



# CITY OF STAMFORD

## Glenbrook Community Center

### 35 Crescent Street

#### FACILITY CONDITIONS ASSESSMENT

March 6, 2020

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*Architects / Engineers / Interior Designers*

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Silver Petrucelli and Associates was retained by the City of Stamford to provide a facility condition assessment of the Glenbrook Community Center to evaluate architectural, mechanical, electrical, plumbing and fire suppression systems throughout the facility.

Existing documents were gathered & reviewed and a site survey with city and community center representatives was conducted on 12/10/2019 which formed the basis of this report. Items have been identified for upgrades or renovation based on maintenance concerns, age and code deficiencies. Future upgrades have been listed by priority to help provide a roadmap or timeline of when specific items will need to be addressed. Urgent and high priority items are typically related to life safety code issues, while maintenance and appearance upgrades are noted as lower priority items. Where applicable, upgrades related to tenant use and fit out have been identified. Tenant use of the spaces affects the need for cabinetry and built in counters and shelves which should be built to meet current accessibility codes. The emphasis of the assessment is placed on elements, systems and equipment that are fundamental to the integrity of the building and site.

Per conversations with facility staff, the building was constructed circa 1897 with some renovations throughout the years. A second story was added in the 1920's with another renovation in the late 60's. The building has 3 levels including a basement, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> levels and limited access timber framed attic with steel structural members.



## Site Evaluation

The team reviewed site conditions and observed several maintenance items related to paving, fencing, stone masonry, lighting and drainage. A review of the site by a civil engineer may be necessary and would be recommended for the planning of any future underground drainage upgrades.





**DOOR APPROACH IN POOR CONDITION**



**CRACKED AND  
WORN PAVING**

Overall the bituminous paving and concrete sidewalks around the site are in good condition. The paving around the pre-school play area was not re-done at the time of the last paving and is showing signs of deterioration and wear. In this area the pavement is cracked and starting to fail. Another concern is settling of pavement at entrances or transitions between dissimilar materials, such as concrete slabs and bituminous paving. Pavement at doors is required to be flush for accessibility, a ½" lip is allowed. As pavement ages it often settles causing gaps which must be addressed.

The stone wall and fencing around the parking lot is another maintenance item. Deterioration and replacement of old, broken fence sections will be needed over time. A unique condition at this site is the placement of the chain link fence on top of the stone wall. It is difficult to attach or insert posts into stone work and the posts can be jarred loose by vehicle bumpers or snow pushed against the walls. This is a recurring issue. At a minimum, the loose posts should be re-set and fence sections replaced as needed.

Roof drainage flows from the downspouts directly onto the paving surfaces which wears the paving and causes erosion during storms. More importantly the water can pond and cause slippery and icy spots for pedestrians and vehicles. Improvement to the existing drainage is a relatively low priority, but one that should be considered in the future.



**SITE STORM DRAINAGE SURFACE RUN OFF and EXTERIOR STAIR WELL DEBRIS**

Site lighting is in need of improvement / replacement and is discussed in the electrical section of this report.

## Building Exterior

The front entrance ramp and stairs are in need of significant repairs. The existing concrete ramp surface is cracked and in disrepair. The existing concrete needs to be removed and replaced altogether. There



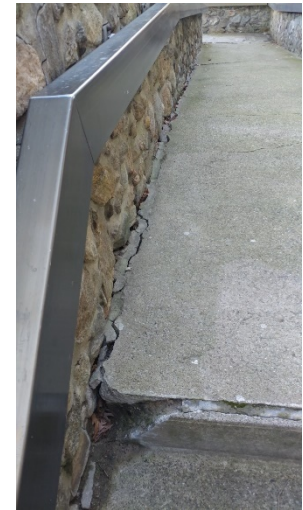
### DOOR FRAME DETERIORATION

are gaps between the ramp / stair walls and the concrete paving allowing water infiltration into the base of the stone masonry. Some portions of the stone walls at the ramp have begun to very slightly lean due to the freeze/thaw. The immediate need however is repairing cracked sections of masonry ramp wall. This will require rebuilding some areas and repointing others, generally from the top down where the deterioration is the worst. The longer the ramp remains before renovating, the more significant the damage will be to the stone walls. In the long run, portions of the ramp walls may need to be reconstructed from the base up to correct the water damage. If reconstructed from scratch the ramp would need to be designed to meet the

1:12 slope requirement.



### EXTERIOR RAMP and STAIR IN POOR CONDITION. SIGNIFICANT MORTAR CRACKS AND WALL MOVEMENT. CRACKED CONCRETE PAVEMENT AND LOOSE HANDRAILS



The ramp and stair handrails are loose, the integral lighting is no longer functional, and the profile does not meet accessibility requirements. It is recommended that the handrails be replaced entirely with a new code compliant round pipe style, either fastened into the stone sidewalls or installed on posts drilled into the walking surface.



The exterior cobble stone façade of the building is in fair to good condition and requires only minor mortar repointing of small cracked areas. The concrete stucco siding with tudor wood framing accent on the second floor is likewise in fair condition with only minor flaws to address, primarily around the windows. The entire building exterior should be power washed.



**EXISTING ALUMINUM  
WINDOWS AND WATER  
INFILTRATION AT  
WINDOW HEADS**



The windows are an older style aluminum frame and sash with very poor thermal performance. Despite their age most of the windows are functional and continue to serve the building functions. Contemporary windows offer many improvements over the existing windows and a full replacement should be considered in the future. New windows would offer significantly better thermal performance, energy efficiency and improved appearance / glass. Portions of the building, like the gym, would benefit from laminated safety glazing allowing removal of the heavy metal screens.



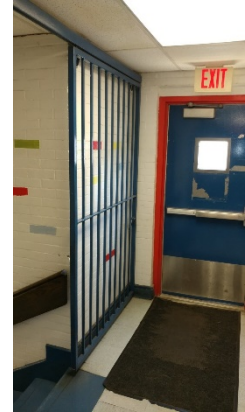
**EXPOSED STEEL PREP and PAINT**

Related to the windows, water infiltration was observed at the head of the second floor west facing windows. There does not appear to be any drip edge at those window heads which allows wind driven rain to follow the head back to the window and saturate the underside of the head as well as adjacent interior drywall. A window replacement would be the best time to address water infiltration issues at these heads. Similarly, metal window lintels should be scraped, sanded, primed and painted during window work.

The metal fire escape at the rear of the building is rusting and needs to be scraped, sanded, primed and repainted. The iron structure appears to be sound and should require little or no repair work or replacement of members.

## Building Interior

Items noted while assessing the interior generally fall into three categories: accessibility, life safety and finishes. The few life safety items deal with corridor and stair doors as well as the original sliding gates between the building and annex in the basement level. The gate should be removed altogether as it would create a non-compliant dead end in the basement egress if closed. Gates were a common feature in early 20<sup>th</sup> century school design. The code no longer allows use of them, particularly when they separate portions of buildings and create barriers to egress. Doors and frames in the corridors and stairs should be labeled to designate the fire rating and often the labels are missing or were not provided during construction. All doors and frames should be confirmed.



### EXISTING STEP/THRESHOLD AT DOOR

Accessibility violations are very common in older buildings built well before modern codes and standards. Corridor door clearances are not code compliant at all levels. Often doors in stud and drywall construction can be redesigned to meet the modern push / pull required clearances. Where it is not possible or feasible to reconfigure doors, power operators can be installed to meet accessibility standards. The downside to operators is maintenance and future repairs.

Signage at all doors, with pictograms and braille is required for accessibility. It is relatively inexpensive and should be provided.

Cabinetry, counters and built in furniture does not meet accessibility requirements. This is particularly applicable in the kitchen on the second floor. The kitchen and other spaces with built in cabinetry are tenant fit out issues which change depending on the use of the spaces, such as the kitchenette on the third floor and convenience sinks within the first-floor rooms. As built in furniture and fixtures are



replaced over time during refurbishment or change of tenant the new installations should meet all applicable accessibility requirements.



### **KITCHEN IS NOT ADA COMPLIANT**

The toilet rooms are in need of upgrades both for accessibility and also due to old and worn finishes. The handicap toilet room on the second floor is missing grab bars which have been added by recent code updates. The two other toilet rooms on the second floor are in poor condition and need new finishes, toilet partitions and plumbing fixtures. The rear group toilet rooms are not accessible and will require a redesign to accommodate handicap compliant toilet stalls and wider entrance doors.



### **GROUP TOILETS IN ANNEX ARE NOT ADA COMPLIANT**

Door handle hardware is not fully accessible, a few old-style door knobs require replacement with modern lever handles. A few of the doors and hardware are damaged and are candidates for replacement.

Regarding finishes, the community center is a well utilized (busy) building that creates significant wear on the finishes, such as flooring, wall surfaces and ceilings. The expected lifespan of a VCT floor is 20-30 years depending on the foot traffic and maintenance schedule. Many of the floors at the community center are 15 years old and starting to show signs of wear or have chipped tiles.



**CHIPPED AND DAMAGED FLOOR TILES**



## **Boiler Room**

The building is heated by a gas fired, Smith boiler with a capacity of 1342 mbh, currently located in the basement mechanical room. The boiler was installed in 1999. A typical expected useful life of a cast iron, gas fired boiler is approximately 35 years. The vast majority of the building is heated using perimeter base board radiation. The hot water distribution piping serving the building is likely at least 40 years old and well past its expected useful lifespan however there have been no leaks reported.

The circulator distributing hot water to the building has been recently replaced.

The combustion air fan serving the boiler room was installed in 2005 and has a useful life expectancy of approximately 25 years. The fan appears to be functional and in good shape.

The working chimney has recently been relined. The chimney at the East wall has been abandoned but still runs through the roof along the exterior wall.

A Tekmar boiler control panel was installed within the last year.

## **Mechanical/Electrical Room - Basement**

### Heating/Cooling

There are no sources of heating or cooling for this utility space.

### Ventilation

There is no mechanical ventilation for the Electrical Room. There is a boarded-up window that could be used for natural ventilation.

## **Gymnasium**

### Heating

The Gym is heated by perimeter baseboard radiation. We were unable to determine the age of the baseboard however based on its condition it appears to be well past its useful life expectancy. It was observed that the fins are dirty and needs to be cleaned which will improve efficiency and heat transfer.

### Cooling

There is no source of cooling for the Gym.

### Ventilation

There are two large window exhaust fans which serve the Gymnasium. These fans are activated by wall switches. We were unable to determine the age of the fans however, based on their type and appearance, they have likely outlived their useful life expectancy.

## **Basement Room**

### Heating

Perimeter finned tube radiation provides heating for the space.

### Cooling

A floor mounted unit ventilator provides cooling for the space. The owner states that the unit ventilator does not work well. It is likely that the unit is oversized based on the current useful capacity of the space. The unit ventilator was installed as part of the 2004 renovation. Units such as these have a typical life expectancy of 15 years. The associated condensing unit is a Trane, 2-1/2 ton condensing unit, also installed in 2004. Split system condensing units have a typical expected life span of 20 years.

### Ventilation

There is no mechanical ventilation for the space. The windows were previously closed in.

## **Exterior Group Restrooms**

### Heating

The exterior bathrooms are heated using finned tube radiation. The radiation was recently lowered from the ceiling to the floor but there is not enough heating for the space, without turning up the thermostats.

### Cooling

There is no cooling for the spaces.



### Ventilation

The bathrooms are ventilated using roof mounted exhaust fans. The age of the fans was unable to be determined.

## **FIRST FLOOR**

### **Two Rooms and Two Staircases**

#### Heating

Heating for each of the first floor rooms is provided by perimeter finned tube radiation. The air handling units above the ceiling also have a hot water coil which is used for supplemental heating.

#### Cooling

Cooling for each of the rooms is provided by a 4 ton air handling unit with a d/x refrigerant coil located above the ceiling. Air is delivered to the space by ceiling distribution ductwork and ceiling mounted diffusers. The system was installed as part of the 2004 renovations. An air handling system such as this has a useful expected life span of 15 to 20 years.

#### Ventilation

Ventilation air is provided to the return size of the air handling units through louvers mounted in the exterior wall above the windows.

## **SECOND FLOOR**

### **Room with Kitchen**

#### Heating

Heating for this room is by the use of perimeter wall mounted finned tube radiation. The adjacent kitchen has perimeter radiation however because of the location of the cabinetry the space is constantly cold as the cabinets block the movement of air.

### Cooling

A Trane, 7-1/2 ton air handling unit is located in a closet within the space. Ductwork from the unit is distributed up to the ceiling space and air is delivered to ceiling diffusers. The unit is paired with a Rheem 6-1/2 ton condensing unit. The system was installed in 2008. An air handling system such as this has a useful expected life span of 15 to 20 years.

### Ventilation

There is no mechanical ventilation for this unit. Ventilation is achieved through the use of operable windows.

## **Rooms with Folding Partitions**

### Heating

Heating for this room is provided by perimeter wall mounted finned tube radiation.

### Cooling

A Carrier, 3 ton vertical air handling unit is located in a closet within the room. Supply ductwork from the unit is distributed up to the ceiling space and air is delivered to ceiling diffusers. There is no return ductwork for this unit. Air is transferred to the return side of the unit via a wall mounted louver which is located in the mechanical closet. The unit is paired with a Carrier 3 ton condensing unit. The system was installed in 2008. An air handling system such as this has a useful expected life span of 15 to 20 years.

### Ventilation

There is no mechanical ventilation for this unit. Ventilation is achieved through the use of operable windows.

## **THIRD FLOOR**

### **(4) separate rooms, two of which have a kitchenette and single toilet rooms**

### Heating

Heating is provided by wall mounted perimeter finned tube radiation.



### Cooling

Cooling is provided to the space by the use of a wall mounted packaged terminal air conditioner. The installed unit is approximately 15 years old. The expected useful life span of a PTAC is 10 years.

### Ventilation

There is no provision for mechanical ventilation for this space.

## **Recommendations**

- The heating plant has been well maintained and no immediate work is required.
- The hot water piping distribution system and perimeter finned tube radiation is likely more than 40 years old and during the next major renovation should be replaced. Third floor piping freeze ups have occurred which have been repaired, however due to the age of the system replacement is recommended. Insulation of the piping is required.
- The age of the Gym ventilation exhaust fans was unable to be determined however based on their appearance they have likely outlived their useful life expectancy and should be replaced.
- The exterior bathrooms have been noted to be lacking in heat and additional finned tube radiation is recommended.
- There are no provisions for mechanical ventilation for the building. The building code allows for the use of operable windows as the source of ventilation air.

## PHOTOS



Existing Gym ventilation fan



Exterior Bathroom Heating



Heating Plant



**Exterior Condensing Units Located above Restrooms**



**Typical 2<sup>nd</sup> Floor Closet Mounted Air Handling Unit**



## Plumbing Systems

### Domestic Water

The facility is provided with a 2" water service by Aquarion Water Co., Pressure gauge reads 75 PSI and is located adjacent to the fire protection water service within a mechanical room. The current pressure and service size is appropriate to handle the buildings current demands. A backflow preventer to protect against cross contamination between the facility and municipal water supply has not been provided. This is likely due to period regulations at the time of installation, combined with the buildings low hazard ranking. A 2" Neptune water meter with full sized bypass has been provided. All equipment is in good serviceable condition.



The building is provided with a boiler for space heating. Make up water is provided with a dual check valve backflow preventer with atmospheric vent accordingly.

Piping is comprised of brass with threaded fittings and copper with wrought solder joints and fittings. Type of concealed piping is unknown. Additionally, the lead (Pb) content of the existing water pipe, fittings and solder is unknown, but lead-containing materials may have been used for domestic water systems during the time of construction and or renovations.

Distribution piping is provided with fiberglass insulation jackets, though some portions were worn out and exposed bare pipe. Other pipe was provided with insulation and jacketed with what appears to be aluminum scrim foil tape.

## **Recommendations**

Coordinate with local water authority to determine cross connection requirements and provide backflow preventer(s) as needed.

Portions of the existing supply piping were likely joined with lead solder based on the age of the building and past renovations. The water supply should be tested for lead content and if found to be unacceptably high action will be required. Mandatory flushing of the lines each day may be permitted to reduce levels of lead, but replacement of piping maybe required.

Provide new and continuous pipe insulation (per ASHRAE 90.1 requirements) on all existing and new pipe, insulated with 1" minimum thickness fibrous glass insulation and pre-formed fibrous glass fittings with fire retardant vapor barrier jacket especially at exterior dormers of the third floor.

## **Water Heating**

Domestic hot water is generated via a 75 gallon gas fired tank type water heater and located in the boiler room. The residential grade water heater is manufactured by Lochinvar, model ETN076, and was installed on 10/5/06. It is in good serviceable condition with a 5-10 year life expectancy. Flue gases terminate to atmosphere via Type B gas vent thru a chimney.

A hot water recirculation system is provided to maintain hot water to remote runs of piping and is provided with fractional horsepower Bell and Gossett pump. Means of pump control, typically via a aquastat to measure return water piping, was not visible.

The hot water is distributed at 75 deg via a "Sparcomatic" thermostatic mixing and diverting valve. The valve is 1017 compliant, as required by code, though the hot water temperature is below the allowable water temperature of 110 deg F as required by the plumbing code.

Mean of accommodating for thermal expansion via plumed thermal expansion tank was not observed.

Corrosion was observed on hot water valves. Potential causes include environmental conditions, high humidity and poor insulation, pipe joining methods by use of excessive flux in the soldering process, lack of insulating dielectric fittings between dissimilar metals, or electrolysis due to stray currents from electrical grounding. Equipment is in fair, but serviceable condition.







### **Recommendations**

Perform maintenance on the existing water heater per manufacturer's instructions. Elevate water heater off the floor by installing on a concrete housekeeping pad to avoid corrosion if boiler room becomes flooded.



Set water heater to store domestic hot water at 140°F to reduce the growth of legionella and other pathogens. To eliminate potential scald hazards, provide a properly sized thermostatic mixing valve to deliver the required temperature per the following criteria:

- Master Mixer, all water heaters require external temperature controls via ASSE 1017 Thermostatic mixing valve to reduce hot water from 140°F to 120°F.
- Hand washing lavatories (restroom groups) require Tempered water via ASSE 1070 Thermostatic mixing valve to provide 105°F – 110°F water.

As part of any larger projects, provide all new hot water recirculation system including but not limited to pump, timers and aqua-stats to maintain temperature to remote fixtures, such as the annex and third floor, based on return temperatures.

Provide means of controlling thermal expansion as required by Code by installing a properly sized thermal expansion tank.

All components to be NSF/ANSI 61 lead free compliant. Provide dielectric fittings on all piping components of dissimilar material to avoid galvanic corrosion.

### **Simplex Effluent Sump Pump**

The pump is located in the boiler room adjacent to the water heater in a shallow pit. Discharge piping is 2" PVC and is provided with a check valve. This piping was recently reconfigured to avoid obstructing



the exit stair. Piping is connected to the main sewer line via gravity, there is no cover on the sump pit and it is powered via plug in power supply.



### **Recommendations**

The current sump pump is still operational yet nearing its useful life expectancy. Provide a new stand-by pump for quick swap out in the event of premature failure. Additionally, provide a high water alarm with remote indicator and new basin cover.

### **Natural gas service**

The facility is provided with a natural gas fuel service supplied by Eversource. A Roots rotary meter #549646 is installed and is rated for 3,000 CFH (max). The building delivery pressure does not appear to be elevated, but is likely distributed within the building at 7"-14" WC.

Gas is distributed through the facility to the boiler room. Gas fired appliances include the gas water heater (76 MBH) and boiler (1342 MBH). Piping material is primarily Schedule 40 black steel with threaded fittings. A flexible corrugated stainless steel tubing whip connects the gas water heater.

Based on information provided by the city engineer, the existing underground oil storage tank has likely been emptied, removed or filled soon after the building switched to natural gas (just before the driveway was paved).



### **Recommendations**

Coordinate revised and final gas loads based on anticipated renovations and upgrades with the gas company to determine if the current meter arrangement, pressure and capacity can be provided and is acceptable with any changed gas demand requirements.

### **Drain Waste and Vent**

The building is provided with a sanitary and vent system piped throughout the facility to support all plumbing fixtures. Drainage issues have been noted towards far end of building, specifically at a mop sink (which is the farthest run from the sanitary exit point). Multiple interior and exterior cleanouts were observed and are in accordance with code. The building drainage connects to the municipal sanitary sewer via gravity, and all venting systems terminate thru the roof to atmosphere.

## Recommendations

There are no apparent code deficiencies although it is recommended to maintain water trap seals on floor drains to prevent sewer gas from escaping (that do not normally see use, i.e. mechanical room, ancillary drains, etc.) by establishing a daily maintenance program to re-fill traps or install automatic trap seal maintenance devices.

It is recommended to snake all floor drain, mop sinks, and below slab sanitary and waste piping clean to ensure the system is not obstructed and that it is free of debris to allow proper drainage. Perform camera scope test on building's main drain to document condition of the piping and verify routing and invert elevations (if future connections are anticipated). Cut in new cleanouts where required by code to facilitate cleaning, sawcut, trench, patch and repair floor accordingly. Repair damaged piping as necessary.



## Roof drainage

The building's pitched roofs and dormers with exterior gutters and vertical leaders spill to grade with or without splash blocks.

Areaway drains located at exit stairwells (elevation below grade) discharge to dry wells in the immediate area, one dry well per drain. Most of the drains are clogged with dirt and vegetation.

A flat roof is provided at the restroom annex, drainage spills over edge to gutter system. No roof conditions required secondary or emergency roof drainage.





### **Recommendations**

There are no apparent code deficiencies although it is recommended to clean the gutters and exterior leaders so they are free of leaves and other debris to allow proper roof drainage.

### **Plumbing Fixtures**

The facility is provided with a mix of commercial and residential plumbing fixtures. Fixtures consist of standard and ADA floor mount flush valve water closets, child height tank type water closets, wall hung urinals, wall hung lavatories (standard and ADA), mop sinks, and floor drains. The drain piping arrangement for some lavatories do not comply with ADA standards as they interfere with clear knee space and some areas are not provided with ADA insulation, while other rooms are ADA compliant.

A residential style kitchen is provided with sink, range, dishwasher, etc. An additional kitchenette with sink and range is provided, along with a third floor private shower (no other bathing facilities or bathtubs are provided). Drinking fountains are provided on the first and second floor. Life expectancy of new and dated fixtures will be maintained with periodic maintenance.

Freeze proof hose bibs are located on the exterior though out.





Second floor ADA unisex toilet room



Urinal



Mop sink



Lavatories in the Restroom annex



Lavatories in the Restroom annex without ADA insulation

### **Recommendations**

Provide hot and cold water and extend sanitary and vent services to any new fixtures. Provide complete with trimmings and fittings, including faucets, carriers, supplies, stops, traps, tailpieces, waste plugs, casings, hangers, plates, brackets, anchors, supports, hardware and fastening devices. Accessible ADA fixtures should be provided and set in accordance with the applicable codes.

Any renovations should provide new high efficient low flow plumbing fixtures including:

- 1.28 gallon per flush wall hung vitreous china wall hung water closets with hands free sensor activated flush valve or manual flush valve.
- .125 gallon per flush wall hung vitreous china urinals with hands free sensor activated flush valve or manual flush valve
- 0.5 gallon per minute lavatories with hands free sensor activated faucets or manual faucet
- 1.5 gallon per minute showers system

## **Fire Protection**

### **General**

The facility is provided with a fully automatic fire sprinkler system with sprinkler coverage throughout the building, serviced and inspected by Brake Fire Protection, Inc.

### **Water Service**

A dedicated 4" fire service is installed and a 4" double check detector assembly backflow preventer with by-pass meter is provided to protect the municipal water supply from cross contamination. The backflow preventer assembly has not been inspected annually (dated 5/15/15). Butterfly shut off valves are included as part of the UL listed backflow preventer assembly with supervisory tamper switches connected to the fire alarm panel accordingly.

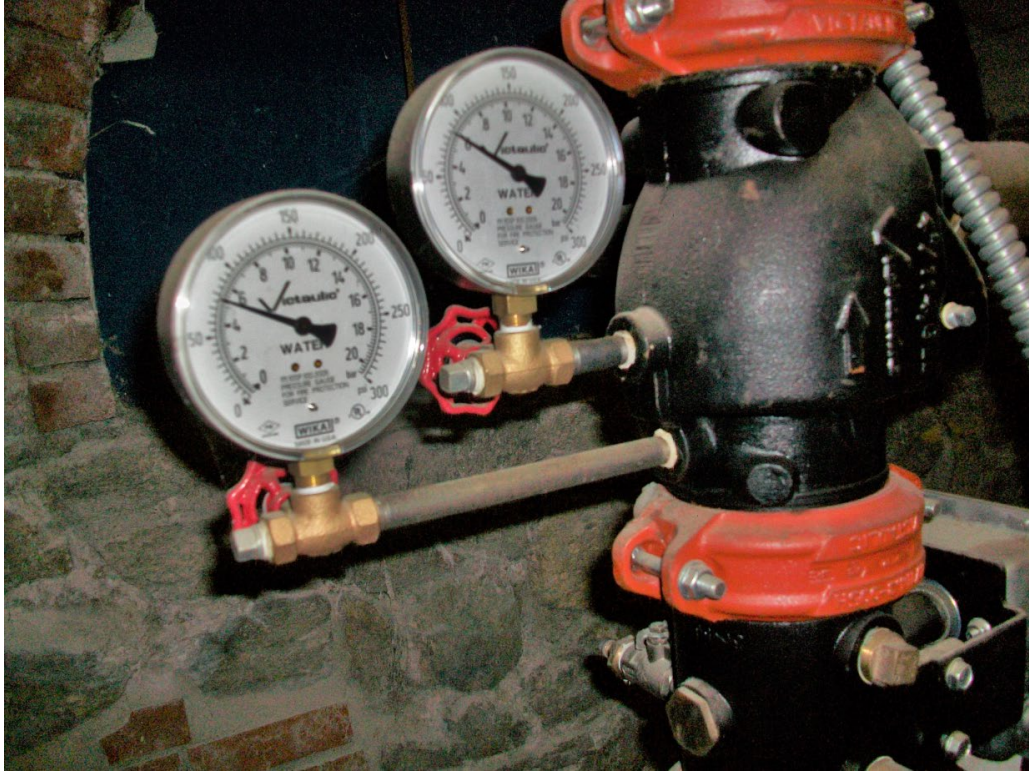


The fire protection system is provided with a 4" wet riser check valve serving heated areas of the building and is located in the water service room. A 4" Dry valve with maintenance air compressor is provided for the unheated attic sprinklers where pipe freezing is a concern, and is located on the third floor in a dedicated heated closet. A Stortz type fire department connection is provided and connected to the system's main piping. All equipment is in good serviceable condition.

### **Recommendations**

Annually test and inspect the backflow preventer, per NFPA 25 by a certified testing agency.





Riser check valve



Dry pipe valve



Maintenance air compressor



Stortz fire department connection

### **Sprinklers**

Pendant sprinkler heads are provided throughout the facility in areas with dropped ceiling. Third floor piping is routed exposed below the hard ceilings to avoid being within the unheated attic. Portions of the third floor piping system can trap water not allowing for full system drainage, while some plugs and nipples were observed, it is not known if all sections comply with NFPA 13 requirements for auxiliary drainage.







Additionally, sidewall sprinkler heads are utilized in the building. Note that piping off the wet system serving a sidewall head located in the unheated restroom annex's storage room had burst due to freezing temperatures. The sidewall head has been replaced with an appropriate dry barrel sidewall type, but the remaining head is prone to freezing / failure as well.



The building's elevator shaft is provided with sprinkler coverage at the top and bottom per NFPA 13. The associated piping has supervised control valves which are likely tied in to the fire alarm panel.



### **Recommendations**

Provide and install auxiliary drains for all trapped sprinkler piping as required by NFPA 13.

Paint exposed sprinkler piping to improve space aesthetics or conceal piping in metal soffit enclosure for exposed piping on the 3<sup>rd</sup> level.

Replace the wet sidewall sprinkler with a dry barrel sprinkler head in the unheated restroom annex's storage room.

### **Piping**

Black steel piping with either mechanical joints or threaded fittings are utilized throughout for both wet and dry systems. This pipe material is appropriate for the wet system, but is not appropriate for the dry system. Galvanized piping which has traditionally been used in a dry system can be valued engineered to black steel as a cost savings measure.

Based on the piping material used and the characteristic of testing a dry type sprinkler system it is likely that the piping distribution system has areas of internal corrosion from the annual wetting / drying cycles due to testing. The result is that water flow to the sprinkler heads can become obstructed in the smaller piping as oxidized material is removed / scoured off from the internal pipe surface during an event, thus compromising the life safety systems performance and ability to protect the occupants and property.

### **Recommendations:**

Sample the existing system in accordance with NFPA 25 (by a recognized testing laboratory acceptable to the authority having jurisdiction for field service testing) to determine the extent of corrosion, corresponding performance capabilities, and immediate life expectancy of the system.

Nitrogen generation is becoming more prevalent given that recent studies indicated that traditional dry systems become severely corroded and obstructed, then fail during operation, due to internal corrosion



between the moist air and ferrous metallic, and galvanized pipe.

Provide a nitrogen generator which charges the dry system with inert gas in lieu of standard compressed air, which provides unfiltered moist air. This is to eliminate internal pipe corrosion typically found in a dry system, which in turn helps maintain operation and increase longevity of the dry system.

## **Interior Lighting**

### **Basement**

The light fixtures on this level are generally in good operating condition. The fixtures are a combination of recessed troffers and surface mounted fixtures and have T-8 fluorescent lamps throughout. Some issues were indicated with the ballasts for the gymnasium 2x2 fixtures being incorrect but have since been addressed. Incandescent downlights in the gymnasium were not operating and appear extremely difficult to replace.

All emergency light fixtures and exit signs were in good condition and were operating correctly when tested.

### **First/Second/Third Floors**

The light fixtures on these levels are generally in good operating condition. The fixtures on this floor are recessed troffers with wall/surface mounted fixtures in the stairwells. The fixtures have fluorescent lamps.

There are ceiling mounted track fixtures in the Third Floor rooms in addition to the fluorescent fixtures.

All emergency light fixtures and exit signs were in good condition and were operating correctly when tested.

There were exit signs at all required exits and stairwells.

The light fixtures were replaced during a 2004 renovation.

## **Interior Power/Systems**

### **Basement**

The building is served by a 400A, 208/120V, 3ph service located in the Basement Electrical/Mechanical Room. The panel is by Square D and is in good/fair condition. It was noted that the panel was approximately 15+ years old.

There is a 24 circuit General Electric sub panel next to the main panel that is older than the main panel and is in fair/poor condition. A 100A, 208/120V, 3ph, 36 circuit General Electric panel located in the Boiler Room is in fair/poor condition. The age of this panel was not able to be determined.

### **Third Floor**

There is a small 12 circuit load center which primarily feeds mechanical equipment (Air handlers and condensate pumps) located on the Third Floor. This panel is in good condition.

There is a 208//120V, 3ph, 30 circuit Square D sub panel in the Janitors Closet that is in good condition.

Electrical panels do not appear to have any major issues at this time and can continue to serve the building.

### **Fire Alarm**

The building is protected by a Silent Knight Model 5808 addressable fire alarm control panel located in the basement. There are smoke detectors throughout on every floor that are in good condition and notification devices were observed where required. At the time of the visit, the system was in good operating condition.

The fire alarm was installed new during a 2004 renovation.

### **Call for Aid**

Several single occupant toilet rooms were observed as not having a call for aid system. The two toilet rooms for the pre-school currently do not require any systems as the children are accompanied/monitored in the room.

### **Exterior Lighting**

#### **Building Lighting**

The existing building mounted lighting is old and most of the fixtures are damaged. It was not possible to determine if all fixtures were in working order. Most of the area lights had broken lens and lenses were yellowed from age and are no longer efficient.

On the walkway, there are wall mounted light fixtures that are incapable of providing adequate light on the walkway. On the ramp closest to the building, there is no wall mounted fixture at all. There is a lit handrail for the walkway but that is inoperable. A surface mounted light is located above the front door.

Small ground mounted path lights are along the sidewalk in the front of the building however, they are inoperable as well.

#### **Building Entrance**

It was noted during the visit that the front concrete ramp has radiant heat. It was also noted that this heating system has not worked in years. This system should be abandoned and the feeders for the heat should be removed from the panel to the outside wall. A note should be placed on the junction box and should read "Abandoned walkway heat. NOT IN USE."

The wall mounted fixtures are 10+ years old and reached the end of useful life.



## **Recommendations**

- Emergency lighting should be installed in all of the rooms.
- Call for aid systems should be installed in the single toilet rooms, with the exception of the toilet rooms, which are monitored by the users.
- Existing interior fluorescent light fixtures should be removed and replaced with new energy efficient LED fixtures. An alternate would be to replace just the lamps with retrofit LED lamps.
- Existing exterior building light fixtures should be removed and replaced with new vandal resistant, energy efficient LED wall fixtures.
- Remove and replace walkway light fixtures with new energy efficient LED fixtures and add fixtures to provide the required illumination levels.
- Remove and replace existing pathway lighting with new LED fixtures.
- Remove existing incandescent gymnasium downlights.
- Repair exposed wiring in ramp handrail.



Damaged exterior area light fixture



Main Electric Service Entrance in Electrical/Mechanical Room





Exposed wiring in ramp handrail

# Facility Condition Assessment Glenbrook Community Center

35 Crescent Street  
Stamford, Connecticut 06906

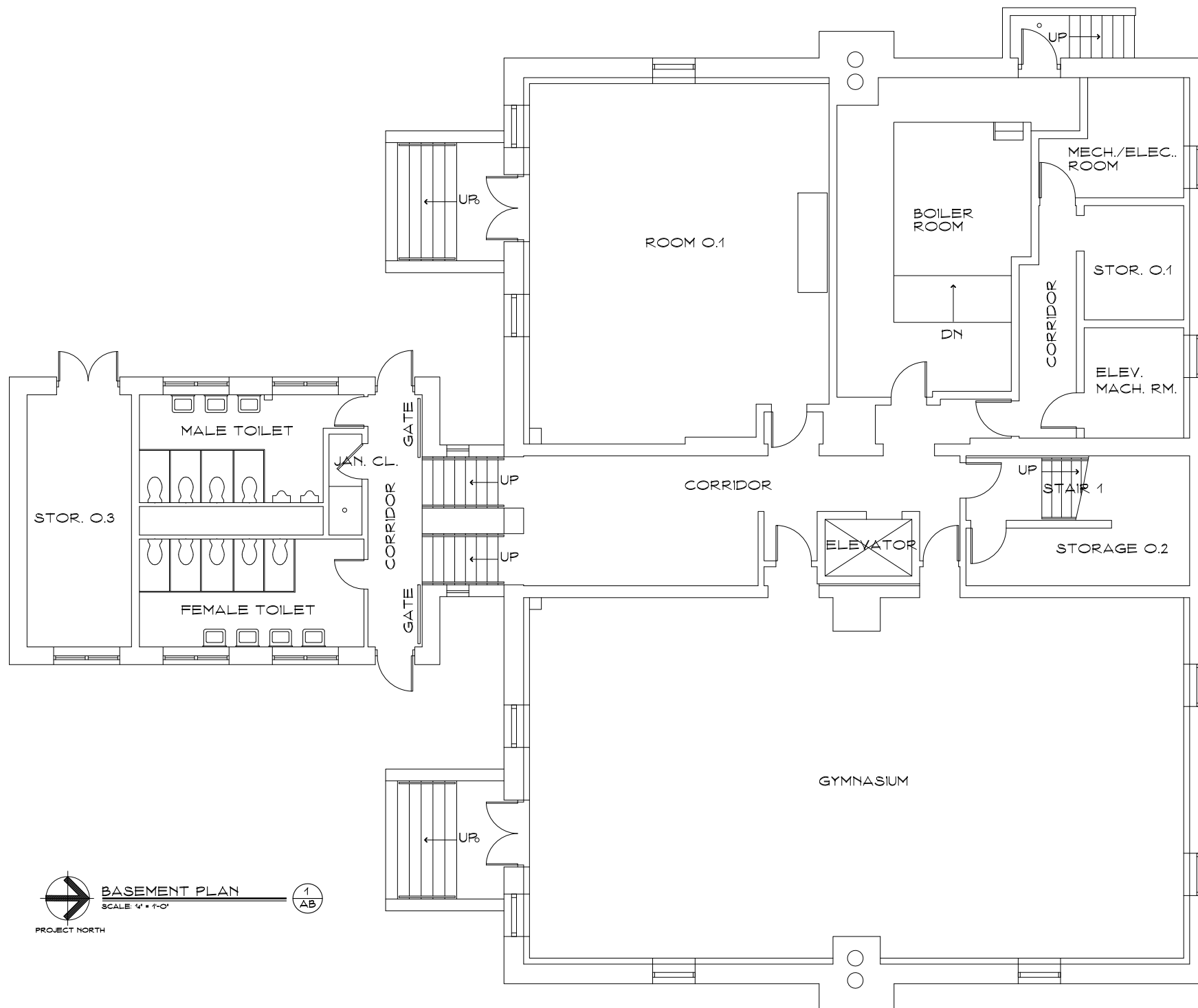


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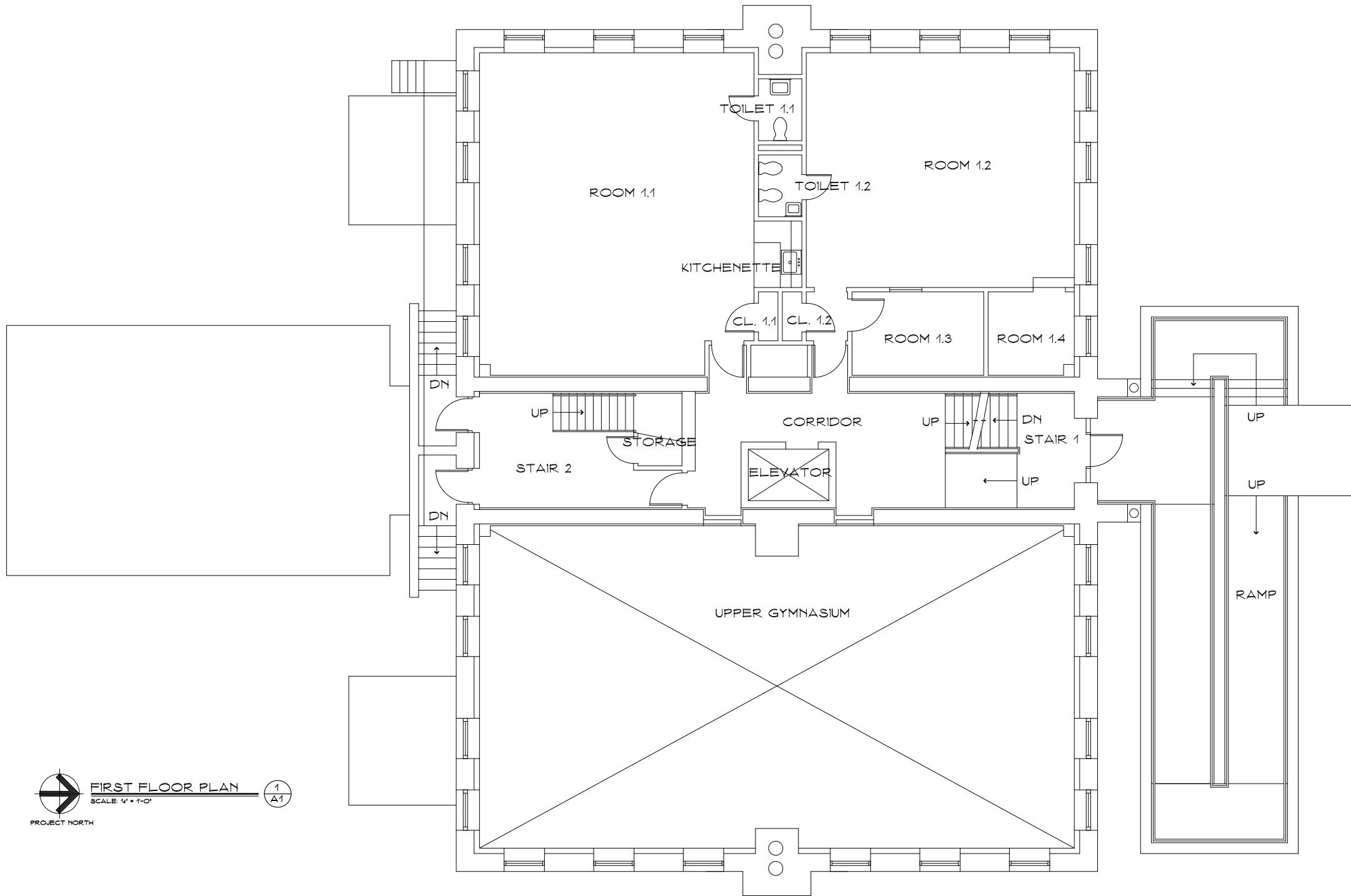
March 6, 2020




**BASEMENT PLAN**  
 SCALE: 1/4" = 1'-0"  
 PROJECT NORTH








**FIRST FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"  
 PROJECT NORTH

1  
A1



Revision:	Description:	Date:	Revised By:



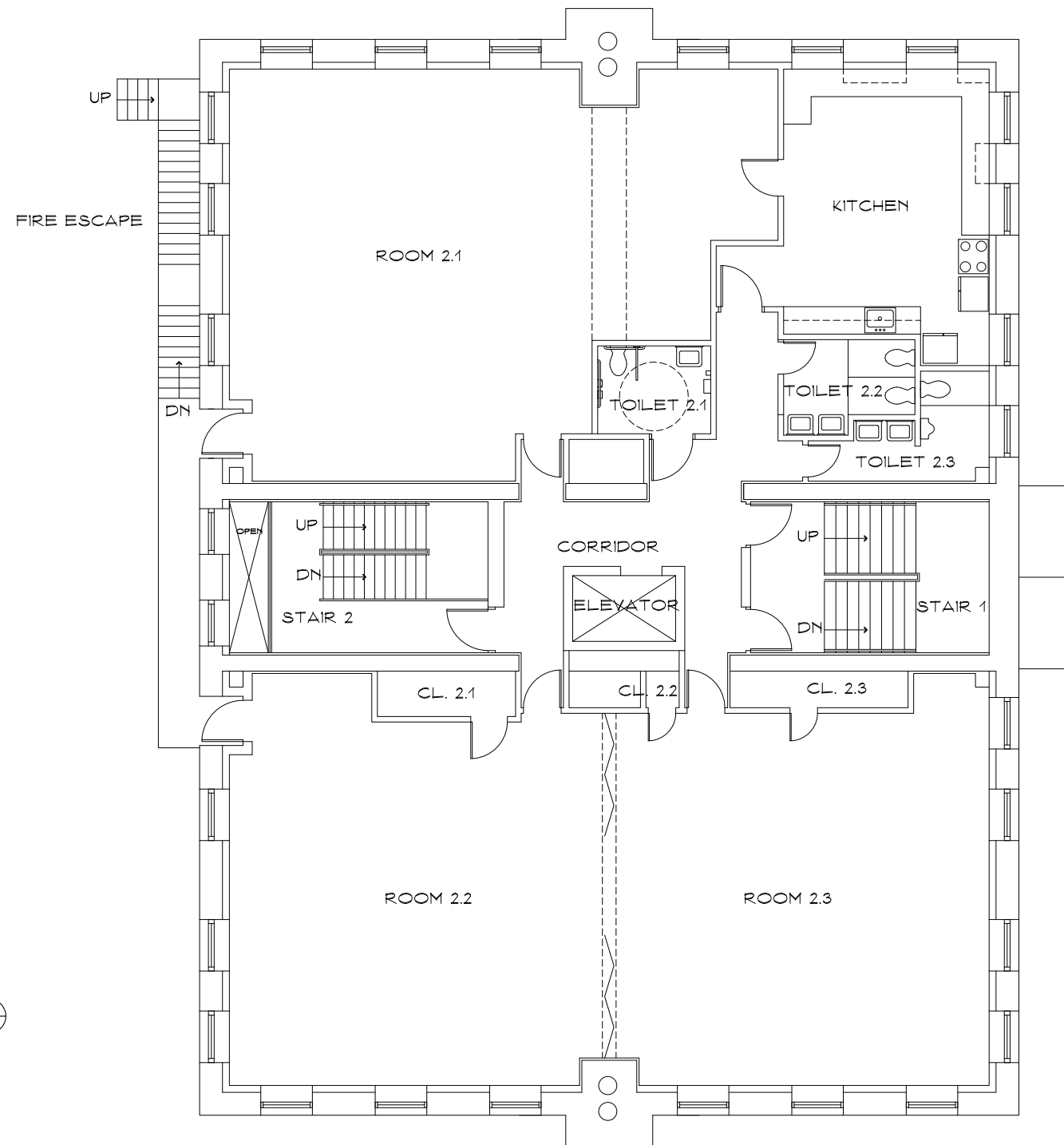
PROJECT NORTH

SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

1

A2





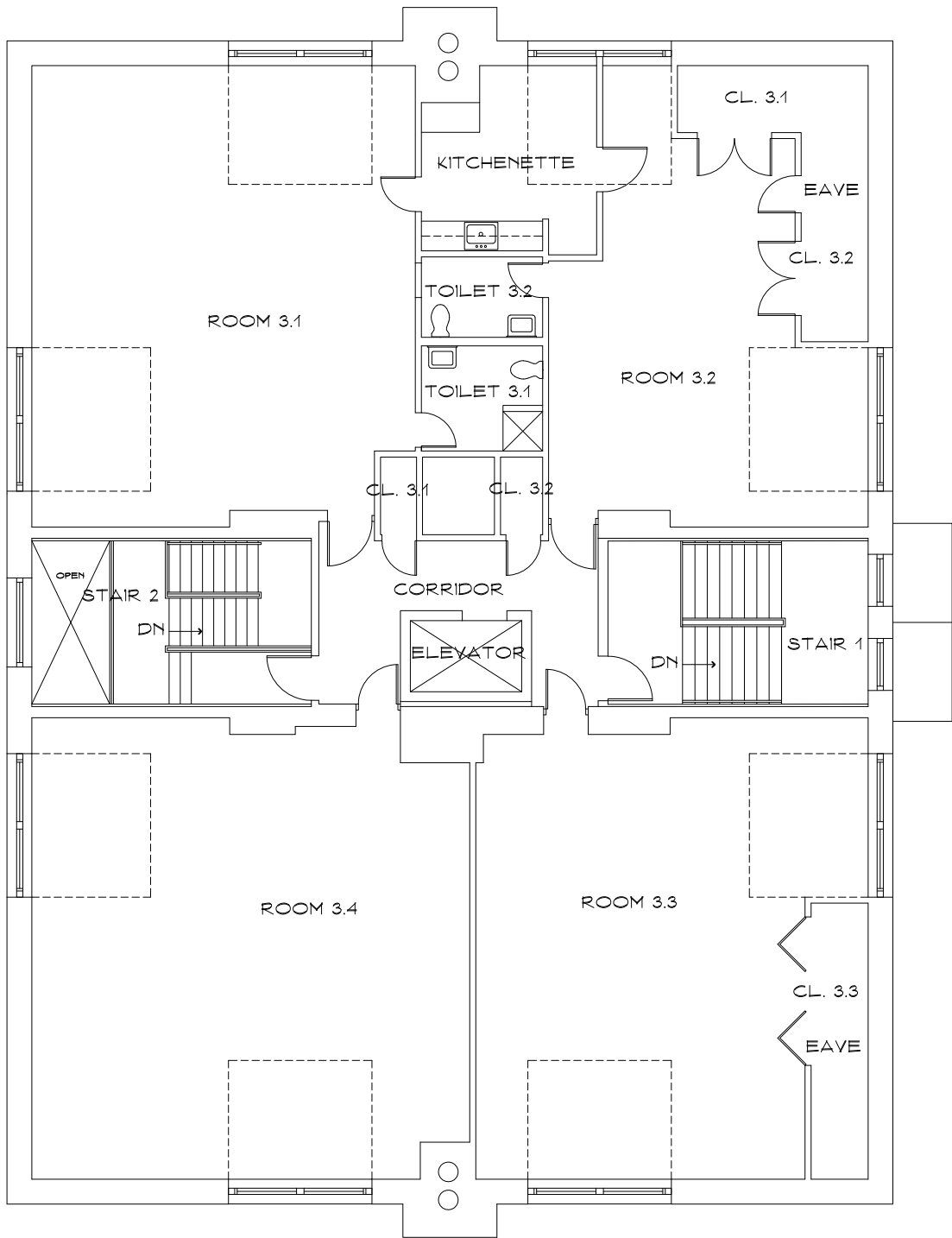
PROJECT NORTH

THIRD FLOOR PLAN

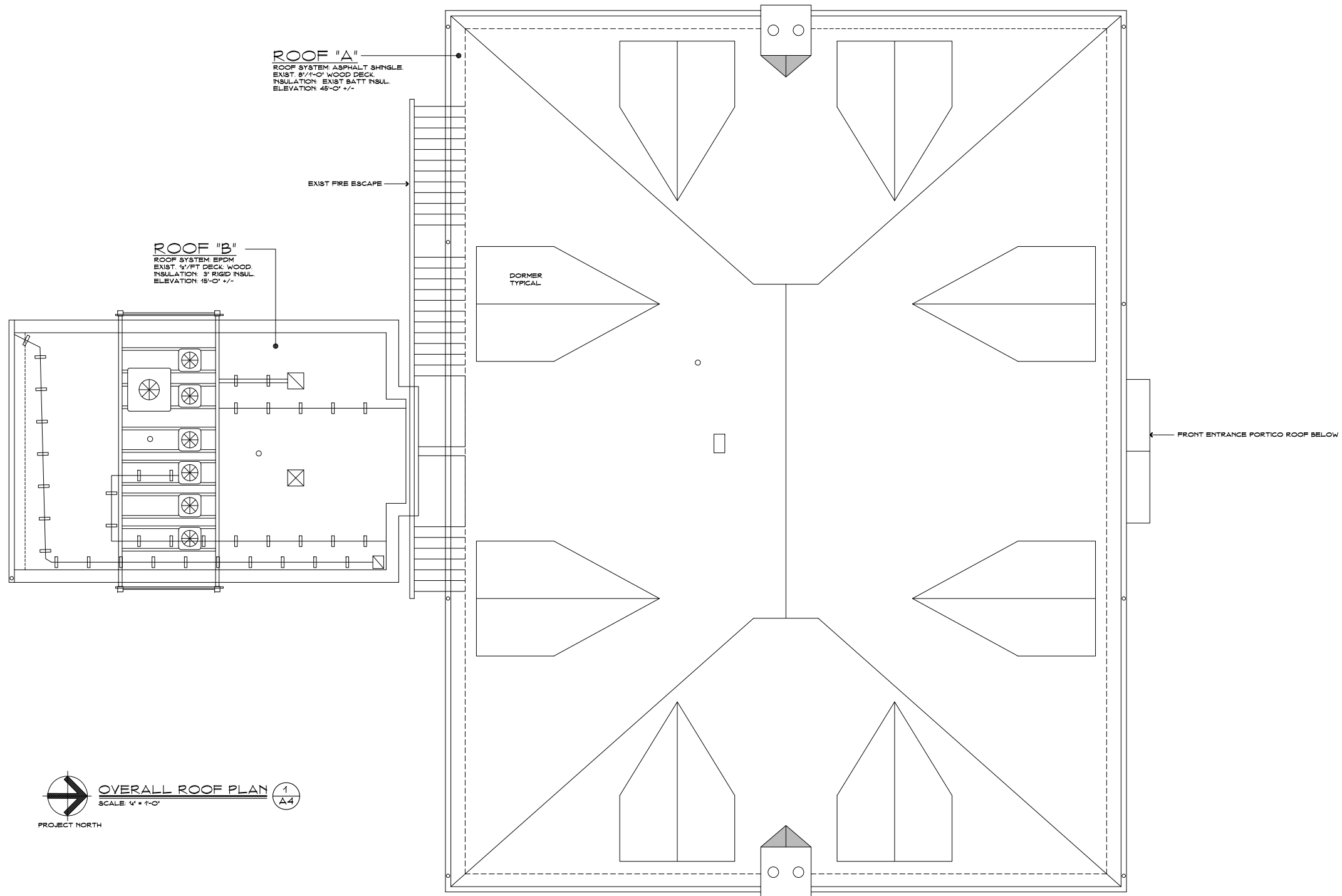
SCALE: 1/4" = 1'-0"

1

A3



Revision:	Description:	Date:	Revised By:

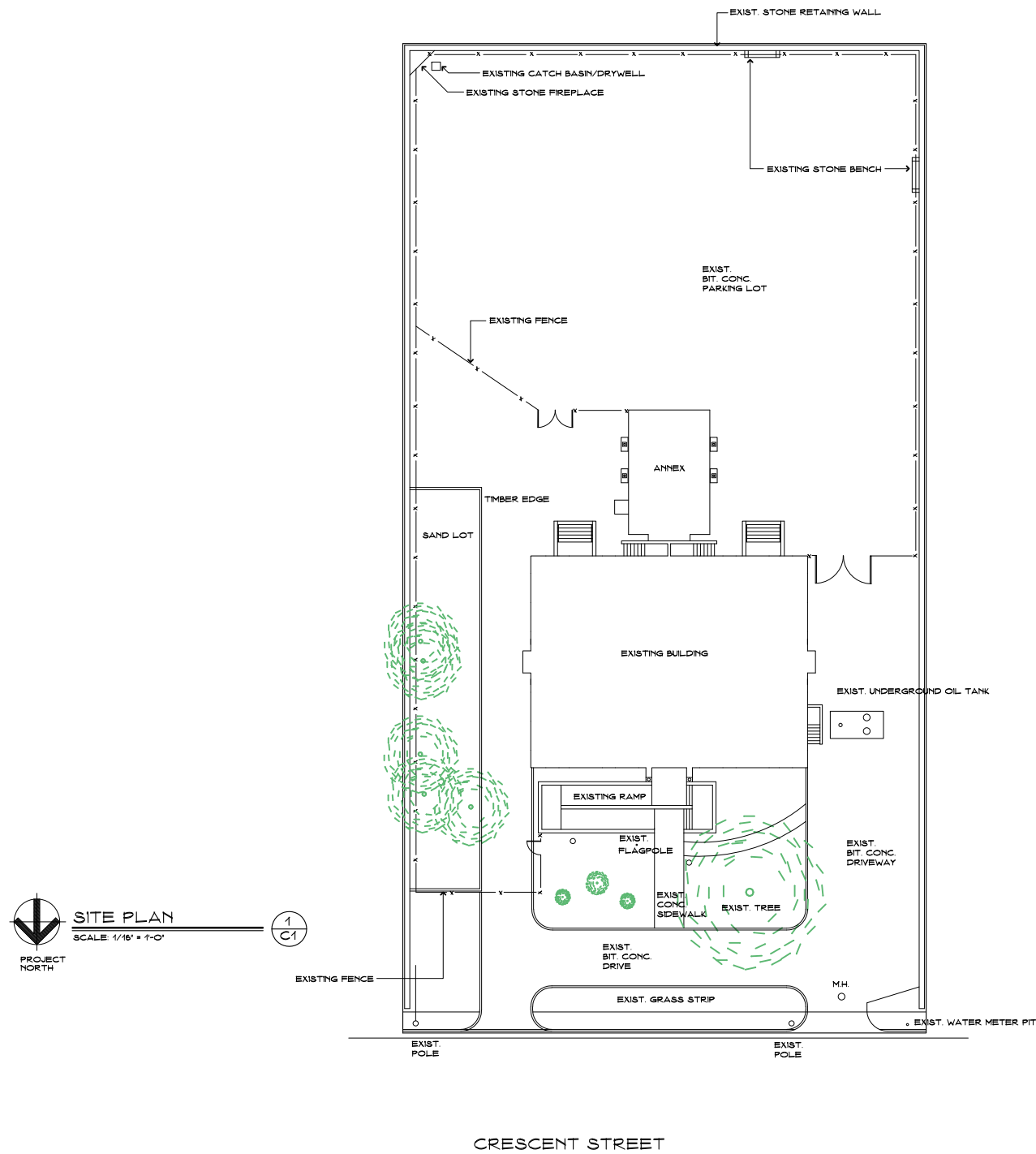


Revision:	Description:	Date:	Revised By:



SYMBOL LEGEND

- X SITE SIGNAGE
- PROPERTY LINE
- === EXISTING BIT. CURBING
- X — CHAIN LINK FENCE
- ① → SITE NOTE
- EXISTING MANHOLE
- M.H.
- EXISTING TREE



 **SITE PLAN**  
SCALE: 1/16" = 1'-0"  
PROJECT NORTH

① C1



Revision:	Description:	Date:	Revised By:



FRONT ELEVATION (NORTH) 1  
SCALE: 1/4" = 1'-0" A5

Project Title:  
Facility Condition Assessment:  
**Glenbrook Community Center**  
35 Crescent Street  
Stamford, Connecticut 06906



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Revision:	Description:	Date:	Revised By:

Drawing Title:  
**Exterior Elevations**

Date: 3/6/2020  
Scale: AS NOTED  
Drawn By: PEJ  
Project Number: 19328  
Drawing Number: A5



SIDE ELEVATION (WEST)  
SCALE: 1/4" = 1'-0"

1  
A6

Project Title:  
Facility Condition Assessment:  
**Glenbrook Community Center**  
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Revision:	Description:	Date:	Revised By:

Drawing Title:  
**Exterior Elevations**

Date: 3/6/2020  
Scale: AS NOTED  
Drawn By: PEJ  
Project Number: 19-328  
Drawing Number: A6



REAR ELEVATION (SOUTH) 1 A7  
SCALE: 1/4" = 1'-0"

Project Title:  
Facility Condition Assessment:  
**Glenbrook Community Center**  
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Revision:	Description:	Date:	Revised By:

Drawing Title:  
**Exterior Elevations**

Date: 3/6/2020  
Scale: AS NOTED  
Drawn By: PEJ  
Project Number: 19328  
Drawing Number: A7





SIDE ELEVATION (EAST)  
SCALE: 1/4" = 1'-0"

1  
A8

Project Title:  
Facility Condition Assessment:  
**Glenbrook Community Center**  
35 Crescent Street  
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Revision:	Description:	Date:	Revised By:

Drawing Title:  
**Exterior Elevations**

Date: **3/6/2020**  
Scale: **AS NOTED**  
Drawn By: **PEJ**  
Project Number: **19328**

Drawing Number:  
**A8**

Glenbrook Community Center										
FACILITY CONDITION ASSESSMENT										
6-Mar-20										
TAG NO.	ASSESSMENT	SYSTEM/CODE REFERENCE	AGE, IF KNOWN	RANKING (Low to High)				CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
				4	3	2	1			
SITE CONDITIONS										
S1	Bituminous paving around the building, specifically by the play area and rear parking lot, is cracked and deteriorated.	Civil	1990's	4				Repave areas. 6,000-8,000 SF	\$ 15,000	
S2	Sections of stone wall around parking lot are cracked and loose where fence posts anchor. Some fence sections are old and deteriorating.		2013/2016 fencing		3			Repair portion of site walls and replace fence and transitions as needed. 150 LF	\$ 20,000	
S3	Downspout roof drainage spills out on pavement, causing wear and erosion of adjacent sufaces and potentially slippery and icy conditions. Wells at lower level doors are filled with debris.			4				Pipe roof and site drainage underground to storm system. Clean around stairwell drains.	\$ 120,000	Civil engineering recommended for underground site utility work.
EXTERIOR CONDITIONS										
A1	Front entrance stairs and ramp are in poor condition. Water has infiltrated heavy stone walls and base of walls at the ramp surface. Ramp and landing walls have significant cracks from the top down. Walls have "heaved" and are no longer plumb.	General				2		Repair, rebuild sections of ramp wall and repoint. Remove and replace concrete ramps, landings and stairs.	\$ 60,000	Alternate construction should be considered for this repair. Remove altogether and build in less costly, more maintenance friendly materials.
A2	Handrails are loose and are not code compliant.	1014.3.1 CTSBC				2		Provide new galvanized steel railings at ramp and stairs. 150 LF	\$ 15,000	
A3	Minor cracking of stone facade. Dirt and grime on stone and masonry surfaces.	General		4				Repair, repoint masonry. Power wash as necessary. Minor concrete repair as needed. 150-200 SF	\$ 10,000	

TAG NO.	ASSESSMENT	SYSTEM/CODE REFERENCE	AGE, IF KNOWN	RANKING (Low to High)			CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
A4	Door thresholds or concrete pads have a greater than 1/2" transition to grade. Settling of pavement, steps at doors. Cracked concrete sidewalks. Door frames deteriorating.	ANSI 117 (ADA)			2		Provide ramp or rework asphalt/concrete to allow for 1/2" maximum vertical transition at exterior doors, 4 locations. Replace exterior doors and frames as needed, 2 locations.	\$ 15,000	
A5	Window frames and glazing are older, thermally inefficient and past their useful life.	Energy Code			2		Replace windows with thermally broken, energy efficient systems. Safety glass proposed for gym use and remove metal screens. Window and glazing system lifespan is generally considered 30-40 years. Energy savings benefit.	\$ 250,000	Improves comfort level by eliminating drafts, and creates a tighter exterior envelope which saves money.
A6	Cementitious window lintels are damp and water stained. There appears to be minor water infiltration which should be addressed/corrected in conjunction with window replacement.				2		Determine source of water, reconstruct window heads to shed water.	\$ 50,000	
<b>INTERIOR CONDITIONS</b>									
A7	Many door push and/or pull maneuvering clearances do not meet code. Includes conditions where the jamb thickness is larger than 8" beyond face of door.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2		Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required. 10 doors off of corridor.	\$ 25,000	This item is based on existing room layouts which are subject to change.
A8	Required toilet grab bars are missing.	(B)1108.0 (ANSI) A117.1) 603-606			2		Install code required grab bars.	\$ 2,000	Based on recent code updates.
A9	Toilet room finishes are in fair to poor condition, including fixtures and toilet partitions.				2		Provide new finishes, refresh spaces.	\$ 60,000	The toilet rooms are operational but lack aesthetics.
A10	Group toilet rooms at the back of the building are in need of upgrades, including finishes. Entry doors, HC toilet stalls and lavatories do not meet accessibility requirements.				3		Renovate two group restrooms, provide accessibility based on existing conditions which are dependant on building uses.	\$ 180,000	
A11	Cabinetry, counters and built-in shelving is older and does not meet accessibility requirements.			4			Replace cabinetry as needed.		Tenant related item.
A12	Doors and door hardware are in fair to poor condition. A few instances of hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)		4			Replace damaged doors and install new accessible lever handle locksets at a few missing locations.	\$ 10,000	

3/6/2020

TAG NO.	ASSESSMENT	SYSTEM/CODE REFERENCE	AGE, IF KNOWN	RANKING (Low to High)			CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
A13	Handicap signage at doors is missing and does not comply with current code.	703.4.4.1. 2010 ADA, 1013.4 CTSBC		4			Provide new signage around building.	\$ 10,000	
A14	Doors and frames in means of egress require labels.				2		Upgrade doors as needed, stairs and corridors.	\$ 8,000	
A15	Kitchen has older cabinets/counters in fair to poor condition and does not meet accessibility requirements or clearances.			4			Renovate kitchen area for accessibility.		Tenant related item.
A16	Finish flooring in the high traffic areas of the building (corridors) is worn and in poor condition.			4			Provide new finish floors in shared circulation spaces.	\$ 8,000	Note: wood subfloor is often not the ideal base for finish flooring longevity.
A16a	Finish flooring in tenant spaces is worn in some areas.			4			Provide new finish floors in tenant rooms.	\$ 10,000	Tenant related item. Rooms to be redone per user requirements using carpet, resilient, rubber and or tile as appropriate.
A17	Gym flooring is worn, but sound.			4			Refinish gym floor.		
A18	Gates located at lower level back corridor.				2		Remove gates as they are not permitted by code. Eliminate potential for dead end at egress.	\$ 750	
A19	Older acoustical tile ceilings and grids in fair to poor condition.			4			Provide new ceilings in shared circulation spaces.	\$ 5,000	
A20	Old water damage at third floor walls at eaves.			4			Repair interior damaged finishes, paint.	\$ 5,000	
A21	Gypsum board finishes damaged in select areas.			4			Patch walls, paint and refresh spaces.	\$ 10,000	
A22	Third floor piping freeze issues around perimeter of building.				3		Provide interior louvered access panels at heat piping for convenient, attractive access. 4 locations.	\$ 8,000	
A23	Fire escape paint peeling, metal rusting.		2003		3		Prep and paint exterior fire escape and misc. exterior exposed steel structure.	\$ 15,000	
<b>HAZARDOUS MATERIAL ABATEMENT</b>									
H1	Testing of utility space plaster ceilings recommended.			4			Hazardous materials unknown.		Small area of basement utility rooms
H2	Testing of pipe insulation, fittings & wall adhesives recommended.			4			Hazardous materials unknown.		Small area of basement utility rooms
<b>PLUMBING/FIRE PROTECTION</b>									



TAG NO.	ASSESSMENT	SYSTEM/CODE REFERENCE	AGE, IF KNOWN	RANKING (Low to High)			CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
P1	Water Heater system, distribution components and occupant safety need improvement.	General			3		Protect equipment from water by raising water heater above floor, improve efficiency with new recirculation system, protect against pathogens and scalding with new thermostatic mixing valve.	\$ 6,500	
P2	Water heater installed in 2006, 5+ year life expectancy.	General	2006	4			Water heater replacement in kind.	\$ 7,500	
P3	Sump pump system maintenance.	General			3		Provide new sump pump.	\$ 630	
P4	Mop sink clogged.	General				2	Snake drain clean.	\$ 1,500	
P5	Point of use thermostatic mixing valves not provided on lavatories (Hot water code requirement).	IPC			3		Provide 1070 Thermostatic Mixing Valves for all Lav's.	\$ 11,250	
P6	ADA insulation not provided on all lavatory supply and drain (Code requirement).	ADA			3		Provide ADA insulation on all required lav's.	\$ 5,250	
P7	Exposed piping.	IECC		4			Insulate all exposed water piping.	\$ 8,500	Partial energy code requirement and good practice
FP1	Dry Sprinkler System lifespan can be increased with new maintenance device.	General			3		Provide a Nitrogen Generator and pipe Inspection to determine quality of dry piping.	\$ 25,000	
FP2	Wet Sprinkler System burst in non heated storage room (back annex).	NFPA 13				1	Provide a Dry Barrel side wall sprinkler head when located within non heated storage room.	\$ 2,300	
FP3	Wet Sprinkler system lacks auxiliary drains.	NFPA 13			3		Provide auxiliary drains for trapped piping located on the upper level.	\$ 3,300	
<b>MECHANICAL SYSTEMS</b>									
M1	Existing hot water piping distribution system, valves and finned tube radiation have well outlived their useful life.					2	Replace hot water piping distribution system, valves and finned tube radiation.	\$ 80,000	
M2	Gym exhaust fans have outlived their useful life expectancy.			4			Replace gym fans and controls.	\$ 10,000	
M3	Rear group toilet rooms are reported to have insufficient heating.			4			Provide supplemental heating for exterior toilet rooms. Install additional finned tube, extend piping, insulate piping.	\$ 3,000	
M4	Building lacks modern mechanical ventilation for most spaces.			4			Mechanical ventilation would require exterior louvers, ductwork, dampers and controls for delivery of fresh air.	\$ 120,000	Natural ventilation exists with operable windows throughout building.
<b>ELECTRICAL SYSTEMS</b>									

TAG NO.	ASSESSMENT	SYSTEM/CODE REFERENCE	AGE, IF KNOWN	RANKING (Low to High)			CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
E1	There are single occupant toilet rooms in the building that do not have call for aid systems installed.	General			3		Install call for aid systems with pullcords and buzzers above the door in rooms except the pre-school toilet rooms.	\$1,000	
E2	Classrooms and Meeting Rooms do not currently have emergency lighting.	NFPA 101				1	Provide emergency light fixtures in the Classrooms and Meeting Rooms.	\$2,500	
E3	Existing fluorescent lighting will not meet current codes (30% reduction by level lighting).	ASHRAE/IES 90.1-2016			3		Replace all existing fluorescent fixtures and controls with new energy efficient LED fixtures. Add lighting controls for all rooms.	\$60,000	
E4	Exterior Building lighting is damaged, or inoperable- will not meet current codes.	General				2	Replace all exterior building lighting with new energy-efficient LED products. Replace pole mounted area lights with new LED.	\$2,600	
E5	Exterior emergency lighting - path of egress illumination.	General				1	Provide new battery operated, exterior light fixtures at all exits to provide the required minimum of 1 footcandle light level per code.	\$1,200	
E6	Existing entry ramp walkway lighting does not provide sufficient lighting on the walkway. The lit handrail is inoperable.	General			3		Replace existing walkway fixtures with new LED fixtures and provide additional fixture to obtain the correct light levels.	\$600	
E7	Low level sidewalk lighting fixtures are inoperable.	General			3		Replace existing fixtures with new LED accent fixtures.	\$600	
E8	Main electrical service should be tested & serviced as required.	General		4			Testing will identify any potential problems in the distribution system. Inspect all existing electrical panels.	\$5,000	

1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.

**General Note:** Items identified may not be in compliance with current codes but were at date of installation. These items should be considered at time of future planned renovations or upgrades.

3/6/2020