **Existing Conditions:**

Rating – N/A

#### **Executive Summary – Fire Protection**

The Scalekeeper's Office Building was constructed in 1840 and is 120 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS





# ART COUNCIL

LOCATION: 219 MIDDLESEX AVENUE  
TOTAL # OF STORIES: 2  
YEAR CONSTRUCTED: 1860  
BUILDING AREA: 2,755 GSF  
BUILDING OCCUPANCY: ARTS PROGRAMS  
AND STORAGE



## Description

This is a wood frame structure located within the Wilmington Center Village Historic District. The building was formerly used as the Town Hall. It is currently used as a gallery, arts program space, offices, and Town storage in the basement. The building is identified from the street by a ground mounted sign and on the façade of the Art Center.

## Observations and Findings

### SITE ASSESSMENT

The building faces Middlesex Avenue and is set back from the street and surrounded by pavement. An arc shaped grass landscape buffer separates the paved parking lot from the street. Landscaping includes two deciduous trees and small pruned hedges. There are raised foundation plantings at the front of the building. Wildwood Cemetery defines the north and east edges of the site.

Parking is located on the south side of the building although vehicles can circulate around the entire facility.

### BUILDING EXTERIOR

Painted wood siding and trim are in fair condition. The asphalt shingle roof appears to be in fair to good condition. Exterior windows and doors appear to be original and are in fair condition.

### BUILDING INTERIOR

The building consists of one large interior space with office and toilet occupying the addition at the north side. Finishes include ACT ceilings, VCT flooring, and carpet. Picture rails run along the length of the large open gallery to protect the plaster walls. An entry vestibule has been added which is finished in drywall. Flooring is in poor condition and should be replaced. Offices have panelized wood look finishes on the walls.

### STRUCTURE

Exposed structural framing is limited to floor joists in the basement. These appeared to be in fair condition. Foundation is granite block and fieldstone and appears to be in good condition.

### BUILDING SYSTEMS

Toilet room electrical outlets are not GFI-protected. Electrical systems were noted to be in poor condition. HVAC includes a relatively new boiler. Plumbing was noted to be in good condition.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

Toilet rooms are not ADA compliant. Emergency lighting and exit sign require updating.

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# ART COUNCIL BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	1
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	2
INTERIOR	
Condition of Walls	2
Base	1
Flooring	0
Ceiling	2
Stairs	1
Handrails	1
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	1
Panel / Distribution	2
LIGHTING	
Lighting	3
Lighting Controls	N/A

MECHANICAL	
Boiler	3
Fuel	N/A
HVAC	1
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	2
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **ART CENTER**

### **Executive Summary - Electrical**

The electrical systems for the Art Center are functioning but are in fair to poor condition. The emergency lighting and exit signs need upgrading. The existing cloth insulated wiring in the basement needs to be replaced and removed. Non LED type light fixtures should be replaced. Existing electric service and panel should be replaced.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The electrical service runs overhead to the building from a utility pole to an exterior building mounted meter. The service is rated at 200 Amperes, 120/240Volt, 1 Phase, 3 Wire. A 200 Ampere Square D disconnect switch is located in the basement.

Rating: 1

- The lighting and power panels are Murray circuit breaker type and located in the basement. Existing equipment is original to the building and beyond its useful life.

Rating: 2

- The interior lighting consists of pendant mounted fluorescent with parabolic lens and 2'x4' recessed fixtures controlled with local switches. Track lights with incandescent lamp and dimmer control are provided in the gallery area. The basement lights consist of porcelain sockets with incandescent lamps.

Rating: 3

- Exterior lighting consists of a wall mounted traditional lantern at the main entrance. HID flood lights and wall packs are provided on the building. Incandescent flood lights are provided over the side entrance.

Rating: 1

- The existing emergency lighting system is through self-contained emergency battery units. Exit signs were non-illuminated type.

Rating: 2

- Existing fire alarm system consists of a conventional Napco control panel, with smoke detectors, throughout the building. No horn/strobes or pull stations were found. New fire alarm system should be provided to meet current requirements.  
Rating: 1
- Existing security system includes motion sensors and door contacts throughout the building.  
Rating: 2
- The general wiring method is Romex with some AC cable. Some cloth insulated wiring was also found in the basement.  
Rating: 1
- The telephone & CATV wiring runs overhead between the pole and the building with the termination in the basement.  
Rating: 2

### **Executive Summary - HVAC**

Art Center building was constructed in 1860. The main heating plant was replaced about ten years ago. Throughout the building HVAC equipment is minimal. Generally speaking, systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, continued service will be achieved.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- There is one oil fired Weil McLain hot water boiler to service the building. Boiler appears to be about 10 years old and is atmospheric type; Breeching ran to the existing masonry chimney.  
Rating: 3
- There is one No. 2 fuel oil storage tank installed in the basement. Fuel oil is distributed to the boiler through the use of flexible tubing from tank to boiler.  
Rating: N/A
- There are five zones associated with the heating system.  
Rating: 1
- Hot water piping appears to be mainly schedule 40 black steel with some copper piping. We did not notice any insulation on any of the piping installed in the building.  
Rating: 1

- Each space utilizes wall mounted baseboard radiation installed on the exterior wall.  
Rating: 1
- The corridors and entry ways located within the building were provided with wall mounted steam radiators for generalized space heating.  
Rating: 1
- There were through wall air conditioning units located in the large gathering area.  
Rating: 4
- Toilet rooms do not have any exhaust systems.  
Rating: N/A

### **Executive Summary - Plumbing**

The Art Council Building was built in 1860. Presently, the Plumbing Systems serving the building are cold water, hot water and sanitary, waste and vent system. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in good condition.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of a floor mounted tank type water closets and counter mounted lavatories with hot and cold water handles. There are no Kitchen Sinks, Janitor's sinks or drinking fountains in the Building. In general, the fixtures do not meet accessibility standards and are not water conserving.  
Rating –3
- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves to the building and are in fair condition. The domestic water piping is not insulated or labeled.  
Rating – 2
- Domestic water for the building is generated through an oil fired boiler used for heating and domestic hot water. Domestic hot water is not recirculated. An expansion tank installed at the boiler. Domestic water piping is not insulated. The boiler is in good condition.  
Rating – 3

- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the original cast iron drainage piping can be re-used for a renovation project.  
Rating – 2

### **Executive Summary – Fire Protection**

The Art Council Building was constructed in 1860 and is 2,755 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A



# FACILITY PHOTOGRAPHS



# FOURTH OF JULY HEADQUARTERS

LOCATION: 150 MIDDLESEX AVENUE

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1840

BUILDING AREA: 1,488 GSF

BUILDING OCCUPANCY: ARTS PROGRAMS  
AND STORAGE



## Description

This is a small wood frame structure located at the edge of the Town Common. It is within the Wilmington Center Village Historic District. The building was formerly used as the Town Library. Most recently it was used as a meeting space and organizing area for the Town's Fourth of July celebrations; a sign on the building façade identifies its use. The building is not currently in use for this purpose, but is being used as a miscellaneous storage space.

## Observations and Findings

### SITE ASSESSMENT

The building faces Middlesex Avenue and is set back from the street and sidewalk with a small front yard. The front yard includes cedar post and rail fencing, a lawn and foundation plantings (yews). There is a concrete walk and ramp connecting the front door to the adjacent parking lot, which leads to the sidewalk. The entry ramp and landings at the top and bottom of the ramp do not appear to meet accessibility requirements due to lack of railings. The transition between the sidewalk, parking lot and front ramp is unlikely to meet accessibility standards because it crosses a curb cut that is wider than necessary. Parking is provided in an adjacent Town lot, which is primarily used for high school parking. The parking lot paving extends to the foundation of the building and there are no wheel stops on the parking spaces. The spaces adjacent to the building are handicap-accessible spaces, and the signs for these spaces is mounted on the building wall. There is a bulkhead into the basement along the parking lot edge and a ramp with railings that leads to a back door. This ramp does not meet current accessibility requirements. There is a small side yard and back yard. The plantings require some maintenance including removal of weeds and volunteer plants.

### BUILDING EXTERIOR

Painted wood siding and trim are in fair condition with the poorest condition on the southeast corner of the building. Replacement of broken and rotted siding and trim, especially near the foundation wall, should be done. The asphalt shingle roof appears to be in fair condition with minimal signs of damage or peeling.

### BUILDING INTERIOR

The building is broken into two large interior spaces. The front has a low ACT ceiling and the rear has open, cathedral ceilings. There are two toilet rooms located within the rear space against the back exterior wall. Toilet room ceilings are framed and finished with drywall that is free standing within the open space. Interior walls in the front have a wood paneled wainscot with wallpaper above. The walls and ceiling in the rear are troweled plaster finish, trim and doors are stained wood. Flooring is carpet in the public spaces and sheet vinyl in the toilet rooms. All interior finishes were observed to be in fair to good condition. There is a large, exposed stainless steel boiler flue running between the two toilet rooms just in front of the toilet room walls.

### STRUCTURE

Exposed structural framing is limited to floor joists in the basement. They appear to be in fair condition. Foundation is fieldstone and appears in fair condition.

## **BUILDING SYSTEMS**

Interior lighting is surface mounted T8. There is a ceiling fan in the rear portion of the building. Toilet room electrical outlets are not GFI protected. An oil fired hot air furnace is in good condition with floor based ductwork distribution to occupied spaces. There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

Additional notes from the building systems consultants are provided on following pages.

## **REGULATORY COMPLIANCE**

The building entrance walks and ramps do not meet current accessibility standards due to lack of railings and top landing that is not deep enough. One of the toilet rooms includes grab bars, clearances and ADA fixtures but does not comply with door swing clearance or approach clearance requirements. Emergency lighting and exit sign require updating.

# FOURTH OF JULY BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	N/A
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	N/A
Life Safety: Exit Signs	N/A
Life Safety: Emergency Lighting	N/A
INTERIOR	
Condition of Walls	2
Base	2
Flooring	2
Ceiling	2
Stairs	N/A
Handrails	N/A
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	3
Fuel	N/A
HVAC	2
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	3
STRUCTURE	
Observable Steel	N/A
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **4<sup>th</sup> OF JULY HEADQUARTERS**

### **Executive Summary - Electrical**

The electrical systems for the 4<sup>th</sup> of July Headquarters are functioning but are in fair to poor condition. The emergency lighting and exit signs need upgrading. Non LED type light fixtures should be replaced. Existing service panel should be replaced.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The electrical service runs overhead into the building from a utility pole to an exterior building mounted meter. The service is rated at 100 Amperes, 120/240Volt, 1Phase, 3Wire. A 100 Ampere main circuit breaker is located in the panel.  
Rating: 1
- The lighting and power panels are ITE circuit breaker type and located in the basement. Existing equipment is original to the building and beyond its useful life.  
Rating: 1
- The interior lighting consists of 2x4 recessed troffers with acrylic lens and surface mounted wraparound fixtures controlled with local switches.  
Rating: 3
- Exterior lighting consists of incandescent flood lights, HID wall packs and HID flood lights.  
Rating: 2
- No emergency lights or exit signs are provided in the building.  
Rating: N/A
- No fire alarm system is provided in the building.  
Rating: N/A
- Toilet Room receptacles are not GFI protected. Existing receptacles should be replaced with a GFI type.  
Rating: 0

- The general wiring method is Romex throughout the building.

Rating: 2

- The telephone wiring runs overhead between the pole and the building with the termination in the basement.

Rating: 2

### **Executive Summary - HVAC**

The Fourth of July Headquarters building was constructed in 1840. HVAC equipment is minimal. Generally speaking, system is operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, continued service will be achieved.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- There is one oil fired hot air furnace to service the entire building. The furnace is vented utilizing B-Vent and rises up exposed within the occupied space above, near the toilet rooms.

Rating: 3

- Ductwork distribution is all installed in the half basement area and air is supplied via floor grilles. There is one duct that rises up to the attic space and feeds only one diffuser in the large gathering area.

Rating: 2

- There are wall air conditioning units installed in the large gathering area.

Rating: 3

- Toilet rooms have individual exhaust fans that operate with the light switch.

Rating: 3

### **Executive Summary - Plumbing**

The Fourth of July Headquarters Building was built in 1840. Presently, the Plumbing Systems serving the building are cold water, hot water and sanitary, waste and vent system. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Overall, the Plumbing systems are in good condition.



### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of a floor mounted tank type water closets and wall mounted or counter mounted lavatories with hot and cold water handles. There are no Kitchen Sinks, Janitor's sinks or drinking fountains in the Building. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating –3
- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original gate valves to the building and are in fair condition. The domestic water piping is not insulated or labeled.  
Rating – 2
- Domestic water for the building is generated through an electric storage tank type water heater. The storage capacity of the water heater is 20 gallons and it has an electrical input of 2,500 watts. Domestic hot water is not recirculated. An expansion tank installed at the boiler. Domestic water piping is not insulated. The water heater is in good condition.  
Rating – 3
- Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the original cast iron drainage piping can be re-used for a renovation project.  
Rating – 2

### **Executive Summary – Fire Protection**

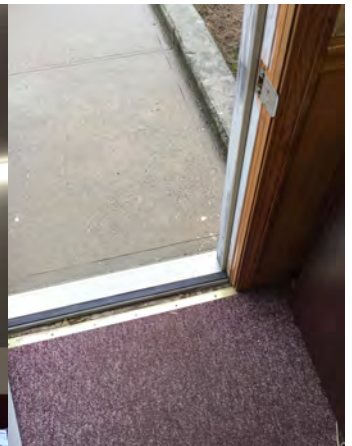
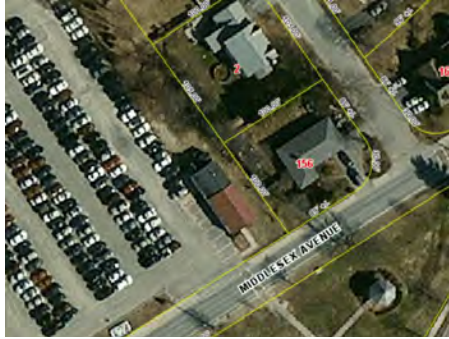
The Fourth of July Headquarters Building was constructed in 1840 and is 1,488 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS



# BOOK STORE NEXT DOOR

LOCATION: 183 MIDDLESEX AVENUE

TOTAL # OF STORIES: 2

YEAR CONSTRUCTED: 1900

BUILDING AREA: 1,248 GSF

BUILDING OCCUPANCY: BOOKSTORE



## Description

This is a small wood framed building located next to the library. The former single family residence has been repurposed into a bookstore that supports the Memorial Library program.

## Observations and Findings

### SITE ASSESSMENT

The Book Store is sited next to the Library and shares a parking lot in the back. Access to the house from the Middlesex Avenue sidewalk is possible but no handicap ramp exists to allow universal access to patrons. Landscaping consists of foundation plantings around the perimeter of the building.

### BUILDING EXTERIOR

The building has a fieldstone foundation with painted wood clapboards and trim. The gabled roofs have asphalt shingles which are in poor to fair condition. Brick chimneys require pointing, especially at the back of the house.

### BUILDING INTERIOR

Flooring and ceilings are in poor condition which consist of sheet vinyl and 12x12 ACT, presumably glued to a plaster ceiling.

### STRUCTURE

The wood frame structure was not intended to carry weight loads such as book shelves in the middle of rooms. Structural analysis should be done to ensure current building use is not having a detrimental effect on the floor structure.

### BUILDING SYSTEMS

Electrical systems are in poor condition. HVAC is limited and generally in fair to good condition except for the boiler venting which is not code compliant and needs to be replaced. Plumbing systems are noted to be in fair to good condition but are beyond their intended serviceable life.

Additional notes from the building systems consultants are provided on following pages.

### REGULATORY COMPLIANCE

The building is lacking in emergency lighting, exit signs, horn strobes, and alarms.

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# BOOK STORE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	2
Roof	2
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	2
Flooring	2
Ceiling	2
Stairs	2
Handrails	1
Doors	2
Glazing	2
ELECTRICAL	
Service Entrance	N/A
Panel / Distribution	N/A
LIGHTING	
Lighting	N/A
Lighting Controls	N/A

MECHANICAL	
Boiler	N/A
Fuel	N/A
HVAC	N/A
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **BOOK STORE**

### **Executive Summary - Electrical**

The electrical systems for the Book Store are functioning but are in fair to poor condition. Emergency lighting and exit signs should be provided. Existing fuse type panel and service equipment should be replaced with new circuit breaker type. Incandescent light fixtures should be replaced with energy efficient type. A fire alarm system should be provided.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- The electrical service runs overhead into the building from a utility pole to an exterior building mounted meter. The service is rated at 60 Amperes, 120/240Volt, 1Phase, 3Wire. A 60 Ampere main pull out fuse holder is located in the panel.

Rating: 1

- The lighting and power panel is Wandsworth Fuse type located in the basement. Existing equipment is original to the building and beyond its useful life.

Rating: 1

- The interior lighting consists of surface mounted incandescent fixtures controlled with local switches. Basement has porcelain sockets and fluorescent strip lights with T2 lamps.

Rating: 2

- Exterior lighting consists of incandescent wall mounted lantern fixture at the main entrance.

Rating: 2

- No emergency lights or exit signs are provided in the building.

Rating: N/A

- No automatic fire alarm system is provided in the building. Local battery type smoke detectors are provided in some areas.

Rating: N/A

- Toilet Room receptacles are not GFI protected.  
Rating: 0
- The general wiring method is Romex throughout the building.  
Rating: 2
- The telephone wiring runs overhead between the pole and the building with the termination in the basement.  
Rating: 2

### **Executive Summary - HVAC**

The Book Store Next Door was constructed in 1900. The main heating plant was recently replaced. Throughout the building HVAC equipment is minimal. Generally speaking, systems are operating and maintaining reasonable space temperature control. With overall maintenance, cleaning and calibrating of the system, continued service will be achieved.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- There is one oil fired Weil McLain hot water boiler to service the building. Boiler is atmospheric type. Boiler and associated appurtenances were replaced recently. There is one inline pump for the building.  
Boiler is vented using rigid flex duct which is not code compliant.  
Rating: 5 for the boiler. Venting should be repaired.
- There is one No. 2 fuel oil storage tank installed in the basement. Fuel oil is distributed to the boiler through the use of copper tubing from tank to boiler.  
Rating: N/A
- Hot water piping appears to be mainly schedule 40 black steel with some copper piping. We did not notice any insulation on any of the piping installed in the building.  
Rating: 2
- Each space utilizes wall mounted radiators installed on the exterior wall.  
Rating: 2
- The corridors and entry ways located within the building were provided with wall mounted radiators for generalized space heating.  
Rating: 2



## **Executive Summary - Plumbing**

The Book Store Next Door Building was built in 1900. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system. Municipal Sewer system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The building plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade.

### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of a floor mounted, tank type water closet and a countertop vitreous china lavatory with hot and cold water handles. There is a kitchen sink with hot and cold water faucet and vegetable spray. There are no drinking fountains or janitor's sinks in the building. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating – 3
- Domestic water service appears to be 3/4-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in fair condition.  
Rating – 2
- Domestic water for the building is generated through an oil fired boiler used for heating and domestic hot water. Domestic hot water is not recirculated. An expansion tank installed at the boiler. Domestic water piping is not insulated. The boiler is in good condition.  
Rating – 3
- Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. There is evidence of portions of the existing sanitary drainage piping that has been replaced recently. In general, the original cast iron drainage piping has exceeded its life expectancy and should be replaced.  
Rating – 2

## **BOOK STORE NEXT DOOR**

### **Executive Summary – Fire Protection**

The Book Store Next Door Building was constructed in 1900 and is 1,248 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS



# BATH HOUSE

LOCATION: 5 BURNAP STREET  
TOTAL # OF STORIES: 1  
YEAR CONSTRUCTED: 1964  
BUILDING AREA: 1,800 GSF  
BUILDING OCCUPANCY: RECREATION



## Description

This is a small masonry building located on Silver Lake that provides seasonal changing, shower, toilet, and first aid program to the lake's beach area.

## Observations and Findings

### SITE ASSESSMENT

The Bath House is located on at the upland edge of the Silver Lake beach adjacent to the Town parking lot. Patrons filter from the parking lot through their respective changing areas and out onto the beach. Landscape consists of foundation plantings on the parking lot side which extend into a hedgerow along a fence line.

### BUILDING EXTERIOR

The building is slab on grade with painted CMU walls and painted wood gable roof volume protected by asphalt roof shingles: all of which appear to be in fair to good condition. There is a concrete slab apron extending roughly six feet past the building on the lake side to protect from sand infiltration inside the building.

### BUILDING INTERIOR

Flooring and ceilings are in poor condition with the epoxy painted concrete floor in the most need of new paint. Painted CMU walls and interior doors are in fair condition.

### STRUCTURE

The CMU bearing walls and wood framed roof structure are in fair condition.

### BUILDING SYSTEMS

Electrical systems are in poor condition. There is no HVAC System in this building. Plumbing systems are noted to be in good condition but are beyond their intended serviceable life.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

The building is lacking in emergency lighting, exit signs, horn strobes, and alarms. There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# BATH HOUSE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	3
Windows	1
Doors	2
Canopies / Overhangs	3
Roof	3
LIFE SAFETY	
Sprinkler Y/N	N
Fire Alarm / Early Detection	1
Life Safety: Exit Signs	1
Life Safety: Emergency Lighting	1
INTERIOR	
Condition of Walls	2
Base	N/A
Flooring	1
Ceiling	1
Stairs	N/A
Handrails	N/A
Doors	2
Glazing	N/A
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	2
Lighting Controls	N/A

MECHANICAL	
Boiler	5
Fuel	N/A
HVAC	2
PLUMBING	
Toilet Rooms	3
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	2
Headers / Lintels	2
COMMENTS	

# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **BATH HOUSE**

### **Executive Summary - Electrical**

The electrical systems for this facility are in poor condition and lack emergency lighting, exit signs, and fire alarm. The systems should be upgraded during a renovation.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- The electric service runs overhead between the utility pole and the building to a building mounted electric meter. The service is rated at 100 amperes, 120/240 volt, 1 phase, 3wire. A 100A, 12 pole, main circuit breaker panel is located in the first aid room. The panel is in poor condition. Could not locate service grounding jumper around water meter.

Rating: 1



*12 Pole Panel*

- The interior lighting consists of 2x4 recessed troffers with acrylic lens and T8 lamps. Fixtures are breaker controlled from an interior first aid room.

Rating: 1



- The exterior lighting consists of a couple of building mounted LED mini-flood fixtures with integral motion sensors. The parking areas do not have pole lighting.

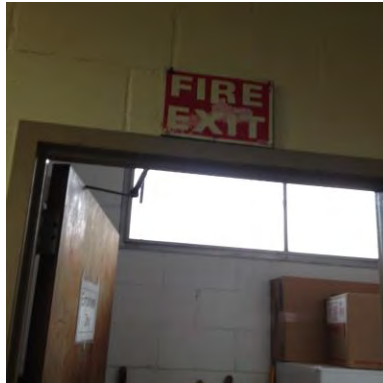
Rating: 1



*LED Mini-Floods with PIR Sensor*

- The Exit signs consist of unlit signs. There are no battery units for emergency lighting.

Rating: N/A



*Unlit Exit Sign*

- There is no fire alarm system.
- A manual pull station is located on exterior to summon E911. The Ademco control panel is located in the first aid room. A key repository box is located on exterior of the building.

Rating: 2

### **Executive Summary - HVAC**

There is no HVAC system serving the Bath House. Natural ventilation is provided when the Bath House is in use by the operable windows high on the walls providing a cross-breeze through the structure.

We recommend the following: Heat in the building is likely not required due to limited seasonal usage. Water in the building is turned off in the off season to prevent freezing. Dedicated exhaust should be provided to serve all areas including gang toilets, family toilet room and locker room and storage areas.

Rating: N/A

## **Executive Summary - Plumbing**

The Bath House Building was built in 1964. Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system. Municipal Sewer system and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems, while continuing to function, have served their useful life. The building plumbing systems could continue to be used with maintenance and replacement of failed components however other non-dependent decisions may likely force the plumbing upgrade. Since the building has seasonal operation, the domestic water has been drained down and the water meter has been temporarily removed. The flush valve diaphragms have all been disassembled temporarily.

### **Rating**

5 - Brand New

4 - Very Good

3 - Good

2 - Fair

1 - Poor

0 - Requires repair

X - Requires immediate

N/A - Not applicable

### **Existing Conditions:**

- Plumbing fixtures consist of a wall mounted, flush valve water closets, wall mounted flush valve urinals and a wall hung stainless steel lavatories with hot and cold water handles. There are no kitchen sinks, drinking fountains or janitor's sinks in the building. In general the fixtures do not meet accessibility standards and are not water conserving.  
Rating - 3
- Domestic water service appears to be 2-inch in size and includes a water meter. Water piping is copper tubing with sweat joints. Many shutoff valves appear to be original to the building and are in good condition.  
Rating - 3
- Domestic water for the building is generated through an electric storage type water heater. The storage capacity is 20 gallons and has an electrical input of 4500 watts. Domestic hot water is not recirculated. An expansion tank installed at the boiler. The visible domestic water piping is not insulated. The water heater is in good condition.  
Rating - 3
- Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in good condition. Smaller pipe sizes appear to be copper. There is evidence of portions of the existing sanitary drainage piping that has been replaced recently. In general, the original cast iron drainage piping is in good condition and can be re-used for a renovation project.  
Rating - 3

### **Executive Summary – Fire Protection**

The Bath House Building was constructed in 1964 and is 1,800 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS



# MOTH HOUSE

LOCATION: 240 MIDDLESEX AVENUE

TOTAL # OF STORIES: 1

YEAR CONSTRUCTED: 1920

BUILDING AREA: XX

BUILDING OCCUPANCY: STORAGE



## Description

This is a small, historic wood framed building that shares a site with the Scalekeepers Office and Town Pound. The Moth House, also referred to as the Morse Barn, is currently being used for storage and provides a historic bookend at the northern edge of the Wilmington Center Village Historic District. The Moth House was only briefly assessed on the exterior due to the fact it is an unoccupied building of historic significance.

## Observations and Findings

### SITE ASSESSMENT

The building is located on Middlesex Avenue across from the Wildwood Cemetery and next to the Scalekeepers Office and Town Pound. The building is accessed by a paved arced driveway off Middlesex Ave.

### BUILDING EXTERIOR

The exterior is painted clapboard siding which has many areas with rot or damage and requires repair. The building has asphalt shingle roofing which was not observed.

### BUILDING INTERIOR

The interior was not observed.

### STRUCTURE

The building structure was not observed.

### BUILDING SYSTEMS

The building has electricity which is in poor condition and should be replaced. The building has no HVAC. Plumbing is limited to domestic piping which appears to be in fair condition.

Additional notes from the building systems consultants are provided in the following pages.

### REGULATORY COMPLIANCE

There is no automatic sprinkler system in the building, which is not required for this building given its limited area.

# MOTH HOUSE BUILDING SUMMARY RATING

0: Requires Repair 1: Poor 2: Fair 3: Good 4: Very Good 5: Brand New X: Immediate Repair N/A: Not Applicable

BUILDING EXTERIOR	
Exposed Foundation	2
Brick / Masonry	2
Siding / Cladding	2
Windows	2
Doors	2
Canopies / Overhangs	N/A
Roof	4
LIFE SAFETY	
Sprinkler Y/N	N/A
Fire Alarm / Early Detection	N/A
Life Safety: Exit Signs	N/A
Life Safety: Emergency Lighting	N/A
INTERIOR	
Condition of Walls	N/A
Base	N/A
Flooring	N/A
Ceiling	N/A
Stairs	N/A
Handrails	N/A
Doors	N/A
Glazing	N/A
ELECTRICAL	
Service Entrance	1
Panel / Distribution	1
LIGHTING	
Lighting	1
Lighting Controls	N/A

MECHANICAL	
Boiler	N/A
Fuel	N/A
HVAC	N/A
PLUMBING	
Toilet Rooms	N/A
Kitchen	N/A
Domestic Water	2
STRUCTURE	
Observable Steel	N/A
Observable Masonry	N/A
Headers / Lintels	N/A
COMMENTS	



# BUILDING SYSTEMS REVIEW

The following additional notes have been prepared for the mechanical, electrical, and plumbing systems for this building by Garcia Galuska Desousa Consulting Engineers.

## **MOTH HOUSE**

### **Executive Summary - Electrical**

The electrical systems for the Moth House are functioning but are in fair to poor condition. All existing electrical items should be replaced.

#### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

#### **Existing Conditions:**

- The electrical service runs overhead into the building from a utility pole to an exterior building mounted meter. The service is rated at 60 Amperes, 120/240Volt, 1Phase, 3Wire. A 60 Ampere main disconnect is located in the panel.

Rating: 1

- The lighting and power panel is circuit breaker type. Existing equipment is original to the building and beyond its useful life.

Rating: 1

- The interior lighting consists of surface mounted incandescent fixtures controlled with local switches.

Rating: 1

- Exterior lighting consists of incandescent flood lights.

Rating: 1

- No emergency lights or exit signs are provided in the building.

Rating: N/A

- No fire alarm system is provided in the building.

Rating: N/A

- The general wiring method is Romex throughout the building.

Rating: 2

### **Executive Summary - Plumbing**

The Moth House Building was built in 1920. Presently, the Plumbing Systems serving the building domestic water. Municipal water services the Building.

The domestic water appears original to the building and is in fair condition.

#### **Rating**

5 - Brand New

4 – Very Good

3 – Good

2 – Fair

1 – Poor

0 – Requires repair

X – Requires immediate

N/A – Not applicable

#### **Existing Conditions:**

- A ¾-inch domestic water service enters the building and is distributed to wall hydrants and internal hose bibbs. The domestic water piping is uninsulated or labeled. The isolation valves are original gate valves. There are no vacuum breakers on the wall hydrants and hose bibbs which makes them non-compliant. Overall, the domestic water is in fair condition.

Rating – 2

### **Executive Summary – Fire Protection**

The Moth House Building was constructed in 1920 and is 1,800 square feet. The building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.418, s.26G requires that any new building or existing building over 7,500 square feet that undergoes major alterations or building additional must be sprinklered.

An automatic sprinkler system is not required for this building.

Rating: N/A

# FACILITY PHOTOGRAPHS

