



***ST. PHILIPS ANGLICAN CHURCH
BUILDING CONDITION ASSESSMENT
& CAPITAL PLAN***

**Presented to:
The Board
St Philips Anglican Church**



Prepared By:

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B.Sc. (QS)

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BC,
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November 29, 2017

Attention: The Board

St. Philips Anglican Church,
3737 West 27th Avenue,
Vancouver, BC.

RE: Building Condition Assessment & Capital Plan

Dear Don,

The subject of this building condition assessment report consists of “St. Philips Anglican Church”, a church building, main hall, pre-schools and offices, which was constructed between 1928 and 1941. It is located at 3737 West 27th Avenue, Vancouver, BC. I am pleased to present you with the enclosed copy of the report, which we believe will enable you to establish proper planning techniques to meet the financial needs of your buildings future capital expenditures.

The BCA report describes the building components condition, providing current and future replacement costs of each component. The projected replacement cost estimates serve to be the basis for financial forecasting model which guide the board management in their financial planning. The BCA report is an extensive document prepared based on site observations, interviews and financial analyses.

I have inspected the subject property and reviewed all documents made available by the management. With extensive analyses performed in conjunction with all pertinent data, our capital plan predicts that the optimal capital management includes the following:

- 1) A capital requirement of \$124,896 in 2018
- 2) A capital requirement of \$115,646 in 2019
- 3) A capital requirement of \$30,648 in 2020

It is recommended that a capital plan and strategy be adopted and executed by the management.

I appreciate the opportunity to provide you with this report and would be privileged to provide you with updates in the future. If you have any questions, please do not hesitate to contact my office.

Respectfully yours,

Adrian Walsh

AWQS Consulting

Executive Summary

Property Information:

Two & three storey wooden framed structure
St. Philips Anglican Church,
3737 West 27th Avenue,
Vancouver, BC.

Building components:

Steel fire escape structure
External cedar wood siding
Stucco siding
Soffits and fascia's
Roofing finishes - asphalt shingles
Two-ply SBS bitumen membrane roofing
Gutters and downpipes
Wooden framed single glazed windows
Vinyl framed double glazed windows
Solid wooden exterior swing doors
Solid wooden swing doors - interior
Kitchen cabinetry fittings
Wall finishes
Floor finishes
Plumbing fixtures
Electrical breakers
Fire alarm panel
Copper domestic piping
Gas fire heating boiler
Domestic hot water heaters
Wooden pews to church
Appliances
Wooden fencing
Concrete paving
Irrigation sprinklers

Inflation rate:

2.0%

Conclusions and Recommendations: The church is in fair condition overall. Some major replacements including the roof replacement are pending. Interior finishes require periodical replacement work. The exterior wooden framed windows require painting in the immediate short term. The majority of the electrical equipment is very old in this building (original). Further monitoring and investigation is recommended. The mechanical system has recently undergone some major replacement work and is functioning satisfactorily overall. Some modifications are required to the convectors/radiators in the office (to balance heat distribution) and also to the washroom sink in the pre-school (to make water a safe temperature).

Photos



Table of Contents

Executive Summary	1
Conclusions and Recommendations	2
Photos	3
Table of contents	4
1.0 Basis for Building Condition Assessment	5
1.1 Client and intended use	5
1.2 Important dates	5
1.3 BCA report requirements and scope of work	6
1.4 Additional disclosures	8
1.5 Assumptions and limiting conditions	9
1.6 Extraordinary assumptions and hypothetical conditions	10
1.7 Information provided	11
1.8 Certification	12
2.0 Property Identification and Evaluation	13
2.1 Building Type, Class and Architectural Style	13
2.2 Age and General Condition	14
2.3 Recent Maintenance and Building Improvement History	14
3.0 Building Components	15
4.0 Capital Plan	52

1.0 Basis for Building Condition Assessment and Capital Plan

1.1 Client and Intended use

AWQS Consulting was retained by Craig Wilson and Conrad Guelke, trustees for the church to prepare a building condition assessment report and capital plan for St. Philips Anglican Church, located at 3737 West 27th Avenue, Vancouver, BC.

AWQS Consulting provides building condition assessments and capital plans to Clients, to assist them in determining future capital needs for their buildings. The report is a financial document. The purpose of the report is to provide cost estimates for various components that are subject to major repairs and/or replacements over the lifetime of the property, and to estimate the funding required for such major repairs and replacements. The figures included in this report should not be considered quotes; they are prudent estimates of future costs, which may change based on a wide variety of factors over time. This report is suggested to be updated once every five years. The report has been completed for the exclusive use of the church board. No other party may rely on the report without specific written approval of AWQS Consulting.

St Philips is a development comprising of a church, a large hall, offices and daycare, located in Vancouver, BC. The development consists of a wooden framed structure over reinforced concrete foundations, wooden exterior siding, stucco siding, sloped roofing with asphalt shingles and two-ply SBS bitumen membrane flat roofing.

1.2 Important dates

Effective date of the report

January 1, 2018

Date of the report

November 29, 2017

Date of building inspection

November 3rd, 7th and 10th, 2017

1.3 Building Condition Assessment report requirements and scope of work

The BCA report includes the following:

1. A physical component inventory and evaluation of the building elements.
2. A summary of repairs and maintenance work for common expenses respecting the items that usually occur less often than once a year or that do not usually occur.
3. A capital plan outlining future needs of the building.
4. The date of the report.
5. Any other information or analysis that the client or the person providing the BCA report considers appropriate.

Our proposed scope of service is as follows:

6. Review the design drawings and specifications provided to familiarize us with the various building systems including structural, envelope, mechanical and electrical components.
7. Review previous building condition assessment reports, previous BECA reports, structural assessments and any other reports previously completed on the buildings.
8. Interview the building management as well as existing maintenance and ownership personnel, discuss performance history and review copies of drawings, photographs, and prior maintenance and repair records.
9. Review capital expenditures records, invoices and quotations for information on replacement of building components.
10. Conduct a visual examination of the overall building assemblies. The assemblies and components reviewed should include, but not limited to, roofs, exterior walls, windows, balconies and decks, exposed-column construction, overhangs, gutters and down-pipes, planters, all interior components, mechanical and electrical components, site components, below-grade structures, and accessory structures.
11. Identify building elements that the management are responsible to replace and repair.
12. The scope of work excludes planned improvements to the building. The report focuses strictly on replacement of current elements.
13. The report excludes building code violations.

14. The scope of the analysis in this report is limited to building components that are subject to replacement within 30 years.
15. Evaluate the physical condition of each of the assemblies and components identified in the visual examination, and estimate the continued serviceability of the materials.
16. Identify and distinguish between components that should be considered immediate repair expenses versus capital items.
17. Provide benchmark analysis.
18. Review the report with the church board.

1.4 Additional disclosures

AWQS Consulting is a Quantity Surveying Company that specializes in construction cost planning, building condition assessments, capital planning and depreciation reports.

We are experienced in cost consulting, estimating, building condition assessments, depreciation reports and maintenance of buildings you live in, and we work within the current building regulations

We hereby certify that we are the “qualified persons” authorized to conduct Building Condition Assessments and Depreciation Reports, as specified in B.C. Regulations 43/2000 under British Columbia Strata Property Amendment Act, 2009.

To the best of our knowledge and belief, the information and data used herein are true and correct.

This BCA was prepared in conformity with accepted practices for building condition assessments, and it conforms to the standards for reserve fund studies, published by Canadian Uniform Standards of Professional Appraisal Practice.

In addition, we carry and maintain professional errors and omissions liability insurance.

1.5 Assumptions and limiting conditions

Limiting Conditions

- Environmental issues including asbestos and mould contamination are not included. AWQS Consulting is not qualified or insured to comment on such issues but we will include the findings of relevant reports when they are provided to us.
- The report does not fully eliminate uncertainty for future work required on building components. Unexpected failures of components can potentially occur.
- The use of the information in this report is valid only for capital planning purposes. The estimates herein must not be used in conjunction with any other report or capital plan study may be invalid if so used.
- Expenditure on building elements which is categorized as maintenance or operational in nature (including any individual items under a threshold of approximately \$500) are excluded from the cost analysis. These are smaller more regular items which are typically completed by maintenance staff more than once a year.
- The BCA report includes a capital plan based on current economic conditions. Variations in the actual economy will have a bearing on the long-term financing required by the management.
- The report is not a Building Envelope Condition Assessment Report (BECA). A visual non-intrusive inspection has been completed.
- No testing has been performed or explorative holes in the siding created for the purposes on envelope inspections, engineering investigations, nor comprehensive physical examinations have been made. Therefore, no responsibility is assumed regarding these matters, which would be required to determine any integral or hidden defect in the property.
- This report is not a building code audit.
- Concealed defects are specifically not included in this study.

Assumptions

- The architectural drawings, structural drawings, mechanical and electrical drawings provided are assumed to be correct. Furthermore, it is also assumed the buildings and improvements have been constructed in accordance with these plans.
- All review surveys were visual only. No removal or testing of materials or components was carried out. The review was made on a random basis with no attempt to inspect every element or portion of the building. The intent of the review was to determine areas of visually obvious deterioration and need for repair and to determine, in a general way, the overall quality and sufficiency of the existing building condition.
- We have endeavoured to examine all the information provided and have assumed full disclosure of information from the owner. A list of all drawings/documents reviewed is included.
- The scheduling of site visits is important to building performance reviews. To observe the actual extent of problem areas, it is necessary to monitor the building conditions throughout the year and under varying weather conditions.
- Cost estimates provided in this report are not valid for insurance purposes.

- The report has been prepared for the exclusive use of the church board and relates solely to the services for which AWQS Consulting has been retained. It shall not be used or relied upon by the Client or any third party for any variation or extension of the services, any other project. The report may not be used or relied upon by any other party, without our written consent. We accept no responsibility for damages suffered by a third party resulting from decisions made or actions based on this report.
- It is suggested that the capital plan is updated approximately every five years.

1.6 Extraordinary Assumptions and Hypothetical Conditions

- The management will continue to implement a preventative maintenance program to interior finishes.
- Repairs are completed yearly to the irrigation sprinkler system.
- An in-depth electrical study or assessment by an experienced electrical contractor is suggested considering the age of the electrical equipment in the building.

1.7 Information Provided

- Architectural Drawings
- Invoices and quotations
- Capital expenditure list
- Quotations

1.9 Certification

We hereby certify that we have personally inspected the within described property, and that we have personally examined the building plans and documents as listed above.

We certify that we are prescribed persons empowered to conduct Building Conditions Assessments, capital plans and Depreciation Reports, as stipulated in B.C. 43/2000 under the British Columbia Strata Property Amendment Act, 2009.

To the best of our knowledge, the information and data used herein are true and correct.

We have no interest, present or prospective, in the property or its management. Neither the employment to prepare this BCA Report nor the compensation is contingent on the amount of the capital fund estimates reported. Moreover, we are solely responsible for the capital fund estimates reported herein.

This Building Condition Assessment Report was prepared in conformity with accepted practices by CUSPAP.

Adrian Walsh

Reserve Fund Planner/Quantity Surveyor

AWQS Consulting

November 29, 2017

2.0 Property Identification and Evaluation

Project Information

Original construction date	Phase 1 (hall) – 1928, Phase 2 (church and daycare) – 1945
Building Age	76 years & 52 years
Project Type	Church building
# of storeys (above grade)	2

Project Statistics

Site Area	34,300 sf
Building coverage	13,128 sf
Gross floor area	29,000 sf
Gross livable area	16,000 sf

Site Description

The site incorporates a wooden framed structure over reinforced concrete foundation. The building incorporates reinforced concrete foundations, cedar wooden siding, wooden, vinyl and aluminum framed double-glazed window. The roof consists of sloped roofing with asphalt shingles and two-ply SBS bitumen membrane. The site consists of brick paving, concrete stairs and a grass area to the back of the building.

2.1 Building Type, Class and Architectural Style

St Philips is a low-rise wooden framed structure. The property consists of a church, a hall, offices and a daycare. The buildings are two storey wooden framed structures over reinforced concrete foundations. The buildings incorporate poured concrete strip footings, reinforced concrete basement exterior walls, cedar siding and soffits to above grade exterior walls, wooden framed single glazed windows, vinyl framed double glazed windows, solid wooden swing entry doors and sloped roofing with asphalt shingles. The interior finishes include painted drywall partitions, painted drywall ceilings, vinyl and carpet floor covering, slat floor to church, solid wooden swing doors.

Each area of the building has its own domestic hot water heater. The domestic hot water travels through copper piping which is original to the building. The building is heated by a gas fired hydronic hot water boiler which incorporates a heat exchanger for the church area where heat is transferred to a forced air system. The offices and pre-school are heated by the hydronic radiators.

The main hall incorporates Modine fan heaters in the ceilings. Their heat is obtained from the hydronic piping system.

Electrical panel boards and copper branch wiring are from the buildings original construction. Some panels have been upgraded.

2.2 Age and General Condition

The building was constructed between 1928 and 1941. The overall condition of the buildings is generally good. Replacement work has been an on-going process.

2.3 Recent Maintenance and Building Improvement History

- The sloped roof above the daycare was replaced in 2014.
- The flat roof above the offices was replaced in 2014.
- The exterior of the building was fully repainted in 2014. The window frames were completed poorly and require painting again in the short term.
- The hydronic boiler was recently replaced.
- The make-up air unit/heat exchanger was replaced recently.

3.0 Building Components

Component (1) Superstructure													
Building Component	Steel fire escape stairs – 2 locations												
Description	The steel stairs are located at the side of the building and to the back to the caretaker’s unit. They consist of two flights plus a landing for each stairs.												
Overall Condition	Good – require painting in the short term												
Life Cycle Analysis	<table border="0"> <tr> <td>Installation date</td> <td>1990 (installed) 2011 (painting) - assumed</td> </tr> <tr> <td>Life expectancy</td> <td>60 years</td> </tr> <tr> <td>Chronological age</td> <td>27 years</td> </tr> <tr> <td>Effective Age</td> <td>27 years</td> </tr> <tr> <td>Remaining life span</td> <td>33 years</td> </tr> <tr> <td>Maintenance year</td> <td>2018 and every 5 years after</td> </tr> </table>	Installation date	1990 (installed) 2011 (painting) - assumed	Life expectancy	60 years	Chronological age	27 years	Effective Age	27 years	Remaining life span	33 years	Maintenance year	2018 and every 5 years after
Installation date	1990 (installed) 2011 (painting) - assumed												
Life expectancy	60 years												
Chronological age	27 years												
Effective Age	27 years												
Remaining life span	33 years												
Maintenance year	2018 and every 5 years after												
Unit Quantity	Two flights and one landing 2 items												
Current maintenance cost	Painting and decorating of stairs - \$400 1 stairs - 5 hrs @ \$30 per hr (labour) = \$150 + material (\$50) = \$200 per stairs.												
Commentary	The actual stairs structure is performing satisfactorily. No major defects were observed or reported. They require painting in the short term. This work is expected to be completed by maintenance staff on site. If a contractor is hired, this will most likely result in higher costs.												



Component (2) Brick Chimney													
Building Component	Brick Chimneys												
Description	There are three red masonry brick chimneys in the building. One is located to the east side of the building, one to the west side of the building and the other is located in the middle above the boiler room.												
Overall Condition	Poor												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>1928 & 1941</td> </tr> <tr> <td>Life expectancy</td> <td>75 years</td> </tr> <tr> <td>Chronological age</td> <td>76 & 89 years</td> </tr> <tr> <td>Effective Age</td> <td>74 years</td> </tr> <tr> <td>Remaining life span</td> <td>1 year</td> </tr> <tr> <td>Replacement year</td> <td>2018</td> </tr> </table>	Installation date	1928 & 1941	Life expectancy	75 years	Chronological age	76 & 89 years	Effective Age	74 years	Remaining life span	1 year	Replacement year	2018
Installation date	1928 & 1941												
Life expectancy	75 years												
Chronological age	76 & 89 years												
Effective Age	74 years												
Remaining life span	1 year												
Replacement year	2018												
Unit Quantity	Brick chimneys 3 items												
Current repair/replacement cost	Remove east chimney - \$6,037.50 Repair & re-point middle chimney - \$10,080.00 Alternative budget for reconstruction of middle chimney - \$17,700												
Commentary	The three chimneys are the original. Two of the chimneys are showing significant signs of deterioration. The east chimney is obsolete, and the boiler room chimney is still in use. We recommend budgeting to remove the east chimney and to re-point the Boiler Room chimney in the short term. The chimney that requires removal appears to be very hazardous and should be completed as soon as possible. Dunbar masonry have provided budget numbers for this work. They have also provided a budget to knock and re-build the middle chimney which is far costlier project (\$17,700). We have budgeted for re-pointing the brick at this stage. The west side chimney to the fireside room is performing satisfactorily and no work is required currently. We also recommend obtaining another quotation for this work for comparison purposes.												



Component (3) Stucco and cedar siding

Building Component	Slop dash stucco siding and cedar siding	
Description	The front and the sides of the buildings consist of stucco siding. The back of the building consists of cedar siding.	
Overall Condition	The stucco and siding are generally in good condition.	
Life Cycle Analysis	Installation date	1941
	Life expectancy	75 years
	Chronological age	76 years
	Effective Age	55 & 75 years
	Remaining life span	1 & 20 years
	Replacement year	2018 & 2037
Unit Quantity	Envelope	Approximately 13,400 sf
Current repair/replacement cost	Removal	\$5.00
	Supply and install stucco and siding	\$15.00
	Subtotal including profit & OH	\$20.00
	GST @ 5%	\$1.00
	Total per sf of roofing	\$21.00 per sf
	Total 12,400 sf	\$260,400
	Total 1,000 sf	\$21,000
Commentary	No major defects were observed or reported with the majority of the stucco and siding. One section to the gable on the east side at the front was recently replaced due to leaking from the roof. The building was also recently fully repainted. The back north-east corner of the building is showing signs of deterioration. The stucco is showing visible signs of moisture penetration. This was reported on site to be similar to the issues observed on the gable before replacement was required there. We recommend budgeting to replace this section of stucco in the short term. A full replacement of the stucco can be postponed for approximately twenty years. Regular inspections and maintenance are recommended. A Building Envelope Condition Assessment is also suggested at some point in time as a visual non-intrusive inspection is insufficient to determine if the stucco has any moisture penetration.	



Component (4) Windows

Building Component	Wooden framed single glazed windows and vinyl framed double glazed windows	
Description	The hall and church building contain wooden framed single glazed windows and the office and fire side room contains vinyl framed double glazed windows	
Overall Condition	Good condition	
Life Cycle Analysis	Installation date	(Wooden) 1941 & (Vinyl) 1997
	Life expectancy	(Wooden) 60 years & (Vinyl) 35 years
	Chronological age	76 & 20 years
	Effective Age	Daycare/office 50, Church 40 & Vinyl 20 years
	Remaining life span	10, 20 & 15 years
	Replacement Year	2027, 2037 & 2032
Unit Quantity	Wooden framed	46 ea
	Wooden framed – church (large)	9 ea
	Wooden framed – church (small)	22 ea
	Vinyl framed double glazed	24 ea
Current repair/replacement cost	Wooden framed windows - \$138,000 Wooden framed – church (large) - \$180,000 Wooden framed – church (small) - \$154,000 Vinyl framed double glazed - \$60,000 Painting window trims - \$8,080	
Commentary	The wooden framed single glazed windows to the main hall and west side of the building are the original. They are single glazed but internal panels have been added to them in order to prevent damaged by play in the hall. Despite their age, they are still functioning satisfactorily. The single glazed stained windows to the church are also the original and are also functioning satisfactorily. The frames to all the windows require painting within the next year. It was reported that they were previously painted but poor workmanship was completed. It appears that they were not primed properly as peeling is occurring on nearly all frames. The vinyl framed double glazed windows are performing satisfactorily as they were replaced in or around 1997.	



Component (5) Doors		
Building Component	Exterior Doors	
Description	Solid wooden swing doors with glazed panels, metal clad swing door and hollow-core steel door.	
Overall Condition	Wood and steel doors- good, Metal clad door – poor	
Life Cycle Analysis	Installation date	Wooden 1960(assumed), metal clad 2012 & hollow-core steel door 1960.
	Life expectancy	(Wooden) 50 & (Metal clad) 35 years.
	Chronological age	57 & 5 years
	Effective Age	(Wooden) 30, (Hollow-core steel) 35 & (metal clad) 7
	Remaining life span Replacement year	20, 15 & 28 years 2037, 2032 & 2045
Unit Quantity	Solid wooden swing doors	18 lvs (double and single)
	Hollow-core steel door	1 ea
	Metal clad swing door	1 ea
Current repair/replacement cost	Solid wooden swing doors - \$72,000 Hollow-core steel door - \$2,000 Metal clad swing door - \$1,000	
Commentary	The majority of doors are performing satisfactorily. No major defects were observed or reported. Painting of doors can be completed in conjunction with the exterior wall painting. The door to the caretaker’s suite is damaged. The wooden interior is cracked. The door should be replaced in the short term.	



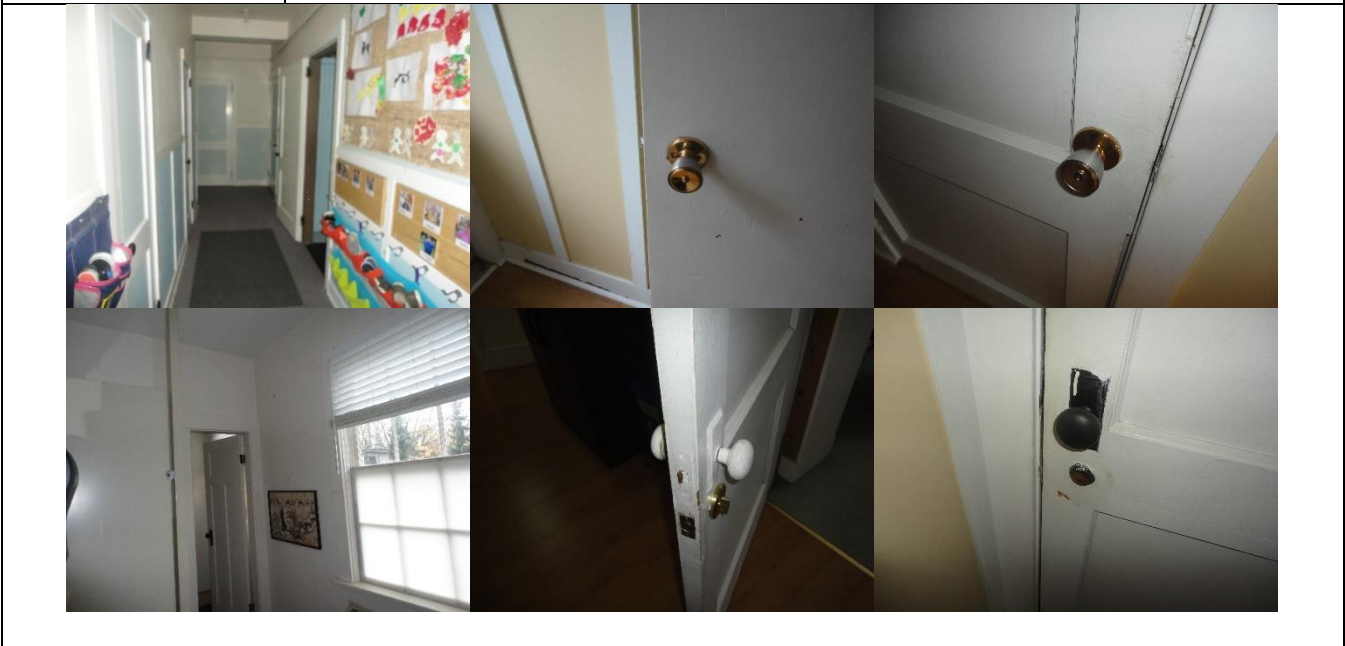
Component (6) Roofing		
Building Component	Sloped and flat roofing	
Description	The sloped roofing consists of asphalt shingles and the flat roofing consists of two-ply SBS bitumen membrane.	
Overall Condition	Good and poor	
Life Cycle Analysis	Installation date	1999 & 2014
	Life expectancy	22 years
	Chronological age	18 & 3 years
	Effective Age	(Sloped East side) 21 years, (Sloped & Flat to West side) 3 years & (Flat East side) 17 years
	Remaining life span	1, 19 & 5 years
	Replacement year	2018, 2036 & 2022
Unit Quantity	Sloped roofing - old	15,000 sf
	Sloped roofing - new	1,900 sf
	Flat roofing - old	1,800 sf
	Flat roofing - new	1,025 sf
Current replacement cost	Sloped roofing (old) - \$78,750 Sloped roofing (new) - \$9,975 Flat roofing (old) - \$27,000 Flat roofing (new) - \$15,375	
Commentary	<p>The sloped roofing with asphalt shingles to the west side of the building over the offices and a small section over the chapel was recently replaced. The roof is performing satisfactorily. The sloped roofing over the main hall and the church is old and past design life expectancy. It is planned for replacement within the next year. Regan roofing have provided a budget for the new roofing. The flat roofing to the church is approximately 17 years old but is performing satisfactorily. We recommend budgeting to replace the roofing here within five years.</p>	



Component (7) Fittings		
Building Component	Kitchen and washroom cabinetry fittings.	
Description	Wooden compressed particle cabinetry, solid wooden cabinetry, countertops, hardware etc.	
Overall Condition	Fair & Good condition	
Life Cycle Analysis	Installation date	(Main kitchen & church) 1980, (Office) 1990, (Caretakers) 2012, (Washroom & Daycare 2) 2010 and (Daycare 1) 2005.
	Life expectancy	30 years
	Chronological age	37, 27, 5, 37, 7 & 12 years.
	Effective Age	25, 20, 5, 22, 7 & 12 years
	Remaining life span	5, 10, 20, 8, 23 & 18 years
	Replacement year	(Main kitchen) 2022, (Office) 2027, (Caretakers) 2037, Sacristy (2025), (Washroom) 2040, (Daycare 1) 2045 & Daycare 2 (2040).
Unit Quantity	Cabinetry	6 locations
Current repair/replacement cost	Main kitchen - \$7,000 Office kitchen - \$3,000 Caretakers suite - \$6,000 Church sacristy cabinetry - \$6,000 Washroom cabinetry - \$2,000 Pre-school cabinetry (Crown) - \$12,000 Pre-school cabinetry (Tom Thumb) - \$20,000	
Commentary	No major defects were observed or reported with any of the cabinetry. It is all performing satisfactorily. The next location that should be considered for replacement or re-facing is the kitchen on the main floor. This location receives the most usage. We have allowed to reface all the cabinetry here.	



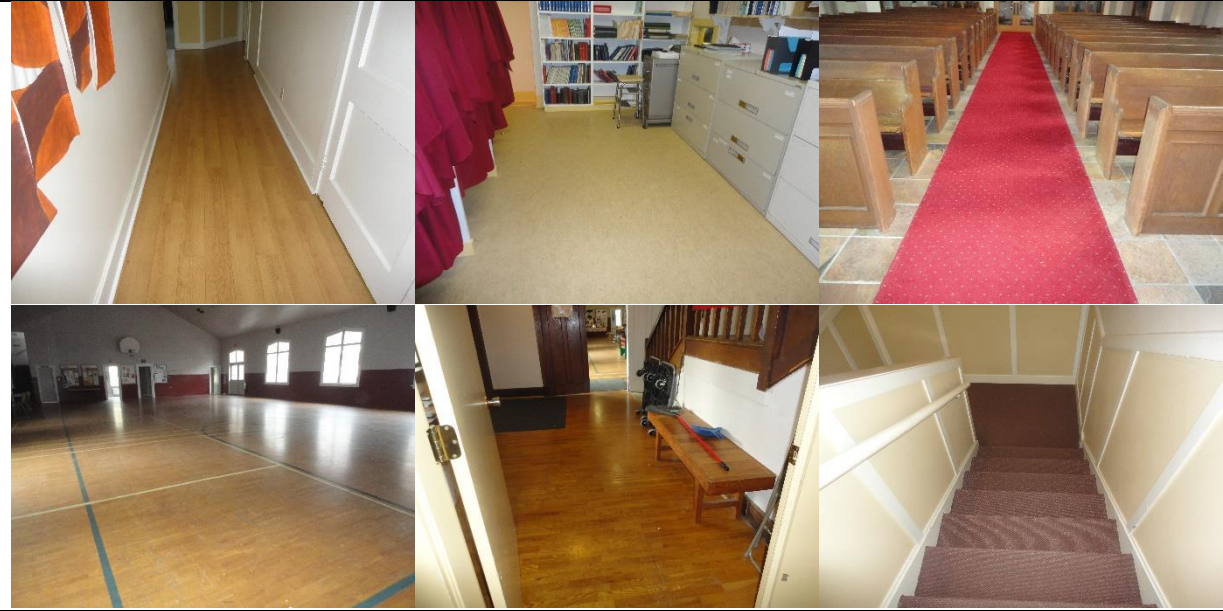
Component (8) Interior doors hardware													
Building Component	Solid wooden swing doors, frames, hardware etc.												
Description	The interior doors consist of original solid wooden swing doors with metal hardware.												
Overall Condition	Doors – good, hardware - poor												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>1941</td> </tr> <tr> <td>Life expectancy</td> <td>Doors (60), hardware (35), painting (15) years.</td> </tr> <tr> <td>Chronological age</td> <td>Doors - 76, Hardware – 57, Painting – 17 years.</td> </tr> <tr> <td>Effective Age</td> <td>Doors - 30, Hardware – 33, Painting – 14 years.</td> </tr> <tr> <td>Remaining life span</td> <td>Doors - 30, Hardware – 2, Painting – 1 year.</td> </tr> <tr> <td>Replacement year</td> <td>Hardware – 2019, Painting – 2018.</td> </tr> </table>	Installation date	1941	Life expectancy	Doors (60), hardware (35), painting (15) years.	Chronological age	Doors - 76, Hardware – 57, Painting – 17 years.	Effective Age	Doors - 30, Hardware – 33, Painting – 14 years.	Remaining life span	Doors - 30, Hardware – 2, Painting – 1 year.	Replacement year	Hardware – 2019, Painting – 2018.
Installation date	1941												
Life expectancy	Doors (60), hardware (35), painting (15) years.												
Chronological age	Doors - 76, Hardware – 57, Painting – 17 years.												
Effective Age	Doors - 30, Hardware – 33, Painting – 14 years.												
Remaining life span	Doors - 30, Hardware – 2, Painting – 1 year.												
Replacement year	Hardware – 2019, Painting – 2018.												
Unit Quantity	<table border="1"> <tr> <td>Doors hardware</td> <td>40 doors</td> </tr> <tr> <td>Paint doors and Trims</td> <td>60 doors</td> </tr> </table>	Doors hardware	40 doors	Paint doors and Trims	60 doors								
Doors hardware	40 doors												
Paint doors and Trims	60 doors												
Current repair/replacement cost	<p>Supply and install hardware - \$100 per door.</p> <p>Supply and install painting of doors and trims - \$50 per door.</p>												
Commentary	The actual doors are still performing satisfactorily. They are solid wooden doors so can potentially last the life of the building if maintained correctly. Painting of the doors and trims is required in the short term. Scuff marks and signs of deterioration of the finish were observed. The maintenance staff are most likely to undertake this work. Many of the doors hardware are not functioning. Handles and locks are broken. We recommend budgeting to replace a minimum of 40 doors hardware within the next two years.												



Component (9) Wall finishes		
Building Component	Painted wall finish to drywall and wood panels	
Description	The walls are painted in vinyl matt paint finish	
Overall Condition	Various	
Life Cycle Analysis	Installation date Life expectancy Chronological age Effective Age Remaining life span Replacement year	Various 15 – 20 years depending on usage Various years Various years Various years Church – 2019
Unit Quantity	Church Main Hall – walls & ceilings Fireside room & kitchen Pre-school 1 & 2 Totem room & washrooms	Approximately 10,000 sf Approximately 10,000 sf 2,500 sf 3,500 sf 1,400 sf
Current repair/replacement cost	\$0.80 per sf	
Commentary	The wall finishes are in various states of condition. The church requires painting in the short term as it is showing signs of deterioration. Also, the main hall should be considered for repainting soon. All other areas have been budgeted for at varying dates. Painting in this building is required on a regular basis.	



Component (10) Floor finishes		
Building Component	Carpet, vinyl, vinyl plank and slate floor finishes.	
Description	The church consists of carpet and slate, the main hall consists of wooden flooring, the fireside room contain carpet, the kitchens have vinyl flooring and the remainder consists of vinyl, vinyl plank and carpet.	
Overall Condition		
Life Cycle Analysis	Installation date Life expectancy Chronological age Effective Age Remaining life span Replacement year	Various dates 15 – 25 depending on usage Various Various Various Church – 2024, Main hall – 2019, offices – 2019, fireside room - 2022, stairs – 2018 and kitchen main floor – 2020.
Unit Quantity	Church Main hall Offices Fireside room Stairs Kitchen	371 sf 2,860 sf 700 sf 1,700 sf 2 items 200 sf
Current replacement cost	Carpet and vinyl flooring \$5.00 per sf Wooden floor (sand and stain) - \$3.50 per sf Carpet to church - \$10.00 per sf	
Commentary	The floor finishes are in various condition. Slate flooring was added to the church in 2000. The main hall wooden flooring requires re-finishing (sanding and staining). The carpet in the church is performing satisfactorily. The carpet to the stairs (to caretaker’s suite and upper floor adjacent hall) is showing signs of deterioration and this should be considered for replacement in the short term. The carpets to the offices are also showing signs of deterioration and should be replaced in the short term. Other locations are performing satisfactorily.	



Component (11) Ceiling Finishes		
Building Component	Painted finish top drywall and wood panelling	
Description	The ceilings are painted in vinyl matt paint finish	
Overall Condition		
Life Cycle Analysis	Installation date Life expectancy Chronological age Effective Age Remaining life span Replacement year	Various 15 – 20 years depending on usage Various years Various years Various years Fireside room – 2023
Unit Quantity	Offices Church Daycare Fireside room & kitchen Totem and washroom	1,300 sf 4,500 sf 2,700 sf 1,900 sf 520 sf
Current repair/replacement cost	\$0.70 per sf (painting drywall) and \$3.00 per sf (staining wood in church)	
Commentary	The ceiling finishes are in various states of condition. The fireside requires painting in the short term as it is showing slight signs of deterioration. Also, the main hall should be considered for repainting in the short term.	



Component (12) Plumbing Fixtures													
Building Component	Ceramic toilets, Ceramic washroom sinks, ceramic urinals and stainless-steel kitchen sinks.												
Description	The washrooms and kitchens include ceramic toilets, ceramic washroom sinks, ceramic urinals and stainless-steel kitchen sinks & faucets to kitchens.												
Overall Condition	Fair & Good												
Life Cycle Analysis	<table border="0"> <tr> <td>Installation date</td> <td>1990, 1995, 2000, 2010</td> </tr> <tr> <td>Life expectancy</td> <td>30 years</td> </tr> <tr> <td>Chronological age</td> <td>27, 22, 17 & 7 years</td> </tr> <tr> <td>Effective Age</td> <td>27, 22, 17 & 7 years</td> </tr> <tr> <td>Remaining life span</td> <td>3, 8, 13 & 23 years</td> </tr> <tr> <td>Replacement year</td> <td>2020 (5%), 2025 (20%), 2030 (60%) & 2040 (15%)</td> </tr> </table>	Installation date	1990, 1995, 2000, 2010	Life expectancy	30 years	Chronological age	27, 22, 17 & 7 years	Effective Age	27, 22, 17 & 7 years	Remaining life span	3, 8, 13 & 23 years	Replacement year	2020 (5%), 2025 (20%), 2030 (60%) & 2040 (15%)
Installation date	1990, 1995, 2000, 2010												
Life expectancy	30 years												
Chronological age	27, 22, 17 & 7 years												
Effective Age	27, 22, 17 & 7 years												
Remaining life span	3, 8, 13 & 23 years												
Replacement year	2020 (5%), 2025 (20%), 2030 (60%) & 2040 (15%)												
Unit Quantity	<table border="0"> <tr> <td>Toilets</td> <td>10 ea</td> </tr> <tr> <td>Washroom sinks</td> <td>10 ea</td> </tr> <tr> <td>Urinals</td> <td>2 ea</td> </tr> <tr> <td>Kitchen sinks</td> <td>8 ea</td> </tr> <tr> <td>Bathtub & shower head</td> <td>1 ea</td> </tr> </table>	Toilets	10 ea	Washroom sinks	10 ea	Urinals	2 ea	Kitchen sinks	8 ea	Bathtub & shower head	1 ea		
Toilets	10 ea												
Washroom sinks	10 ea												
Urinals	2 ea												
Kitchen sinks	8 ea												
Bathtub & shower head	1 ea												
Current repair/replacement cost	Plumbing fixtures (5%) - \$1,030 Plumbing fixtures (20%) - \$4,120 Plumbing fixtures (60%) - \$12,360 Plumbing fixtures (15%) - \$3,090												
Commentary	The plumbing fixtures are performing satisfactorily. They have varying installation dates. We have allocated replacement of the fixtures periodically over the next thirty years. Replacement of faucets is expected to be required in the short term.												



Component (13) Domestic water distribution													
Building Component	Copper distribution piping.												
Description	The domestic piping consists of copper hot and cold water lines. Some sections of pex piping have been installed.												
Overall Condition	Fair												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>1941</td> </tr> <tr> <td>Life expectancy</td> <td>50 years</td> </tr> <tr> <td>Chronological age</td> <td>76 years</td> </tr> <tr> <td>Effective Age</td> <td>40 years</td> </tr> <tr> <td>Remaining life span</td> <td>10 years</td> </tr> <tr> <td>Replacement year</td> <td>2027</td> </tr> </table>	Installation date	1941	Life expectancy	50 years	Chronological age	76 years	Effective Age	40 years	Remaining life span	10 years	Replacement year	2027
Installation date	1941												
Life expectancy	50 years												
Chronological age	76 years												
Effective Age	40 years												
Remaining life span	10 years												
Replacement year	2027												
Unit Quantity	7 washrooms and four kitchens.												
Current replacement cost	Remove piping and install Wirsbo piping, repair drywall & make good finishes - \$75,000												
Commentary	The copper piping is functioning without any major issue. It is old but has not had many leaks. Repairs have been completed in various locations at various dates. Sections of pex piping have been installed. Access to the piping is not difficult due to the crawl-space and basement. We recommend budgeting to replace all the piping with Wirsbo piping within approximately ten years. The drywall will require repairs in locations after installation. We recommend continued observation of the piping as it may last longer than the ten years predicted.												



Component (14) Rainwater drainage system		
Building Component	Gutters and Downpipes	
Description	The rainwater drainage system consists of aluminum gutters and downpipes.	
Overall Condition	Good	
Life Cycle Analysis	Installation date	1999 – presumed
	Life expectancy	25 years
	Chronological age	18 years
	Effective Age	15 years
	Remaining life span	10 years
	Replacement year	2027
Unit Quantity		1 item
Current repair/replacement cost	Supply and install gutters and downpipes - \$10,000	
Commentary	The gutters and downpipes are functioning without any major issue. No major defects were observed or reported. Some small repairs are required to downpipes in locations. Any repairs can be considered under operations and maintenance. We recommend budgeting to replace the gutters and downpipes within ten years.	



Component (15) Domestic Heaters													
Building Component	Domestic hot water heaters												
Description	The building contains three domestic hot water heaters - a Rinnai on-demand gas fired domestic hot water heater, model R75 RLSe hanging on the outside west wall, a General Electric electrical powered domestic hot water heater in the storage room and a Space domestic hot water heater in the washroom in the church.												
Overall Condition	Poor and Good												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>2013, 2006 & 2017</td> </tr> <tr> <td>Life expectancy</td> <td>15, 12 & 10 years</td> </tr> <tr> <td>Chronological age</td> <td>4, 11 & 0 years</td> </tr> <tr> <td>Effective Age</td> <td>4, 11 & 0 years</td> </tr> <tr> <td>Remaining life span</td> <td>11, 1 & 10 years</td> </tr> <tr> <td>Replacement year</td> <td>2028, 2018 & 2027</td> </tr> </table>	Installation date	2013, 2006 & 2017	Life expectancy	15, 12 & 10 years	Chronological age	4, 11 & 0 years	Effective Age	4, 11 & 0 years	Remaining life span	11, 1 & 10 years	Replacement year	2028, 2018 & 2027
Installation date	2013, 2006 & 2017												
Life expectancy	15, 12 & 10 years												
Chronological age	4, 11 & 0 years												
Effective Age	4, 11 & 0 years												
Remaining life span	11, 1 & 10 years												
Replacement year	2028, 2018 & 2027												
Unit Quantity	<table border="1"> <tr> <td>Rinnai on-demand tankless heater</td> <td>1 item</td> </tr> <tr> <td>General Electric heater</td> <td>1 item</td> </tr> <tr> <td>Space domestic hot water</td> <td>1 item</td> </tr> </table>	Rinnai on-demand tankless heater	1 item	General Electric heater	1 item	Space domestic hot water	1 item						
Rinnai on-demand tankless heater	1 item												
General Electric heater	1 item												
Space domestic hot water	1 item												
Current repair/replacement cost	<table border="1"> <tr> <td>Rinnai on demand heater</td> <td>- \$4,500</td> </tr> <tr> <td>General Electric heater</td> <td>- \$900</td> </tr> <tr> <td>Space domestic hot water</td> <td>- \$600</td> </tr> </table>	Rinnai on demand heater	- \$4,500	General Electric heater	- \$900	Space domestic hot water	- \$600						
Rinnai on demand heater	- \$4,500												
General Electric heater	- \$900												
Space domestic hot water	- \$600												
Commentary	The domestic hot water heaters are all functioning satisfactorily. The tankless system, located on the west side of the building (supplying the basement and main kitchen) was installed in 2013, the space heater was recently installed and is located in the church and the General electric heater is located in the basement (supplying the washrooms in the middle and the caretaker's suite). The General Electric heater is older and nearing design life expectancy. This is the next heater planned for replacement.												




Component (16) Heating Boiler		
Building Component	Hot water hydronic heating boiler	
Description	The boiler is a Futera natural gas fired hot water hydronic heating boiler, model HW104437, with Tekmar controls.	
Overall Condition	Good	
Life Cycle Analysis	Installation date	2005
	Life expectancy	22 years
	Chronological age	12 years
	Effective Age	12 years
	Remaining life span	10 years
	Replacement year	2027
Unit Quantity		1 item
Current repair/replacement cost	Supply and install boiler, control valves, thermostats etc. - \$25,000	
Commentary	<p>The gas fired hydronic boiler is located in the mechanical room in the basement under the main hall. The boiler provides hot water heating to all areas of the building. The boiler has an input of 1,000,000 BTU/hr and an output of 880,000 BTU/hr. This results in an 88% efficiency rate, making the boiler a mid-efficiency boiler. There are two circulation pumps (Taco and Bell and Gossett), located on the hydronic piping, which circulate the hot water throughout the hydronic distribution piping loops. One hydronic loop travels to the office, pre-schools and fireside room and the heat is released here through convectors. Another loop travels to the main gym hall. This area contains Modine fan heaters hanging from the ceiling and the heat is transferred to hot air in this area. Another loop travels to the church and this area is heated by a forced air system. The heat from the hydronic piping is transferred through a make-up air unit/heat exchanger in the second mechanical room on the east side of the building. The boiler is controlled by Tekmar controls, which regulate the temperature of the hydronic water based on outside temperatures. The boiler is functioning without any major issue and has another expected sixteen years of life remaining. Annual servicing and cleaning is recommended. This can be considered under operations and maintenance.</p>	



Component (17) Primary HVAC Pumps													
Building Component	Hydronic circulating pumps – 3.												
Description	Taco & Bell and Gossett circulating pumps												
Overall Condition	Fair												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>2011 & 2013</td> </tr> <tr> <td>Life expectancy</td> <td>10 & 7 years</td> </tr> <tr> <td>Chronological age</td> <td>4 & 6 years</td> </tr> <tr> <td>Effective Age</td> <td>4 & 5 years</td> </tr> <tr> <td>Remaining life span</td> <td>6 & 2 years</td> </tr> <tr> <td>Replacement year</td> <td>2023 & 2019</td> </tr> </table>	Installation date	2011 & 2013	Life expectancy	10 & 7 years	Chronological age	4 & 6 years	Effective Age	4 & 5 years	Remaining life span	6 & 2 years	Replacement year	2023 & 2019
Installation date	2011 & 2013												
Life expectancy	10 & 7 years												
Chronological age	4 & 6 years												
Effective Age	4 & 5 years												
Remaining life span	6 & 2 years												
Replacement year	2023 & 2019												
Unit Quantity	3 items												
Current repair/replacement cost	Supply and install pump - \$400 per pump Supply and install pump - \$600 per pump												
Commentary	Two of the circulating pumps are located on the hydronic piping in the main mechanical room. The other pump is located on the hydronic loop in the secondary mechanical room, which contains the Carrier make-up air unit/heat exchanger. The first two pumps circulate the hot water in the hydronic piping throughout the building. The third pump circulates the water through the make-up air unit, which transfers heating to the forced air system. No major defects were observed or reported. The pumps may not need to be fully replaced. They can be repaired in parts. We recommend making an allowance of \$400 for each pump every seven years in the main mechanical room and \$600 to fully replace the other pump.												



Component (18) Heat Exchanger		
Building Component	Heat exchanger/make-up air unit	
Description	Carrier Heat exchanger/make-up air unit	
Overall Condition	Good	
Life Cycle Analysis	Installation date	2013
	Life expectancy	30 years
	Chronological age	4 years
	Effective Age	4 years
	Remaining life span	26 years
	Replacement year	2043
Unit Quantity		1 item
Current repair/replacement cost	Supply and install Make-up air unit - \$35,000	
Commentary	The heat exchanger is a new addition to the building. It was added in 2015 by Total Energy Systems LTD. It transfers the heating from the hydronic water piping to the forced air system, which is then distributed through aluminum ducting throughout the church building. No major defects were observed or reported with the make-up air unit/heat exchanger. Annual servicing is required.	
		

Component (19) Unit heaters		
Building Component	Ceiling fan heaters	
Description	Modine electrical powered ceiling mounted fan heaters	
Overall Condition	Good	
Life Cycle Analysis	Installation date	1990 – assumed
	Life expectancy	30 years
	Chronological age	27 years
	Effective Age	20 years
	Remaining life span	10 years
	Replacement year	2027
Unit Quantity		2 items
Current repair/replacement cost	Supply and install unit heaters - \$5,000 per unit	
Commentary	The unit heaters are functioning without any issue. They may require some small repairs. This can be considered under operations and maintenance. We recommend budgeting to fully replace the heaters within ten years.	



Component (20) Unit Heaters		
Building Component	Unit fan heaters	
Description	The church contains four fan heaters on the side walls and the caretaker's unit contains one electrical fan heater in the washroom.	
Overall Condition	Good and Poor	
Life Cycle Analysis	Installation date	1980 & 2000
	Life expectancy	35 & 25 years
	Chronological age	37 & 17 years
	Effective Age	27 & 24 years
	Remaining life span	10 & 1 year
	Replacement year	2027 & 2018
Unit Quantity	Church heaters	4 ea
	Caretakers suite	1 ea
Current repair/replacement cost	Church heaters - \$1,500 – supply and install Caretakers suite - \$300 - supply and install	
Commentary	The heaters in the church are functioning without any issue. They obtain their heat from the Carrier make-up air unit in the mechanical room. The electrical powered fan heater in the caretaker's unit is not functioning properly. It was reported to be completely ineffective as the washroom is too cold. We recommend budgeting to upgrade this heater in the short term.	



Component (21) Electrical Baseboard Heaters		
Building Component	Electrical baseboard heaters	
Description	A number of locations in the building contain aluminum electrical baseboards and Honeywell thermostats.	
Overall Condition	Good	
Life Cycle Analysis	Installation date	1990
	Life expectancy	35 years
	Chronological age	27 years
	Effective Age	27 years
	Remaining life span	8 years
	Replacement year	2025
Unit Quantity	Electrical baseboards and thermostats	3 items
Current repair/replacement cost	Supply and install baseboards and thermostats - \$350 per baseboard.	
Commentary	No major defects were observed or reported with the baseboards. They are functioning satisfactorily. They are a secondary source of heat for the office upstairs. They are not used regularly.	



Component (22) Controls and Instrumentation		
Building Component	Thermostat controls and control valves for heating system	
Description	Forced air heating control - Neptronic thermostat control for church (1). Controls for hydronic piping – Delta control valves (3). Convector/radiator controls – Danfoss style valves (9) – to be installed. Pre-school control for sink – tempering mixing valve (1) – to be installed. HVAC system – Belimo motor valves (1).	
Condition	Good	
Life Cycle Analysis	Installation date	2017, 2013, 2018, 2018 & 2011.
	Life expectancy	25, 8, 25, 25 & 5 years.
	Chronological age	0, 4, 0, 0 & 6 years.
	Effective Age	0, 4, 0, 0 & 3 years.
	Remaining life span	25, 4, 25, 25 & 2 years.
	Replacement year	2042, 2021, 2018, 2018 & 2019.
Unit Quantity		Noted in description
Current replacement cost	Neptronic thermostat - \$1,000 Delta control valves - \$700 Dan Foss style - \$700 Tempering valve - \$1,000 Belimo motor valve - \$1,000	
Commentary	<p>The Neptronic controls were recently installed to control the forced air temperature in the church. The temperature is required to be maintained constant in order to protect the organ from detuning. These controls operate the make-up air unit/heat exchanger in the adjacent mechanical room. They are new and functioning satisfactorily.</p> <p>The Delta control valves are located on three of the hydronic hot water heating loops exiting from the heating boiler. They control the hot water introduced to the heating loops in the gym, totem room and caretaker’s suite. They were recently replaced and are functioning satisfactorily. They require replacing approximately every eight years. The other heating loops do not have these controls.</p> <p>The nine convectors in the offices on the top floor currently have no controls and temperature in this location is far too hot on occasion. The introduction of Danfoss style valves to the convectors will enable temperature control in these areas. The mechanical company have also recommended this approach. As it is a single loop older system, replacing the piping and modifying it would be too costly. This approach is considered the most cost-effective approach. It was reported on the day of the inspection that the water in the ceramic sink in Crown pre-school is far too hot for children and is a safety issue. The temperature is set in the adjacent pre-school and it is set at a high temperature for the use of the dishwasher. The introduction of a tempering valve under the ceramic sink in Crown Pre-school will make the water a safe temperature for the children’s use. The children’s sink in Tom Thumb pre-school already incorporates its own tempering valve.</p> <p>The Belimo motor valve in the HVAC (heat exchanger) room controls the temperature of the hydronic water introduced through the heating coil in the heat exchanger, which heats the air being introduced to the church. The motor valve is set based on the outside air temperature. It is currently functioning satisfactorily but has a short life span of five years.</p> <p>The Tekmar controls for the hydronic boiler can be replaced in conjunction with the boiler and this has been budgeted for in the boiler component. The other thermostats throughout the building (e.g. pre-school & gym) are low cost items and can be considered under operations and maintenance.</p>	



Component (23) Expansion Tank													
Building Component	Expansion tank for hydronic system												
Description	A.S.M.E. expansion tank												
Overall Condition													
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>2013</td> </tr> <tr> <td>Life expectancy</td> <td>35</td> </tr> <tr> <td>Chronological age</td> <td>4 years</td> </tr> <tr> <td>Effective Age</td> <td>4 years</td> </tr> <tr> <td>Remaining life span</td> <td>31 years</td> </tr> <tr> <td>Replacement year</td> <td>2048</td> </tr> </table>	Installation date	2013	Life expectancy	35	Chronological age	4 years	Effective Age	4 years	Remaining life span	31 years	Replacement year	2048
Installation date	2013												
Life expectancy	35												
Chronological age	4 years												
Effective Age	4 years												
Remaining life span	31 years												
Replacement year	2048												
Unit Quantity	1 item												
Current repair/replacement cost	Supply and install expansion tank - \$3,500												
Commentary	No major defects were observed or reported. This expansion tank is a good quality tank. It has a bladder, and this can be replaced independently. We recommend budgeting to replace the tank at the end of design life expectancy.												



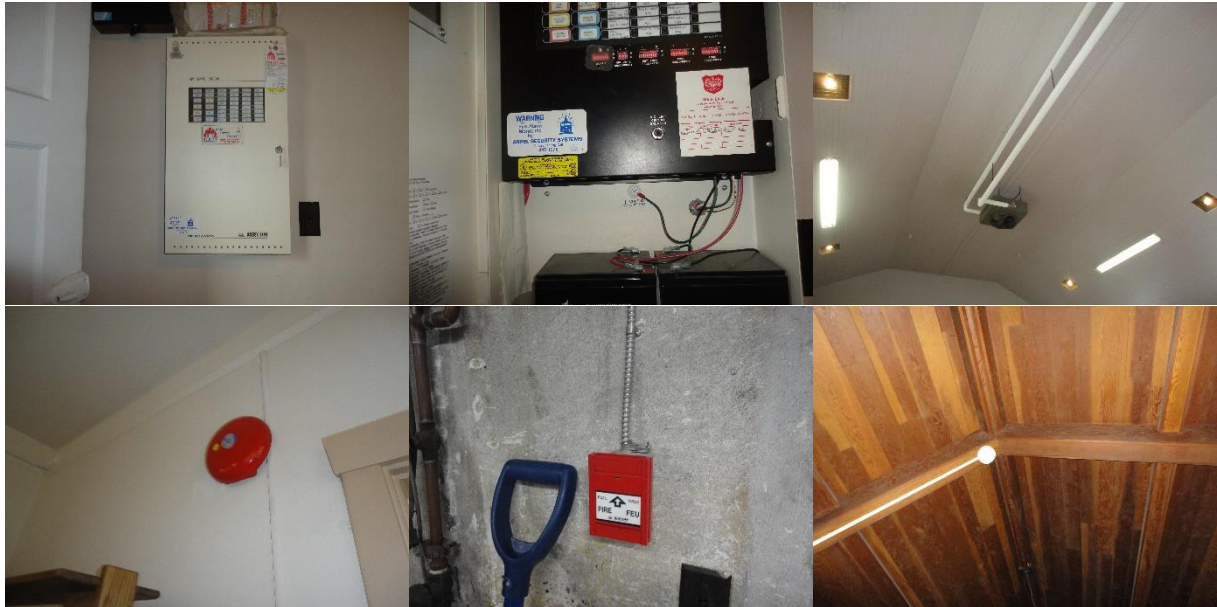
Component (24) Electrical Distribution		
Building Component	Electrical Breaker panels	
Description	The breaker panels in the building consist of 50-amp breaker panels, 60-amp breaker panels, 100-amp breaker panels, 150 amp breaker panels, 225 amp breaker panels and one 400 amp main breaker panel.	
Overall Condition	Poor, fair and good	
Life Cycle Analysis	Installation date	1941 & 2000
	Life expectancy	50 years
	Chronological age	76 and 17 years
	Effective Age	48, 72 & 17 years
	Remaining life span	2, 8 & 33 years
	Replacement year	2019 & 2025
Unit Quantity	Square D 100-amp breaker panel	1 item
	Federal Pioneer 125-amp breaker panel	1 item
	Square D 60-amp breaker panel	2 items
	Electrical MFG 100-amp breaker panel	2 items
	Square D 125-amp breaker panel	1 item
	Cutler Hammer 125-amp breaker panel	2 items
	Federal Electric panel 100-amp panel	1 item
	Federal Pioneer 125-amp breaker	1 item
	Main breaker - 400-amp panel	1 item
	Westinghouse 50-amp breaker panel	1 item
	Westinghouse 225-amp breaker panel	1 item
Current repair/replacement cost	100-amp breaker panel - \$800 125- amp breaker panel - \$1,000 60-amp breaker panel - \$300 50-amp breaker panel - \$250 225-amp breaker panel - \$2,000 400-amp breaker panel - \$5,000	
Commentary	The majority of breaker panels are extremely old. They are believed to be the original, which were installed in 1941. Some breaker panels have been upgraded or added on. We recommend considering to budget for upgrading 50% of these panels in the short term as they have well exceeded design life expectancy. However, it must be noted that it was reported on site that the panels are not experiencing any issues. We further recommend budgeting for a detailed electrical investigation to the wiring and panels, considering the age of the building.	



Component (25) Light Fixtures		
Building Component	Incandescent and Fluorescent light fixtures	
Description	The building has approximately 181 various types of light fixtures. They range from fluorescent tube lighting fixtures, incandescent light fixtures to hanging pendant lights in the church.	
Overall Condition	Various	
Life Cycle Analysis	Installation date Life expectancy Chronological age Effective Age Remaining life span Replacement year	Various – majority old 35 years Various Various 3 & 13 years 2020 & 2030
Unit Quantity	Church, main hall, caretaker’s suite, office, pre-school & fireside room etc.	181 fixtures
Current repair/replacement cost	10% of light fixtures - \$4,400 90 % of light fixtures - \$39,600	
Commentary	The light fixtures throughout the building are in various states of condition. Some are very old but functioning satisfactorily. Potentially all fixtures could be considered for upgrading in the short term for energy saving purposes. Also, it was reported that bulbs are becoming more difficult to procure for certain fixtures. However, we have concluded that this is not a viable option. We recommend budgeting to replace approximately 10% of the fixtures in the immediate short term. These are the fixtures that have obviously passed design life expectancy. All other fixtures should be monitored regularly.	



Component (26) Fire Alarm System		
Building Component	Fire Alarm System	
Description	The fire alarm system consists of a Mircom control panel, series 1000, heat detectors, bells and pull stations.	
Overall Condition	Good	
Life Cycle Analysis	Installation date	2001 - panel
	Life expectancy	25 years
	Chronological age	16 years
	Effective Age	16 years
	Remaining life span	9 years
	Replacement year	2026
Unit Quantity	Fire alarm panel	1 item
Current repair/replacement cost	Fire alarm panel - \$5,000 Heat detectors - \$300 each Bells - \$400 each	
Commentary	The fire alarm system is functioning without issue. The panel was replaced around 2001. No major defects were observed or reported. Any repairs can be considered under operations and maintenance. These panel typically have a twenty five year life span.	



Component (27) Exit and Emergency Light Fixtures		
Building Component	Exit and Emergency Light Fixtures	
Description	The entrances to the building have exit and emergency light fixtures.	
Overall Condition	Poor and Good	
Life Cycle Analysis	Installation date	1960 & 2000 - assumed
	Life expectancy	30 years
	Chronological age	57 & 17 years
	Effective Age	28 & 17 years
	Remaining life span	2 & 13 years
	Replacement year	2019 & 2030
Unit Quantity	Old fixtures	4 ea
	Newer fixtures	10 ea
Current repair/replacement cost	Old fixtures - \$800 New fixtures - \$2,000	
Commentary	A number of the exit and emergency light fixtures are very old and should be replaced in the short term. The other fixtures were replaced and are in good condition.	



Reserve Component (28) Residential Appliances													
Reserve Component	Kitchen Appliances												
Description	The appliances consist of fridge/freezers, ovens, hood fans, dishwashers, washers, dryers etc.												
Overall Condition	Poor, fair & Good												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>Various</td> </tr> <tr> <td>Life expectancy</td> <td>8 – 15 years</td> </tr> <tr> <td>Chronological age</td> <td>Various</td> </tr> <tr> <td>Effective Age</td> <td>Various</td> </tr> <tr> <td>Remaining life span</td> <td>Various</td> </tr> <tr> <td>Replacement year</td> <td>Various</td> </tr> </table>	Installation date	Various	Life expectancy	8 – 15 years	Chronological age	Various	Effective Age	Various	Remaining life span	Various	Replacement year	Various
Installation date	Various												
Life expectancy	8 – 15 years												
Chronological age	Various												
Effective Age	Various												
Remaining life span	Various												
Replacement year	Various												
Unit Quantity	<table border="1"> <tr> <td>Main kitchen</td> <td>Ovens (2), fans (2), dishwasher & fridge.</td> </tr> <tr> <td>Caretaker's Suite</td> <td>Oven, fan, dishwasher & washer.</td> </tr> <tr> <td>Pre-school Tom Thumbs</td> <td>Dishwasher, fridge, microwave and toaster oven.</td> </tr> <tr> <td>Preschool – Crown</td> <td>Fridge, microwave & dishwasher.</td> </tr> <tr> <td>Laundry room</td> <td>Combined washer and dryer.</td> </tr> </table>	Main kitchen	Ovens (2), fans (2), dishwasher & fridge.	Caretaker's Suite	Oven, fan, dishwasher & washer.	Pre-school Tom Thumbs	Dishwasher, fridge, microwave and toaster oven.	Preschool – Crown	Fridge, microwave & dishwasher.	Laundry room	Combined washer and dryer.		
Main kitchen	Ovens (2), fans (2), dishwasher & fridge.												
Caretaker's Suite	Oven, fan, dishwasher & washer.												
Pre-school Tom Thumbs	Dishwasher, fridge, microwave and toaster oven.												
Preschool – Crown	Fridge, microwave & dishwasher.												
Laundry room	Combined washer and dryer.												
Current repair/replacement cost	Total for all appliances - \$13,600												
Commentary	The appliances are in a wide variety of condition. They are being replaced as needed. The dishwasher in the main kitchen is particularly old and should be budgeted for replacement in the short term. The fridge in the main kitchen is also nearing design life expectancy. It may be possible to extend the life of some these appliances with repairs. For the purpose of capital planning, we have allowed for full replacement.												



Component (29) Equipment													
Building Component	Photo copying machine												
Description	Ricoh office copier												
Overall Condition	Good												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>2012</td> </tr> <tr> <td>Life expectancy</td> <td>15 years</td> </tr> <tr> <td>Chronological age</td> <td>5 years</td> </tr> <tr> <td>Effective Age</td> <td>5 years</td> </tr> <tr> <td>Remaining life span</td> <td>10 years</td> </tr> <tr> <td>Replacement year</td> <td>2027</td> </tr> </table>	Installation date	2012	Life expectancy	15 years	Chronological age	5 years	Effective Age	5 years	Remaining life span	10 years	Replacement year	2027
Installation date	2012												
Life expectancy	15 years												
Chronological age	5 years												
Effective Age	5 years												
Remaining life span	10 years												
Replacement year	2027												
Unit Quantity	1 item												
Current repair/replacement cost	Supply and install - \$23,000												
Commentary	No major defects were observed or reported. The copier was reported to be functioning without any major issue.												



Component (30) Furnishing													
Building Component	Window blinds												
Description	The windows have blinds in some of the windows. The church and hall have none.												
Overall Condition	Good												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>2005</td> </tr> <tr> <td>Life expectancy</td> <td>20 years</td> </tr> <tr> <td>Chronological age</td> <td>12 years</td> </tr> <tr> <td>Effective Age</td> <td>12 years</td> </tr> <tr> <td>Remaining life span</td> <td>8 years</td> </tr> <tr> <td>Replacement year</td> <td>2025</td> </tr> </table>	Installation date	2005	Life expectancy	20 years	Chronological age	12 years	Effective Age	12 years	Remaining life span	8 years	Replacement year	2025
Installation date	2005												
Life expectancy	20 years												
Chronological age	12 years												
Effective Age	12 years												
Remaining life span	8 years												
Replacement year	2025												
Unit Quantity	40 ea												
Current repair/replacement cost	Supply and install blinds - \$100 per blind												
Commentary	No major defects were observed or reported. These blinds do not get much use. They are functioning without issue.												



Component (31) Furniture		
Building Component	Wooden furniture	
Description	Sand, strip and paint finish to wooden pews and trims	
Overall Condition	Poor	
Life Cycle Analysis	Installation date	1980
	Life expectancy	25 years
	Chronological age	37 years
	Effective Age	24 years
	Remaining life span	1 year
	Replacement year	2018
Unit Quantity	13ft pews	25 ea
	11ft pews	7 ea
	8 ft pews	3 ea
	13 ft pony wall	1 ea
	10 ft pews	3 ea
	7ft pews	1 ea
	2 ft pews	1 ea
	9 ft pony wall (choir)	2 ea
Current repair/replacement cost	Paint pews and trims - \$40,000 – quotation received	
Commentary	The actual pews are in good condition, but the paint finish is deteriorating. This is not an urgent issue but has been planned for an extended period. We recommend budgeting to repaint all the furniture and trims within the next year. A quotation has been received from Tod’s Furniture re-finishing to complete this work.	



Component (32) Pedestrian Paving		
Building Component	Concrete paving	
Description	Poured concrete stairs	
Overall Condition	Poor	
Life Cycle Analysis	Installation date	1950
	Life expectancy	50 years
	Chronological age	67 years
	Effective Age	48 years
	Remaining life span	2 years
	Replacement year	2019
Unit Quantity	Concrete stairs	3 locations
Current repair/replacement cost	Demolish – 20 hrs @ \$35 per hr = \$700 Remove – 4 hr @ \$35 per hr = \$140 Disposal fee = \$250 Formwork material - \$300 Install formwork - 25 hrs @ \$35 per hr = \$825 Concrete supply - \$600 Rebar - \$200 Install concrete - \$700 Finishing and making good - \$500 Total - \$4,265 per stairs	
Commentary	The concrete stairs are showing significant signs of deterioration. They are cracking and damaged in many locations. We recommend budgeting to replace the concrete stairs. This will involve breaking out the existing stairs, removing material off site, installing new concrete and finishing.	



Component (33) Pedestrian Paving													
Building Component	Brick paving												
Description	Brick pedestrian paving												
Overall Condition	Fair												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>1950</td> </tr> <tr> <td>Life expectancy</td> <td>50 years</td> </tr> <tr> <td>Chronological age</td> <td>67 years</td> </tr> <tr> <td>Effective Age</td> <td>47 years</td> </tr> <tr> <td>Remaining life span</td> <td>3 years</td> </tr> <tr> <td>Repair year</td> <td>2020</td> </tr> </table>	Installation date	1950	Life expectancy	50 years	Chronological age	67 years	Effective Age	47 years	Remaining life span	3 years	Repair year	2020
Installation date	1950												
Life expectancy	50 years												
Chronological age	67 years												
Effective Age	47 years												
Remaining life span	3 years												
Repair year	2020												
Unit Quantity	1 item												
Current repair/replacement cost	Lift and re-set paving - \$8,000												
Commentary	The paving is sinking and lifting in locations. It is old and showing signs of deterioration. We recommend budgeting to lift the paving, level ground and re-set the paving to a level position. Some pavers may need replacement. The paving is a slight trip hazard.												



Component (34) Fencing		
Building Component	Wooden fencing	
Description	The fencing consists of 5ft high wooden fencing	
Overall Condition	Good	
Life Cycle Analysis	Installation date	2004
	Life expectancy	25 years
	Chronological age	13 years
	Effective Age	13 years
	Remaining life span	12 years
	Replacement year	2029
Unit Quantity		220 lf
Current repair/replacement cost	Supply and install fencing - \$6,600	
Commentary	No major defects were observed or reported. The fencing is performing satisfactorily. It requires painting. Any repairs and painting can be considered under operations and maintenance.	



Component (35) Site Furniture		
Building Component	Wooden seating	
Description	Wooden benches	
Overall Condition	Good	
Life Cycle Analysis	Installation date	1980
	Life expectancy	35 years
	Chronological age	37 years
	Effective Age	30 years
	Remaining life span	5 years
	Replacement year	2022
Unit Quantity	Wooden benches	4 ea
Current repair/replacement cost	Supply and install benches - \$1,000 per bench	
Commentary	The benches are old but are functioning without issue. They have past design life expectancy. However, they are expected to last another five years.	



Component (36) Irrigation System													
Building Component	Irrigation sprinkler system												
Description	The sprinkler system consists of a Rain Bird irrigation sprinkler system.												
Overall Condition	Good												
Life Cycle Analysis	<table border="1"> <tr> <td>Installation date</td> <td>1987</td> </tr> <tr> <td>Life expectancy</td> <td>25 - 30 years</td> </tr> <tr> <td>Chronological age</td> <td>30 years</td> </tr> <tr> <td>Effective Age</td> <td>17 years</td> </tr> <tr> <td>Remaining life span</td> <td>8 years</td> </tr> <tr> <td>Replacement year</td> <td>2025</td> </tr> </table>	Installation date	1987	Life expectancy	25 - 30 years	Chronological age	30 years	Effective Age	17 years	Remaining life span	8 years	Replacement year	2025
Installation date	1987												
Life expectancy	25 - 30 years												
Chronological age	30 years												
Effective Age	17 years												
Remaining life span	8 years												
Replacement year	2025												
Unit Quantity	1 item												
Current repair/replacement cost	Supply and install sprinkler system - \$7000												
Commentary	The sprinkler system was reported to have been originally installed in 1987. However, many repairs have been completed to the system since then. It receives work yearly. Therefore, the effective age is far less than the chronological age. We recommend budgeting to fully replace the system within eight years. This can also be re-evaluated on the update in five years as yearly repairs may result in a longer life expectancy for the system.												



