Building Inspection Report

Police Station - 40 Ayer Rd, Harvard

Inspection Date:
06 December 2011

Prepared For:
Town of Harvard

Prepared By:
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Report Number:
120611GA

Inspector:
Greg A. Galeota, President

SUMMARIZATION REPORT FOR

The Town of Harvard

AT

The Police Station, 40 Ayer Road, Harvard, MA

We hope you had the advantage of being present during the inspection. If so, you have a better perspective and more detail that any written report can give.

Your inspection has been done incorporating with the principles and standards developed for professional home inspections by the **"AMERICAN SOCIETY OF HOME INSPECTORS"** and in compliance with the Commonwealth of Massachusetts' ***Rules and Regulations Governing Home Inspectors: 266 CMR 1.00-11.00.*** In addition, during the inspection we have tried to offer constructive suggestions and to answer as many of your questions as we were able. You will, however, recall that we do not move furniture, disassemble equipment or get into dangerous areas, or see behind covered sections.

Due to licensing requirements/restrictions we cannot provide you verbal "ball park" estimates for repairs suggested in this report. Ethically we are not allowed to recommended any specific contractors. We are not contractors or construction estimators therefore we cannot provide written estimates for work suggested in the report.

Your inspector has done his very best for you! He has given his honest, unbiased opinions to the very best of his ability--and that is what you have purchased--nothing else--but alas, he is but human. He is a trained and experienced "building generalist" but neither he nor anyone can be an "expert" in **everything** about a building. Neither does he make any pretensions of either total completeness or infallibility.

Since appliances such as refrigerators, dishwashers, stoves, ovens and disposals are **not** considered mechanicals, they are not inspected and are not part of this report.

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Report Overview

THE BUILDING IN PERSPECTIVE

This is a 9+ year old (approximate age) building that has been lacking maintenance somewhat.

Time at the Inspection: 9:55 a.m. to 12:39 p.m.

CONVENTIONS USED IN THIS REPORT

For your convenience, the following conventions have been used in this report.

- ⊠◇ denotes a major improvement recommendation that is in need of immediate repair.
- ☒ denotes a observation or recommendation that is considered an immediate safety concern.
- ☑ denotes improvements that should be anticipated over the short term.
- ◈ denotes an area where further investigation and/or monitoring is needed. Repairs may be necessary. During the inspection, there was insufficient information. Improvements cannot be determined until further investigation or observations are made.

Please note that those observations listed under "Discretionary Improvements" are not essential repairs, but represent logical long term improvements.

NOTE: For the purpose of this report, it is assumed that the building faces west.

IMPROVEMENT RECOMMENDATION HIGHLIGHTS

The following is a synopsis of the potentially significant improvements that should be budgeted for over the short term. Other significant improvements, outside the scope of this inspection, may also be necessary. Please refer to the body of this report for details and recommendations.

THE SCOPE OF THE INSPECTION

All components designated for inspection in the ASHI® Standards of Practice are inspected, except as may be noted in the "Limitations of Inspection" sections within this report.

This inspection is visual only. A representative sample of building components are viewed in areas that are accessible at the time of the inspection. No destructive testing or dismantling of building components is performed.

Not all improvements will be identified during this inspection. Unexpected repairs should still be anticipated. The inspection should not be considered a guarantee or warranty of any kind.

WEATHER CONDITIONS

Wet weather conditions prevailed at the time of the inspection. The estimated outside temperature was 57 degrees F.

Structural Components

DESCRIPTION OF STRUCTURAL COMPONENTS

Foundation:	•Poured Concrete •Basement Configuration •Finished Areas
Floor Structure:	•Steel Columns •Steel Floor Beams •Corrugated Steel/Concrete Sub Floor
Wall Structure:	•Steel Frame
Ceiling Structure:	•Truss
Roof Structure:	•Trusses
Roof Sheathing:	•Plywood
Attic Access Location:	•Hallway •Attic Method Of Inspection: Entered - Inaccessible Areas

STRUCTURAL COMPONENT OBSERVATIONS

As with most buildings of this age and location, some liberties are taken with good building practice and with the quality of materials employed.

A majority of the cellar was finished as living areas. The walls and floors were finished and the first floor framing was covered. Not all areas of the foundation and framing were accessible or visible for inspection.

RECOMMENDATIONS / OBSERVATIONS

- ⍰ There is attic lighting. There are plywood gang planks installed for access at the middle of the attic area. (Photo)
- ⍰ Settlement cracks were observed in the foundation walls of the building. This implies that some structural movement of the building has occurred, as is typical of most buildings. This area should, of course, be monitored. The rate of movement cannot be predicted during a one-time inspection.
- ⍰ Typical concrete floor cracks were observed. These cracks are not cause for alarm.
- ☑ The basement shows evidence of moisture penetration in the form of: •efflorescence •water stains. The evidence of seepage was most pronounced at the front 911 utility and boiler utility areas. (Photo) ***It should be understood that it is impossible to predict the severity or frequency of moisture penetration on a one time visit to a building.*** Virtually all basements exhibit signs of moisture penetration and virtually all basements will indeed leak at some point in time. The visible evidence is considered above average for a building of this age, construction and location. Further monitoring of the foundations will be required to determine what improvements, if any, will be required. Basement leakage rarely affects the structural integrity of a building.

  The vast majority of basement leakage problems are the result of insufficient control of storm water at the surface. The ground around the building should be sloped to encourage water to flow away from the foundations. Gutters and downspouts should act to collect roof water and drain the water at least five (5) feet from the foundation, or into a functional storm sewer. Downspouts that are clogged or broken below grade level, or that discharge too close to the foundation, are the most common source of basement leakage. Please refer to the Roofing and Exterior sections of the report for more information.

  In the event that basement leakage problems are experienced, lot and roof drainage improvements should be undertaken as a first step. Please beware of contractors who recommend expensive solutions. Excavation, dampproofing and/or the installation of drainage tiles should be considered a last resort. In some cases, however, it is necessary. Your plans for using the basement may also influence the approach taken to curing any dampness that is experienced.
- ⍰ It is very common for shrinkage and/or settling cracks to develop in foundation walls. It is also common for these cracks to leak. If leakage is experienced, improve lot drainage adjacent to the crack. If leakage persists, various methods of crack repair are available, including interior patching with an epoxy resin or hydraulic cement.
- ⍰ Depending on the location of the building, ground water tables can sometimes influence basement leakage. Ground water levels tend to fluctuate seasonally and during heavy rainfall. It is impossible to predict what influence ground water may have, during a one-time inspection of a building. If ground water levels extend above the height of the basement floor, the performance of the perimeter foundation drainage tile is very important. If ground water fluctuation causes basement leakage, the installation of effective drainage tiles (and sump pumps, in some cases) becomes necessary.
- ☑ There is evidence of vermin activity in the attic. A pest control specialist should be consulted in this regard. (Photo)

Inspection for wood damage is a visual surface examination. Concealed wood damage may exist. Destructive testing is not performed during a building inspection. It is my recommendation that further examination for concealed wood damage be conducted.

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF STRUCTURAL COMPONENT INSPECTION

This is a visual inspection only. Assessing the structural integrity of a building is beyond the scope of this Report.. A Certified professional engineer is recommended where there are structural concerns about the building. Inspection of structural components was limited by (but not restricted to) the following conditions:

- Structural components concealed behind finished surfaces could not be inspected.
- Only a representative sampling of visible structural components were inspected.
- Furniture and/or storage restricted access to some structural components.
- Concealed foundation walls could not be examined.
- Extensive storage in the basement particularly restricted the inspection.
- Inaccessible floor, wall and roof cavities could not be inspected.
- The elevator machine room, cellar janitor's closet, Arms room, Evidence Room, Archive room, Chief's office and Medical storage room were locked and were not accessible for inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Roofing System

DESCRIPTION OF ROOFING SYSTEM

Roof Covering:	•Composition Shingle •Number of roofing layers observed: One
Chimneys:	•Metal
Gutters and Downspouts:	•Aluminum •Downspouts Discharge Below Grade
Method of Inspection:	•Viewed With Binoculars

ROOFING OBSERVATIONS

The roof, roof covering, flashing, soffit areas, gutters and chimney, where present, were inspected from the ground with high powered field glasses.

It is reported that this roof covering is approximately 9+ years old.

RECOMMENDATIONS / OBSERVATIONS

- Normal irregular wave of the roof structure was observed. This condition may exist due to the method of framing acceptable at the time of construction. (Photo)
- The roofing material is in visually normal condition for the reported age. Signs of wear and tear, loss of granular material, and weathering were observed. (Photo)
- The configuration of the roofing system is susceptible to ice damming. This should be watched for during the winter months. The potential for ice dams can vary with the severity of the winter. Severe ice dams can result in roof leakage, typically near the eaves. Solutions include better attic insulation and ventilation and eave protection below the roof coverings. (Photo)
- The flashing at the chimney, plumbing vent pipe, conduit for the antennae wiring, etc.. was in visually normal condition at the time of the inspection.
- The gutters were in visually normal condition at the time of the inspection. Gutters must be kept clear of debris at all times to allow for proper operation.
- The downspouts were in visually normal condition at the time of the inspection. Downspouts should be properly connected and kept in good working order at all times. The use of elbows with conductor pipe extensions or splash blocks is recommended where appropriate. Should downspouts discharging into an underground system fail to adequately accept the discharge, the downspouts should be cut high enough above the earth to provide adequate runoff. Elbows with conductor pipe extensions should be installed. Of course underground systems are not visible for inspection. Care should always be taken not to discharge water onto walks, entrances or driveways where freezing could cause a potential hazard.

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF ROOFING INSPECTION

This is a visual inspection only. Roofing life expectancies can vary depending on several factors. Any estimates of remaining life are approximations only. This assessment of the roof does not preclude the possibility of leakage. Leakage can develop at any time and may depend on rain intensity, wind direction, ice build up, etc. The inspection of the roofing system was limited by (but not restricted to) the following conditions:

- The entire underside of the roof sheathing is not inspected for evidence of leakage.
- Evidence of prior leakage may be disguised by interior finishes.
- Portions of the roof were viewed from the ground using binoculars. Some sections of the roof could not be viewed.
- The roof surface was wet. This condition can restrict a proper assessment of the condition of the roofing materials.

Exterior Components

DESCRIPTION OF EXTERIOR

Lot Grading:	•Graded Towards Building
Driveways:	•Asphalt
Walkways / Patios:	•Concrete
Retaining Walls:	•Poured Concrete •Unit Masonry
Porches, Decks, and Steps:	•Concrete
Soffit and Fascia:	•Composite
Wall Cladding:	•Fiber Cement board
Window Frames:	•Vinyl
Entry Doors:	•Metal
Overhead Garage Door(s):	•Aluminum •Automatic Opener Installed

EXTERIOR OBSERVATIONS

The exterior of the building has lacked maintenance, somewhat.

RECOMMENDATIONS / OBSERVATIONS

- ⍰ The slope at the foundation was generally flat. The slope should always be away from the foundation. All depressions should be filled and graded so as to quickly disperse water away from the foundation walls to help prevent possible water penetration into the cellar areas. It is important to practice good water drainage control around any structure at all times. Areas where wood is in contact with the ground are potential candidates for wood rot and/or insect infestation. It is recommended, no wood be in contact with the ground and there be a minimum of 8 inches clearance to untreated wood structural members and 6 inches to any other untreated wood. (Photo)
- ☑ It is recommended the bark mulch and dirt at the foundation areas be removed (out approximately a foot) and a crushed stone ribbon be installed to help create more clearance between the lower siding/trim and the soil. This will also help promote better drainage away from the foundation. (Photo)
- ☑ The driveway is badly cracked at the sloped section to the rear yard. Repairs are necessary. (Photo)
- ☑ The driveway is in need of crack filling to prevent water penetration to the sub base. Freezing and thawing of the sub base can cause a deterioration of the surface. (Photo)
- ⍰ The soil below the walkway has settled and/or heaved. Persisting movement may result in the need for repairs.
- ☑ There are drainage areas to the left, rear and right of the lot. These areas are becoming overgrown with trees and filled with yard waste. These areas should be maintained to allow for proper drainage. (Photo)
- ☑ The condensate discharges onto the rear walk. This is causing deterioration to this area. These conditions are in need of improvement. (Photo)
- ⍰ The retaining walls show evidence of movement. These conditions should be monitored. It is impossible to determine the rate of movement during a one time visit to the property. (Photo)
- ⍰ The steps have settled somewhat. If this condition persists, or if the steps become a trip hazard, improvements should be undertaken.
- ☒ The generator is located directly below the intake for the heat recovery ventilators in the attic. I was informed when the generator is running, exhaust fumes can be detected in the interior of the building, especially at the communications area and main level. These conditions are in need of improvement for safety. (Photo)
- ☒ The building is sided with fiber-cement board siding. It is recommended that you verify the manufacturer of the siding with the builder. The methods used to install the siding (unevenness of siding material/openings between courses, improper stagger of lap joints, the methods used to install the Z flashing above the windows, clearances of the material to concrete, roof cover, etc.) do not appear to meet manufacturer's requirements. Some of the lap joints are screwed together. Moisture penetration was observed in some areas. Failure to comply with installation instructions and/or

applicable building codes may affect product performance and void product warranties. It is recommended the installation of the siding be evaluated by a manufacturer's representative. Repairs are necessary. (Photo)

- ☑ Wood/soil contact at the base of the siding and trim should be eliminated. These conditions are conducive to wood rot and insect activity. There is the potential for there to be concealed damage. Further investigation is necessary by a contractor. Rotted or damaged material that is uncovered should be repaired. (Photo)
- ☑ The trim (doors, frieze boards, post bases, etc..) is in need of proper surface preparation and the application of surface protection. (Photo)
- ☑ The foundation shrubs and/or trees should be pruned away from the structure to provide for adequate light and air circulation. This will help prevent excess moisture build-up on the structure. (Photo)
- ☑ The original location of the department sign was at the right side of the main driveway. This was moved because the sign restricted sight on Ayer Road towards the center of Town. When the sign was relocated, the wiring was not. The existing sign is not lighted. The junction boxes and wiring remain. (Photo)
- ☑ The fixed pane windows at the communications center and bathroom have broken seals. This has resulted in condensation developing between the panes of glass. This "fogging" of the glass is primarily a cosmetic concern, and need only be improved for cosmetic reasons. It was reported this is bullet proof glass. No safety standard or manufacturer's stamp was visible on the glass panels. (Photo)
- ☑ The closer door from the vestibule to the main hall does not function properly. The door closer is in need of replacement.
- ◈ The exterior door(s) should be trimmed or adjusted, as necessary.
- ☑ The switch for the Sally port overhead garage door does not function properly. Replacement of the switch is necessary. (Photo)
- ☑ The slope of the garage floor at the Sally port is not conducive to good drainage. Garage floors should be sloped to facilitate the movement of liquids toward the drain and/or main vehicle entry. (Photo)
- ◈ The weatherstripping at the Ambulance Bay door is damaged. (Photo)
- ◈ I was informed there was a leak around the pipe for the fire department connection to the fire suppression system at the front of the ambulance bay. The surface water on the floor drains to this low spot. The area around this pipe has been sealed with hydraulic cement. These conditions should be monitored. (Photo)
- ◈ No wood damage, with the exception of damage to the lower trim from the landscaper's grass/weed trimmer, was observed on the exterior at the time of the inspection. (Photo)

Inspection for wood damage is a visual surface examination. Concealed wood damage may exist. Destructive testing is not performed during a building inspection. It is my recommendation that further examination for concealed wood damage be conducted.

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF EXTERIOR INSPECTION

This is a visual inspection only. The inspection of the exterior was limited by (but not restricted to) the following conditions:

- A representative sample of exterior components was inspected.
- The inspection does not include an assessment of geological conditions and/or site stability.
- Landscape components restricted a view of some exterior areas of the house.
- Storage in the Sally Port, Ambulance Bay and storage closets restricted the inspection.
- Unfavorable weather restricted the inspection of the exterior of the building.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Electrical System

DESCRIPTION OF ELECTRICAL SYSTEM

Size of Electrical Service:	•600 Amps, 120/240 Volt Main Service
Service Entrance Wires:	•Underground •Conductors Not Visible
Main Disconnect:	•Breakers •Located in the cellar •Main Service Rating 600 Amps
Service Ground:	•Copper •Water Pipe Connection •Bonding Noted
Main Distribution Panel:	•Breakers (8-220V) •Located in the cellar •Panel Rating 600 Amps
Branch/Auxiliary Panel HP:	•Breakers (11-220V/8-110V)
Branch/Auxiliary Panel HP1:	•Breakers (8-220V/13-110V)
Branch/Auxiliary Panel CP:	•Breakers (1-220V/30-110V)
Branch/Auxiliary Panel LP1:	•Breakers (1-220V/23-110V)
Branch/Auxiliary Panel PP1:	•Breakers (2-220V/30-110V)
Branch/Auxiliary Panel PP2:	•Breakers (2-220V/31-110V)
Branch/Auxiliary Panel PP2A:	•Breakers (0-220V/20-110V)
Branch/Auxiliary Panels 911 Control	•Breakers (1-220V)
Branch/Auxiliary Panels Circulators	•Breakers (4-220V)
Branch/Auxiliary Panels A/C Units:	•Breakers (7-220V)
Distribution Wiring:	•Copper •THHN
Receptacles:	•Grounded
Ground Fault Circuit Interrupters:	•Exterior •Bathroom(s) •Garage •Kitchen

ELECTRICAL OBSERVATIONS

Inspection of the electrical system revealed the need for improvements. These improvements should be considered high priority for safety reasons. ***Unsafe electrical conditions represent a shock hazard.*** A licensed electrician should be consulted to undertake the improvements recommended below.

Ground fault circuit interrupter (GFCI) devices have been provided in some areas of the building. These devices are extremely valuable, as they offer an extra level of shock protection.

RECOMMENDATIONS / OBSERVATIONS

☑ The main panels are commercial enclosures. The covers/dead fronts were not removed at the time of the inspection. It is recommended that the interior of the panels be evaluated by a licensed electrician to verify the breaker and wires sizes are compatible and if there are any double lugged/tapped circuit breakers. (Photo)

◈ Circuit breakers should be switched "on" and "off" once or twice yearly in order to prevent "welding" of the contacts due to oxidation and/or corrosion. Ground Fault Interrupter Circuits should be tested with test button monthly.

☒ A ground fault circuit interrupter (GFCI) exterior outlet at the door to the rear hall did not respond correctly to testing during the inspection. This receptacle should be replaced. (Photo)

☒ The missing outlet cover plates at the rear wall of the main electric utility room should be replaced. (Photo)

☑ Two outlets at the left wall of the fitness room are inoperative. The outlets and circuit should be investigated. (Photo)

☑ One of the wall lights at the stairwell, near the door to the exterior, is inoperative. If the bulb or ballast are not blown, the circuit should be investigated.

◈ The 220V breaker at the 3/5 position in Branch/Auxiliary Panel HP was off at the time of the inspection. Further investigation is necessary.

☒ The building is equipped with a diesel generator system. Inspection of this system is beyond the scope of this inspection. I was informed there is a leak in the cooling system of the generator that causes the system to shut down during operation and water has to be added periodically. These conditions are in need of further evaluation and repair. If there are improper levels of anti-freeze, the system could freeze. I was also informed there is no maintenance contract for this unit. A maintenance contract is necessary to ensure reliability of the system.

☒ There are wall outlets at the Ambulance Bay laundry area and at the Sally Port that are in close proximity to emergency shower and/or eye wash facilities. The outlets are GFCI protected and have "weatherproof when closed" covers. Further investigation is necessary to determine if this installation is acceptable/safe. (Photo)

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF ELECTRICAL INSPECTION

This is a visual inspection only. The inspection does not include low voltage systems, telephone wiring, intercoms, alarm systems, TV cable, timers or smoke detectors. The inspection of the electrical system was limited by (but not restricted to) the following conditions:

- Electrical components concealed behind finished surfaces could not be inspected.
- Only a representative sampling of outlets and light fixtures were tested.
- Furniture and/or storage restricted access to some electrical components.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Heating System

DESCRIPTION OF HEATING SYSTEM

Primary Energy Source: •Gas
Heating System Type: •Forced Air •Hot Water -
•**Boiler Manufacturer:** Raypak - Raytherm
•**Air Handler Manufacturer:** First Co., Inc.
•**# Of Units:** 2 •**# Of Zones:** multiple
Heat Distribution Methods: •Ductwork •Radiators
Other Components: •Outside Air Intake System

HEATING OBSERVATIONS

The boilers are estimated to be 9+ years old. The typical life cycle for a unit such as this is 20-25 years. Some units will last longer; others can fail prematurely.

RECOMMENDATIONS / OBSERVATIONS

☑ The two boilers employed in this system are not typically used for this configuration. Raypak boilers are typically used for heating water for indirect fired water heaters, pools, etc.. The manufacturer should be consulted to determine if the use of the boilers in this application is acceptable.

☑ A leak was observed at the relief valve at boiler #1. A heating technician should be engaged to remedy this condition. (Photo)

☒ Boiler #2 is OFF. There is extensive corrosion and evidence of leakage. I was informed the boiler has been OFF for approximately 2 years. This boiler being OFF is causing Boiler #1 to overwork. This will cause a higher level of maintenance and shorter life span for the remaining boiler. Boiler #2 should be replaced as soon as possible. (Photo)

☒ There is extensive corrosion at the circulator pumps visible in the boiler/utility room. I was informed there has been a very high level of maintenance on the circulator pumps. Some of the pumps were inoperative at the time of the inspection. (Photo)

☒ I was informed there is no heat being supplied to the lock-up area, kitchen/office area, training room, etc.. The distribution of heat to the communications center, processing area, men's locker room, fitness area, etc.. is inconsistent. A cardboard diffuser has been installed above the main console in the communications area. Further investigation and repairs are necessary. (Photo)

☒ The heating and cooling system are controlled by a central computer and software program. I was informed the software is proprietary and the company that wrote the program is no longer in business. The control of heat and cooling through the building is very inconsistent. After a power failure, the system has to be rebooted. It is recommended that a company that specializes in design, installation and controls for indoor climate control be consulted. (Photo)

☑ I was informed the thermostats through out the building are either inoperative or temperamental. These conditions may also be effected by the software control. Further investigation and repairs are necessary. (Photo)

☑ The ceiling mounted radiator at the overhead garage door in the Sally port is leaking. Repairs are necessary. (Photo)

☑ Access to the air handlers is extremely limited. Most of the ceiling tiles under the units have been moved and/or removed due to water damage. I was informed there are switches that have to be operated by a broom stick at the lower hall and communications center bathroom. These conditions are in need of improvement. (Photo)

◈ Filters should be changed periodically for better air circulation.

◈ Due to the condition of the systems it may be wise to enter into a yearly maintenance agreement with a certified heating technician.

☑ Duct cleaning is recommended. (Photo)

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF HEATING INSPECTION

As prescribed in the pre-inspection contract, this is a visual inspection only. The inspection of the heating system is general and not technically exhaustive. A detailed evaluation of the furnace heat exchanger is beyond the scope of this inspection. The inspection was limited by (but not restricted to) the following conditions:

- The adequacy of heat distribution is difficult to determine during a one time visit to a building.
- Access to the boilers was somewhat restricted.
- Access to the air handlers was somewhat restricted.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Cooling / Heat Pump System

DESCRIPTION OF COOLING / HEAT PUMP SYSTEM

Energy Source: •240 Volt Power Supply
System Type: •Air Cooled Central Air Conditioning - **Manufacturer:** American Standard
Other Components: Heat Recovery Ventilators

SYSTEM OBSERVATIONS

The system is showing some signs of age and may require a slightly higher level of maintenance.

The central cooling systems were not operated due to the exterior temperature.

RECOMMENDATIONS / OBSERVATIONS

☑ The control was not activated due to the exterior temperature. A couple of the systems were operating sporadically at the time of the inspection. I was informed three of the cooling units have been replaced due to failures. Although there are some maintenance issues that could lead to this (damaged/missing insulation, blocked air filters, rodent nesting, the software, etc..), it is more likely that the units are improperly sized. That type of evaluation is beyond the scope of this inspection. An HVAC consultant should be engaged for further evaluation and recommendations for improvement. (Photo)

☑ Damaged insulation on refrigerant lines should be repaired. (Photo)

◈ The exterior portion of the units should be kept level and clear of debris at all times.

☑ The air filters are dirty. Filters should be changed periodically for better air circulation.

◈ Most of the cold gas lines are insulated.

◈ There are service receptacles in the area of the condensers and air handlers. (Photo)

◈ There are visible service disconnect switches in the area of the condenser and air handler. (Photo)

◈ The visible duct work is insulated.

☑ Several heat recovery ventilators (closet off Sally Port, attic, etc..) were observed. The systems were operating at the time of the inspection. Determining the efficiency and adequacy of the systems is beyond the scope of this inspection. Maintenance of these units is necessary. The systems should be cleaned/maintained. A maintenance contract is necessary to ensure reliability of the systems. (Photo)

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF COOLING / HEAT PUMP SYSTEM INSPECTION

This is a visual inspection only. Air conditioning and heat pump systems, like most mechanical components, can fail at any time. The inspection of the cooling system was limited by (but not restricted to) the following conditions:

- Window mounted air conditioning units are not inspected.
- The adequacy of distribution of cool air within the building is difficult to determine during a one-time inspection.
- The air conditioning system could not be tested as the outdoor temperature was below 65 degrees F.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Insulation / Ventilation

DESCRIPTION OF INSULATION / VENTILATION

Attic Insulation:	•Fiberglass
Roof Cavity Insulation:	•None visible
Exterior Wall Insulation:	•Fiberglass
Basement Wall Insulation:	•Fiberglass in the finished walls
Floor Cavity Insulation:	•None visible
Air / Vapor Barrier(s):	•Unknown
Roof / Attic Ventilation:	•Soffit Vents •Ridge Vents

INSULATION / VENTILATION OBSERVATIONS

Insulation levels are typical for a building of this age and construction.

Upgrading insulation levels in a building is considered an improvement rather than a necessary repair.

RECOMMENDATIONS / ENERGY SAVING SUGGESTIONS

It is recommended that you contact MASS SAVE at 866-527-7283 or go to www.masssave.com for more information or to schedule a building energy audit.

- Proper ventilation will help to keep the building cooler during warm weather and extend the life of roofing materials. In colder climates, it will help reduce the potential for ice dams on the roof and condensation within the attic.

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF INSULATION / VENTILATION INSPECTION

This is a visual inspection only. The inspection of insulation and ventilation was limited by (but not restricted to) the following conditions:

- Insulation/ventilation type and levels in concealed areas cannot be determined. No destructive tests are performed.
- Potentially hazardous materials such as Asbestos and Urea Formaldehyde Foam Insulation (UFFI) cannot be positively identified without a detailed inspection and laboratory analysis. This is beyond the scope of the inspection.
- An analysis of indoor air quality is beyond the scope of this inspection.
- Any estimates of insulation R values or depths are rough average values.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Plumbing System

DESCRIPTION OF PLUMBING SYSTEM

Water Supply Source:	•Public Water Supply
Service Pipe to House:	•Copper
Main Valve Location:	•Basement
Supply Piping:	•Copper
Waste Disposal System:	•Private Sewage System
Drain / Waste / Vent Piping:	•Plastic
Cleanout Location:	•Basement
Water Heater:	•**Manufacturer:** Unable to determine •Indirect Fired •Size: Unable to Determine # of Gallons •Approximate age: 9+ years •Location: Basement
Other Components:	•None

PLUMBING OBSERVATIONS

The water pressure supplied to the fixtures is reasonably good. A typical drop in flow was experienced when two fixtures were operated simultaneously.

The plumbing fixtures are older. Upgrading fixtures would be a logical long term improvement. In the interim, a higher level of maintenance will likely be required. The plumbing system is showing signs of age. Updating the system will be required over time.

The water heater temperature should be set such that accidental scalding is minimized.

RECOMMENDATIONS / OBSERVATIONS

- ◈ In buildings where a domestic hot water tank is used, either electric, gas or oil, a small amount of water should be drained from the outlet located at the bottom of the tank in order to remove any sediment that may have accumulated.
- ◈ Corrosion on the exterior of the supply piping was observed.
- ☒ There are several floor drains at the lower level. I was informed it is common for the water to evaporate from the drains. This allows septic gases to enter the interior. Further investigation is necessary to determine if the drains are self priming and if there is a problem with the system. (Photo)
- ◈ For the most part, the waste piping is older. It may be prone to unexpected problems. Improvement is recommended on an as needed basis.
- ◈ The water heater was wrapped in insulation. The exterior of the water heater was not visible for inspection. The manufacturer, size, condition of the exterior of the tank could not be determined. (Photo)
- ☑ The hot and cold water mixing valve for the eye wash and emergency shower in the Sally port is inoperative. The valve leaks. The water from the units is HOT water only and is not tempered. These conditions are in need of repair for improved safety. (Photo)
- ☑ I was informed there are no known shut off valves for the hot and cold water faucets at the right side of the ambulance bay and the entire water in the building has to be shut off when there was a problem with the faucet. Further investigation is necessary by a licensed plumber. (Photo)
- ☑ The water fountains are inoperative. I was informed the water fountains have never operated. Further investigation is necessary by a licensed plumber.

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

LIMITATIONS OF PLUMBING INSPECTION

This is a visual inspection only. The inspection of the plumbing system was limited by (but not restricted to) the following conditions:

- Portions of the plumbing system concealed by finishes and/or storage (below sinks, etc.), below the structure, and beneath the yard were not inspected.
- Water quality is not tested. The effect of lead content in solder and or supply lines is beyond the scope of the inspection.
- An inspection of the sewage system is outside the scope of this inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

Interior Components

DESCRIPTION OF INTERIOR

Wall Finishes:	•Drywall/Plaster
Ceiling Finishes:	•Drywall/Plaster •Suspended Tile
Floor Surfaces:	•Vinyl/Resilient
Doors:	•Solid Core
Window Styles and Glazing:	•Fixed Pane •Double/Single Hung •Double Glazed
Kitchen Appliances Tested:	•Not Inspected
Laundry Appliances Tested:	•Not Inspected
Laundry Facility:	•240 Volt Circuit for Dryer •Dryer Vented to Building Exterior •120 Volt Circuit for Washer •Hot and Cold Water Supply for Washer •Washer Discharges to Laundry Tub/Sink
Other Components Tested:	•None

INTERIOR OBSERVATIONS

On the whole, the interior finishes of the building are considered to be in average condition. Typical flaws were observed in some areas. The majority of the doors and windows are average quality.

RECOMMENDATIONS / OBSERVATIONS

- ⍰ Signs of settlement and shrinkage cracks were noted on interior walls and ceilings. Repairs should be made as necessary.
- ☑ Damage and staining was observed at the walls in the stairwell. Repairs are necessary. (Photo)
- ☑ Several of the suspended ceiling tiles are damaged, missing or stained. I was informed several tiles were recently replaced in the training room. (Photo)
- ☑ Doors should be trimmed or adjusted as necessary to work properly.
- ☑ The door between the stairwell and lower hall does not close. Repairs are necessary.
- ☑ Refer to the Exterior Components section of the report regarding the fixed pane windows at the Communications Area and bathroom.

Kitchen

- ⍰ The kitchen sink shows evidence of wear and tear.
- ⍰ The kitchen cabinets show evidence of wear and tear.
- ⍰ The kitchen countertop shows evidence of wear and tear.

Bathroom(s)

- ⍰ The basin shows evidence of wear and tear.
- ⍰ The cabinets show evidence of wear and tear.
- ⍰ The tub shows evidence of wear and tear.
- ☑ The stainless steel toilets in the lock-up area have indications of corrosion. (Photo)
- ☑ Cracked, deteriorated and/or missing tub grout and caulk should be replaced. Water leaking through non-sealed areas can cause structural damage. Damage caused by water seepage cannot be determined by this visual inspection.
- ☑ The slope of the floors at the Women's and Men's locker room showers do not have proper slope to direct water to the floor drains. These conditions are in need of improvement. (Photo)
- ☑ Ventilation for the Bathrooms is non-existent. Proper ventilation is necessary for these areas. All exhaust fans should vent to the exterior.

Laundry

- ⍰ It is recommended that the washing machine be kept off at all times other than when the washing machine is being operated. Constant pressure on washing machine hoses may cause rupture of the hose and ultimate serious water damage to the structure.
- ⍰ It is recommended that you consider the use of braided stainless steel hoses for the washing machine connections.
- ☒ It is recommended that you use solid or flexible metal vent pipe for the dryer. All dryer vents should be cleaned every three months for improved safety.
- ☒ The clothes washing machine discharges into the utility sink. The utility sink discharges onto the floor, near a floor drain. The installation of a stand pipe for the washing machine discharge and proper waste piping for the utility sink is recommended for improved safety. (Photo)

Other Components

- ⍰ The smoke detectors, carbon monoxide detectors and fire suppression system are not inspected as part of this inspection. It is recommended that the systems be further evaluated by the fire department.

Environmental Issues

- ⍰ Radon gas is a naturally occurring gas that is invisible, odorless and tasteless. A danger exists when the gas percolates through the ground and enters a tightly enclosed structure (such as a building). Long term exposure to high levels of radon gas can cause cancer. ***The Environmental Protection Agency (E.P.A.) states that a radon reading of more than 4.0 picocuries per liter of air represents a health hazard.*** A radon evaluation is beyond the scope of this inspection (unless specifically requested). For more information, consult the Environmental Protection Agency (E.P.A.) for further guidance and a list of testing labs in your area.
- ⍰ Carbon monoxide is a colorless, odorless gas that can result from a faulty fuel burning furnace, range, water heater, space heater or wood stove. Proper maintenance of these appliances is the best way to reduce the risk of carbon monoxide poisoning. For more information, consult the Consumer Product Safety Commission at 1-800-638-2772 (C.P.S.C.) for further guidance. It would be wise to consider the installation of carbon monoxide detectors within the building.

Cost estimates from licensed contractors are recommended for all repairs and replacement of items suggested in this section.

This inspection has been made by applying the best skills possible and represents a true and honest report. The opinions of the inspector are not based on manufacturer's claims and minimum standards, Building Codes, local ordinances of the adequacy of design but are the opinions of the inspectors. This is a limited inspection based on a reasonable amount of inspection time. *Galeota Associates, Inc.* is not responsible or liable for problems which cannot reasonably be discovered by a limited inspection. I am hopeful that my services have been informational and helpful to you.


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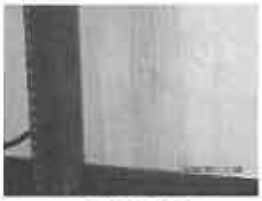
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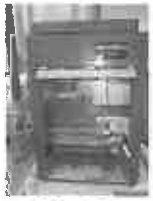
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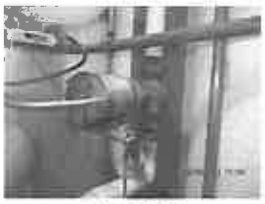
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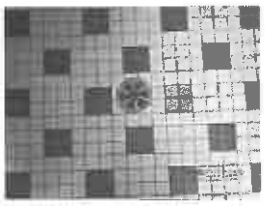
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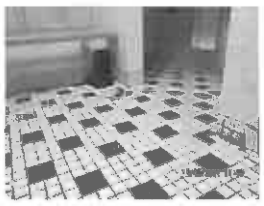
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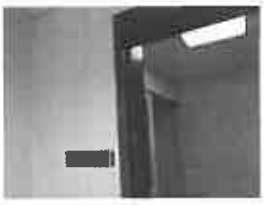
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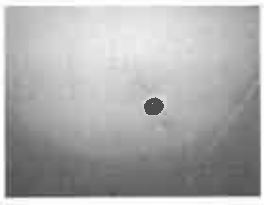
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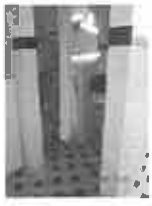
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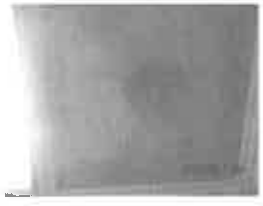
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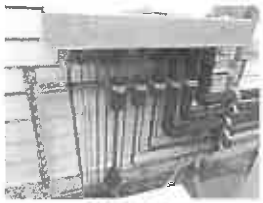
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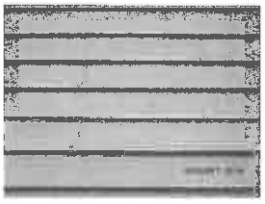
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