

Hastings and Prince Edward District School Board

Condition Assessment

Pinecrest Memorial Elementary School, Building ID 5953-1



Facility Name (SFIS)	Pinecrest Memorial Elementary School
Ministry Building Number	5953-1
GFA (m2)	4292
Year Built by Original/Additions	1967
Replacement Value - OTG	\$10,713,900
Official FCI (%)	13.37
Comparable FCI (%)	33.50
Asset Address	27 Corey St.
Asset City	Bloomfield
Asset Postal Code	K0K 1G0

-- ACCESSIBILITY CHECKLIST --

Designated parking space	Yes
Path of travel to the main entrance door.	Yes
Designated entrances	Yes
Path of travel to all floors/elevations.	Yes
Elevator	No
Instructional spaces entrance doors.	Yes
Fire policy and fire safety plan	Yes
Fire alarm system with strobe and audible signals	No
Communal washrooms	No
Designated washroom	No

-- ENERGY CHECKLIST --

Energy efficient boiler	No
Energy audit report	No
Energy efficient domestic hot water heater	Yes
Energy efficient recovery system	No
Energy efficient HVAC pumps and fan motors	No
Energy efficient interior lighting	Yes
Building Automation System	Yes
Energy efficient faucets	Yes
Energy efficient urinals and toilets	Yes
Architectural and Site Assessor	Nick Charlton
Mechanical and Electrical Assessor	Shahid Khan

How to read the final report

The Final Report contains assessment information for 5 years for this facility.

Asset details reported are either populated from the SFIS system (e.g. GFA, year built etc) or calculated based on Ministry's criteria (e.g. Replacement Value – OTG, Official FCI, Comparable FCI etc).

Accessibility and Energy assessment lists are provided in a yes/no format. For a full description of accessibility/energy definitions please check the TCPS database, Asset Narratives, under the Narratives Tab.

Asset Narratives include the following:

- Architectural & Structural Summary –a brief summary of the asset including construction dates and areas of the original and additions. A brief description of the structure, the exterior wall system, the roof assembly system and the building interiors.
- Mechanical Summary – a brief summary of the mechanical systems.
- Electrical Summary – a brief summary of the Electrical systems.
- Site Summary – a brief summary of the Site systems.
- Limitations – a summary of the scope of work and the Tactical Planning Window.

Building Elements listed are only the ones that require replacement in the next 5 years; their condition is Critical if failed or risk of imminent failure is observed, or Poor if it is not functioning as intended with significant repairs within the next two (2) years, or Fair if normal deterioration and minor distress is observed requiring repairs within three (3) to five (5) years.

2011-2015 Cost and Year information is a snapshot from the assessment and cannot be edited in TCPS.

2011-2015 Priority is the value of the Event priority calculated when the assessment data was imported in TCPS and stored in this read-only field.

Estimated Cost and Fiscal Year are values that can be edited at any time by end users.

Event Priority is a field populated with labels like Urgent, High, Medium and Low based on the Event Priority Value. This value is calculated based on the Element Type and Element Condition.

Photos are provided at the event level: old photos are suffixed with the word "Old", new photos are suffixed with the date of assessment.

A copy of this report in PDF format is saved in the TCPS database. You can access it by selecting the Asset Instance in Data Manager and opening this report in PDF format from the Document Tab.

1. Architectural & Structural Executive Summary

Architectural Summary –

Pinecrest Memorial Elementary School Ministry ID – 5953 - 1 was assessed on October 29 2013 by VFA Canada Corporation

Ministry ID # 5953 - 1

School Name: Pinecrest Memorial Elementary School

Address: 27 Corey Street City & Province: Bloomfield Ontario

Total GFA M2 : 4,292 Year Built: 1967 Levels: 1 Additions: 0

Basement: None

Site Area: 2.7 ha

Typical Spaces –

General Classrooms Administration Kindergarten Gymnasium

Mechanical Services Washrooms Resource Centre Staff Room

Computer Lab Change Rooms

Additional Notes –

All area measurements are taken from drawings provided by Hastings Prince Edward DSB. Construction drawings were not available at the time of the assessment

Substructure Construction:

The substructure construction of Pinecrest Memorial Elementary School features concrete perimeter foundation walls on reinforced concrete strip footings. The facility has a concrete slab on grade foundation floor.

Superstructure:

The superstructure of the facility consists of reinforced concrete floor assemblies. Roofing decks are metal with concrete and steel support beams and columns.

Exterior Construction:

Exterior wall claddings include exterior brick veneer wall and CMU backup walls.

Glazing system include operable and non-operable aluminum framed units with insulating glass.

Entry doors & exit doors typically include either 900 by 2100 or 1800 by 2100 storefront units and hollow metal units.

The roofs sections are covered with a built-up bituminous roofing BUR (Asphalt & Gravel) assembly possibly installed over insulation.

Interior Construction:

Floor finishes throughout the facility include resilient flooring, ceramic floor tile, carpet, carpet tile, painted/sealed concrete and wood strip sports flooring.

Wall finishes include painted concrete, painted gypsum wallboard, ceramic wall tile and acoustic wall panel.

The ceiling finishes include suspended 600 x 1200 acoustical ceiling tile, painted gypsum wallboard, painted overhead structure, or no finish (open to above structural components).

The interior doors include finished solid core wood/steel assemblies, some with glazed panels. The door operating hardware includes knob & lever type with panic devices where required at exterior door fire exit locations.

Hazardous Materials:

A designated substances report summarizing the quantity of identified designated substances in the building was provided by Hastings Prince Edward DSB.

Vertical Transportation:

This is a single level facility.

2. Mechanical Executive Summary

MECHANICAL

HVAC

The heating for the Pinecrest Memorial Elementary School is provided by 2 gas fired hot water boilers, rated at 2513MBH. The boilers provide hot water to perimeter-heating units, unit ventilators, hot water unit heater and an air handler unit, serving offices.

The boiler system also includes distribution piping, an expansion tank and water circulating pumps. The supply and return water temperatures of the hot water loop are monitored from the building automation system.

The fresh and re-circulated air for the offices is provided by the air handler unit. The air handler is equipped with heating coils. The fresh and re-circulated air for the classrooms is provided by several unit ventilators.

The conditioned air in office and staff room is supplied to the spaces via ceiling mounted diffusers and is returned through the plenum to the roof-top unit.

The HVAC ventilation system includes multiple exhaust fans serving the classrooms, hallways, offices, janitor's closet and restrooms

Controls & Instrumentation

The building HVAC system is controlled by a building automation system. A digital control system is also installed and works in conjunction with the building automation system.

Plumbing

The municipal water main enters through the boiler room via a 4-inch pipe and is distributed throughout the facility.

The domestic hot water for the facility is provided by a 74 gallon residential-grade gas-fires water heater. Hot and cold water is distributed to restroom fixtures, sinks, janitor's closets, drinking fountains and other points of use.

The washroom fixtures include vitreous china urinals, water closets, lavatories and showers. The plumbing fixtures also include stainless steel kitchen sinks, floor mounted utility sinks as well as stainless steel and porcelain drinking fountains.

Rain water is removed from the roof via scuppers connected to cast iron downspouts which discharge to the site.

The building includes a sanitary waste piping system which discharges to the septic system.

Fire Protection

Handheld type fire extinguishers are located throughout the building as required.

3. Electrical Executive Summary

ELECTRICAL

Electrical Service and Distribution

School is provided with a 1200A 120/208V electrical service. The distribution has feeders supplying mechanical loads, local 100A and 200A panel boards, disconnects, and associated equipment.

Emergency Electrical Systems

Exit lights are provided to indicate the direction to means of egress.

Battery pack units equipped with integrated or remote lighting heads provide lighting for safe egress from the building.

Lighting

Interior lighting is generally provided by upgraded T-8 fluorescent fixtures, equipped with electronic ballasts. The hallways and class rooms are generally lit with ceiling-mounted fluorescent fixtures. Exterior lighting is provided by low pressure sodium light fixtures.

Branch Wiring and Devices

The branch wiring for this building includes a typical concentration of branch wiring, devices, and utilization equipment.

Fire Alarm System

The facility is provided with a non-addressable fire alarm system consisting of a Mircom main control panel. The system includes manual pull stations, smoke detectors, heat detectors, audible bell.

Communications and Security

Telephone service is provided throughout the building from an on-site telephone system.

Digital data services are delivered to the office and classroom areas via a wireless local area network (LAN). A communications link connects the building to the school district office.

An intrusion alarm system, utilizing motion detectors, provides surveillance for the building.

A public address system is available to provide announcements to both the interior and the exterior of the building. Speaker types include trumpet type, wall and ceiling mounted type units. This system has a control console located in the main office. A system associated with the PA system to indicate the beginning and end of classes is provided. It includes audible wall-mounted alarm devices.

Other Electrical

The gymnasium is equipped with a public address system with a sound control board.

4. Site Summary

Site Summary Notes:

The site at Pinecrest Memorial Elementary School is bounded agricultural farmland.

The site area is approximately 2.7 hectares.

An asphalt paved parking area occurs on the east side of the building.

Asphalt paved schoolyards exist on the west side of the building, with a grass playing field south of the building beyond the asphalt schoolyard.

Concrete walkways service the site, with concrete landings or stairs at most building entrances.

Mature trees exist throughout the site. The soft landscaping consists of shrubbery around the perimeter of the building.

School signage is wall mounted and is oriented perpendicular to the wall.

Definitions for Energy Checklist

Energy audit report: An ASHRAE Level I energy audit report was completed within the last three years.

Energy efficient boiler: The energy efficient boiler provided is a condensing boiler installed within the last five years or is energy star rated.

Energy efficient domestic hot water heater: The energy efficient domestic hot water heater provided is direct or power vented natural gas fired or has an electric heat coil.

Energy efficient recovery system: The building is provided with a Heat Recovery Unit (HRU).

Energy efficient HVAC pumps and fan motors: The energy efficient HVAC pumps and fan motors are reportedly provided with a variable frequency drive.

Energy efficient interior lighting: The provided interior lighting is controlled by motion sensors or building automation system and/or the interior light fixtures are provided with T8 or T5 fluorescent lamps and electronic ballast.

Building Automation System: The building has a comprehensive Direct Digital Control (DCC) automation system to monitor and control the mechanical system.

Energy efficient faucets: Approximately 50% of the lavatory faucets are provided with aerators and motion sensors.

Energy efficient urinals and toilets: Approximately 50% of the urinals and toilets are provided with a low flow flush valve (less than 1.6 gpf)

Definitions for Accessibility Checklist

Designated parking space: The provided designated Barrier Free Accessible parking space is a minimum 2,400 mm wide and is clearly marked with an accessibility sign.

Path of travel to the main entrance door: The provided accessible path of travel from the designated Barrier Free Accessible parking space to an accessible building entrance is a minimum 910 mm wide and includes curb cuts and ramps

Designated entrances: The provided designated Barrier Free Accessible entrance is a minimum 850 mm wide to allow a mobility device, clearly marked with an accessibility sign and is provided with an automatic door open device.

Path of travel to all floors/elevations: The Barrier Free Accessible path of travel is provided with either an accessible ramp or a vertical transportation device where a floor or an elevation difference exists.

Elevator: The provided Barrier Free Accessible Elevator has the following: clear audible communication indicating floors and up/down direction; doors, which open long enough and a minimum 900 mm wide; and a control panel, which is provided with Braille and an emergency call system and where the top is at a maximum height of 1,400 mm above floor.

Instructional spaces entrance doors: The instructional spaces are provided with an entrance door which is a minimum of 850 mm wide.

Fire policy and fire safety plan: Fire policy and fire safety plans are reportedly in place for the evacuation of people with disabilities.

Fire alarm system with strobe and audible signals: Fire alarm system is reported to include strobe lights and audible signals

Communal washrooms: There is a Barrier Free Accessible washroom stall, which is a minimum of 1,500 x 1,500 mm, in the each boys and girls washroom on each accessible floor.

Designated washroom: A designated Barrier Free Accessible washroom is provided on each floor, and is equipped with the following: an automatic door open device; grab bars; emergency call button; lever handle or motion sensor faucets; and a lavatory, where an insulated knee space is provided and the height of lavatory top is a maximum of 815 mm above the floor.

Limitations

This report has been prepared to meet the Ministry of Education (EDU) objectives for the Condition Assessment Program for Educational Facilities in Ontario. The purpose of the Condition Assessment Program was to assess the current physical condition of the schools and associated site features, and to validate information currently contained in the online capital renewal database software Total Capital Planning Solution (TCPS).

The validation of data was limited to a five year period, which is defined as the current assessment year plus four years. Information contained in the database beyond this period was not validated or reviewed.

The provided event costs are intended for global budgeting purposes only. The event costs were adjusted to include regional factors and were based on an approved unit cost list. Actual event costs for the work recommended may differ since the event costs can only be determined after preparation of tender documents, which would consider: specific design conditions, site restrictions, effects of ongoing building operations and construction schedule. The approved cost threshold for the Condition Assessment Program is \$ 10,000.

Barrier Free Accessibility and Energy Conservation Measures assessments were limited to a preapproved checklist presented on Page 2. The assessment of portables (classrooms not integrated with the building envelope), solar photovoltaic panels, other solar energy collectors, wind turbines, sheds, less than 45 sq.m., play-equipment/structures, score boards, goal posts and flag poles, fire extinguishers, decommissioned swimming pools, window coverings, black/white boards, benches, gymnastic equipment and the appropriateness of room space were excluded from the scope of work. Information related to these components contained in the database was not updated to reflect condition observed. Information related to events which are either planned or in progress, and currently locked were not updated.

All Elements

B SHELL

B20 Exterior Enclosure

B2010 Exterior Walls

Element Instance : B2010 Exterior Walls - Step cracking

Description 2013 – Structural integrity – Step cracking (step cracks many times are an indication the footing under the foundation wall is moving.)

Condition Assessment 2013 – At the time of the assessment step cracks were observed in various areas of the facility along with corner wall cracks.

Last Replacement Year 1967

Theoretical Life 75

Technical Condition Poor

Major Repair - Exterior Walls - Step cracking

Event Type: Major Repair **Priority:** High

Brief Description Major Repair - Exterior Walls - Step cracking

Estimated Cost \$78,000

Fiscal Event Year 2015

2011-2015 Cost \$78,000

2011-2015 Priority High

2011-2015 Year 2015

Recommendation 2013 - Repair as directed by the findings of the structural study The repair cost provided is for budgeting purposes only and should be confirmed in the recommended study.

11/21/2013 Major Repair - Exterior Walls - Step cracking



11/21/2013 Major Repair - Exterior Walls - Step cracking



Study - Exterior Walls - Step cracking

Event Type: Study **Priority:** High

Brief Description	Study - Exterior Walls - Step cracking
Estimated Cost	\$10,400
Fiscal Event Year	2014
2011-2015 Cost	\$10,400
2011-2015 Priority	High
2011-2015 Year	2014

Recommendation

2013 - Step cracks many times are an indication the footing under the foundation wall is moving, based on this the recommendation is to retain a structural consultant to perform a structural study to determine repair and costs for such repairs as needed.

11/21/2013 Study - Exterior Walls - Step cracking



B2020 Exterior Windows

Element Instance : B2020 Exterior Windows - Original Building

Description

2013 - The building windows are single glazed/double single glazed/insulated glass units (IGUs) throughout, installed in wood/metal frames. The operable units are vertical/horizontal sliding/outward/inward opening awning/hopper/casement style. The windows are reportedly original to construction

Condition Assessment

2013 - At the time of the assessment the building windows are currently performing adequately, but are considered to be in poor overall condition based on their age, outdated design and thermal properties. Additionally, some exterior seals were noted to be deteriorating, indicating probable future water and air leakage.

Last Replacement Year 1967

Theoretical Life 32

Technical Condition Poor

Replacement [B2020 Exterior Windows - Original Building]

Event Type: Replacement **Priority:** High

Brief Description Replacement [B2020 Exterior Windows - Original Building]

Estimated Cost \$260,488

Fiscal Event Year 2014

2011-2015 Cost \$260,488

2011-2015 Priority High

2011-2015 Year 2014

Recommendation

2013 - The windows of the building are beyond their expected service life. Based on the windows performance and observed condition, age, design and thermal properties, replacement of the building windows is recommended.

11/21/2013 Replacement [B2020 Exterior Windows - Original Building]





11/21/2013 Replacement [B2020 Exterior Windows - Original Building]

B30 Roofing

B3010 Roof Coverings

Element Instance : B3010 Roof Coverings - Original Building

Description 2013 - Roof sections on the original building are covered with aggregate-surfaced built up roof (BUR) assembly system. The waterproofing membranes are likely installed over rigid insulation. The presence of a vapor barrier is unknown

Condition Assessment 2013 - At the time of the assessment the condition of the aggregate-surfaced built up roof (BUR) assembly system on the original roof is consistent with its age, there are bare spots in the gravel and blistering is visible. The overall condition of the roof system is fair to poor

Last Replacement Year 1967

Theoretical Life 22

Technical Condition Poor

Replacement B3010 Roof Coverings - Original Building - Section 4

Event Type: Replacement **Priority:** Urgent

Brief Description Replacement B3010 Roof Coverings - Original Building - Section 4

Estimated Cost \$86,928

Fiscal Event Year 2015

2011-2015 Cost \$86,928

2011-2015 Priority Urgent

2011-2015 Year 2015

Recommendation

2013 - The aggregate-surfaced built up roof (BUR) assembly system on the original roof has exceeded its expected service life, but continues to perform as intended. Replacement is anticipated in 2017

11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 4



11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 4



Replacement B3010 Roof Coverings - Original Building - Section 5

Event Type: Replacement **Priority:** Urgent

Brief Description	Replacement B3010 Roof Coverings - Original Building - Section 5
Estimated Cost	\$224,118
Fiscal Event Year	2015
2011-2015 Cost	\$224,118
2011-2015 Priority	Urgent
2011-2015 Year	2015

Recommendation

2013 - The aggregate-surfaced built up roof (BUR) assembly system on the original roof has exceeded its expected service life, but continues to perform as intended. Replacement is anticipated in 2015

11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 5



11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 5



Replacement B3010 Roof Coverings - Original Building - Section 6

Event Type: Replacement **Priority:** Urgent

Brief Description	Replacement B3010 Roof Coverings - Original Building - Section 6
Estimated Cost	\$86,394
Fiscal Event Year	2015
2011-2015 Cost	\$86,394
2011-2015 Priority	Urgent
2011-2015 Year	2015

Recommendation 2013 - The aggregate-surfaced built up roof (BUR) assembly system on the original roof has exceeded its expected service life, but continues to perform as intended. Replacement is anticipated in 2017

11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 6



11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 6



11/21/2013 Replacement B3010 Roof Coverings - Original Building - Section 6



C INTERIORS

C10 Interior Construction

C1020 Interior Doors

Element Instance : C1020 Interior Doors - Original Building

Description

2013 - Interior doors in the original building consist of a combination of wooden doors and steel doors in corridors and at fire rated area classrooms. The wooden doors are located mostly in the classroom to corridors. Some wooden doors have single glazed vision window. Some steel doors are equipped with a vision panel with wire reinforced glass (GWG).

Condition Assessment

2013 - At the time of the assessment the majority of doors were observed to be aged and worn beyond useful life. Wood doors had damaged veneers, chipped paint, and some glazing was not tempered.

Last Replacement Year 1967

Theoretical Life 25

Technical Condition

Fair

Replacement [C1020 Interior Doors - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [C1020 Interior Doors - Original Building]

Estimated Cost \$104,000

Fiscal Event Year 2017

2011-2015 Cost \$104,000

2011-2015 Priority Medium

2011-2015 Year 2017

Recommendation

2013 - The interior doors date from 1967 and have exceeded their anticipated useful life. Early stages of deterioration were visible on the doors. Replacement is suggested.

11/21/2013 Replacement [C1020 Interior Doors - Original Building]



11/21/2013 Replacement [C1020 Interior Doors - Original Building]



Element Instance : C1020 Interior Doors - Original Building

Description 2013 - Interior door hardware was observed to consist of push bars, knob handles, push plates, kick plates, butt hinges and door closers

Condition Assessment 2013 - At the time of the assessment the interior door hardware was observed to be aged, worn and deteriorated. Corrosion was noted on various components.

Last Replacement Year 1967

Theoretical Life 15

Technical Condition Fair

Replacement [C1020 Interior Doors - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [C1020 Interior Doors - Original Building]

Estimated Cost \$31,200

Fiscal Event Year 2017

2011-2015 Cost \$31,200

2011-2015 Priority Medium

2011-2015 Year 2017

Recommendation 2013 - The age of the interior door hardware is consistent with the age of the interior door. Replacement of the interior door hardware along with interior doors is recommended.



11/21/2013 Replacement [C1020 Interior Doors - Original Building]

11/21/2013 Replacement [C1020 Interior Doors - Original Building]



C30 Interior Finishes

C3030 Ceiling Finishes

Element Instance : C3030 Ceiling Finishes - Original Building - corridors, clsrn

Description 2013 - Acoustical ceiling tiles 2' x 4'

Condition Assessment 2013 - At the time of the assessment the 2'x4' acoustic ceiling tile is original to the building . There is some signs of staining, sagging and damage, and the ceiling system has exceeded its useful life expectancy.

Last Replacement Year	1967
Theoretical Life	25
Ceiling Finishes Type	Unspecified

Technical Condition Fair

Replacement [C3030 Ceiling Finishes - Original Building - corridors, clsrn]

Event Type: Replacement **Priority:** Medium

Brief Description	Replacement [C3030 Ceiling Finishes - Original Building - corridors, clsm]
Estimated Cost	\$125,580
Fiscal Event Year	2016
2011-2015 Cost	\$125,580
2011-2015 Priority	Medium
2011-2015 Year	2016

Recommendation

2013 - The suspended ceiling tiles date to the building construction in 1967, and as such have surpassed their useful life. Sagging and deterioration as a result of age was evident on some tiles. Replacement of the tiles is anticipated.

11/21/2013 Replacement [C3030 Ceiling Finishes - Original Building - corridors, clsm]



11/21/2013 Replacement [C3030 Ceiling Finishes - Original Building - corridors, clsm]



D SERVICES

D20 Plumbing

D2010 Plumbing Fixtures

Element Instance : D2010 Plumbing Fixtures - Original Building

Description 2013 - The washroom plumbing fixtures includes vitreous china water closets, lavatories and urinals. The system includes Bradley wash fountains.

Condition Assessment 2013 – The majority of the plumbing fixtures are from 1967 and appear to be functioning but in poor condition. Some fixtures have been replaced over time. The majority of fixtures have surpassed the end of their normal service life. Planning for renewal is recommended.

Last Replacement Year 1967

Theoretical Life 25

Technical Condition Fair

Replacement [D2010 Plumbing Fixtures - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [D2010 Plumbing Fixtures - Original Building]

Estimated Cost \$245,440

Fiscal Event Year 2017

2011-2015 Cost \$245,440

2011-2015 Priority Medium

2011-2015 Year 2017

Recommendation 2013 - The installation of plumbing fixtures appears to be original to the building construction. The fixtures are aged and in poor shape. Corrosion, staining and damage was noted on the fixtures. The replacement of outdated fixtures is recommended.

11/21/2013 5:26:19 PM Replacement [D2010 Plumbing Fixtures - Original Building]



11/21/2013 5:26:28 PM Replacement [D2010 Plumbing Fixtures - Original Building]



11/21/2013 5:26:48 PM Replacement [D2010 Plumbing Fixtures - Original Building]



D2020 Domestic Water Distribution

Element Instance : D2020 Domestic Water Distribution - Original Building

Description

2013 - The building domestic water system includes a main line, water meter, pressure reducer, associated piping and insulation. The building also includes a sanitary waste piping system which discharge to the septic system and roof drains connected to internal rainwater leaders, which discharge to the site.

Condition Assessment

2013 - The plumbing piping system is mostly concealed and therefore the current condition is not fully known. Due to age and heavy use, piping has signs of corrosion and deterioration. However, an intrusive study is recommended to determine the condition of the plumbing piping system and the recommended scope of work and the cost for system renewal.

Last Replacement Year	1967
Theoretical Life	37
Domestic Water Distribution Type	Plumbing Piping Systems
Technical Condition	Fair

Replacement [D2020 Domestic Water Distribution - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [D2020 Domestic Water Distribution - Original Building]
 Estimated Cost \$264,160
 Fiscal Event Year 2017
 2011-2015 Cost \$264,160
 2011-2015 Priority Medium
 2011-2015 Year 2017

Recommendation

2013 - Plumbing piping has exceeded its theoretical service life; however, condition cannot be fully determined. Replacement is subject to results of proposed study to determine current condition. Cost and schedule of replacement to be determined by study. Deferral may result in poor functioning or leaking of plumbing pipes, likely causing damage to other building components.

11/21/2013 5:27:01 PM Replacement [D2020 Domestic Water Distribution - Original Building]



11/21/2013 5:27:18 PM Replacement [D2020 Domestic Water Distribution - Original Building]



11/21/2013 5:27:25 PM Replacement [D2020 Domestic Water Distribution - Original Building]



Study [D2020 Domestic Water Distribution - Original Building]

Event Type: Study **Priority:** Medium

Brief Description	Study [D2020 Domestic Water Distribution - Original Building]
Estimated Cost	\$10,400
Fiscal Event Year	2015
2011-2015 Cost	\$10,400
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation

2013 - The need for replacement of the plumbing piping system within the building is beyond the scope of this survey (due to the inaccessible nature of this component). As these systems have surpassed their typical service life, it is recommended that a specialized study be carried out to develop a strategy for renewal.

11/21/2013 5:27:37 PM Study [D2020 Domestic Water Distribution - Original Building]



11/21/2013 5:27:53 PM Study [D2020 Domestic Water Distribution - Original Building]



D30 HVAC

D3040 Distribution Systems

D304003 Heating/Chilling water distribution systems

Element Instance : D304003 Heating/Chilling water distribution systems - Original Building

Description 2013 - Heating piping, which is mostly concealed, provides hot water to air handling units, perimeter radiant heaters and force flow heaters throughout the building.

Condition Assessment 2013 - HVAC hot water distribution system includes heating hot water piping and the associated valves, expansion tank, insulation and circulation pumps supplying hot water to fin tube radiation units, unit ventilators, to unit heaters and to heating coils of air handling unit.

Last Replacement Year 1967

Theoretical Life 45

Technical Condition Fair

Replacement [D304003 Heating/Chilling water distribution systems - Original Building]

Event Type: Replacement **Priority:** High

Brief Description Replacement [D304003 Heating/Chilling water distribution systems - Original Building]

Estimated Cost \$535,600

Fiscal Event Year 2017

2011-2015 Cost \$535,600

2011-2015 Priority High

2011-2015 Year 2017

Recommendation

2013 - Partial upgrade of the heating piping was undertaken in 1990 with installation of the boilers, however the quantity and condition of original piping in the building is unknown. As original piping is approaching the end of its expected useful life, further investigation is recommended to determine current condition and possible need for replacement. With age, piping leaks may occur, damaging the building interiors.

11/21/2013 5:28:21 PM Replacement [D304003 Heating/Chilling water distribution systems - Original Building]



11/21/2013 5:28:27 PM Replacement [D304003 Heating/Chilling water distribution systems - Original Building]



Study [D304003 Heating/Chilling water distribution systems - Original Building]

Event Type: Study **Priority:** High

Brief Description	Study [D304003 Heating/Chilling water distribution systems - Original Building]
Estimated Cost	\$12,480
Fiscal Event Year	2015
2011-2015 Cost	\$12,480
2011-2015 Priority	High
2011-2015 Year	2015

Recommendation

2013 - The need for replacement of the heating & cooling piping system within the original building is beyond the scope of this survey (due to the specialized nature of this component). As these systems have surpassed their typical service life, it is recommended that a specialized study be carried out to develop a strategy for renewal.

11/21/2013 5:29:30 PM Study [D304003 Heating/Chilling water distribution systems - Original Building]



11/21/2013 5:29:44 PM Study [D304003 Heating/Chilling water distribution systems - Original Building]



D304007 Exhaust Systems

Element Instance : D304007 Exhaust Systems - Original Building

Description 2013 - Various rooftop and internal exhaust fans that serve the classrooms, washrooms, change rooms, and kitchens are provided to the building for ventilation.

Condition Assessment 2013 - The exhaust fans are typically original to the building. Many fans have damaged casing and many were vibrating excessively. The fans are in poor condition overall.

Last Replacement Year 1967

Theoretical Life 15

Technical Condition Fair

Replacement [D304007 Exhaust Systems - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [D304007 Exhaust Systems - Original Building]
Estimated Cost \$25,480
Fiscal Event Year 2017
2011-2015 Cost \$25,480
2011-2015 Priority Medium
2011-2015 Year 2017

Recommendation

2013 - The exhaust fans are operating but have passed their expected useful lives and will likely require replacement in the short term as many are in poor condition.

11/21/2013 5:30:09 PM Replacement [D304007 Exhaust Systems - Original Building]



11/21/2013 5:30:13 PM Replacement [D304007 Exhaust Systems - Original Building]



11/21/2013 5:30:22 PM Replacement [D304007 Exhaust Systems - Original Building]



D3050 Terminal & Package Units

Element Instance : D3050 Terminal & Package Units - Original Building

Description 2013 - The fin-tube radiation units and unit heaters provide heating in the classrooms, washrooms, mechanical/electrical rooms, hallways, building entrances and exits and were original to the building's construction dates.

Condition Assessment 2013 - The fin-tube radiation units have exceeded their rated useful life of 15 years. Although portions have been properly maintained, the system has degraded in condition over the years. Due to age and deterioration the unit will require replacement soon.

Last Replacement Year 1967
 Theoretical Life 25

Technical Condition Poor

Replacement [D3050 Terminal & Package Units - Original Building]

Event Type: Replacement **Priority:** High

Brief Description Replacement [D3050 Terminal & Package Units - Original Building]
 Estimated Cost \$170,560
 Fiscal Event Year 2015
 2011-2015 Cost \$170,560
 2011-2015 Priority High
 2011-2015 Year 2015

Recommendation 2013 - Although terminal units have surpassed their typical service life they remain in fair condition at this time. Planning for renewal is recommended only during the latter portion of the tactical planning period.

11/21/2013 5:30:58 PM Replacement [D3050 Terminal & Package Units - Original Building]



11/21/2013 5:31:03 PM Replacement [D3050 Terminal & Package Units - Original Building]



11/21/2013 5:31:15 PM Replacement [D3050 Terminal & Package Units - Original Building]



D305001 Unit Ventilators

Element Instance : **D305001 Unit Ventilators - Original Building**

Description 2013 - Several unit ventilators provide heating and ventilation to the school classrooms of the original building installed in 1967.

Condition Assessment

2013 - The unit ventilators have exceeded their rated useful life of 15 years. Although portions have been properly maintained, the system has degraded in condition over the years. Due to age and mechanical deterioration the unit ventilators have deteriorated, causing break down and problems thus affecting the Indoor Air Quality in the school and will require replacement soon.

Last Replacement Year 1967
 Theoretical Life 48

Technical Condition Poor

Replacement [D305001 Unit Ventilators - Original Building]

Event Type: Replacement **Priority:** High

Brief Description Replacement [D305001 Unit Ventilators - Original Building]
 Estimated Cost \$482,560
 Fiscal Event Year 2015
 2011-2015 Cost \$482,560
 2011-2015 Priority High
 2011-2015 Year 2015

Recommendation

2013 – Replace the aged unit ventilators. Consideration should be made to replace them with high efficiency units.

11/21/2013 5:31:23 PM Replacement [D305001 Unit Ventilators - Original Building]



11/21/2013 5:31:30 PM Replacement [D305001 Unit Ventilators - Original Building]



11/21/2013 5:31:38 PM Replacement [D305001 Unit Ventilators - Original Building]



D50 Electrical

D5010 Electrical Service & Distribution

D501003 Main Switchboards

Element Instance : D501003 Main Switchboards - Original Building

Description 2013 – The switchboard and other assemblies including main distribution panel, breaker, fuses and meters are original in the building construction date.

Condition Assessment 2013 - Although maintained properly, the switchboard and other assemblies including main distribution panel, breaker, fuses and meters has exceeded the rated useful life and should be replaced due to age and reliability.

Last Replacement Year 1967

Theoretical Life 40

Technical Condition Fair

Replacement [D501003 Main Switchboards - Original Building]

Event Type: Replacement **Priority:** High

Brief Description	Replacement [D501003 Main Switchboards - Original Building]
Estimated Cost	\$208,000
Fiscal Event Year	2017
2011-2015 Cost	\$208,000
2011-2015 Priority	High
2011-2015 Year	2017

Recommendation

2013 – Replace the aged switchboard and other assemblies including main distribution panel, breaker, fuses and meters of the building.

11/21/2013 5:32:06 PM Replacement [D501003 Main Switchboards - Original Building]



11/21/2013 5:32:12 PM Replacement [D501003 Main Switchboards - Original Building]



D501005 Panels

Element Instance : D501005 Panels - Original Building

Description 2013 – The electrical distribution system including main distribution panel, breaker, fuses and meters are original in the building construction date.

Condition Assessment 2013 – The original distribution equipment including panel assemblies, main distribution panel, breaker, fuses and meters have exceeded the rated useful life and should be replaced due to age and reliability.

Last Replacement Year 1967

Theoretical Life 40

Technical Condition Fair

Replacement [D501005 Panels - Original Building]

Event Type: Replacement **Priority:** High

Brief Description Replacement [D501005 Panels - Original Building]

Estimated Cost \$216,320

Fiscal Event Year 2017

2011-2015 Cost \$216,320

2011-2015 Priority High

2011-2015 Year 2017

Recommendation 2013 – Replace the aged switchboard and other assemblies including main distribution panel, breaker, fuses and meters of the building.

11/21/2013 5:33:01 PM Replacement [D501005 Panels - Original Building]



11/21/2013 5:33:14 PM Replacement [D501005 Panels - Original Building]



11/21/2013 5:33:26 PM Replacement [D501005 Panels - Original Building]



D5020 Lighting & Branch Wiring

D502001 Branch Wiring

Element Instance : D502001 Branch Wiring - Original Building

Description 2013 - The cabling raceways and bus ducts are for the most part are original to their construction dates. The system includes cable, conduit, wall outlets and raceway.

Condition Assessment 2013 – Although maintained properly, the branch wiring should be replaced due to age and reliability.

Last Replacement Year 1967

Theoretical Life 40

Technical Condition Fair

Replacement [D502001 Branch Wiring - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description	Replacement [D502001 Branch Wiring - Original Building]
Estimated Cost	\$301,600
Fiscal Event Year	2017
2011-2015 Cost	\$301,600
2011-2015 Priority	Medium
2011-2015 Year	2017

Recommendation

2013 – The switches, outlets, panels, and wiring throughout the building are outdated and inadequate. They have surpassed their theoretical life and exceeded the maximum capacity, replacement of these components is recommended. Replace cabling, raceways, bus ducts and breaker panels based on age, useful life and existing capacity. Cost provided is an estimate; a more accurate cost will depend on the evaluation study.

11/21/2013 5:33:41 PM Replacement [D502001 Branch Wiring - Original Building]



11/21/2013 5:33:44 PM Replacement [D502001 Branch Wiring - Original Building]



11/21/2013 5:33:51 PM Replacement [D502001 Branch Wiring - Original Building]



Study [D502001 Branch Wiring - Original Building]

Event Type: Study

Priority: Medium

Brief Description	Study [D502001 Branch Wiring - Original Building]
Estimated Cost	\$10,400
Fiscal Event Year	2015
2011-2015 Cost	\$10,400
2011-2015 Priority	Medium
2011-2015 Year	2015

Recommendation

2013 - The branch wiring system has surpassed its theoretical service life, but remains in service. A study is recommended to determine the condition, remaining service life, current service requirements and cost of replacement.

11/21/2013 5:34:35 PM Study [D502001 Branch Wiring - Original Building]



11/21/2013 5:34:39 PM Study [D502001 Branch Wiring - Original Building]



D5030 Communications & Security

D503004 Public Address Systems

Element Instance : D503004 Public Address Systems - Original Building

Description 2013 - Building is provided with a public address system, which includes: Amplifier, intercom/monitor, volume control, speakers (ceilings or walls), conduit and shielded wires.

Condition Assessment 2013 - The existing PA system is at the end of its life cycle of 25 years and in fair to poor condition. Replacement of the system is recommended.

Last Replacement Year 1967

Theoretical Life 25

Technical Condition Fair

Replacement [D503004 Public Address Systems - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [D503004 Public Address Systems - Original Building]

Estimated Cost \$46,800

Fiscal Event Year 2017

2011-2015 Cost \$46,800

2011-2015 Priority Medium

2011-2015 Year 2017

Recommendation 2013 - Communication system is over 40 years old. The PA system is in fair but functional at this time and is in fair condition. The Public Address System is aged and beyond its rated life and is recommended for replacement.

11/21/2013 5:35:16 PM Replacement [D503004 Public Address Systems - Original Building]



11/21/2013 5:35:22 PM Replacement [D503004 Public Address Systems - Original Building]



11/21/2013 5:35:39 PM Replacement [D503004 Public Address Systems - Original Building]



D503099 Other Communications & Alarm Systems

Element Instance : D503099 Other Communications & Alarm Systems - Original Building

Description 2013 - Building is provided with a telephone system, which includes: Telephone frame, phone outlets, conduit and shielded wires.

Condition Assessment

2013 - The existing phone system is at the end of its life cycle of 15 years and in fair to poor condition. Replacement of the system is recommended.

Last Replacement Year 1990
 Theoretical Life 15

Technical Condition Fair

Replacement [D503099 Other Communications & Alarm Systems - Original Building]

Event Type: Replacement **Priority:** Medium

Brief Description Replacement [D503099 Other Communications & Alarm Systems - Original Building]
 Estimated Cost \$52,000
 Fiscal Event Year 2017
 2011-2015 Cost \$52,000
 2011-2015 Priority Medium
 2011-2015 Year 2017

Recommendation

2013 - Phone system is over 20 years old. The system is in fair condition but functional at this time. The phone system is aged and beyond its rated life and is recommended for replacement.

11/21/2013 5:36:02 PM Replacement [D503099 Other Communications & Alarm Systems - Original Building]



11/21/2013 5:36:04 PM Replacement [D503099 Other Communications & Alarm Systems - Original Building]



11/21/2013 5:36:07 PM Replacement [D503099 Other Communications & Alarm Systems - Original Building]



Hastings and Prince Edward District School Board

Report Summary

Saved Report Name	Final Report Template mod1
User Name	william lo
Report Type	Text With Pictures
Report Name	Condition Assessment
Start Year	2013
Number of Years	5
Priority	Default
Structure / Instance	Pinecrest Memorial Elementary School, Building ID 5953-1
Filter	Parent Criteria Summary: Structure parent - A SUBSTRUCTURE OR Structure parent - B SHELL OR Structure parent - C INTERIORS OR Structure parent - D SERVICES OR Structure parent - G BUILDING SITEWORK - where the detail criteria for the parent node is - Technical Condition <> Not Assessed ;
Asset Photos	Default Photos Only
Current Backlog FCI	No
Element Photos	No Photos
Include Element ACL Criteria	No
Exclude Elements Without Events	Yes
Include Event level details	Yes
Event Photos	All Photos
Include Costlines	No
Printed Date	4/22/2014