Westminster Presbyterian Church 17 William Street

Auburn, New York



February 21, 2022



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EXECUTIVE SUMMARY

Beardsley Design Associates Architecture, Engineering, Landscape Architecture, D.P.C. (Beardsley) conducted a kick-off meeting and site visit for the Westminster Presbyterian Church in September 2021 to assess the exterior and interior of the facility at 17 William Street. The Property Condition Assessment was conducted following the scope and limitations of ASTM Standard Practice E2018-15.

The Property Condition Assessment is being conducted to identify needed repairs and replacements associated with building materials and systems. High Priority, Intermediate-Term, and Long-Term needs will be identified and evaluated to prioritize replacements. Replacements will be evaluated for safety improvements, thermal efficiency, and code mandated improvements. The intent of the Property Condition Assessment is to act as a living document that is re-evaluated and updated every two to three years as maintenance needs, codes, leadership, and overall vision changes. Re-evaluating the Property Condition Assessment periodically will be a valuable tool in assisting Westminster Presbyterian Church in future planning.

This Property Condition Assessment includes documentation of major elements and building components of the buildings and additions at 17 William Street, Auburn, New York. All observations are based upon on-site walkthrough visits conducted by an architect, a senior architectural designer, a landscape architect, and structural, electrical, plumbing, and mechanical engineers for the purposes of surveying and providing statement of condition of facility components.

High Priority needs were identified at the property which are necessary to correct unsafe conditions, building or fire code violations, accessibility, or items that if uncorrected, will contribute to building system failure. Intermediate-Term needs were also identified that will improve occupant's use of the facility, enhance the marketability of the property, and facilitate the rehabilitation of the subject property. Long-Term needs were identified to provide long-term efficiency, improve occupant's comfort, and use of the facility, and offer flexibility for future use. The Property Condition Assessment has identified costs associated with High Priority items, Intermediate-Term items, and Long-Term items needed at the facility. See Appendix A.

High Priority needs identified in the report will need to be addressed in the next 0-18 months to prevent further building degradation, most notably is the water infiltration, roof gutters and site drainage. Going uncorrected will result in further stone and mortar joint deterioration.

Upon completion of the report, Beardsley will provide the Westminster Presbyterian Church with pdf files of the existing plans along with editable CAD files for future use.



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ACKNOWLEDGEMENTS

The following individuals are recognized for their effort and contributions that have resulted in the completion of the Westminster Presbyterian Church Property Condition Assessment:

- 1. Session for engaging Beardsley to perform the Property Condition Assessment.
- 2. Deacon and Moderator of Property Committee, Elizabeth Loomis for her leadership.
- 3. Elders Roger Dilmore, George Hiza, Robyn Warn and Elizabeth Loomis for meeting with Beardsley to kick-off the project.
- 4. Melanie Toole, Administrative Assistant, who provided Beardsley with historic documentation and reports on the property.
- 5. Shawn Reeves, Property Caretaker, who made himself available to escort Beardsley around the property and answered critical operation and maintenance questions for the team.
- 6. Mark Patterson, heating system service technician, who provided information on the current HVAC system condition.



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1.0 INTRODUCTION

1.1 Purpose

The objective of the Property Condition Assessment (PCA) is to assess the current physical condition of the facility since the property condition may directly impact economic soundness and overall value of the property and to identify needed repairs and replacements associated with building materials and systems. This PCA is intended to identify immediate needs and shortterm needs at the Westminster Presbyterian Church. Opinions of probable cost are provided for itemized listings of the costs of repairs or replacements, calculated according to the following categories:

- 1.1.1 High Priority (0-18 months): Repairs, replacements, and significant maintenance items that need to be done immediately to prevent further degradation of building materials and systems. High Priority items include unsafe conditions, building or fire code violations, or items that if uncorrected will contribute to building system failure.
- 1.1.2 Intermediate Term Items (24-36 months): Major repairs and replacements that need to be completed within the next two to three years to improve occupants' use of the facility and facilitate the rehabilitation of the subject building.
- 1.1.3 Long-Term Items (4 or more years): Repairs and replacements to major systems that will provide long-term efficiency, improve occupant's comfort, and use of the facility, and offer flexibility for future use. The Long-Term items do not need immediate attention and still possess useful life but will need to be considered for future replacement. Long Term items also include minor repairs and replacements that are generally cosmetic in nature and do not pose any immediate threat to property or persons.

1.2 Assessment and Methodology

- 1.2.1 The Property Condition Assessment was conducted following the ASTM E2018-15 Standard practice for Property Condition Assessments and consisted of the following:
- 1.2.2 Interviews were conducted to discuss pertinent building systems with property management personnel. The interviews were conducted to inquire about the subject building's historical repairs, replacements, improvements, and maintenance procedures.
- 1.2.3 Site observations to review the physical condition of the property.
- 1.2.4 Review of future improvements and anticipated maintenance/replacements as described by property management.
- 1.2.5 Determination of the need to replace High Priority, Intermediate Term, and Long-Term items.

As outlined in the agreement for professional services, Beardsley reviewed architectural/ structural/ mechanical/ electrical/ plumbing and site systems with our inhouse professional staff.

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2.0 SITE INFORMATION

2.1 General Site Information

Category	Property Data	
Ownership	Westminster Presbyterian Church	
Address	17 William Street, Auburn, NY	
Access	Vehicle access from William Street, Pedestrian sidewalk(s)	
Tax ID		
Area	47,045 sq ft (1.08 acres)	



The subject property contains the Westminster Presbyterian Church, which is comprised of two buildings; the Sanctuary Building and the Education Building, which are connected by a third-floor enclosed bridge that spans over an asphalt access driveway. The Property Condition Assessment is limited to the Sanctuary Building and the Education Building and surrounding, visible site/landscape elements.



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The Sanctuary Building is a stone masonry building with a vaulted, heavy-timber roof structure and originally constructed in 1863. In 1886, the Narthex was later added to expand the Sanctuary Building using similar construction materials and techniques. The Sanctuary Building sits upon a full basement that houses the gas-fired steam boiler, and the electrical, gas, and plumbing service entries.

In 1932, the three-story Education Building was constructed next to the Sanctuary to support the ministry's growing faith education. Designed by Samuel Hillger and Wallace Beardsley, the Education Building incorporated stone masonry exterior walls, concrete floors and a mix of exposed heavy-timber wood roof trusses and concealed steel roof trusses.

2.1.2 Site Location

The Westminster Presbyterian Church is located at 17 William Street, Auburn New York in Cayuga County, tax map #116.53-1-14. The site is bounded by William Street to the east, the YMCA to the south, Court Street to the west and the Cayuga County Courts building to the north.

2.1.3 Site Description

The site of the Westminster Presbyterian Church is fully developed. The 1.08-acre site is comprised of the two subject buildings, an asphalt parking lot on the southwest side of the site, a small play area on the north-west side of the site and lawn with landscaping on the east side of the site facing William Street.

2.1.4 Topography

The United States Geologic Survey (U.S.G.S.) topographic map for the City of Auburn indicates that the site is located at approximately 700 feet above sea level. The subject property generally slopes from south-west to north-east towards William Street.

2.1.5 Soils

Two soil types were identified within the site from the Natural Resources Conservation Services (NRCS) Web Soil Survey online soil data maps. Approximately 80 percent of the site consists of Uc, Urban Land-Cazenovia Complex, 2 to 8 percent slopes and 20 percent of the site consists of CeB, Cazenovia Silt Loam, 2 to 8 percent slopes. Given the urban and developed nature of the site, the soils are as expected and would adversely impact the physical condition of the subject buildings.

2.1.6 Building Code/Zoning Review

The subject property is in the Downtown zoning district according to the City of Auburn. Cayuga County tax records indicate that the property classification is 620 - Religious.

No building or fire code violations were reported to Beardsley during the Property Condition Assessment. The base certificate of occupancy for the building was not provided for review.

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2.1.7 Flood Potential

Identified within the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps, Panel #36011C0312E for the City of Auburn, the project site is located within "Zone X", an area of minimal flood hazard and determined to be outside the 500-year flood plain.

2.1.8 Wetlands and Receiving Waters

According to a review of the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory, no Federal jurisdictional wetlands exist within or adjacent to the project site. Additionally, according to the New York Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper website, no DEC wetlands are located within or adjacent to the project site.

2.1.9 Site Biodiversity

According to the NYSDEC's Environmental Resource Mapper website, the project site is not located adjacent to or within an area that contains rare plants and animals.

2.1.10 Historical and Cultural Resources

The entire Westminster Presbyterian Church property is located within the boundaries of the South Street Area National Historic Register District in Auburn, New York. Furthermore, both the Sanctuary Building and Education Building are listed on the State and Federal Registers of Historic Places. The property having these designations requires that all projects which change the exterior appearance of any buildings require approval by the Historic Resources Review Board, in the form of "Certificates of Appropriateness."

Certificates of Appropriateness are reviewed against the U.S. Secretary of the Interior's Standards for Rehabilitation of Historic Buildings for the following criteria:

- The scale of the change in relation to its surroundings.
- The materials and colors used in the change, in relation to the surroundings as well as the history of the structure.
- The compatibility of the proposed changes in relation to the history of the structure, as well as other historic buildings in the neighborhood.

Following approval for the Certificate of Appropriateness, a building permit can then be issued for the planned Work. No action identified during this assessment will require an application or permit at this time.



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2.2 Available Utilities

Utilities serving the subject property are provided in the table below.

Туре	Provider	Use
Electric	New York State Electric and Gas (NYSEG)	Conventional power
		supply
Water	City of Auburn	Potable water
		supply
Sanitary Sewer	Full-service connection to the City of Auburn	Wastewater
	Municipal Wastewater System	discharge
Gas	New York State Electric and Gas (NYSEG)	Heating



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3.0 PROPERTY REVIEW AND CONDITIONS SUMMARY

The purpose of the site observation visit and building walk through is to observe and document the physical condition of the building and site improvements. The condition of the building and site amenities is based on professional judgment of the physical appearance of the item under review. During our site visit on September 13, 2021, exterior examination was made of all visually accessible site, civil and landscape features extending from the building perimeter out to the known property boundary in addition to water runoff concerns. Building exterior examination included roofing and its components, exterior façade, and components, including windows, areaways, masonry, doors, and any attachments to the structure. At the interior, all floors of both the Sanctuary and Educational buildings were examined from the foundation of the structure at grade, up to and into the attic space, including the bell tower for all visually accessible features and technical components by members of all disciplines listed above.

Operational and performance tests of electrical and mechanical equipment were not performed since the need for these tests could not be predicted prior to the site observation visit.

3.1 Site Review

3.1.1 Site Survey

There are currently no updated record site drawings or surveys for the Westminster Presbyterian Church property. The survey will document property lines any known easements, all above ground site features including buildings, parking areas, sidewalks, fencing, site amenities, topography, and below grade drainage systems and site utilities. Having an updated survey for the property will be needed for future site improvements.

3.1.2 Pedestrian Walkways and Stairs

A concrete sidewalk on the east side of the Sanctuary Building leads pedestrians from the William Street sidewalk to the main entrance of the building. The sidewalk then extends north to an adjacent parking lot and south to the Education Building. The concrete sidewalks are in good condition.



Main Entrance -Sanctuary Building



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Main Entrance to Education Building

A set of stairs connects the sidewalk on the east side of the building to the main entrance. The main entrance stairs appear to be in good condition, but the handrails don't meet current code requirements (See Appendix B).

A small set of stairs leads from the access driveway on the south side of the Sanctuary Building to the accessible entrance. The stairs are in good condition, but the handrail does not meet current code requirements (See Appendix B).



Accessible Entrance to Sanctuary Building

3.1.3 Vehicular Pavements

Vehicular pavements at the subject property include a single lane asphalt paved egress driveway off William Street, an entrance and egress driveway off Court Street and a parking lot located south-west of the Sanctuary Building. The parking lot contains 29 parking spaces including 3 accessible spaces. The parking lot and access drives are in relatively good condition and currently only require routine periodic maintenance.



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Asphalt Parking Lot South at Sanctuary Building

3.1.4 Accessibility

3.1.4.1 Accessible Parking:

According to ADA standards, the minimum number of accessible parking spaces for a parking lot with 29 spaces is 2: one standard ADA space and one van-accessible ADA space. The current 3 ADA spaces meets the minimum required number; however, one space is not designated as a van-accessible space and requires proper signage.



Typical Accessible Parking Space

The location of the ADA parking spaces being closest to an accessible entrance and the dimensional size of the parking spaces meets ADA requirements. Although there are upright signs designating each accessible space, the signage is outdated. New York State in recent years has updated the ADA symbol to be used for signage and paint striping.



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3.1.4.2 Accessible Route and Entrances:

The main entrance of the Sanctuary Building facing William Street is not accessible to those with mobility impairments; however, there is an accessible entrance on the south side of the Sanctuary Building connected to the accessible parking with an accessible route. There is also an accessible entrance to the Education Building on its north façade which is connected to the accessible parking via the driveway between the two buildings.



Accessible Route to Sanctuary Building



Accessible Entrance to Education Building

The accessible route meets the minimum dimensional requirements of the ADA guidelines as well as slope and level change requirements.

3.1.5 Drainage

3.1.5.1 Roof Drainage:

It appears that the majority of a gutter/downspout system for the Sanctuary Building was removed at some point. A small portion remains on the south side of the building. This condition has allowed sheet drainage from the roof to infiltrate into the building's basement.



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Typical Capped Roof Drain at Sanctuary Building

The Education Building does have a gutter and downspout system in place however some of the downspouts extend below grade while other downspouts discharge to grade adjacent to the building. It is unknown if the downspouts that extend below grade connect to a functioning perimeter drainage system.



Typical Disconnected Roof Drain – Education Building

3.1.5.2 Site Drainage:

As noted earlier, the site is gently sloping, generally from south-west to north-east in the direction of William Street. A portion of the parking lot sheet drains toward Court Street. There is one storm drain on site located in a low spot of the access driveway between the two buildings. It's assumed this drain collects stormwater from a portion of the driveway and potentially some roof drains from the Education Building and conveys it to the storm sewer system along William Street.

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Further assessment of the site drainage will need to be conducted in conjunction with the site survey by way of video examination of underground piping and/or ground penetrating radar to identify underground piping layout. The stormwater management will need to be worked out closely with the City of Auburn DPW.



Storm Drain at Driveway Between Buildings

Additionally, during winter months, the snowplow is unable to scrape snow/ice to the level of pavement. The steam line tunnel (identified above) rejects heat to the asphalt and continually melts the snow, which then refreezes over and again, creating a large ice dam. This build-up of ice poses a safety hazard for vehicle and pedestrian traffic.

3.1.6 Fencing

Sanctuary Building: The 6-foot chain link fencing on north side of the Sanctuary Building is in poor condition; several posts are bent, broken, or leaning over and fence sections are rusted. The 4-foot-high chain link fencing around the playground is in fair condition; some sections are showing signs of deterioration. The south section(s) of fencing are removed in the winter for snow removal and replaced in the spring.

Education Building: The 6-foot-high chain link fence on the south side of the Education Building is in poor condition; several posts are bent and leaning over, and several posts and fence sections are rusted.

Ownership: It could not be determined based on limited record documents if the fencing along the north and south property lines are owned by Westminster Presbyterian Church. This will be determined during the site survey.



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Damaged Chainlink Fence, Northwest Side of the Sanctuary Building



Damaged Chain-link Fence South Property Line

3.1.7 Playground

The existing playground located on the north-west corner of the property consists of several plastic climbing structures, slides, toddler swings, a wooden sandbox, and benches. The playground surface is composed of wood chip/fiber surfacing. A safety review of the playground was not conducted as part of this PCA, however based on observation there could be elements that are out of compliance such as depth and extent of safety surfacing materials, accessibility, hardware, and others.



Existing Playground

There are a number of codes and guidelines that relate to playgrounds including the ADA, ASTM technical standards and the US Consumer Products Safety Commission Guidelines. A third-party Certified Playground Safety Inspector (CPSI) will be able to conduct a safety inspection of the existing playground including hazard identification, equipment specifications, surfacing requirements and risk management methods.

The Westminster Presbyterian Church currently has an agreement with the neighboring YMCA for seasonal use of the playground. This agreement requires the YMCA to perform inspections, replace mulch, etc.

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3.1.8 Site Utilities

Adequacy of existing site utilities including water service, sanitary sewer, gas, and electric were not assessed as part of this PCA, however no issues were reported by the Owner's Representative.

The following recommendations are provided associated with our review of the site:

- Engage a licensed land surveyor to conduct a property boundary, topographic and utility survey which will provide Westminster Presbyterian Church with an accurate site map to be used for current and future building and site improvement projects.
- Replace non-code compliant handrails at the east facing main entrance and south facing accessible entrance to the Sanctuary Building
- Replace existing handicapped accessible parking signs with current code compliant signs including one van accessible sign.
- Provide crack and pavement sealing and restriping of parking lot and access driveways within 5-years.
- Provide a gutter and downspout system for the Sanctuary Building and connect downspouts underground to a perimeter storm drainage system. Convey stormwater from roof to the existing William Street storm drainage system. The Education Building has gutters and downspouts. Tie existing downspouts into an underground perimeter storm drainage system. Convey stormwater to the existing William Street storm drainage system.
- If property boundary and topographic survey confirms chain link fencing located along north and south property lines are owned by Westminster Presbyterian Church, replace existing fencing in kind.
- Engage a third-party Certified Playground Safety Inspector (CPSI) to conduct a safety inspection of the existing playground including hazard identification, equipment specifications, surfacing requirements and risk management methods.



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3.2 Architectural and Structural Review

3.2.1 Sanctuary Building

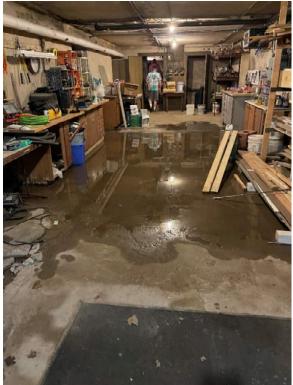
3.2.1.1 Foundations

The building is supported on a continuous masonry stone foundation that extends over eight feet below grade to form a full basement. Interior columns supporting the Sanctuary floor system are also constructed of stone masonry. The basement area floor is comprised of both concrete slab-on-grade (below Narthex) and mounded earth (below Sanctuary). The mounded earth has cleared pathways for maintenance and is covered with plastic sheets to mitigate moisture.

During the site reconnaissance, significant standing water was observed throughout the basement areas. Additionally visible seeping water was observed coming through the foundation walls.







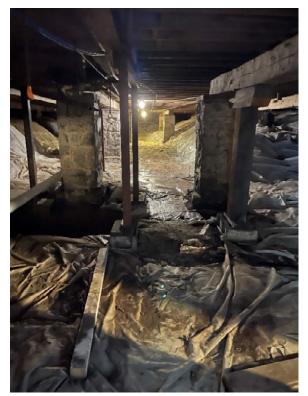
Standing Water in Maintenance Area

The stored materials in contact with the floor and standing water are absorbing the moisture, thus deteriorating the store materials (i.e., wood lumber, extra doors, scrap wood, workbenches, etc.) Continued exposure to moisture will result in rot and promote and accelerate mold growth.



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Plastic Over Mounded Earth

Visible Water Seeping Through Foundation Wall

It is currently believed that the water infiltration is a result of several contributing factors: deteriorating/missing mortar from foundation wall, removed gutter/downspout system allowing sheet drainage off the high sanctuary roof, damaged or missing perimeter drainage system, areaways with open vents, and basement wood windows with visible rotting frames. Refer to other sections of the report for a more detailed breakdown of the contributing factors and recommend corrective actions.

3.2.1.2 Framing Systems

The Sanctuary Building is supported by exterior, stone masonry bearing walls. The interior floors are framed using a two-way, wood, post-and-beam system. The roof is supported using heavy timber wood trusses.

During the site visit, evidence of floor framing deterioration under the Sanctuary along the north wall was observed. Some of the floor structure appears to have rotted away from the beam pocket. Temporary wood columns and steel lally columns are currently being used as shoring; however, the columns are set loosely on concrete pads of unknown depth and are placed off-center. Additionally, the tops of the columns are not secured to the support beam and the diagonal bracing does not contact the support beam, rendering the diagonal bracing ineffective.



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Off-Center Lally Column Shoring



Diagonal Bracing not Secured to Beam



Wood Shoring Column Not Centered/Secured to pad



Wood Column not Secured to Beam and is not Square to the Underside



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The above photos do not represent all the conditions observed but are intended to illustrate the severity of the condition. Un-anchored and non-engineered shoring has the potential to slip out of position, which can result in structural failure.

> The following recommendations are provided associated with our review of the building's floor framing:

- Maintain the temporary shoring in-place and engage a structural engineer to design a more permanent solution
- Until an engineered solution is provided, secure tops and bottoms of posts and replace or reposition diagonal bracing and secure to support beam

3.2.1.3 Roofing

The existing slate roof is in fair condition; however, some slate tiles were observed on the ground on the north side of the building. The failed slate tiles will need to be replaced.

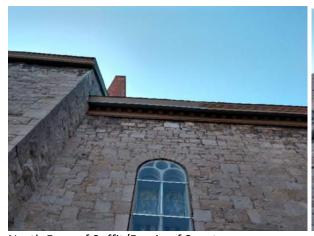


South Side of the Sanctuary Roof and Elevation



South Side of the Sanctuary Roof and Elevation

The Soffit and Wood Fascia appear to be in fair condition.



North Face of Soffit/Fascia of Sanctuary



North Face of Soffit/Fascia of Sanctuary



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As described in 3.2.1.4 there is mortar joint deterioration around the Sanctuary base of wall. The reason for this deterioration is the amount of water coming off the roof and splashing on the building. The deteriorating mortar is contributing to the basement water infiltration. The photo below shows that the covered areaways are creating additional water splashing and deterioration on the building. Our recommendation is to provide gutters around the sanctuary to protect the mortar joints.

Additional investigation will need to be performed to determine if the storm lines below ground are still active and can be reused, which starts with a new property survey and research into how the abandoned system tied into the municipal system. Additional investigation options to consider are Ground Penetrating Radar (GPR) and/or video scoping to document the underground condition and location of the existing abandoned drainage lines more accurately.



3.2.1.4 Exterior Building Finishes

Exterior finishes located at the Sanctuary Building are primarily stone masonry with stone/masonry lug sills below each window unit. The stone masonry exterior walls are full width (approximately 24") without a drainage cavity or weep holes, which is common with this era of construction. The windows and doors on the exterior are a mix of wood, steel, aluminum, clear and stained glass.



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Generally, the stone masonry was observed to be in good condition; however, the mortar joints between the stone masonry are showing evidence of significant failure around the building's exterior and interior basement walls. The failing mortar joints, especially the ones lowest to the ground, are contributing to water infiltration into the basement and wall system. During the winter months, any moisture in these joints will expand as it freezes and further damage the joint integrity.



Missing and Deteriorating Exterior Mortar



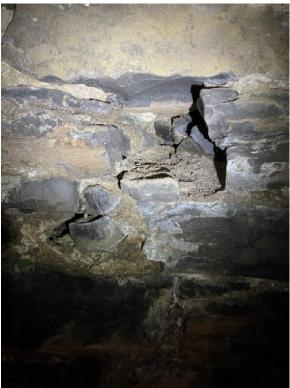
Mortar is Completely Missing Above the Sill Stone and The Sill Stone is Dislodged/Sinking (See Image Below as Well)





The Above Photos are Taken Along the North Wall Where Beardsley Observed the Temporary Shoring.





Deteriorated Mortar Inside the Foundation Wall. The mortar is Loose and Powdery and Falling Out of The Joints Creating a Pile at the Base of the Wall.



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The following recommendations are provided associated with our review of the building's exterior finishes:

- Engage a professional masonry company that specializes in masonry restoration
 of historic buildings to perform masonry repointing around the entire Sanctuary
 Building. This firm needs to be familiar with Preservation Briefs from the
 Technical Preservation Services of the National Park Services U.S. Department of
 the Interior (see appendix B for link to briefs).
- Engage a third-party testing agency that specializes in either wet chemical and/or instrumental testing of the historic mortar to determine the mortar makeup and consistency.

3.2.1.5 Windows

The windows at the Sanctuary Building are a mix of wood and aluminum. The wood windows make up most of the windows and generally have leaded stained glass. The aluminum window/storefront system is located at the main Sanctuary entry and is seen/accessed directly off William Street. It appears to have been installed in recent years and is in good repair. Maintain weatherstripping and replace seals and sweeps as needed to manage air infiltration.

The wood windows appear to be original to the Sanctuary portion of the building and are single-pane windows with leaded stained glass. They are showing signs of deterioration due to years of weather exposure. To preserve the windows from breakage and stall further deterioration from weather exposure, large, vented plexiglass panels are used to cover the windows on the exterior side. However, these plexiglass panels are secured through the face and into the original wood window trim. The plexiglass is not properly sealed around the edges.

The wood windows in the areaways below grade are showing evidence of rot at the frames and are not properly sealed. The bottom of the window sashes is within one inch of the bottom of the areaway. The failing wood windows along with their proximity to grade is contributing to water infiltration in the basement.

There is also a priceless Tiffany-stained glass window at the end of the Sanctuary, centered behind the pulpit.



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Typical Sanctuary Wood-Stained Glass Window with Vented Plexiglass Panel



Typical Areaway Condition



Typical Sanctuary Wood-Stained Glass Window With vented plexiglass panel and Cracking Along Both Sides of The Window.

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The following recommendations are provided associated with our review of the building's exterior windows:

- Given the historic nature of the windows and the leaded stained glass, window replacement is not recommended at this time
- Remove the vented plexiglass panels on the window exterior and patch puncture holes in the original wood trim. With the plexiglass off, remove loose/chipped/cracked paint and repaint the wood trim. Existing paint is assumed to contain lead.
- Remove any existing/original caulk from the window exterior and replace with new. Existing caulk is assumed to be asbestos and/or PCB containing.
- Replace vented plexiglass panels with new vented plexiglass panels glazed into an aluminum "J" channel and secured to the masonry jamb in lieu of the wood trim and seal weathertight.
- Replace all areaway windows and louvers. Dig out debris and accumulated sediment from areaways. Rebuild areaway opening and provide a curb with translucent cover to prevent water and debris accumulation.
- Maintain weatherstripping and replace seals and sweeps as needed to manage air infiltration.

3.2.1.6 Fire Separation Zones

The Sanctuary and Narthex combined are a single fire area and are not separated from each other. Neither of the two sections is equipped with a sprinkler system. The Sanctuary Building is separated from the attached Education Building at the third-floor enclosed bridge via fire shutter controlled by a fusible link. Shawn Reeves reported during our visit that this existing condition has been reviewed and approved by the local code official. There are no recommendations or actions for this item.

3.2.1.7 Building Entrances

The main entrance of the Sanctuary Building is located along its east/west central access and faces William Street on the east façade. A concrete sidewalk leads pedestrians from the sidewalk on William Street to the Sanctuary Building entrance where a small stoop is traversed to enter the building. A small pedestrian concrete sidewalk at the bottom of the stoop connects the adjacent parking lot to the north. Aluminum framed storefront double doors are located at the building's main entrance and are equipped with panic hardware. The main entrance is not accessible to those with mobility impairments; however, there is an accessible entrance on the south side of the Sanctuary Building with accessible parking and an accessible route.



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The accessible entrance is covered with a shed roof, constructed of wood rafters and ledgers secured to the face of stone masonry. There is a plexiglass wind screen that is framed into the wood that also doubles as a support wall. The roof is covered in asphalt shingles there are deteriorating and curling at the corners. The entry door itself is a heavy wood door that is sun-bleached and dated. The door is equipped with an electronic push button device to accommodate accessible entry.

The balance of the building entrances appears to be in good repair.



Accessible Entry and Shed Roof



Concrete Parging Falling Off

The following recommendations are provided associated with our review of the building's entrances:

- Remove the existing shingles from the shed roof to wood substrate. Provide new shingle roof system and re-flash against the stone masonry.
- Remove and replace existing parging on concrete block.

3.2.1.8 Interior Finishes

The interior finishes in the Sanctuary Building are generally in fair condition but are showing evidence of age. Select wood trim in the Choir Loft/Organ Loft is damaged and some of the floorboards are loose. The carpet in this area is also in poor condition. The Sanctuary carpet and the carpet on the chancel floor and steps is also tired looking and is need of replacement. The steps on the chancel are not equipped with railings and pose a safety concern.

There is also significant damage to the wood wainscoting in the north-west corner of the Sanctuary. The Church was in the process of having this replaced when the new wainscot suffered damage. This is a result of missing/failed mortar on the exterior combined with water infiltration. It also appears that the new wainscoting did not provide venting, similar to other locations in the Sanctuary.



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Damaged wainscot (in process of being replaced)



Organ/Choir Ioft

The following interior finish types were observed during the site reconnaissance:

Duilding Augo	Interior Finishes			
Building Area	Floor	Wall	Ceiling	
Narthex	Carpet	Painted gypsum/plaster Wood trim Wood wainscot	Gypsum/plaster Wood crown molding 12x12 adhered ceiling tiles	
Toilet Rooms	12x12 Porcelain Tile	Painted gypsum board Ceramic tile wainscot	Gypsum/plaster	
Chapel	6x6 quarry tile	Painted gypsum/plaster Wood trim	Gypsum/plaster Wood trim Decorative wood beams	
Social Room	Carpet	Painted gypsum/plaster Wood trim	Gypsum/plaster Wood crown molding	
Bell Room	Carpet	Painted gypsum/plaster Wood trim	Suspended tile	
Vestibule	6x6 quarry tile	Painted gypsum/plaster Wood trim	12x12 adhered ceiling tiles	
Kitchen	12x12 porcelain tile	Painted gypsum/plaster	Suspended tile	
Sanctuary	Carpet	Painted gypsum/plaster Wood trim Wood wainscot	Gypsum/plaster Wood crown molding Timber brackets	

The following recommendations are provided associated with our review of the building's foundations:

- Replace Sanctuary carpet
- Replace chancel carpet with engineered hardwood or similar
- Provide handrails on chancel steps



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3.2.1.9 Interior Doors and Hardware

Interior doors at the Sanctuary Building are comprised of solid wood, stile and rail doors with wood frames and casings. The interior doors are a mix of single-swing doors, double-swing doors, and pocket doors. The doors and frames are in good repair and appear to be holding up well.

Knob style hardware is largely used for doors with latches and push/pull style hardware is used for doors without latches. The knob style hardware does not comply with current accessible guidelines; however, where doors have been replaced, the hardware used is lever type hardware, which does meet accessible guidelines.

There are no recommendations to upgrade the door hardware currently since the building is operating under a legal Certificate of Occupancy. Any upgrades to doors in the future may require the door and door hardware to be accessible.

3.2.1.10 Bell Tower and Bell Cradle

The existing wood bell cradle in the bell tower is showing evidence of rot and decay and needs reconstruction.

The framing below the cradle should be reinforced within the next (5) years. Although final design would be required, Beardsley assumes installing LVL's (laminated veneer lumber) from the understand would adequately reinforce the floor.

3.2.2 Education Building

3.2.2.1 Foundations

The building is supported on a continuous reinforced concrete foundation wall with continuous reinforced concrete footings. The foundation walls extend below grade and form a crawl space to support mechanical, plumbing, and electrical services from the Sanctuary Building. Interior support columns in the crawl space are constructed of lally columns on reinforced concrete piers and spread footings. The crawl space area floor is comprised of exposed earth with no apparent vapor barrier. Recent rains have resulted in soil saturation and heavy run-off which has produced standing water in the crawl space.

The following recommendations are provided associated with our review of the building's foundations:

- Provide 10 mil vapor barrier in crawl space and terminate a minimum of 12" up perimeter foundation walls
- In addition to the vapor barrier, provide exterior perimeter foundation drains tied into the local stormwater system along with a foundation wall drainage mat to mitigate hydrostatic pressure and moisture drive.



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3.2.2.2 Framing Systems

The Education Building is supported by exterior, stone masonry bearing walls. The interior floor construction is concealed with plaster and suspended ceilings, so they were not visually observed during our visit. However, the existing drawings show the following framing conditions:

<u>First Floor</u>: the first floor is supported by wood joists and beams that is supported by columns and concrete bearing walls in the crawl space. The floor framing is concealed behind hard plaster/gypsum wall board ceilings and was not observed at the time of this visit.

<u>Second Floor:</u> the second floor is supported by wood joists and a wood framed bearing wall that continues to a concrete bearing wall in the crawl space. The floor under the Auditorium space is constructed of a poured-in-place concrete tee system spanning east-west with a center steel beam encased in concrete.

<u>Third Floor:</u> the third floor is supported by wood joists and a wood framed bearing wall that is slightly offset from the second floor bearing wall. This bearing wall carries the load from the gable roof.

The roof framing is a combination of exposed heavy timber trusses in the Auditorium space with the balance being constructed of concealed sloped steel trusses in the attic space.

3.2.2.3 Roofing

The existing shingles on the Education building are in good condition. The gutters around the building appear to be working properly; however, the downspouts from the gutters do not drain into the storm lines below them. Additional investigation will need to be done to see if storm drain lines are active.

The following recommendations are provided associated with our review of the building's roofing:

- Research the history of the underground drainage on the property using archival documents from the City of Auburn Planning Office
- Engage a 3rd party agency who specializes in video scoping underground drainage to accurately determine the condition and location of the existing abandoned drainage lines



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3.2.2.4 Exterior Building Finishes

Exterior finishes located at the Education Building are a mix of stone masonry with stone/masonry lug sills below each window unit and clay brick veneer. The stone masonry faces William Street to the east and the shared drive to the south. There is also stone masonry on the façade facing north that is visible from William Street. The balance of the exterior is clay brick veneer, facing the access drive between the two buildings. The exterior wall construction is approximately 13" thick without a drainage cavity or weep holes, which is common with this era of construction. The windows and doors on the exterior are a mix of wood and steel with clear and obscure/frosted glass.

Generally, the stone and clay masonry were observed to be in good condition; however, some of the stone lug sills and stone trim work are showing heavy damage and spalling as illustrated below. There is also some mortar joint deterioration due to downspout water discharging directly adjacent to the foundation wall.

There are a few stone windowsills, stone window heads and molding that are deteriorating and need to be replaced.



Windowsill



Window Head



Stone molding deterioration at top left corner. This may also be contributing to the dark staining on the stone masonry



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beardsle

The photos below are taken along the south wall, adjacent to the asphalt drive between the neighboring YMCA building and the Education Building.





The downspout above drains directly along the face of the building and the force of the water is deteriorating the mortar joints. Similar conditions can be seen all along the south face.

3.2.2.5 Windows

The windows visible on the exterior in the Education Building are primarily steel, single-pane window units with a mix of obscure/frosted glass and clear glass. The windows units vary in operation; however, the majority appear to be casement style windows with true divided lights. The window units are in poor condition with heavy rusting and deteriorating glazing compound, which given the age of the windows, the compound is likely to contain in hazardous materials. Further testing will need to be done to make a final determination.

The windows visible on the interior of the Education Building are vinyl replacement windows. Due to the failing steel window units and damaged glass, the vinyl replacement windows were installed to maintain the thermal envelope; however, they do not honor the historic impact of the building

The following recommendations are provided associated with our review of the building's windows:

- Provide hazardous materials testing on the glazing compound and surrounding sealants
- Fully replace all window units in the Education Building with energy efficient, double-pane, window units. The new window units will need to mimic the existing window aesthetics, operation, and frame profiles as much as possible to honor the building's historical character. Any window replacement will need to be reviewed by the City of Auburn's Historic Resources Review Board as mentioned in 2.1.10.
- Evaluate aluminum and commercial non-metal high-strength materials such as fiberglass.

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Close-up of steel windows at Education Building



South Side of Education Building



Close-up of deteriorating glazing compound

3.2.2.6 Fire Separation Zones

The Education Building is a single fire area and is not equipped with a sprinkler system. The Education Building is separated from the attached Sanctuary Building at the third-floor enclosed bridge via fire shutter controlled by a fusible link. Shawn Reeves reported during our visit that this existing condition has been reviewed and approved by the local code official. There are no recommendations or actions for this item.



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3.2.2.7 Building Entrances

The main entrance stone trim is deteriorating and needs to be repaired/replaced. Additionally, the original wood entry door is heavy to operate and does not meet ADA requirements for operating force for doors. Additionally, the bottom of the door is showing signs of deterioration due to moisture absorption.

The following recommendations are provided associated with our review of the building's entrances:

- Provide electronic actuator to meet ADA requirements for door operating force and assist with door operation
- Temporarily remove door and hardware. Clean and seal to minimize/stop moisture absorption. Reinforce hardware attachment points



Main Entrance to Education Building

3.2.2.8 Interior Finishes

The interior finishes in the Education Building are generally in good repair; however, some finishes in select locations can use some attention. A recent steam line failure between the buildings caused the wood flooring in one of the first-floor classrooms to heave and become dislodged, creating an uneven floor surface and a potential tripping hazard. Some plaster is deteriorating around windows in select locations in the Education Building, primarily at the ground level. This is a result of missing/failed mortar on the exterior and failed glazing compound/sealant resulting in water infiltration.



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Heaved wood floor from burst steam line



Damaged plaster at windows

The following interior finish types were observed during the site reconnaissance:

Duilding Area		Interior Finishes	
Building Area	Floor	Wall	Ceiling
Classroom/ Offices	Hardwood	Painted gypsum/plaster Wood trim Wood chair rail	Painted gypsum/plaster
Circulation/ Stairs/ Corridors	Hardwood	Painted gypsum/plaster Wood trim	Painted gypsum/plaster
Toilet Rooms	Porcelain/ Ceramic tile and substrate over original wood flooring	Ceramic tile wainscot Wood trim Painted gypsum/plaster Marble toilet partitions	Painted gypsum/plaster
Second Floor Meeting Space	Hardwood	Painted gypsum/plaster Wood trim Wood chair rail	12x12 adhered ceiling tiles
Second Floor Kitchen	Linoleum flooring	Painted gypsum/plaster Wood trim	Painted gypsum/plaster
Second Floor Auditorium	Hardwood	Painted gypsum/plaster Wood trim Wood wainscot	Painted gypsum/plaster Heavy timber trusses



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3.2.2.9 Interior Doors and Hardware

Interior doors at the Education Building are comprised of solid wood, stile and rail doors with wood frames and casings. The interior doors are a mix of single-swing doors and double-swing doors. The doors and frames are in good repair and appear to be holding up well.

Knob style hardware is largely used for doors with latches and push/pull style hardware is used for doors without latches. The knob style hardware does not comply with current accessible guidelines; however, where doors have been replaced, the hardware used is lever type hardware, which does meet accessible guidelines.

There are no recommendations to upgrade the door hardware currently since the building is operating under a legal Certificate of Occupancy. Any upgrades to doors in the future may require the door and door hardware to be accessible.



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3.3 **Building Mechanical Systems**

3.3.1 Sanctuary Building

3.3.1.1 General

Most of the mechanical equipment in the building is beyond its recommended service life and is recommended for replacement.

3.3.1.2 Heating & Air Conditioning Systems

The heating for the building is steam, provided by a single cast iron sectional boiler located in the basement of the sanctuary building. According to Mark Patterson, who services the steam system, this boiler is approximately 8 years old. This boiler appears to be in good condition, however a recent steam leak caused cold makeup water to be added to the boiler which damage the last four cast iron sections at the back of the boiler. Work is already scheduled to replace these sections. Because there is only one boiler, there is no capability for backup heat in case the boiler fails.



Existing Cast Iron Sectional Steam Boiler



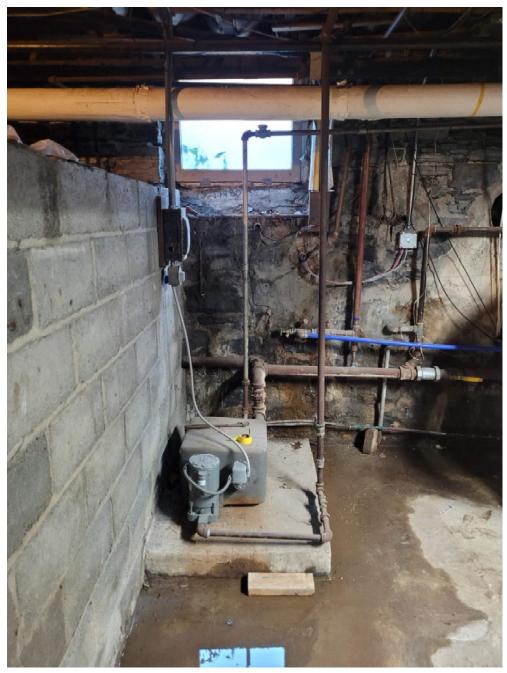
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The only means for providing combustion air for boiler operation appears to be through operable windows. The combustion air system needs to be upgraded to meet the Fuel Gas Code of New York State.

Existing Condensate Pump. Operable Window for Combustion Air Also Shown.

Steam and condensate are piped throughout the building to a combination of convectors and cast-iron radiators. For the most part all piping and associated terminal units appear to be original equipment and are way beyond their expected service life. Mark Patterson reported that piping has needed to be repaired/replaced on a consistent basis.





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A good portion of the steam and condensate piping in the basement is uninsulated. Piping needs to be insulated in accordance with the Energy Code of New York State





Uninsulated Steam & Condensate in Basement

There currently is no air conditioning system for the building.

The following recommendations are provided associated with our review of the building's heating and air conditioning systems:

- Replace the HVAC system in its entirety with a Variable Refrigerant Flow (VRF) heat pump system.
- This system will consist of a number of outdoor condensing units at grade. Refrigerant will be piped from the condensing units throughout the building to various indoor fan coil units. See below for various system components.



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• This system will provide heating and cooling throughout the building.



VRF System Diagram

- The advantages to this type of system are as follows:
 - Providing air conditioning throughout the building will provide for better thermal comfort for occupants and better humidity control which will help preserve equipment within the building such as pianos and the organ.
 - Highly energy efficient with a 10-15 year payback on installation costs. Due to the efficiency of the system, there are usually incentives from various organizations to help with installation costs, i.e; NSYEG & NYSERDA.
 - Indoor units take up very little space as opposed to large air air handling units.
 - Systems can easily be installed in phases for the various areas of the building, with each system being independent of the other. This will allow for upgrading the systems a little at a time as funds become available. This also has the advantage of not losing temperature control in the entire building if a single piece of equipment fails.

If the current budget does not allow for full system replacement the following measures will need to be considered.



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Provide combustion air intake in accordance with Code. This will require that
two 16 square foot louvers be provided in the exterior wall. One within 12"
of the ceiling and one within 12" of the floor. To facilitate this, piping along
the south wall of the boiler room will need to be reworked and an areaway
will need to be provided along the exterior wall.





Interior and Exterior of South Wall of Boiler Room. Line indicates approximate size of Areaway.

- Insulate all uninsulated steam and condensate piping.
- Replace existing condensate pump with a duplex pump. This will provide a backup pump in case the primary pump fails.

3.3.1.3 Ventilation

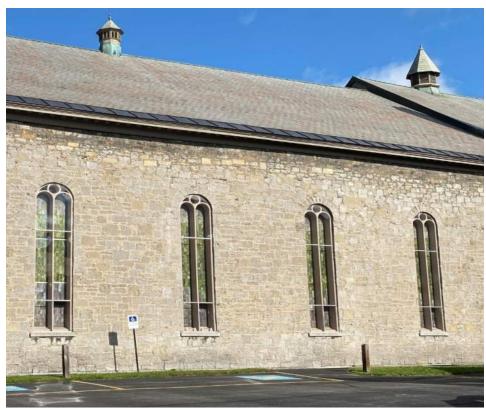
Ventilation for the building is provided by operable windows. While operable windows are acceptable by code, the windows are likely closed during the winter months which does not allow for adequate ventilation. The original exhaust system was a gravity relief system with relief grilles located in various spaces, mainly toilet rooms, and the sanctuary. Toilet exhaust fans have been installed in the toilet rooms and tied into the relief air ductwork. These grilles/fans are ducted up to and discharge into the attic space. Discharging toilet exhaust to an attic space is against the Mechanical Code of New York State. Roof mounted gravity relief vents are provided for ventilation of the attic space. Ventilation for the basement is through operable windows only with no means for exhaust.



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Two Gravity Relief Vents on Sanctuary Building Roof

The following recommendations are provided associated with our review of the building's ventilation system:

- Provide two separate energy recovery ventilation systems. One to serve the
 front portion of the building and one to serve the sanctuary. An energy
 recovery ventilator is provided for each system. Outside air is ducted from
 either wall louvers or roof mounted intake vents to the unit with discharge
 air ducted from the unit to ceiling mounted supply diffusers in the individual
 spaces.
 - Exhaust air is ducted from ceiling mounted exhaust grilles to the unit and then ducted to either wall mounted louvers or roof mounted exhaust ventilators. An electric duct mounted heating coil is provided to temper the supply air during the winter months. As funds become available, a phased approach to installing systems is an option; however, any systems serving toilet rooms will need to be considered first.
- If the energy recovery ventilator option is not chosen, at a minimum, provide
 a separate roof mounted exhaust fan connected to the existing toilet gravity
 exhaust system.
- Provide a mechanical ventilation system for the basement consisting of wall mounted intake louvers and exhaust fans ducted to wall exhaust louvers.



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3.3.1.4 Controls

Controls for the heating system are electric, with the building divided into three zones, the north side of the front portion of the sanctuary building, the south side of the front portion of the sanctuary building and the sanctuary. Each zone consists of a wall mounted thermostat controlling a steam control valve the serves the zone. Terminal units are provided with a combination of manual control valves and self-contained thermostatic control valves for individual space temperature control.







List of Steam System Zone Valves & Photos of Manual and Self-Contained Control Valves

The following recommendations are provided associated with our review of the building's control system:

• A Direct Digital Control (DDC) system is recommended to be provided for better control and monitoring of the building HVAC systems.



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3.3.2 Education Building

3.3.2.1 General

The majority of the mechanical equipment in the building is beyond its recommended service life and is recommended for replacement.

3.3.2.2 Heating & Air Conditioning Systems

Heating for the building is steam provided by the same boiler that serves the sanctuary building. Steam and condensate are piped to/from the boiler room in the sanctuary building, underground to/from the crawlspace of the education building and then throughout the building to a combination of convectors and cast-iron radiators. For the most part all the piping and associated terminal units appear to be original equipment and are way beyond there expected service life. The underground steam line rejects heat to the pavement above and poses a hazard to vehicle and pedestrian traffic during the winter months. See section 3.1.5.1. of the report.

There is currently no air conditioning system in this building.

The following recommendations are provided associated with our review of the building's heating system:

• Replace the HVAC System in its entirety with a VRF system similar to what is indicated for the Sanctuary Building.

3.3.2.3 Ventilation

Ventilation for the building is provided by operable windows. It appears that there is a gravity relief system like in the sanctuary building, however the only relief grilles observed are in the gymnasium and the kitchen. Of the six toilet rooms in this building, only two had means for exhaust. Each had a powered exhaust fan that we assume were ducted to the attic space. The crawlspace for this building is currently not ventilated.

The following recommendations are provided associated with our review of the building's ventilation system:

- Provide three separate energy recovery ventilation systems. One to serve
 the front office area of the building and one to serve the classrooms and
 one to serve the gymnasium. Systems are similar to those described for the
 Sanctuary Building and can be installed using a phased approach.
- If the energy recovery ventilator option is not chosen, at a minimum, provide one or more toilet exhaust systems with roof mounted exhaust fans ducted to each toilet room. The existing roof mounted attic relief vents will need to be upgraded.
- Provide a mechanical ventilation system for the basement consisting of wall mounted intake louvers and exhaust fans ducted to wall exhaust louvers.



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3.3.2.5 Controls

Controls for the heating system are electric, with the building divided into three zones, the north side of building, the south side of the building and the gymnasium. Each zone consists of a wall mounted thermostat controlling a steam control valve the serves the zone. Terminal units are provided with a combination of manual control valves and self-contained thermostatic control valves for individual space temperature control.

The following recommendations are provided associated with our review of the building's control system:

• Extend the sanctuary building DDC system to this building.

3.4 Plumbing Systems Review

3.4.1 Sanctuary Building

3.4.1.1 Piping systems

3.4.1.1.1 Domestic water

The domestic water service enters the Sanctuary Building through the northeast corner of the basement foundation wall.

- The underground service from the main in the street appears to be ¾" size copper tubing.
- The pie size increases to 1" after the main building shut-off valve.
- The City of Auburn water meter is 1" pipe size.
- There is no water meter bypass.
- There is no backflow protection device installed.
- After the water meter the pipe size increases to 1 ½".
- Observed type 'L' copper tube water distribution piping to building.
- Majority of domestic water distribution piping observed is insulated.
- Majority of domestic water piping is copper tube also observed newer modifications utilized PEX tubing.
- 1" PEX tubing connects to underground piping at the south wall of the boiler room to supply water to the Education Building.

3.4.1.1.2 Sanitary Waste and Vent Piping

The sanitary drainage system laterals exit the Sanctuary Building through the east basement foundation wall.

- Observed DWV copper tube and Sch.40 PVC sanitary waste and vent piping in the basement areas. Sch. 40 PVC appears to have been utilized for the more recent toilet room renovations.
- Laterals drop down below the basement floor and exit the building to the municipal sewage system at the street.



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• Observed several areas where ground water seepage collects and does not drain.



Domestic Water Service Entrance



Sanitary Waste and Vent Piping - Basement

3.4.1.1.3 Natural Gas Piping

The 4" natural gas piping system enters the Sanctuary Building through the east basement foundation wall.

- Observed Sch.40 black steel piping at the service entrance.
- A very large natural gas diaphragm meter (NYSEG) is located in the basement resting on the floor.
- Natural gas supply piping reduces from 4" to 3" pipe size and distributes to the building.
- Observed 3" Sch. 40 threaded black steel natural gas piping supplying the HVAC boiler.
- Sch. 40 threaded black steel piping connects to underground piping at the south wall of the boiler room to supply natural gas to the Education Building.



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Domestic Water and Natural Gas Piping to Education Building

Natural Gas Service Entrance

The following recommendations are provided associated with our review of the building's Plumbing piping systems:

- Verify natural gas piping material and potential of corrosion protection for what appears to be galvanized Sch. 40 steel underground piping to Education Building. Consider replacement if piping material is not adequately protected from corrosion.
- Consider installation of basement floor drains to collect ground water and pump to drainage system.

3.4.1.2 Plumbing Equipment

3.4.1.2.1 Domestic Water Heaters

Observed electric point-of-use water heaters for toilet rooms.

- Observed 3 different types of electric point-of-use water heaters.
 Some water heaters store a small volume of hot water with electric heating elements, and some are instantaneous (no storage).
- All water heaters appeared to be in good condition and working properly.



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Instantaneous Water Heater



4-gallon Point-of-Use Electric Water Heater & Instantaneous Water Heater Above

The following recommendations are provided associated with our review of the building's Plumbing equipment:

• Replace water heaters on an as-needed basis.

3.4.1.3 Plumbing Fixtures

3.4.1.3.1 Toilet Room Fixtures

Observed toilet room fixtures to be in good condition – most have been updated during more recent renovation projects.

- Water Closets (Toilets) are floor mounted tank-type all observed appear to be in good condition.
- Urinals are flush valve operated all observed appearing to be in good condition.
- Lavatories all are wall-mounted except for the second floor where the lavatories are countertop style.



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First Floor Toilet Room- Lavatory

The following recommendations are provided associated with our review of the building's Plumbing fixtures:

• Replace fixtures and/or trim on an as-needed basis.

3.4.2 Education Building

3.4.2.1 Piping systems

3.4.2.1.1 Domestic Water

The domestic water service enters the Education Building through the north foundation wall in the crawlspace (crawlspace not observed)

- The underground service from the Sanctuary Bui8lding appears to be 1" pipe size PEX tubing.
- Majority of domestic water piping is copper tube, also observed newer modifications utilized PEX tubing.



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3.4.2.1.2 Sanitary Waste and Vent Piping

The sanitary drainage system laterals are presumed to exit the Education Building through the east crawlspace foundation wall.

- Observed mainly exposed Sch.40 PVC sanitary waste and vent piping in various areas. Sch. 40 PVC appears to have been utilized for the more recent toilet room and kitchen renovations.
- Observed one location where Sch. 40 ABS (black) plastic piping was installed.





Sink With ABS (black) Plastic Waste Piping

Sanitary Waste and Vent Piping - Kitchen

3.4.2.1.3 Natural Gas Piping

The natural gas piping system enters the Education Building through the north foundation wall in the crawlspace (crawlspace not observed)

• Sch. 40 threaded black steel piping connects to underground piping in the crawlspace and extends up to the kitchen area.



Natural Gas Piping Between Two Ranges in Kitchen



Natural Gas Range in Kitchen



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The following recommendations are provided associated with our review of the building's Plumbing piping systems:

Replace plumbing piping as necessary in areas of holistic renovation projects.

3.4.2.2 Plumbing Equipment

3.4.2.2.1 Domestic water Heaters

Observed storage type electric water heaters for plumbing fixture and kitchen area.

- Observed 40-gallon storage type electric water heating system with circulation pump and thermal expansion tank located in the first floor Girls Toilet Room abandoned shower stall. Appears to be in good condition.
- Observed 40-gallon electric water heater in the kitchen area. Appears to be in good condition.



Electric Water Heating System – Girls Toilet Room



Electric Water Heater - Kitchen Area



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The following recommendations are provided associated with our review of the building's Plumbing equipment:

- Replace water heaters on an as-needed basis.
- Consider relocating water heater from Girls Toilet Room to safer location.
- Consider adding a thermal expansion tank for the kitchen water heater to extend life of equipment.

3.4.2.3 Plumbing Fixtures

3.4.2.3.1 Toilet Room Fixtures

Observed toilet room fixtures to be in good condition – some have been updated during more recent renovation projects.

- Water Closets (Toilets) are floor mounted tank-type all observed appear to be in good condition.
- Urinals are flush valve operated all observed appeared to be abandoned. Replace urinals and piping as needed as part of long-term need.
- Lavatories some are wall-mounted, some are countertop style.
- Sinks Stainless steel counter-mounted.
- Showers all seem to be abandoned. Replace showers and piping as needed as part of long-term need.
- Drinking Fountains appear to have been removed perhaps resulting from infection control measures.



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First Floor Classroom Toilet Room

The following recommendations are provided associated with our review of the building's Plumbing fixtures:

- Replace fixtures and/or trim on an as-needed basis.
- Consider installing bottle filling stations in lieu of drinking fountains.



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3.5 Electrical Systems Review

3.5.1 General

- 3.5.1.1 Existing exterior lighting at exit discharge (entrances) areas are not emergency type per code. See Appendix B for code references.
 - Provide exterior emergency lighting at exit discharge areas.
- 3.5.1.2 Detailed electrical utility power capacity analysis was not conducted for this report.
 - Analyze existing power usage in coordination with utility data to determine available capacity for any equipment additions or modifications.
- 3.5.1.3 One Carbon Monoxide detector was observed on the first floor of the sanctuary building.
 - Provide additional units such that there is one per floor to comply with code.
- 3.5.1.4 There are many fluorescent light fixtures throughout the buildings over time, remove fixtures and replace with LED type fixtures which have benefits of lower energy costs, lower maintenance costs, and no hazardous waste to worry about.

3.5.2 Sanctuary Building

3.5.2.1 Power Distribution

Power is fed to the building underground, and into the basement NE corner. Service is a 400A, 240v three phase system with multiple disconnects connected to a common wireway. Some lawn and construction materials are on the floor in front of the equipment in violation of code. Two water pipes pass above the equipment in violation of code. It's possible that the pipe routing did meet code at the time of installation. See Appendix B for code references.

- Remove items stored in front of the electrical equipment.
- Review the water pipe locations and installations with the local code official for a possible solution.



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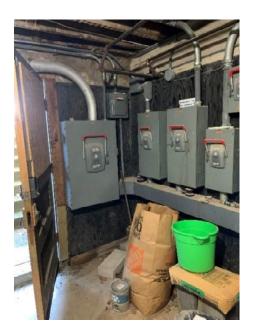


Figure 1 - Main Electrical Equipment

- 3.5.2.1.1 Distribution equipment in the basement area appear to be in adequate condition. However, the basement area is prone to flooding and standing water. The constant exposure to moisture will affect equipment life. Actual spare breakers or physical capacity for new breakers is very limited.
- 3.5.2.1.2 Two Panels in the basement area are mounted above a worktable/cabinet, not complying with code. In addition, one of these panels provides a 50A/2P sub feed to the other. It appears to be an unprotected multi conductor cable. Refer to Appendix B for code references.
 - Move the worktable/cabinet.
 - Protect the multi conductor cable between panels with a steel sleeve or plate not less than 1/16" thick.







Figure 2 - Basement Panels

Figure3 - Cable at Basement Panels

- 3.5.2.1.3 Grounding at the metal water pipe is intact but there is no jumper across the meter to maintain continuity per code. Refer to Appendix B for code references.
 - Add a grounding connection across the meter.



Figure 4 - Grounding at Water Pipe

- 3.5.2.1.4 The basement condensate pump disconnect switch is very corroded on the outside of the switch.
 - Review the switch closer and replace as needed.



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- 3.5.2.1.5 Most receptacles observed in the basement are non GFCI type.
 - Provide ground fault circuit-interrupter protection (breaker or devices) for all receptacles in the basement per code. See Appendix B for code references.
- 3.5.2.1.6 The panelboard outside the sanctuary is used for routinely switching on and off lighting fixtures/circuits. Some of the breakers are not rated for this use.
 - Replace circuit breakers with properly rated SWD or HID breakers.
 Or, as a betterment, provide a separate lighting control system or series of switches instead of using breakers in the panel.



Figure 5 - Panel at Sanctuary

- 3.5.2.1.7 Roof top and roof top equipment were not observed at this time.
 - Add duplex weatherproof GFCI receptacles within 25' of each rooftop piece of equipment per the NEC If none are existing at this time.
- 3.5.2.1.8 Several device faceplates throughout the facility are missing or damaged.
 - Install or replace device faceplates as needed.



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3.5.2.2 Lighting

- 3.5.2.2.1 Existing Interior lighting appears to be a mix of compact fluorescent (CFL), and fluorescent type. Lighting is generally in good working order.
 - As screw-in compact fluorescent lamps fail, replace them with LED screw- in type lamps.
- 3.5.2.2.2 Controls generally do not comply with code regarding automatic off features and light reduction requirements. Refer to Appendix b for code references.
 - Add occupancy sensors and dimming or other light reduction switching to meet code.
- 3.5.2.2.3 Emergency lighting does not offer sufficient coverage required by code Areas that require emergency lighting include the basement, stairs at the choir loft, rehearsal room, and stairs outside the rehearsal room. Refer to Appendix B for code references.



Figure 6 - Stairs Outside Rehearsal

- Add additional emergency lights in interior exit access pathways. on each floor and in areas indicated above.
- 3.5.2.2.4 Exit signage. Additional exit signs are required in locations where the way to reach an exit is not readily apparent per code. Additional emergency lighting is required to illuminate unlighted exit signs in some areas. An example of an area needing signage is the basement. Some examples of signs needing illumination are the signs in the basement, stair from second floor/choir, and signs at west end of sanctuary. Refer to Appendix B for code references.
 - Provide exit signs and emergency illumination for signs to meet code requirements.

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3.5.3 Educational Building

3.5.3.1 Power Distribution

- 3.5.3.1.1 Power Distribution: Kitchen panelboard. The panelboard near the refrigerator does not meet code for required clearances. Refer to Appendix B for code references.
 - Relocate this panel (location and height) to meet code.



Figure 7 - Kitchen Panel Wide View

Figure 8 - Kitchen Panel

- 3.5.3.1.2 Third floor panelboard near the dumbwaiter. Does not meet code required clearances. Refer to Appendix B for code references.
 - Relocate this panel (location and height) to meet code.



Figure 9 - Panel at Dumbwaiter



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- 3.5.3.1.3 Roof top and roof top equipment were not observed at this time.
 - Add duplex weatherproof GFCI receptacles within 25' of each rooftop piece of equipment per code. Refer to Appendix B for code references.
- 3.5.3.1.4 Several device faceplates throughout the facility are missing or damaged.
 - Install or replace device faceplates as needed.
- 3.5.3.1.5 Receptacles in the Kitchen are not GFCI type per code. Refer to Appendix B for code references.
 - Replace all receptacles as required (approx. 8 total).
 - If island receptacles do not exist, add one GFCI receptacle at each end of the island.
- 3.5.3.1.6 Hot water heater in former toilet room. The disconnect switch is not accessible at almost 7' AFF. Wiring to the recirculation pump is partially exposed
 - Relocate the disconnect switch such that it is accessible.
 - Rewire recirc pump to include a disconnect and eliminate the exposed splice, using junction box(es) per code where required. Refer to Appendix B for code references.



Figure 10 - HW Heater Electric

3.5.3.2 Lighting

3.5.3.2.1 Existing Interior lighting appears to be a mix of compact fluorescent (CFL), and fluorescent type. Lighting is generally in good working order.



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- 3.5.3.2.2 As screw-in compact fluorescent lamps fail, replace them with LED screw- in type lamps.
- 3.5.3.2.3 Controls generally do not comply with code regarding automatic off features and light reduction requirements. See Appendix B for code references.
 - Add occupancy sensors and dimming or other light reduction switching to meet code.
- 3.5.3.2.4 Emergency lighting does not offer sufficient coverage required by code. Areas that require emergency lighting include the first-floor school corridor, youth lounge area, all corridors of the education building, and third floor east corner of education building where added rooms created an open area before the exit pathway. See Appendix B for code references.
 - Add additional emergency lights in interior exit access pathways on each floor and in areas indicated above.



Figure 11 - 3rd Floor East Corner

- 3.5.3.2.5 Exit signage. Additional exit signs are required in locations where the way to reach an exit is not readily apparent per code. Additional emergency lighting is required to illuminate unlighted exit signs in some areas. An example of an area needing signage is the third-floor east corner where added rooms created an open area before the exit pathway. Some examples of signs needing illumination are the signs in the first-floor school corridor, as well as second and third floor hall. Refer to Appendix B for code references.
 - Provide exit signs and emergency illumination for signs to meet code requirements.



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APPENDIX A: ROUGH ORDER BUDGETARY ANALYSIS



<u>Property Condition Assessment</u> **Westminster Presbyterian Church Rough Order Budgetary Analysis**

Building Area		<u>Estimated</u> <u>Project Cost</u>		<u>Estimated</u> <u>Project Cost</u>		<u>Estimated</u> <u>Project Cost</u>
	IMME	DIATE PRIORITY Years 0-2	MEDI	UM PRIORITY Years 3-4		OW PRIORITY ars 5 - or more
Education Building	\$	999,013	\$	22,813	\$	21,859
Sanctuary Building	\$	721,038	\$	61,938	\$	156,656
To	otals \$	1,720,051	\$	84,750	\$	178,516

These estimates are probable in nature and should be used for budget planning purposes only.

Design & Construction Contingencies

10% Design phase

5% Escalation

10% Construction Phase

Summary Page 1

Education Building

# Topic	Existing Conditions	Recommended work	Code Violation	Health & Safety	Priority L, M, H	<u>Estimated</u> <u>Estimate</u> <u>Project Cost</u> <u>Other Funds</u>	Site	Architectural	Plumbing	Mechanical	Electrical	Other
SITE												
S-1 Peimeter Drainage System	No perimeter drainage system around building to connect gutters and downspouts to City stormwater system	Provide a perimeter below grade drainage system that connects roof and gutter downspouts to City stormwater system			Н	39,531.25	х					
						-				\perp	_	
ARCHITECTURAL												
A-1 Window Replacement	Existing metal windows are rusted, harware not working and a few windows are broken	Remove existing steel windows and vinyl replacement windows. Provide new aluminum, thermally-broken window units to match existing configuration			Н	379,500.00		х				
A-2 Wood Floor replacement in classroom	m Existing wood floor has buckled due to steam pipe rupture	Replace hardwood floor		Х	Н	14,231.25		Х				
A-3 Damaged Plaster Walls	Select locations of plaster walls are deteriorating due to water infiltration	Repair plaster walls			Н	7,906.25		Х		7		
A-4 Window Sills/heads	Select locations of stone window sill and heads are damaged and spalling	Replace/repair damaged stone sills/heads		Х	М	15,812.50		Х				
A-5 Masonry cleaning	Existing brick veneer is stained	Clean brick masonry			L	11,859.38		Х				
A-6 Repointing	Water run-off from downspouts has eroded masonry jonts at sill stone	Repoint masonry joints at sill stones and base of exterior stone masonry walls		Х	Н	15,812.50		х				
A-7 Basement wall waterproofing / drainage mat	Groundwater is migrating through the foundation wall through failed joints, missing/damaged storm drains and general hydrostatic pressure	Provide below-grade waterproofing and/or drainage mat to mitigate moisture drive through foundation wall and help direct groundwater to storm drains		Х	Н	39,531.25		Х			_	
							E			ゴ	#	╛
PLUMBING									.,			
P-1						-			Х	_	_	_
MECHANICAL (HVAC)												
M-01 Heating System	Existing heating system is steam with majority of the equipment beyond its normal service life.	Extend heating water piping system from Sanctuary Building and provide a combination of convectors & finned tube radiation			Н	250,000.00				х	T	
M-04 Gymnasium Ventilation	Current Ventilation is via operable windows	Provide energy recovery ventilator, ductwork, supply & exhaust grilles, intake & exhaust louvers, duct mounted heating coil & controls.	х		Н	25,000.00				х		
M-05 Office Area Ventilation	Current Ventilation is via operable windows	Provide energy recovery ventilator, ductwork, supply & exhaust grilles, intake & exhaust louvers, duct mounted heating coil & controls.			Н	25,000.00				х		
M-06 Classroom Ventilation	Current Ventilation is via operable windows	Provide energy recovery ventilator, ductwork, supply & exhaust grilles, intake & exhaust louvers, duct mounted heating coil & controls.			Н	25,000.00				х		
M-03 Toilet Exhaust	Current exhaust systems discharge to attic	Provide roof mounted exhaust fan, exhaust grilles ductwork & controls.			Н	20,000.00				Х		

Education Building

M-02 Crawlspace Ventilation There is no existing crawlspace ventilation There is no existing crawlspace ventilation M-07 Air Conditioning There is currently no air conditioning in the building. M-08 Air Conditioning There is currently no air conditioning in the building. There is currently no air conditioning in the building. There is currently no air conditioning in the building. There is currently no air conditioning in the building. There is currently no air conditioning in the building. Provide DX cooling on space by space basis including single outdoor condensing unit and single indoor AC unit (\$5000.00/space) Provide Variable Refrigerant Flow (VRF) air conditioning including a single oudoor condensing unit and multiple indoor AC units. Provide Variable Refrigerant Flow (VRF) air conditioning	X	н	15,000.00 5,000.00					х		
M-07 Air Conditioning There is currently no air conditioning in the building. M-08 Air Conditioning There is currently no air conditioning in the building. There is currently no air conditioning in the building. There is currently no air conditioning in the building. There is currently no air conditioning in the building. Single outdoor condensing unit and single indoor AC unit (\$500.00/space) Provide Variable Refrigerant Flow (VRF) air conditioning system for office area in front portion of the building including a single outdoor condensing unit and multiple indoor AC units.			5,000.00					^		
M-08 Air Conditioning There is currently no air conditioning in the building. system for office area in front portion of the building including a single oudoor condensing unit and multiple indoor AC units.		Н						Х		
Provide Variable Pefrigerant Flow (VPE) air conditioning			130,000.00					х		
M-09 Air Conditioning There is currently no air conditioning in the building. System for classrooms including a single oudoor condensing unit and multiple indoor AC units.			30,000.00					Х		
									+	-
ELECTRICAL										
E-1 4.2.3.7, Emergency Lighting Insufficient emergency lighting per NFPA 101 Provide footcandle coverage test and calculations and additional emergency lights	х	Н	5,000.00						Х	
E-2 4.2.3.8 Exit Signage Insufficient exit signage per NFPA 101 Provide exit signage and/or exit light X	Х	Н	2,500.00						Х	
E-3 4.2.2.2 Lighting controls Controls generally do not meet current energy code Add occupancy sensors and light reduction switching to meet code X		L	10,000.00						Х	
E-4 4.2.3.1 panelboard location Kitchen panel location does not meet NEC 110.26 requirements for working space Relocate panel	Х	М	2,500.00						Х	
E-5 4.2.3.2 panelboard location Third floor panel near dumbwaiter does not meet NEC 110.26 requirements for working space Relocate panel	Х	М	2,500.00						Х	
E-6 4.2.3.5 Kitchen receptacles Kitchen receptacles are not GFCI type per NEC 210.8.B.2 Replace all kitchen receptacles as required X	Х	М	1,000.00						Х	
E-7 4.2.3.6 Disconnect switch Disconnect at hot water heater is not accessible. Relocate disconnect.		М	500.00						Х	
E-8 4.2.3.6 Disconnect switch Pump has exposed wiring and does not have a disconnect Provide disconnect if needed and protect wiring X		М	500.00						х	
		Н	-							
<u> </u>		1	1	Other		1	1			_
High	Pri	ority	\$ 999,013	\$ -						-
Medium		•								
	Low Priorit									_
	Subtotal L, M, F Subtotal Unallocated									
Subtotal Orlai		otal	\$ 30,000 \$ 1,073,684	•	_					

Sanctuary Building

# Topic	Existing Conditions	Recommended work	Code Violation	Health & Safety	Priority L, M, H	<u>Estimated</u> <u>Estimate</u> <u>Project Cost</u> <u>Other Funds</u>	Site	Architectural	Plumbing	Mechanical	Electrical	Other
SITE												
S-1 Property and Topographic Survey	No updated survey of the property exists	Conduct a property boundary, topographic and utility survey of the propertu			Н	11,068.75	Χ					
S-2 Handrails at Exterior Staiirs	Existing handrails at main entrance and accessible entrance stairs are not code compliant	Replace existing non-compliant handrails	Х	X	Н	7,906.25	х					
S-3 Handicapped Parking Signs	Existing handicapped parking signs are not code compliant- need to provide one van accessible parking sign	Replace existing parking signs with current NYS accessible symbol and provide one van accessible sign	Х	X	н	3,162.50	Х					
S-4 Parking Lot Sealing	Parking Lot in generally good condition, requires periodic maintenance	Seal coat and restripe existing parking lot and access driveways (5 year timeframe)			L	23,718.75	Х					
S-5 Peimeter Drainage System	No perimeter drainage system around building to connect gutters and downspouts to City stormwater system	Provide a perimeter below grade drainage system that connects roof and gutter downspouts to City stormwater system		Х	Н	39,531.25	Х					
S-6 Fencing	Existing chain link fencing on north and south property lines and around playground is deteriorated	Replace existing fencing in kind.		Х	М	23,718.75	Х					
S-7 Playground Safety Inspection	Playground shuld have a safety inspection to identify potential deficiencies and hazards	Engage a CertifiedPplayground Safety Inspector (CPSI) to conduct an inspection of the existing playground.		Х	М	7,906.25	Х					
ARCHITECTURAL												
A-1 Gutters and Downspouts	No gutter and downspouts are on the existing building	Provide new gutters and downspouts			Н	9,803.75		Х				
A-2 Repointing	Existing stone walls have deteriorated due to age and water splashing on the outside of the building	Repointing 2000 sf on stone joints. Repair dislodged sill stone(s)		X	н	37,950.00		х				
A-3 Wood wainscot at northwest corner	Existing replaced wood wainscot in northwest corner of the Sanctuary is damaged due to moisture infiltration	Provide new wainscot after basment moisture issue has been addressed			М	15,812.50		Х				
A-4 Basement Shoring	The temporary shoring in the basement is not adequate and a more permanent solution needs to be designed	Provide a more permanent solution to the rotted beam pocket and floor connection to exterior wall		Х	Н	31,625.00		х				
A-5 Basemment Areaways	The existing basement areaways are filling up with sediment and the windows/louvers are rotting and allowing water infilation to the basement	Replace basement areaways, louvers and windows. Cleanout sediment and debris in areaways		X	Н	18,975.00		Х				
A-6 Basement Walls joint repairs	The mortar on the north basement wall (interior) is powdery and falling out of the joint	Clean out bad mortar and replace		Х	Н	11,859.38		Х				
A-7 Basement wall waterproofing / drainage mat	Groundwater is migrating through the foundation wall through failed joints, missing/damaged storm drains and general hydrostatic pressure	Provide below-grade waterproofing and/or drainage mat to mitigate moisture drive through foundation wall and help direct groundwater to storm drains			Н	39,531.25		х				
A-8 Vented Plexiglass over existing windows	The vented plexiglass covering is secured into the existing wood frames and not sealed weather tight	Remove existing plexiglass covering, patch holes and paint window frame. Provide new aluminum 'J' channel and secure to stone masonry and seal weather tight.			L	47,437.50		Х				

Sanctuary Building

# Topic	Existing Conditions	Recommended work	Code Violation	Health & Safety	Priority L, M, H	<u>Estimated</u> <u>Estimate</u> <u>Project Cost</u> <u>Other Funds</u>	Site	Architectural	Plumbing	Mechanical	Electrical	Other
A-9 Bell Tower and Bell Cradle	The existing wood bell cradle is decaying	Reconstruct wood bell cradle		X	Н	31,625.00		х				
PLUMBING											4	
										Т	Т	
P-1					М	-			Х			
P-2					М	-			Χ		〓	
P-3						-			Х			
MECHANICAL (HVAC) M-01 Heating System	Existing heating system is steam with majority of the equipment beyond its normal service life.	Provide new hot water heating system with condensing boilers, pumps, piping and combination of convectors &	х	х	н	350,000.00				х		
M-02 Convert Steam Boiler to Hot Water	Steam Boiler	finned tube radiation. Covert steam boiler by removing steam operating controls an providing hot water controls			Н	10,000.00				Х		1
M-03 Combustions Air Intake	No existing coumbustion air intake.	Add combustion air intake, including areaway, louvers, ductwork & controls	х	Х	Н	25,000.00				Х		
M-04 Insulate Steam & Condensate Piping	Much of basement piping is uninsulated.	Install fiberglass pipe insulation with all-service jacket.			L	5,000.00				х		
M-05 Condensate Pump	Existing single conedsate pump does not provide backup in case of pump failure	Replace condensate pump with a duplex condensate pump.			М	10,000.00				Х		
M-06 Sanctuary Ventilation	Existing ventilation is via operable windows	Provide energy recovery ventilator, ductwork, supply & exhaust grilles, intake & exhaust louvers, duct mounted heating coil & controls.			Н	25,000.00				Х		
M-07 Ventilation for Front Portion of Building	Existing ventilation is via operable windows	Provide energy recovery ventilator, ductwork, supply & exhaust grilles, intake & exhaust louvers, duct mounted heating coil & controls.			Н	25,000.00				Х		
M-08 Toilet Exhaust (In lieu of ERV)	Existing exhaust systems discharges to attic	Provide roof mounted exhaust fan and duct to existing toilet exhaust outlets and provide controls.	Х		Н	15,000.00				Х	1	
M-09 Basement Ventilation	Existing ventilation is via operable windows.	Provide mechanical ventilation including intake louvers, exhaust louvers, exhaust fans & ductwork.			Н	17,000.00				Х		
M-10 Air Conditioning	There is currently no air conditioning in the building.	Provide DX cooling on space by space basis (\$5000.00/space)			L	5,000.00				Х	\top	
M-11 Air Conditioning	There is currently no air conditioning in the building.	Provide Variable Refrigerant Flow (VRF) air conditioning system for all spaces in front portion of the building.			L	70,000.00				Х		
M-12 Building Control System	Electric Building Controls	Provide DDC front end for DDC controls. All other control costs included with equipment costs				15,000.00				Х		

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# Topic	Existing Conditions	Recommended work	Code Violation	Health & Safety	Priority L, M, H	<u>Estimated</u> <u>Project Cost</u>	<u>Estimate</u> <u>Other Funds</u>	Site	Architectural	Plumbing	Electrical	Other
ELECTRICAL												
E-1 4.2.2.3, Emergency Lighting	Insufficient emergency lighting per NFPA 101	Provide footcandle coverage test and calculations and additional emergency lights	Х	Х	Н	5,000.00					Х	
E-2 4.2.2.4 Exit Signage	Insufficient exit signage per NFPA 101	Provide exit signage and/or exit light	Χ	Χ	Н	2,500.00					Х	
E-3 4.1.1 Exterior emergency lighting	Insufficient exterior emergency lighting per NFPA 101	Provide exterior emergency lighting at exit discharge areas	Х	Х	Н	1,500.00					Х	
E-4 4.2.1.1 Equipment above panelboards	Water pipes currently run above panels in the basement	Coordinate with AHJ for leak protection	Х		М	2,500.00					Х	
E-5 4.2.1.3 Unprotected cable	Unprotected cable between panels per NEC	Protect cable with steel sleeve or plate	Х		L	500.00					Х	
E-6 4.2.1.4 Grounding	Ground wire does not continue across water meter	Provide ground connection across the meter	Х		Н	500.00					Х	
E-7 4.2.1.5 Disconnect switch	Existing switch is corroded	Review switch operation and replace as needed		Х	М	1,000.00					х	
E-8 4.2.1.6 GFCI receptacles	Most basement receptacles are not GFCI type per NEC 210.8.B	Provide GFCI receptacles in lieu of existing type	Х	Х	Н	1,500.00					Х	
E-9 4.2.2.2 Lighting controls	Controls generally do not meet current energy code	Add occupancy sensors and light reduction switching to meet code	х		L	5,000.00					х	
E-10 4.2.1.7 Panel used for lighting controls	Panel breakers at Sanctuary uses breakers to control lights	At minimum replace breakers with SWD type breakers designed for that type of use		Х	М	1,000.00					Х	
						-					Х	
							Other					
		<u> </u>	ligh	Prio	rity	\$ 721,038	\$ -					
		Med	_		•	\$ 61,938	\$ -					
		Low Priority				\$ 156,656	\$ -					
		Subtotal L, M, F				\$ 939,632	\$ -					
		Subtotal Unallocated				\$ 15,000	\$ -					
		Total				\$ 954,632	\$ -	_				

Property Condtion Assessment

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APPENDIX B: CODE REFERENCES AND STANDARDS

2020 Building Code of New York State (BCNYS)

2020 Existing Building Code of New York State (EBCNYS)

National Electrical Code 2017 of New York State (NEC)

2018 National Fire Protection Association (NFPA)

2020 Energy Conservation Code of NY

2010 ADA Standards (ADA)

Preservation Briefs from the Technical Preservation Services of the National Park Services U.S.

Department (NPS)

Handrails and Guardrails:

ADA Chapter 5, Section 505

NYSBC Chapter 10, Section 1014

NYSBC Chapter 10, Secction 1015

Accessible Routes:

NYSBC Chapter 11, Section 1104

ADA Chapter 4, Section 402

Door Opening Force:

ADA Chapter 4, Section 404.2.9

NPS Briefs:

(https://www.nps.gov/tps/how-to-preserve/briefs.htm)

Emergency Exterior Lighting - NFPA 101 part 7.9:

See report paragraph 3.5.1.1

Spaces About Electrical Equipmet - NEC 110.26:

See report paragraphs 3.5.2.1, 3.5.2.1.2, 3.5.3.1.1, 3.5.3.1.2

Protecting Cables – NEC 300.4, NEC 334.10.3, NEC 334.12.B.4, NEC 334.15.C:

See report paragraph 3.5.2.1.2

Grounding - NEC 250.53.D.1:

See report paragraph 3.5.2.1.3

GFCI Receptacles – NEC 210.8.B:

See report paragraphs 3.5.2.1.5, 3.5.3.1.5



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Lighting Controls – Energy Conservation Code C405.2: See report paragraphs 3.5.2.2.2, 3.5.3.2.3

Emergency Lighting – NFPA 101 chapter 7.9: See report paragraphs 3.5.2.2.3, 3.5.3.2.4

Exit Signage – NFPA 101. 7.10.1.2.2 and 7.10.5: See report paragraphs 3.5.2.2.4, 3.5.3.2.5

